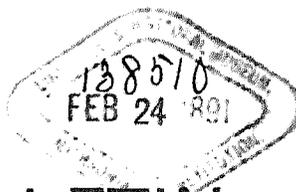


[7-010.]



# CENSUS BULLETIN.

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## CONVICTS IN PENITENTIARIES: 1890.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., February 9, 1891.

This bulletin, which has been prepared under the direction of Mr. FRED. H. WINES, of Springfield, Illinois, special agent, and expert for the statistics of pauperism and crime, shows the number of convicts in state prisons and penitentiaries in the United States on June 1, 1890. These convicts were undergoing sentence of imprisonment for violation of the criminal codes of the United States or of the states and territories, and nearly all of them had been sentenced for terms of not less than one year on account of high crimes, ordinarily known as felonies. In the states of New York and New Jersey, however, there are county penitentiaries to which both felons and misdemeanants are committed. On the other hand, there are prisoners convicted of felonies in several states who are confined in houses of correction or in jails. It will therefore be understood that the present bulletin affords only an approximate indication of the number of convicted felons at the date of the Eleventh Census, and that further information on this subject will be made public hereafter. Neither does the statement now published purport to be a complete enumeration of prisoners of all grades, since it is expressly confined to the population of the penitentiaries.

The figures herein given, when compared with the report made by the same special agent for the Tenth Census, show an actual increase of 9,695 in the number of penitentiary convicts. The population of the country according to the Tenth Census was 50,155,783. The number of convicts in penitentiaries at that date was 30,659, or, including the leased prisoners, 35,538. The ratio of convicts to the population was 709 in each million. The Eleventh Census shows the population to be 62,622,250 and the number of convicts 45,233, the ratio of convicts to the population being 722, an increase of only thirteen to the million. Mr. WINES, who is undoubtedly the first authority in the country in all matters appertaining to the statistics of pauperism and crime, is of the opinion that this growth is not alarming, since further study may result in an explanation of it, or even in showing that crime of a serious character is rather on the decline in this country than on the increase.

Superintendent of Census.

# CONVICTS IN PENITENTIARIES: 1890.

BY FREDERICK HOWARD WINES.

The tables herewith submitted show the total number of convicts in penitentiaries to be 45,233. The number reported in 1880 was 30,659, but the increase in the population of penitentiaries is not so great as would appear from a comparison of these figures, since a different rule of classification has been adopted. In the Tenth Census 4,879 prisoners in some of the southern states, who were leased out and not confined within prison walls, were separated from the penitentiary population. For instance, in Georgia, which has no penitentiary of its own, 1,504 leased prisoners were not counted among penitentiary convicts, though nearly if not quite all of them might have been properly so classed. The same remark applies to the state of Florida. In the statement herewith submitted 9,561 leased prisoners are included, because they were serving sentences in the penitentiaries of the states in which they were found. It can not now be ascertained how many of the 4,879 leased prisoners in 1880 were serving penitentiary sentences and how many of them were serving short terms for minor offenses in county convict camps, but it is certain that a large majority of them, probably nine-tenths, if not more, were penitentiary convicts. The percentage of error will be so slight for purposes of comparison, if they are all included with this class, that it is safe to say the number in penitentiaries in 1880 was 35,538, but in 1890, as above stated, it was 45,233—an increase in ten years of 9,695, or 27.28 per cent. The increase in the total population was 24.86 per cent. It thus appears that the penitentiary population is growing somewhat more rapidly than the population at large, but the difference is not very appreciable. The number of leased prisoners in the South has almost doubled in ten years.

The table on pages 4 and 5 exhibits the distribution of penitentiary convicts in 1890 by states and territories and nativity and race. The summary by geographical divisions is as follows:

## SUMMARY BY GROUPS OF PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890.

GEOGRAPHICAL DIVISIONS.	Aggregate.	WHITE.								Colored.
		Total.	Native.					Foreign born.	Nativity unknown.	
			Total.	Parents native.	One parent foreign.	Parents foreign.	One or both parents unknown.			
The United States.....	45,233	30,546	23,094	12,842	1,747	6,584	1,921	7,267	185	14,687
North Atlantic division.....	14,477	13,224	9,435	3,960	791	3,993	691	3,780	9	1,253
South Atlantic division.....	6,466	1,204	1,112	891	47	87	87	87	5	5,262
North Central division.....	10,990	9,261	7,473	4,575	594	1,570	739	1,760	23	1,729
South Central division.....	9,241	3,271	2,609	1,971	123	241	274	518	144	5,970
Western division.....	4,059	3,586	2,460	1,445	192	693	130	1,122	4	473

## PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Aggregate.	WHITE.								Colored.
		Total.	Native.					Foreign born.	Nativity unknown.	
			Total.	Parents native.	One parent foreign.	Parents foreign.	One or both parents unknown.			
The United States.....	45,233	30,546	23,094	12,842	41,747	6,584	51,921	7,267	185	c14,687
<b>NORTH ATLANTIC DIVISION.....</b>	<b>14,477</b>	<b>13,224</b>	<b>9,435</b>	<b>3,960</b>	<b>791</b>	<b>3,993</b>	<b>691</b>	<b>3,780</b>	<b>9</b>	<b>d1,253</b>
Maine.....	170	170	133	82	11	23	17	36	1	
New Hampshire.....	116	116	82	58	7	17		34		
Vermont.....	91	91	74	43	10	13	8	16	1	
Massachusetts.....	1,530	1,457	1,072	397	107	527	41	385		e78
Rhode Island.....	122	111	87	39	11	34	3	24		11
Connecticut.....	340	303	221	114	10	83	14	80	2	37
New York.....	8,130	7,588	5,302	1,959	431	2,401	511	2,280	1	f607
New Jersey.....	1,557	1,330	885	412	47	420	6	445		227
Pennsylvania.....	2,361	2,063	1,579	896	157	475	91	480	4	g298
<b>SOUTH ATLANTIC DIVISION.....</b>	<b>6,466</b>	<b>1,204</b>	<b>1,112</b>	<b>891</b>	<b>47</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>5</b>	<b>h5,202</b>
Delaware.....	(i)									
Maryland.....	690	295	246	139	21	59	27	48	2	394
District of Columbia.....	(j)									
Virginia.....	1,187	206	195	176	4	5	10	10	1	961
West Virginia.....	278	194	186	136	7	14	29	8		84
North Carolina.....	1,422	235	230	218	9	8		5		k1,187
South Carolina.....	806	55	54	51	1	2		1		751
Georgia.....	1,729	167	161	151	5	4	1	6		1,562
Florida.....	374	51	40	20			20	9	2	323
<b>NORTH CENTRAL DIVISION.....</b>	<b>10,990</b>	<b>9,261</b>	<b>7,478</b>	<b>4,575</b>	<b>594</b>	<b>1,570</b>	<b>739</b>	<b>1,760</b>	<b>23</b>	<b>l1,729</b>
Ohio.....	1,652	1,332	1,148	678	70	287	133	183	1	m320
Indiana.....	1,416	1,220	1,117	855	78	138	51	95	8	196
Illinois.....	2,057	1,799	1,361	751	122	378	110	433	5	n258
Michigan.....	1,108	1,045	785	405	83	188	109	258	2	o63
Wisconsin.....	530	507	311	149	35	117	10	196		p23
Minnesota.....	432	416	258	127	24	76	31	156	2	16
Iowa.....	623	577	487	289	50	88	60	89	1	46
Missouri.....	1,701	1,140	1,004	558	83	180	183	134	2	q561
North Dakota.....	65	62	39	15	4	16	4	23		3
South Dakota.....	97	92	66	36	8	21	1	26		r5
Nebraska.....	391	350	269	253	7	9		80	1	s41
Kansas.....	918	721	633	459	35	92	47	87	1	t197

a Includes 707 convicts with a native father and foreign-born mother and 1,040 convicts with a native mother and foreign-born father.

b All white, and all natives of the United States.

c As reported by the enumerators, these figures include 10,889 pure negroes, 3,378 mulattoes or negroes of mixed blood, 240 Chinese, and 180 Indians.

d Includes 6 Chinese and 11 Indians.

e Includes 4 Indians.

f Includes 4 Chinese and 7 Indians.

g Includes 2 Chinese.

h Includes 2 Indians.

i Delaware has no penitentiary.

j There is no penitentiary in the District of Columbia.

k Includes 2 Indians.

l Includes 5 Chinese and 39 Indians.

m Includes 13 Indians.

n Includes 4 Chinese and 1 Indian.

o Includes 1 Indian.

p Includes 1 Chinese and 10 Indians.

q Includes 1 Indian.

r Includes 4 Indians.

s Includes 2 Indians.

t Includes 7 Indians.

## PENITENTIARY CONVICTS OF THE UNITED STATES IN 1890, BY STATES AND TERRITORIES—CONTINUED.

STATES AND TERRITORIES.	WHITE.									
	Aggregate.	Native.						Foreign born.	Colored.	
		Total.	Total.	Parents native.	One parent foreign.	Parents foreign.	One or both parents unknown.		Nativity unknown.	
SOUTH CENTRAL DIVISION.....	9,241	3,271	2,609	1,971	123	241	274	518	144	a5,970
Kentucky.....	1,235	515	367	293	12	30	32	26	122	720
Tennessee.....	1,484	402	359	266	14	26	53	34	9	1,082
Alabama.....	1,086	159	148	133	7	6	2	11		927
Mississippi.....	429	89	38	27		3	8	1		290
Louisiana.....	856	129	108	48	16	32	12	21		677
Texas.....	3,819	1,704	1,278	960	57	130	181	414	12	e1,615
Indian territory.....	(d)									
Oklahoma.....	(e)									
Arkansas.....	832	323	311	244	17	14	36	11	1	f509
WESTERN DIVISION.....	4,059	3,586	2,400	1,445	192	693	130	1,122	4	g473
Montana.....	225	205	152	88	5	59		52	1	h20
Wyoming.....	10	9	8	3	2	2	1	1		1
Colorado.....	526	488	368	193	39	109	27	120		36
New Mexico.....	112	109	80	59	5	5	11	27	2	3
Arizona.....	144	117	51	30	4	14	3	66		i27
Utah.....	180	174	99	48	8	25	18	75		j6
Nevada.....	96	75	41	26	3	12		34		k21
Idaho.....	102	94	58	30	12	9	7	36		l8
Alaska.....	(m)									
Washington.....	251	224	152	81	10	55	6	72		n27
Oregon.....	362	322	241	158	4	51	28	81		o40
California.....	2,051	1,769	1,210	729	100	352	29	558	1	p282

a Includes 2 Chinese and 36 Indians.

b Includes 1 Chinese and 1 Indian.

c Includes 1 Chinese and 3 Indians.

d There is no penitentiary in the Indian territory.

e There is no penitentiary in Oklahoma.

f Includes 32 Indians.

g Includes 227 Chinese and 92 Indians.

h Includes 6 Chinese and 10 Indians.

i Includes 4 Chinese and 17 Indians.

j Includes 1 Chinese and 1 Indian.

k Includes 10 Chinese and 5 Indians.

l Includes 4 Chinese and 2 Indians.

m There is no penitentiary in Alaska.

n Includes 3 Chinese and 10 Indians.

o Includes 25 Chinese and 5 Indians.

p Includes 171 Chinese, 3 Japanese, and 43 Indians.

In respect to color, this table shows 30,546 white and 14,687 colored; of the latter, 14,267 were negroes, 237 Chinese, 3 Japanese, and 180 Indians.

Of the negroes, 3,378 are reported to be mulattoes or persons of mixed blood. This enumeration is probably very inexact, for some enumerators made no attempt to discriminate between the two classes, and there is reason to believe that in some instances negroes of a light brown or chocolate tint have been improperly described as mulattoes.

As was to be expected, about four-fifths of the negro convicts were found in the South Atlantic and South Central divisions.

The Chinese were distributed as follows: Arizona, 4; California, 171; Idaho, 4; Illinois, 4; Louisiana, 1; Montana, 6; Nevada, 10; New York, 4; Oregon, 25; Pennsylvania, 2; Texas, 1; Utah, 1; Washington, 3; Wisconsin, 1.

The 3 Japanese reported were all in the California state prison at Folsom.

The Indians were distributed as follows: Arizona, 17; Arkansas, 32; California, 42; Idaho, 2; Illinois, 1; Kansas, 7; Louisiana, 1; Massachusetts, 4; Michigan, 1; Missouri, 1; Montana, 10; Nebraska, 2; Nevada, 5; New York, 7; North Carolina, 2; Ohio, 13; Oregon, 5; South Dakota, 4; Texas, 3; Utah, 1; Washington, 10; Wisconsin, 10.

It will be observed that there is no state prison or penitentiary in Delaware, the District of Columbia, the Indian territory, Alaska, or Oklahoma. In Florida and Georgia there are nominally

penitentiaries, and convicts are sentenced to them; but in fact these states neither own nor occupy grounds or buildings for this purpose, and all such convicts are leased to private parties.

In respect of nativity, not including the colored convicts, who may all be supposed to be natives except the Chinese and Japanese, of the 30,546 white convicts 23,094 are native born, 7,267 foreign born, and the place of birth of 185 is unknown. Before the present census this is all that could have been said on this important topic. But an examination of the table will reveal the fact that the native white convicts are divided into four or really five subclasses, as follows: 12,842 had both parents native; 1,747 had one parent native and one parent foreign born; 6,584 had both parents foreign born; and in 1,921 cases the birthplace of one or both parents is unknown. Of the convicts with one foreign-born parent 707 had a foreign-born mother and 1,040 had a foreign-born father. Leaving out of view the 1,921 whose parentage is unknown in whole or in part, there remain 21,173 cases in which the proportion of native and foreign blood can be estimated. If to the 12,842 native convicts born of native parents is added one-half of the number with one parent foreign born, the sum is 13,715.5. If to the 6,584 native convicts born of foreign parents is added an equal amount, the sum is 7,457.5. But to this latter figure must also be added 7,267 foreign-born convicts, which gives as a result 14,724.5. In other words, the foreign population of this country contributes, directly or indirectly, in the persons of the foreign born or of their immediate descendants, considerably more material for our state prisons and penitentiaries than the entire native population, the difference being represented by 1,009. This makes a very different showing from that in any former census, and it is nearer correct.

It is an interesting remark, easily retained in the memory, that of 43,127 penitentiary convicts whose birthplace and parentage are known the foreign-born element of the population furnished 14,725, the colored population 14,687, and the native white population, which probably outnumbered them both, only 13,715. In other words, each of these elements furnishes about one-third of all the inmates of our state prisons and penitentiaries.

It is also interesting to notice how remarkably the penitentiary population divides itself into three approximately equal parts by geographical lines: the North Atlantic division reports 14,477, the South Atlantic and South Central divisions 15,707, and the North Central and Western divisions 15,049.

The numerical order of the states, according to the number of convicts in penitentiaries reported in each of them, is as follows: New York, 8,190; Texas, 3,319; Pennsylvania, 2,361; Illinois, 2,057; California, 2,051; Georgia, 1,729; Missouri, 1,701; Ohio, 1,652; New Jersey, 1,557; Massachusetts, 1,530; Tennessee, 1,484; North Carolina, 1,422; Indiana, 1,416; Kentucky, 1,235; Virginia, 1,167; Michigan, 1,108; Alabama, 1,086; Kansas, 918; Louisiana, 856; Arkansas, 832; South Carolina, 806; Maryland, 690; Iowa, 623; Wisconsin, 530; Colorado, 526; Minnesota, 432; Mississippi, 429; Nebraska, 391; Florida, 374; Oregon, 362; Connecticut, 340; West Virginia, 278; Washington, 251; Montana, 225; Utah, 180; Maine, 170; Arizona, 144; Rhode Island, 122; New Hampshire, 116; New Mexico, 112; Idaho, 102; South Dakota, 97; Nevada, 96; Vermont, 91; North Dakota, 65; Wyoming, 10.

In respect of sex, 43,442 penitentiary convicts are men and 1,791 are women. The percentage of women is somewhat less than it was ten years ago. It then slightly exceeded 4.5 per cent of the total number, but now it falls a trifle below 4 per cent.

In addition to the table showing the distribution of convicts in the aggregate by states and territories, the two tables following show the distribution of each sex separately by prisons or camps. In these tables the states are arranged in alphabetical order, and preceding each of them is a résumé showing the distribution by geographical divisions, which corresponds in form to the summary given before the first table. The tables by sex exhibit also the number of convicts with a native father or a native mother, and the number of negroes, mulattoes, Chinese, Japanese, and Indians in each penal establishment.

SUMMARY BY GROUPS OF DISTRIBUTION OF MALE CONVICTS IN PENITENTIARIES IN 1890.

GEOGRAPHICAL DIVISIONS.	WHITE.						COLORED.					
	Aggregate.	Native.			Foreign born.	Nativity unknown.	Negroes.			Chinese.	Indians.	
		Parents native.	Father native.	Mother native.			Parents foreign.	One or both parents unknown.	Pure.			Mixed.
The United States.....	43,442	12,582	680	1,022	6,369	1,738	6,863	174	10,377	3,218	240	179
North Atlantic division .....	13,506	3,811	327	429	3,810	541	3,431	7	921	212	6	11
South Atlantic division.....	6,179	875	17	30	85	85	84	5	4,020	976		2
North Central division.....	10,765	4,514	225	363	1,544	709	1,727	14	1,047	569	5	38
South Central division.....	8,983	1,952	25	97	240	273	513	144	4,272	1,429	2	36
Western division.....	4,019	1,480	86	103	690	180	1,108	4	117	32	227	92

DISTRIBUTION OF MALE CONVICTS IN PENITENTIARIES IN 1890, BY STATES AND TERRITORIES, BY PRISONS AND CAMPS, AND BY ELEMENTS OF THE POPULATION.

PRISONS AND CAMPS.	Location.	WHITE.						COLORED.					
		Aggregate.	Native.			One or both parents unknown.	Foreign born.	Nativity unknown.	Negroes.			Chinese.	Indians.
			Parents native.	Father native.	Mother native.				Parents foreign.	Pure.	Mixed.		
The United States.....		43,442	13,582	680	1,022	6,369	1,738	6,863	174	10,377	3,218	240	179
ALABAMA:													
The Walls.....	Wetumpka.....	337	95	1	1			3		171	36		
Pratt mines.....	Birmingham.....	784	101	1	4	6	2	8		486	177		
ARIZONA:													
United States penitentiary.....	Yuma.....	143	30	2	2	14	3	65		5	1	4	17
ARKANSAS:													
Penitentiary.....	Little Rock.....	881	244	2	15	14	35	11	1	375	93		32
CALIFORNIA:													
State prison.....	San Quentin.....	1,368	521	28	15	229	26	350	1	30	8	137	24
State prison.....	Folsom.....	663	203	25	30	120	4	197		23	5	37	13
COLORADO:													
Penitentiary.....	Canon City.....	623	193	17	22	109	27	119		23	13		
CONNECTICUT:													
State prison.....	Wethersfield.....	334	112	2	7	32	14	79	2	32	4		

a Includes 3 Japanese.

DISTRIBUTION OF MALE CONVICTS IN PENITENTIARIES IN 1890, BY STATES AND TERRITORIES, ETC.—CONTINUED.

PERSONS AND CAMPS.	Location.	Aggregate.	WHITE.						COLORED.					
			Native.			One or both parents unknown.	Foreign born.	Nativity unknown.	Negroes.		Chinese.	Indians.		
			Father native.	Mother native.	Parents foreign.				Purr.	Mixed.				
<b>FLORIDA:</b>														
E. B. Bailey.....	Monticello.....	185	10				18		8	2	119	28		
West Brothers.....	Ellaville.....	89									80	9		
Crawford Brothers.....	Lake City.....													
R. N. Williams.....	O'Brien.....						1		1			64	12	
C. K. Dutton.....	Live Oak.....	88	10											
<b>GEORGIA:</b>														
Dade coal mines.....		614	54	1	2				3		478	74		
Convict camp.....	Chattahoochee county	58	4				1		1		53			
Convict camp.....	Cheaney.....	61					1				49	10		
Convict camp.....	Dempsey.....	45	2								29	14		
Convict camp.....	Empire.....	110	13						1		84	12		
Convict camp.....	Terrell county.....	138	3								126	9		
Convict camp.....	Grady.....	38	1								17	20		
Convict camp.....	Graysville.....	46	10		1						27	7		
Convict camp.....	Gresston.....	77	5								64	8		
Convict camp.....	Oakdale.....	188	35					1			104	47		
Convict camp.....	Oldtown.....	29	6								20	3		
Convict camp.....	Pinetucky.....	63									47	16		
Convict camp.....	Richwood.....	72	2								57	13		
Convict camp.....	Rising Fawn.....	51	4								42	5		
Convict camp.....	Smithonia.....	84	11								52	21		
<b>IDAHO:</b>														
United States penitentiary.....	Boisé City.....	102	30	4	8	9	7		36		2		4	2
<b>ILLINOIS:</b>														
Penitentiary.....	Joliet.....	1,341	417	31	59	306	81		354		78	61	4	
Penitentiary.....	Chester.....	671	324	12	19	61	78		66	5	79	26		1
<b>INDIANA:</b>														
State prison, north.....	Michigan City.....	756	456	16	26	90			68		76	24		
State prison, south.....	Jeffersonville.....	590	376	6	23	45	32		24		4	80		
<b>IOWA:</b>														
Penitentiary.....	Fort Madison.....	418	209	10	20	53	36		49		32	4		
Penitentiary.....	Anamosa.....	201	74	9	10	35	24		39	1	7	2		
<b>KANSAS:</b>														
Penitentiary.....	Lansing.....	904	483	14	21	91	46		86	1	137	43		7
<b>KENTUCKY:</b>														
Penitentiary.....	Frankfort.....	753	270	2	8	26	22		21	4	274	126		
Branch penitentiary.....	Eddyville.....	70	17	1		4			2		24	20		
Convict camps.....		365					8		2	118	142	95		











DISTRIBUTION OF MALE CONVICTS IN PENITENTIARIES IN 1890, BY STATES AND TERRITORIES, ETC.—CONTINUED.

PRISONS AND CAMPS.	Location.	Aggregate.	WHITE.							COLORED.				
			Native.			Foreign born.	Nativity unknown.	Negroes.		Chinese.	Indians.			
			Father native.	Mother native.	Parents foreign.			One or both parents unknown.	Pure.			Mixed.		
VIRGINIA:														
Penitentiary.....	Richmond.....	870	160	2	2	5		8	10			635	186	
Convict camp.....	S. O. & E. R. R.....	98						2		1		89		
Convict camp.....	R. & S. R. R.....	83	6									84	1	
Convict camp.....	Abingdon Coal and Iron Company.....	21	6									15		
WASHINGTON:														
United States penitentiary.....	McNeil's island.....	20					1	4	1	10			1	
State penitentiary.....	Walla Walla.....	230	80	3	6	51		5	62			12	1	3
WEST VIRGINIA:														
Penitentiary.....	Moundsville.....	272	135	1	6	13		28	8			62	19	
WISCONSIN:														
State prison.....	Waupun.....	513	145	13	20	113		10	189			9	3	1
WYOMING:														
United States penitentiary.....	Laramie City.....	10	3		2	2		1	1			1		

SUMMARY BY GROUPS OF DISTRIBUTION OF FEMALE CONVICTS IN PENITENTIARIES IN 1890.

GEOGRAPHICAL DIVISIONS.	WHITE.						COLORED.				
	Aggregate.	Native.			One or both parents unknown.	Foreign born.	Nativity unknown.	Negroes.		Chinese. Indians.	
		Parents native.	Father native.	Mother native.				Parents foreign.	Pure.		Mixed.
The United States.....	1,791	260	27	18	215	183	404	11	512	160	1
North Atlantic division.....	971	149	20	15	183	150	349	2	89	14	
South Atlantic division.....	287	16			2	2	3		192	72	
North Central division.....	285	61	4	2	26	30	33	9	63	6	1
South Central division.....	253	19		1	1	1	3		161	67	
Western division.....	40	15	3		3		14		4	1	

DISTRIBUTION OF FEMALE CONVICTS IN PENITENTIARIES IN 1890, BY STATES AND TERRITORIES, BY PRISONS AND CAMPS, AND BY ELEMENTS OF THE POPULATION.

PRISONS AND CAMPS.	Location.	Aggregate.	WHITE.						COLORED.			
			Native.			One or both parents unknown.	Foreign born.	Nativity unknown.	Negroes.		Chinese. Indians.	
			Parents native.	Father native.	Mother native.				Parents foreign.	Pure.		Mixed.
The United States.....		1,791	260	27	18	215	183	404	11	512	160	1
ALABAMA:												
The Walls.....	Wetumpka.....	63	7							40	16	
Pratt mines.....	Birmingham.....	2								1	1	
ARIZONA:												
United States penitentiary.....	Yuma.....	1						1				
ARKANSAS:												
Penitentiary.....	Little Rock.....	11								6	4	
CALIFORNIA:												
State prison.....	San Quentin.....	21	5	2		3		11				
COLORADO:												
Penitentiary.....	Cannon City.....	4						1		2	1	
CONNECTICUT:												
State prison.....	Wethersfield.....	6	2		1	1		1		1		
FLORIDA:												
E. B. Bailey.....	Monticello.....	12								11		

DISTRIBUTION OF FEMALE CONVICTS IN PENITENTIARIES IN 1890, BY STATES AND TERRITORIES, ETC.—CONTINUED.

COLORED.

WHITE.

PRISONS AND CAMPS.	Location.	Aggregate.	Native.					Negroes.			Chinese	Indians.			
			Parents native.	Father native.	Mother native.	Parents foreign.	One or both parents unknown.	Foreign born.	Nativity unknown.	Pure.			Mixed.		
<b>GEORGIA:</b>															
Convict camp.....	Bolton.....	24											19	5	
Convict camp.....	Grayville.....	3	1										2		
Convict camp.....	Gresston.....	2											1	1	
Convict camp.....	Oldtown.....	3											3		
Convict camp.....	Rising Fawn.....	3											3		
Convict camp.....	Smithonia.....	6											5	1	
Dade coal mines.....	Dade City.....	14											8	6	
<b>ILLINOIS:</b>															
Penitentiary.....	Joliet.....	45	10		1	11	1	13					7	2	
<b>INDIANA:</b>															
Women's prison.....	Indianapolis.....	70	23	1	1	3	19	8	8				12		
<b>IOWA:</b>															
Penitentiary.....	Anamosa.....	9	6	1				1						1	
<b>KANSAS:</b>															
Penitentiary.....	Lansing.....	14	1			1	1	1					10		
<b>KENTUCKY:</b>															
Penitentiary.....	Frankfort.....	47	6		1			1					20	19	
<b>LOUISIANA:</b>															
The Walls.....	Baton Rouge.....	4	1										1	2	
Plantation.....	Angola.....	24											16	8	
<b>MAINE:</b>															
State prison.....	Thomaston.....	5	2				1	2							
<b>MARYLAND:</b>															
Penitentiary.....	Baltimore.....	31	2			1		3					12	13	
<b>MASSACHUSETTS:</b>															
Reformatory prison for women.....	South Framingham.....	217	26	11	6	52	25	90					5	2	
<b>MICHIGAN:</b>															
State prison.....	Jackson.....	1	1												
<b>MINNESOTA:</b>															
State prison.....	Sullwater.....	5	2				1	1	1						
<b>MISSISSIPPI:</b>															
The Walls.....	Jackson.....	3											2	1	
F. W. Peoples.....	Lehrton.....	4											2	2	
J. Wilczinski.....	Wilczinski.....	3											3	3	
E. E. Foltz.....	Winona.....	7											7	7	



DISTRIBUTION OF FEMALE CONVICTS IN PENITENTIARIES IN 1890, BY STATES AND TERRITORIES, ETC.—CONTINUED.

PRISONS AND CAMPS.	Location.	Aggregate.	WHITE.					COLORED.				
			Native.		One or both parents unknown.	Foreign born.	Nativity unknown.	Negroes.				
			Father native.	Mother native.				Parents foreign.	Pure.	Mixed.	Chinese. Indians.	
TEXAS:												
Penitentiary.....	Huntsville.....	44	1			1			4		33	5
Penitentiary.....	Rusk.....	1										1
UTAH:												
United States penitentiary.....	Salt Lake City.....	1	1									
VERMONT:												
State prison.....	Windsor.....	1	1									
VIRGINIA:												
Penitentiary.....	Richmond.....	85	4							63	18	
WASHINGTON:												
Penitentiary.....	Walla Walla.....	1	1									
WEST VIRGINIA:												
Penitentiary.....	Moundsville.....	6	1			1	1			1	2	
WISCONSIN:												
State prison.....	Waupun.....	17	4	2		4			7			

In Arkansas 615 convicts were leased out and worked outside the walls of the penitentiary in convict camps, but are included with those inside, for the reason that the precise location of each camp has not yet been ascertained.

In South Carolina 554 convicts were also leased out and worked in convict camps, but are included with those inside for the same reason given above.

The only states which have prisons designed exclusively for women are Indiana, Massachusetts, and New York.

In Massachusetts, Michigan, Minnesota, New York, and Pennsylvania prisons have been created, designated reformatories, which are organized and managed on a system which varies in many important particulars from that commonly adopted for the government of penitentiaries. The first of these reformatories, in point of time as well as of size, is that in Elmira, New York. In these establishments the methods of juvenile reformatories are applied to adult prisoners falling below a fixed limit of age who are supposed to have been convicted for the first time of felony. In New York they are committed for an indefinite term, not exceeding the maximum term for which they might have been definitely sentenced for the offenses proved against them. In the reformatory the mark system is followed, and the prisoners are divided into grades, according to their marks. They can be promoted or degraded, according to their obedience to rules and diligence in work and in the schoolroom. Great attention is paid to the intellectual culture and development of the inmates, who receive also scientific physical training, including military drill, and are given a practical knowledge of trades and handicrafts. Prisoners are eligible to parole under regulations adopted by the managers, and their fitness for freedom and rehabilitation as citizens is tested for some months in a state of conditional release before they receive an absolute and final discharge. While on parole they are still in the eye of the law inmates of the institution, and may be remanded for any violation of the conditions attached to the ticket-of-leave. This system is believed to have been productive of excellent results, and it has been imitated, more or less fully and with greater or less success, in the adult reformatories created in other states since the opening of the institution at Elmira.

In the year 1880 the population of the United States was 50,155,783. The number of convicts in penitentiaries at that date was 30,659, or, if the leased prisoners are counted, 35,538. It is thus shown that the ratio of convicts to the general population was 709 in each million.

In 1890 the population of the United States was 62,622,250. The number of convicts in penitentiaries was 45,233. The ratio, therefore, was 722 in the million.

It follows that, while the absolute increase in the number of penitentiary convicts was 9,695, the relative increase, compared with the growth of the population at large, was only 13 to the million. It is evident that this rate of growth is not alarming, since further study may result in an explanation of it, or even in showing that crime of a serious character is rather on the decline in this country than on the increase.

It must be remembered that the present statement does not cover the entire ground. It will be necessary to inquire into the number and relations of prisoners not in penitentiaries before formulating any definite and final conclusion. It will also be necessary to inquire into the character of the crimes for which prisoners are held in custody and the length of sentences imposed upon them by the courts. The length of sentence is obviously a very important factor to be considered in any discussion of the aggregate prison population of different states in comparison with each other, and it will be impossible to discuss it intelligently at the present moment. This topic will be the subject of a subsequent bulletin.

The details of the comparison just made are given in the table on pages 18 and 19, which shows also at each of the census dates—1890 and 1880—by states and territories, the total population, the number of convicts in penitentiaries, the number of such convicts in each million of the population, and the absolute and relative increase or decrease in the number of such convicts.

## SUMMARY BY GROUPS OF COMPARISON OF CONVICTS IN PENITENTIARIES BETWEEN 1890 AND 1880.

GEOGRAPHICAL DIVISIONS.	1890.			1880.			INCREASE.		DECREASE.	
	Population.	Convicts.	Ratio.	Population.	Convicts.	Ratio.	Absolute.	Relative.	Absolute.	Relative.
The United States.....	62,622,250	45,233	722	50,155,783	35,538	709	9,695	13		
North Atlantic division.....	17,401,545	14,477	832	14,507,407	11,138	768	3,339	64		
South Atlantic division.....	8,857,920	6,466	730	7,597,197	5,345	704	1,121	26		
North Central division.....	22,362,279	10,990	491	17,364,111	8,862	510	2,128			19
South Central division.....	10,972,893	9,241	842	8,919,371	7,951	891	1,290			49
West division.....	3,027,613	4,059	1,341	1,767,697	2,242	1,268	1,317	73		

## COMPARISON OF CONVICTS IN PENITENTIARIES BETWEEN 1890 AND 1880, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	1890.			1880.			INCREASE.		DECREASE.	
	Population.	Convicts.	Ratio.	Population.	Convicts.	Ratio.	Absolute.	Relative.	Absolute.	Relative.
The United States.....	62,622,250	45,233	722	50,155,783	35,538	709	9,695	13		
<b>NORTH ATLANTIC DIVISION.....</b>	<b>17,401,545</b>	<b>14,477</b>	<b>832</b>	<b>14,507,407</b>	<b>11,138</b>	<b>768</b>	<b>3,339</b>	<b>64</b>		
Maine.....	661,086	170	257	648,936	213	328			43	71
New Hampshire.....	376,530	116	308	346,991	154	444			38	136
Vermont.....	332,422	91	274	332,286	143	430			52	156
Massachusetts.....	2,238,943	1,530	683	1,783,085	1,085	608	445	75		
Rhode Island.....	345,506	122	353	276,531	107	387	15			84
Connecticut.....	746,258	340	456	622,700	252	405	88			51
New York.....	5,997,853	8,190	1,365	5,082,871	6,300	1,239	1,890	126		
New Jersey.....	1,444,933	1,537	1,078	1,131,116	1,047	926	510	152		
Pennsylvania.....	5,258,014	2,361	449	4,282,891	1,837	429	524	20		
<b>SOUTH ATLANTIC DIVISION.....</b>	<b>8,857,920</b>	<b>6,466</b>	<b>730</b>	<b>7,597,197</b>	<b>5,345</b>	<b>704</b>	<b>1,121</b>	<b>26</b>		
Delaware.....	169,493			146,608						
Maryland.....	1,042,390	690	662	934,943	685	733	5			71
District of Columbia.....	230,392			177,624						
Virginia.....	1,655,980	1,167	705	1,512,565	1,087	719	80			14
West Virginia.....	762,794	278	364	618,457	266	430	12			66
North Carolina.....	1,617,947	1,422	879	1,399,750	61,216	869	206	10		
South Carolina.....	1,151,149	806	700	995,577	404	406	402	294		
Georgia.....	1,837,353	1,729	941	1,542,180	1,504	975	225			34
Florida.....	391,422	374	955	269,493	183	679	191	276		
<b>NORTH CENTRAL DIVISION.....</b>	<b>22,362,279</b>	<b>10,990</b>	<b>491</b>	<b>17,364,111</b>	<b>8,862</b>	<b>510</b>	<b>2,128</b>			<b>19</b>
Ohio.....	3,672,316	1,652	450	3,198,062	1,273	400	374	50		
Indiana.....	2,192,404	1,416	648	1,978,301	1,238	626	178	20		
Illinois.....	3,826,351	2,057	538	3,077,871	1,338	597	219			59
Michigan.....	2,093,889	1,108	529	1,636,987	1,183	723			75	194
Wisconsin.....	1,686,880	530	314	1,315,497	308	234	222	80		
Minnesota.....	1,301,526	432	332	780,773	248	318	184	14		
Iowa.....	1,911,896	623	326	1,624,615	546	336	77			10
Missouri.....	2,679,184	1,701	635	2,168,380	1,280	590	421	45		
North Dakota.....	182,719	65	356	36,909			65	356		
South Dakota.....	328,808	97	295	98,268			97	295		
Nebraska.....	1,058,510	391	369	452,402	256	566	185			197
Kansas.....	1,427,096	918	643	996,096	687	690	231			47

a Includes 338 leased prisoners.

b Includes 406 leased prisoners.

c Includes 145 leased prisoners.

d All leased prisoners.

e All leased prisoners.

COMPARISON OF CONVICTS IN PENITENTIARIES BETWEEN 1890 AND 1880, BY STATES AND TERRITORIES—CONTINUED.

STATES AND TERRITORIES.	1890.			1880.			INCREASE.		DECREASE.	
	Population.	Convicts.	Ratio.	Population.	Convicts.	Ratio.	Absolute.	Relative.	Absolute.	Relative.
SOUTH CENTRAL DIVISION.....	10,972,893	9,241	842	8,919,371	7,951	891	1,290			49
Kentucky.....	1,853,635	1,235	664	1,648,690	802	486	433	178		
Tennessee.....	1,767,518	1,484	840	1,542,359	a1,464	949	20			109
Alabama.....	1,513,017	1,086	718	1,262,506	b1,121	888			35	170
Mississippi.....	1,289,600	429	333	1,131,597	c1,088	961			659	628
Louisiana.....	1,118,587	856	765	939,946	d619	660	237	105		
Texas.....	2,235,523	3,319	1,485	1,591,749	e2,293	1,441	1,026	44		
Indian territory.....										
Oklahoma.....	61,834									
Arkansas.....	1,123,179	832	737	802,525	564	703	268	34		
WESTERN DIVISION.....	3,027,613	4,059	1,341	1,767,697	2,242	1,268	1,917	73		
Montana.....	132,159	225	1,702	39,159	53	1,353	172	349		
Wyoming.....	60,705	10	165	20,789	19	914			9	749
Colorado.....	412,198	525	1,276	194,327	185	952	341	324		
New Mexico.....	153,593	112	729	119,565			112	729		
Arizona.....	59,620	144	2,415	49,440	31	767	113	1,648		
Utah.....	207,905	180	866	143,963	53	268	127	498		
Nevada.....	45,761	96	2,098	62,266	150	2,409			54	311
Idaho.....	84,385	102	1,209	32,610	22	675	89	534		
Alaska.....										
Washington.....	349,390	251	718	75,116	54	719	197			1
Oregon.....	313,767	302	1,154	174,768	180	1,030	182	124		
California.....	1,208,180	2,051	1,698	864,694	1,495	1,729	556			31

a Includes 154 leased prisoners.

b Includes 784 leased prisoners.

c Includes 353 leased prisoners.

d Includes 72 leased prisoners.

e Includes 991 leased prisoners.

The first fact which strikes the attention of a student of the foregoing table is that the relative increase in the number of penitentiary convicts has been confined to the North and South Atlantic and the Western geographical divisions of the country. In the North and South Central divisions the number of penitentiary convicts has relatively declined. The largest relative increase has been in the Western division, where it is 73 to the million. The next largest increase has been in the North Atlantic division, 64 to the million. In the South Atlantic division the increase has been 26 to the million. In the North Central division there has been a relative decrease of 19 to the million, and in the South Central division a decrease of 49 to the million.

When the table is examined, state by state, it is apparent that this increase or decrease, as the case may be, has in no section of the country been at all uniform, either in character or amount.

The states and territories may be divided into three groups, as follows:

First. Those in which there has been both an absolute and a relative decrease in the number of penitentiary convicts. This group includes Alabama, Maine, Michigan, Mississippi, Nevada, New Hampshire, Vermont, and Wyoming.

Second. Those in which there has been an absolute increase in the number of penitentiary convicts, but where, nevertheless, the number has declined relatively to the growth of the general population. This group includes California, Connecticut, Georgia, Illinois, Iowa, Kansas, Maryland, Nebraska, Rhode Island, Tennessee, Virginia, Washington, and West Virginia.

Third. Those in which the increase in the number of penitentiary convicts has been both absolute and relative. This group includes Arizona, Arkansas, Colorado, Florida, Idaho, Indiana, Kentucky, Louisiana, Massachusetts, Minnesota, Missouri, Montana, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Utah, and Wisconsin.

The numerical order of the states in respect of the absolute increase or decrease in the number of penitentiary convicts during the past ten years is as follows:

Increase—New York, 1,890; Texas, 1,026; California, 556; Pennsylvania, 524; New Jersey, 510; Massachusetts, 445; Kentucky, 433; Missouri, 421; Ohio, 374; Colorado, 341; Arkansas, 268; Louisiana, 237; Kansas, 231; Georgia, 225; Wisconsin, 222; Illinois, 219; North Carolina, 206; South Carolina, 202; Washington, 197; Florida, 191; Minnesota, 184; Oregon, 182; Indiana, 178; Montana, 172; Nebraska, 135; Utah, 127; Arizona, 113; New Mexico, 112; South Dakota, 97; Connecticut, 88; Idaho and Virginia, 80 each; Iowa, 77; North Dakota, 65; Tennessee, 20; Rhode Island, 15; West Virginia, 12; Maryland, 5.

Decrease—Wyoming, 9; Alabama, 35; New Hampshire, 38; Maine, 43; Vermont, 52; Nevada, 54; Michigan, 75; Mississippi, 659.

The numerical order of the states in respect of the relative increase or decrease in the number of penitentiary convicts to each million of the population during the past ten years is as follows:

Increase—Arizona, 1,648; New Mexico, 729; Idaho, 534; Utah, 498; North Dakota, 356; Montana, 349; Colorado, 324; South Dakota, 295; South Carolina, 294; Florida, 276; Kentucky, 178; New Jersey, 152; New York, 126; Oregon, 124; Louisiana, 105; Wisconsin, 80; Massachusetts, 75; Ohio, 50; Missouri, 45; Texas, 44; Arkansas and Georgia, 34 each; Indiana and Pennsylvania, 20 each; Minnesota, 14; North Carolina, 10.

Decrease—Washington, 1; Iowa, 10; Virginia, 14; California, 31; Rhode Island, 34; Kansas, 47; Connecticut, 51; Illinois, 59; West Virginia, 66; Maine and Maryland, 71 each; Tennessee, 109; New Hampshire, 136; Vermont, 156; Alabama, 170; Michigan, 194; Nebraska, 196; Nevada, 311; Mississippi, 628; Wyoming, 749.

# CENSUS BULLETIN.

No. 32.

WASHINGTON, D. C.

Feb. 24, 1891.

## Distribution of Population in Accordance with Mean Annual Rainfall.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., February 20, 1891.

The years 1880 and 1870 are taken as a basis of comparison with 1890 in showing the distribution of the population of the United States in accordance with the mean annual rainfall, given in the present bulletin. The subject-matter is in charge of Mr. HENRY GANNETT, Geographer, special agent of the Census Office.

An examination of Mr. GANNETT's report shows that the average annual rainfall in the United States is 29.6 inches, the variations ranging from 0 to about 125 inches. The larger number of the inhabitants occupy the region in which the annual rainfall is between 30 and 50 inches, comprising about three-fourths of the entire population, while the greatest density is in the area showing 40 to 50 inches of annual rainfall, the average of this region being 59 inhabitants to the square mile. In the eastern portions of the Great Plains stretching from Texas to Dakota, where the most rapid increase in population is taking place, the rainfall ranges from 20 to 30 inches. The density of population in this section of the United States has increased in twenty years from 1.6 to 8.1 per square mile.



*Superintendent of Census.*

# Distribution of Population in Accordance with Mean Annual Rainfall.

BY HENRY GANNETT.

Through the courtesy of the Chief Signal Officer of the Army, General A. W. Greely, and of the directors of the Weather Services of the various states, the latest and most reliable data regarding the rainfall of the country have been placed at the disposal of this office. In addition to this, a compilation has been made of all other accessible material, including the Smithsonian collections and the records of the state engineer of California. From these various sources data from nearly two thousand stations have been obtained, platted upon a map of the United States, and the curves of mean annual rainfall, at intervals of ten inches, sketched in accordance with their indications, supplemented by our knowledge of the relief of the country and its known influence upon rainfall.

From the map thus prepared the counties falling between the different curves of mean annual rainfall were drawn off in lists. In cases where the county was cut in parts by a curve, due weight was given in the partition of the county to any inequality in distribution of population. The population was then distributed by counties in accordance with the lists. The result is shown in the table appended.

In this table the first column shows the grades, expressed in inches of rainfall; the second, third, and fourth columns the number of inhabitants found in each grade in 1890, 1880, and 1870, assuming that the total population at each of the above periods was one hundred thousand, or, in other words, the percentage of the population in each of these grades at the periods under consideration, carrying the figures out to the thousandth of 1 per cent; the fifth and sixth columns show the increase or decrease in number; the seventh, eighth, and ninth columns show the number of inhabitants in each one hundred thousand above each grade, and therefore are cumulative columns; the tenth, eleventh, and twelfth columns show the density of population in each grade in 1890, 1880, and 1870, and the last two columns show the increase in population per square mile.

INCHES OF RAINFALL.	NUMBER IN 100,000 INHABITANTS.			CHANGE IN NUMBER IN 100,000 INHABITANTS.		NUMBER IN 100,000 ABOVE EACH GRADE.			POPULATION PER SQUARE MILE.			INCREASE IN POPULATION PER SQUARE MILE.	
	1890.	1880.	1870.	1880-'90.	1870-'80.	1890.	1880.	1870.	1890.	1880.	1870.	1880-'90.	1870-'80.
Below 10.....	300	278	192	+22	+86	300	278	192	0.8	0.6	0.3	0.2	0.3
10 to 20.....	2,612	1,385	949	+1,227	+436	2,910	1,663	1,142	1.8	0.8	0.4	1.0	0.4
20 to 30.....	6,098	4,343	1,909	+1,695	+2,434	8,948	6,006	3,050	5.1	4.7	1.6	3.4	2.1
30 to 40.....	34,107	34,969	36,644	-862	-1,673	43,056	10,975	30,695	43.1	35.5	28.6	7.6	6.9
40 to 50.....	30,459	40,984	42,719	-1,525	-1,735	82,515	81,959	82,414	59.0	49.2	39.4	9.8	9.8
50 to 60.....	16,164	16,784	16,212	-620	+522	98,679	98,693	98,626	25.1	20.9	15.5	4.2	5.4
60 to 70.....	1,274	1,271	1,358	+3	-87	99,952	99,965	99,979	18.1	14.5	11.9	3.6	2.6
Above 70.....	55	35	17	+20	+18	100,000	100,000	100,000	4.1	2.1	0.8	2.0	1.3

It will be noticed that the main body of the population of the country inhabits the region in which the annual rainfall is between 30 and 50 inches, three-fourths of the inhabitants or thereabouts being found there. On either side, as the rainfall increases or diminishes, the population diminishes rapidly. It will be seen further that the arid region of the west, where the rainfall is less than 20 inches—a region which comprises two-fifths of the entire area of the country—contains at present less than 3 per cent of the population.

The greatest density of population is in the area enjoying from 40 to 50 inches of annual rainfall, the average of this region being 59 inhabitants to the square mile. Next to that is the area having

from 30 to 40 inches, where the density is 43.1. The density of population has increased rapidly in these regions. It is apparent, however, that the most rapid increase, as expressed by density of population, is where the rainfall ranges from 20 to 30 inches; that is, in the eastern portion of the Great Plains ranging from Texas to Dakota, where the density has increased in twenty years from 1.6 to 8.1.

The average annual rainfall upon the surface of the United States, as deduced from the map previously mentioned, is 29.6 inches. The average annual rainfall with relation to the population, deduced by giving weight to each area of country in proportion to the number of its inhabitants, was, in 1870, 42.5 inches; in 1880 it had diminished to 42 inches, and in 1890 to 41.4 inches, the diminution being caused mainly by the settlement of the Great Plains and the arid regions of the west.

[7-010]

# CENSUS BULLETIN.

No. 33.

WASHINGTON, D. C.

Feb. 25, 1891.

## Distribution of Population with Reference to Mean Annual Temperature.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., February 20, 1891.

In this bulletin is given the distribution of population compared with the mean annual temperature in the United States, excluding Alaska in the statements and statistics.

The mean annual temperature of the United States is  $53^{\circ}$ , while the greatest density of population naturally centers on this pivot, ranging from  $50^{\circ}$  to  $55^{\circ}$ , as shown in the table. From this, as a maximum, the density of population rapidly diminishes with the increase or decrease of temperature.

The years 1870 and 1880 are also given in the table, forming a comparison with 1890 in the distribution of population according to temperature.



*Superintendent of Census.*

# Distribution of Population with Reference to Mean Annual Temperature.

BY HENRY GANNETT.

The great increase in the amount of data concerning the distribution of temperature in the country during the past ten years, produced by the extension of State Weather Services, rendered it advisable to collect material and prepare a new map showing the distribution of the isothermals, and to make therefrom a recomputation of the distribution of population in 1870 and 1880. The necessary data have been freely contributed by the Chief Signal Officer of the Army, General A. W. Greely, and by the several directors of the State Weather Services, to whom this office is under great obligations. The information collected from these various sources has been placed upon a map of the United States, and isothermals drawn in accordance with their indications, combined with a knowledge of the relief of the country and its influence upon temperature. The counties falling between the different isothermal lines have then been drawn from the maps in tabular form and the population classified in accordance therewith.

The following table is presented as embracing the results of this investigation. In this table the first column shows the degrees of temperature; the second, third, and fourth columns a distribution of population in accordance with the isothermal lines, subject to the supposition that the entire population of the country was at each date 100,000 persons, or, in other words, these columns show the percentage of the population which was at the date designated living between the various isothermal lines, the computation being carried out to the thousandth of 1 per cent. The fifth and sixth columns show the change in the number from census to census under the same assumption that the entire population was 100,000. The seventh, eighth, and ninth columns show the number of inhabitants, the total population being assumed at 100,000, living under temperature conditions below each of the several groups. The tenth, eleventh, and twelfth columns show the density of population, *i. e.*, the number of inhabitants per square mile in each of the several groups, while the last two columns show the increase in density.

DEGREES OF TEMPERATURE.	NUMBER IN 100,000 INHABITANTS.			CHANGE IN NUMBER IN 100,000.		NUMBER IN 100,000 ABOVE EACH GROUP.			DENSITY OF POPULATION.			INCREASE IN DENSITY OF POPULATION.	
	1890.	1880.	1870.	1880-'90.	1870-'80.	1890.	1880.	1870.	1890.	1880.	1870.	1880-'90.	1870-'80.
Below 40.....	1,658	1,155	919	498	236	1,658	1,155	919	4.699	2.635	1.612	2.064	1.023
40 to 45.....	8,180	7,413	7,119	767	294	9,833	8,568	8,038	12.515	9.105	6.722	3.410	2.383
45 to 50.....	27,423	27,324	28,986	99	-1,662	37,256	35,892	37,024	28.610	22.866	18.650	5.744	4.216
50 to 55.....	31,583	32,396	33,182	-813	-786	68,839	68,288	70,205	31.024	25.545	20.113	5.479	5.432
55 to 60.....	18,775	14,230	13,723	-455	507	82,614	82,518	83,929	22.780	18.888	14.005	3.892	4.883
60 to 65.....	9,865	9,982	9,152	-117	830	92,479	92,500	93,081	17.893	14.532	10.240	3.361	4.292
65 to 70.....	6,279	6,262	5,602	17	600	98,758	98,762	98,743	14.161	11.334	7.881	2.827	3.453
70 to 75.....	1,210	1,216	1,242	-6	-26	99,968	99,978	99,985	7.493	6.015	4.722	1.478	1.293
Above 75.....	32	22	15	10	7	100,000	100,000	100,000	3.597	2.009	1.034	1.588	.975

A glance at the table will show that in 1870, 1880, and 1890 more than half the population was living under a temperature between 45 and 55 degrees, and that between 45 and 60 degrees were found from 70 to 75 per cent of the inhabitants. Only a trifle over one per cent were living where the temperature was greater than 70 degrees, while in the region whose mean annual temperature was above 75 degrees the number of inhabitants was trifling. The number of inhabitants to the square

mile not only expresses the density of population, but also gives a comparative measure of the absolute number and the increase in absolute number. The greatest density is, and has been since 1870, where the temperature ranges from 50 to 55 degrees. From this as a maximum it diminishes rapidly both with an increase and decrease in temperature. The most rapid proportional increase in population has taken place at the two extremes, where it has trebled during the twenty years intervening between 1870 and 1890, while in the same time it has increased but about 50 per cent in the most densely-settled group.

The average annual temperature of the territory of the United States, excluding Alaska from consideration, is 53 degrees. The average annual temperature under which the people of the country live, taking into account the density of settlement, is practically the same.

# CENSUS BULLETIN.

No. 34.

WASHINGTON, D. C.

Feb. 26, 1891.

## CENTER OF POPULATION OF THE UNITED STATES: 1890.

DEPARTMENT OF THE INTERIOR,  
CENSUS OFFICE,  
WASHINGTON, D. C., February 18, 1891.

The center of population on June 1, 1890, with some discussion of the movements of the center during the past century, is given in the present bulletin. It is a matter of special interest, as such movements summarize the net result of the movements of population during that period.

By the Eleventh Census the center of population in 1890 was in the following position:

LATITUDE .....	39°	11'	56"
LONGITUDE .....	85	32	53

In ten years the center of population has moved westward 53' 13", or about forty-eight miles, and northward 7' 48", or about nine miles. It rests now in southern Indiana, at a point a little west of south of Greensburg, the county seat of Decatur county, and twenty miles east of Columbus, Indiana. The surroundings of its location are shown upon the sketch maps accompanying this bulletin.

The closeness with which the center of population, through such rapid westward movement as has been recorded, has clung to the parallel of 39° 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 years of record have accomplished a movement of longitude of nearly 9.5 degrees. Assuming the westward movement to have been uniformly along the parallel of 39° 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, and 1880-1890, 48 miles, a total westward movement of 505 miles. 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, viz, the crossing of the 83d meridian and the 39th parallel, as forty individuals at Boston.



*Superintendent of Census.*

# CENTER OF POPULATION: 1890.

BY HENRY GANNETT.

The center of population is the center of gravity of the population of the country, each individual being assumed to have the same weight. The method of determination used, in order that the result might be comparable with that obtained in 1880, 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  $39^{\circ}$  with the meridian of  $86^{\circ}$  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 distance of each such center of population of a square degree, whether assumed to be at the center of the square degree or at a distance from the center, from the assumed parallel, and from the assumed meridian, were then computed. The population of each square degree was then multiplied by its distance from the assumed parallel of latitude, and the sum of the products, or moments, north and south of that parallel made up. Their difference, divided by the total population of the country, gave a correction to the latitude. In a similar manner the east and west moments were made up, and from them a correction in longitude was obtained.

In 1790 the center of population was at  $39^{\circ} 16.5'$  north latitude and  $76^{\circ} 11.2'$  west longitude, which a comparison of the best maps available would seem to place about twenty-three miles east of Baltimore. During the decade from 1790 to 1800 it appears to have moved almost due west to a point about eighteen miles west of the same city, being in latitude  $39^{\circ} 16.1'$  and longitude  $76^{\circ} 56.5'$ .

From 1800 to 1810 it moved westward and slightly southward to a point about forty miles northwest by west from Washington, being in latitude  $39^{\circ} 11.5'$  and longitude  $77^{\circ} 37.2'$ . 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 sixteen miles north of Woodstock, Virginia, being in latitude  $39^{\circ} 5.7'$  and longitude  $78^{\circ} 33'$ . This second southward movement appears to have been due to the extension of settlement in Mississippi, Alabama, and eastern Georgia.

From 1820 to 1830 it moved still westward and southward to a point about nineteen miles southwest of Moorefield, in the present state of West Virginia, being in latitude  $38^{\circ} 57.9'$  and longitude  $79^{\circ} 16.9'$ . This is the most decided 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 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 sixteen miles south of Clarksburg, 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 twenty-three miles southeast of Parkersburg, 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 twenty 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 forty-eight 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 colored 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 between 1870 and 1880 the southern states made a large positive increase, both from natural growth and from immigration southward.

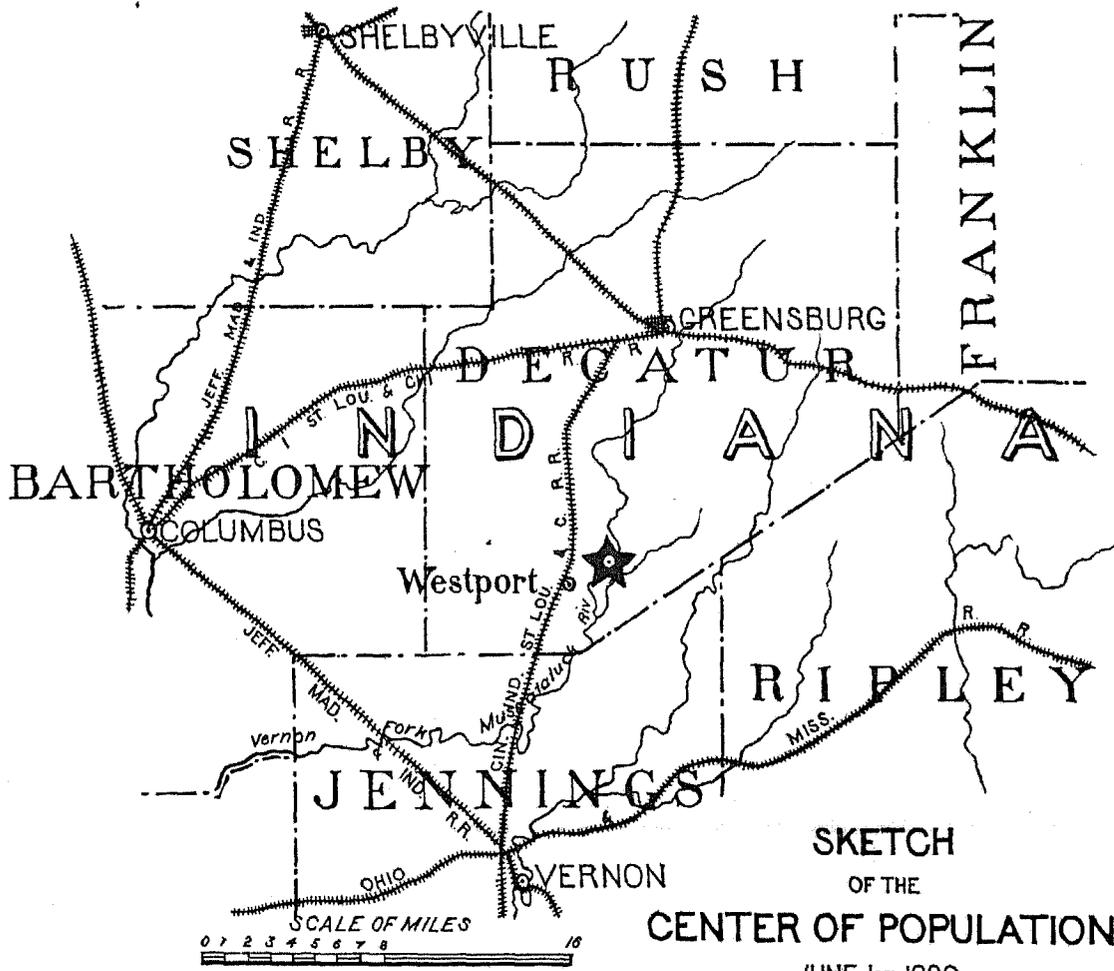
During the past decade the center of population has moved northward into practically the same latitude which it occupied in 1870. It has moved westward  $53' 13''$ , or forty-eight miles, being less by ten miles than its movement during the preceding decade, six miles greater than the movement between 1860 and 1870, and slightly less than the average westward movement since the first census, its present position being in latitude  $39^{\circ} 11' 56''$  and longitude  $85^{\circ} 32' 53''$ . The most salient point of its progress during the past decade is the northing which has been made, which is doubtless due to the great development in the cities of the northwest and in the state of Washington, and in no small degree to the increase of population in New England.

The center of the area of the United States excluding Alaska 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 seventeen degrees east of the center of area.

The following table, with the accompanying map, shows the movement of the center of population since 1790 :

POSITION OF THE CENTER OF POPULATION.

YEARS.	North latitude.	West longitude.	Approximate location by important towns.	Westward movement during preceding decade.
1790.....	$39^{\circ} 16.5'$	$76^{\circ} 11.2'$	23 miles east of Baltimore, Maryland.....	
1800.....	$39 16.1$	$76 56.5$	18 miles west of Baltimore, Maryland.....	41 miles.
1810.....	$39 11.5$	$77 37.2$	40 miles northwest by west of Washington, District of Columbia...	36 do.
1820.....	$39 5.7$	$78 33.0$	16 miles north of Woodstock, Virginia.....	50 do.
1830.....	$38 57.9$	$79 16.9$	19 miles west-southwest of Moorefield, West Virginia.....	39 do.
1840.....	$39 2.0$	$80 18.0$	16 miles south of Clarksburg, West Virginia.....	55 do.
1850.....	$38 59.0$	$81 19.0$	23 miles southeast of Parkersburg, West Virginia.....	55 do.
1860.....	$39 0.4$	$82 48.8$	20 miles south of Chillicothe, Ohio.....	81 do.
1870.....	$39 12.0$	$83 35.7$	48 miles east by north of Cincinnati, Ohio.....	42 do.
1880.....	$39 4.1$	$84 39.7$	8 miles west by south of Cincinnati, Ohio.....	58 do.
1890.....	$39 11.9$	$85 32.9$	20 miles east of Columbus, Indiana.....	48 do.



SKETCH  
 OF THE  
 CENTER OF POPULATION  
 JUNE 1st 1890

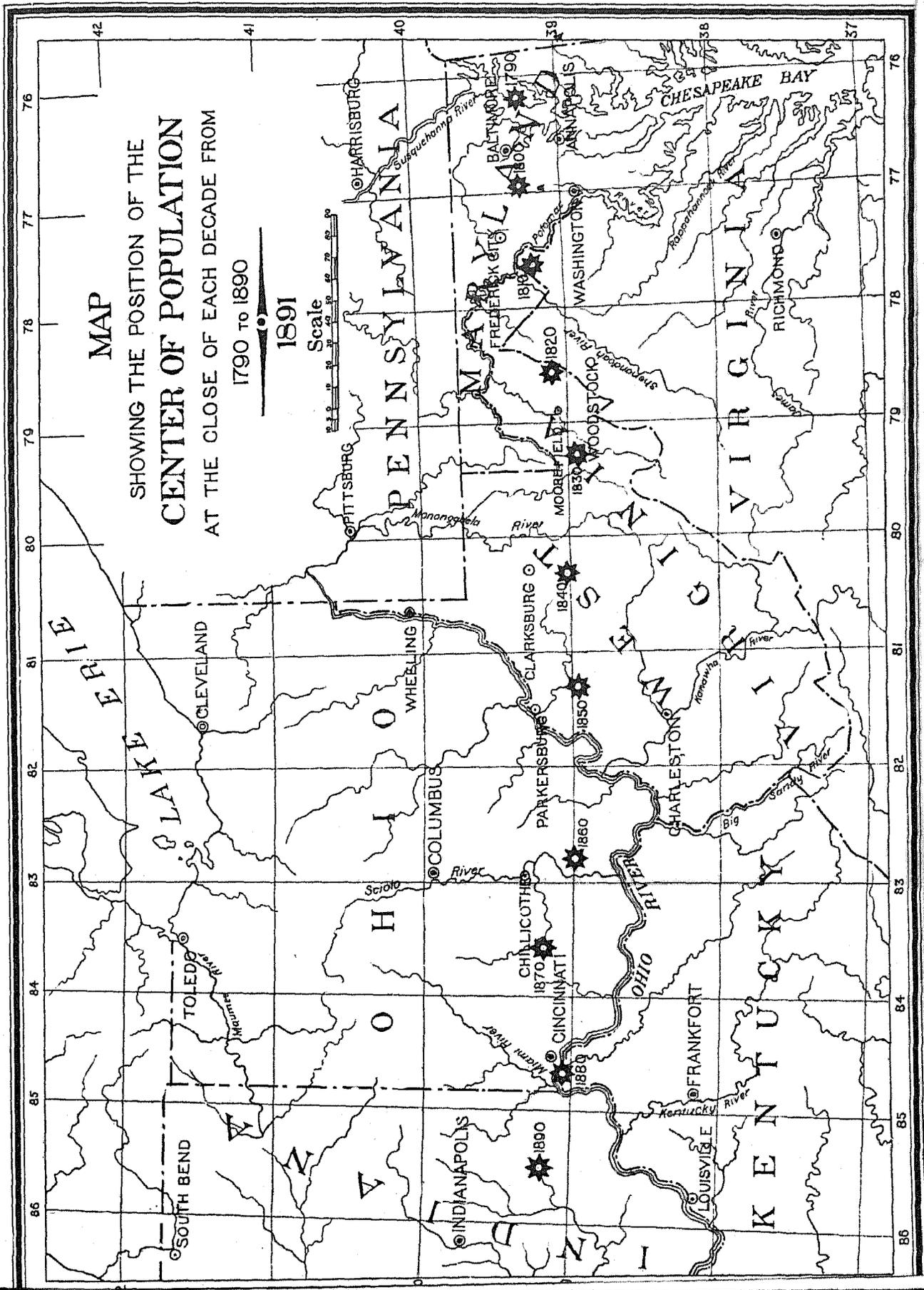
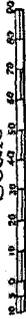
# MAP

SHOWING THE POSITION OF THE  
CENTER OF POPULATION  
AT THE CLOSE OF EACH DECADE FROM  
1790 TO 1890

1790 TO 1890

1891

Scale



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# CENSUS BULLETIN.

No. 35.

WASHINGTON, D. C.

Feb. 27, 1891.

## AGRICULTURE.—IRRIGATION IN ARIZONA.

DEPARTMENT OF THE INTERIOR,  
CENSUS OFFICE,  
WASHINGTON, D. C., February 24, 1891.

This bulletin has been prepared by Mr. F. H. NEWELL, of the United States Geological Survey, special agent of census for the collection of the statistics of irrigation, under the direction of Mr. JOHN HYDE, special agent in charge of the Division of Agriculture "A." It is the first report ever published in connection with a United States census on the subject of irrigation, the agency to which some of the most prosperous agricultural regions of the country owe their present productiveness, and the only method by which a large portion of the arid belt can ever be successfully brought under cultivation. It is based upon an inquiry into the extent to which irrigation is practiced, the peculiar conditions prevailing in different localities, and the success that has so far attended the application of this system of agriculture. It presents for the territory of Arizona the results of a careful and thorough investigation of the subject on these lines, more particularly from the standpoint of the user of water, and it will be followed from time to time by similar bulletins, dealing with other states and territories in which irrigation is practiced. A separate collective report, based upon returns from ditch companies and canal owners throughout the entire arid region, will also be published as soon as the statistical and other data now in the possession of this office can be examined and compiled.



*Superintendent of Census.*

# IRRIGATION IN ARIZONA.

BY F. H. NEWELL.

The total area in Arizona on which crops were raised by irrigation in the census year ending June 30, 1890, was 65,821 acres, or 102.8 square miles, less than one-tenth of one per cent of the entire area of the territory. The aggregate number of farms was 1,448, and of these 1,075, or 74 per cent, depended upon irrigation, the remaining 26 per cent being stock ranches, or farms situated high in the mountains, where crops can be raised by what is known as "dry farming." The average size of irrigated farms, or rather of the irrigated portions of farms on which irrigation was practiced, was 61 acres. In this connection the term "irrigated farm" is used to include only the area on which crops were raised by irrigation, the uncultivated portions of such farms not being taken into account. With this understanding the irrigated farms or areas cultivated by each person have been classified as follows: Seven irrigated farms of 640 acres or upward, 15 of from 320 to 640 acres, and 57 of from 160 to 320 acres. These 79 farms contain an average of 287 acres each, and have a total area of 22,656 acres, or 34 per cent of the entire amount watered in the territory. The remaining 996 farms, under 160 acres in size, comprise only 66 per cent of the total irrigated area, and average 43 acres each. In other words, 7 per cent of the farmers of the territory owned over one-third of the productive land, and the remaining 93 per cent of irrigators owned an average of 43 acres each.

COUNTIES.	Number of irrigators.	Total irrigated acreage in crop.	Average size of irrigated farms, in acres.	Average value of products per acre.
Total .....	1,075	65,821	61	\$13.92
Apache .....	182	5,545	30	13.36
Cochise.....	52	2,372	46	26.93
Gila .....	18	815	45	23.85
Graham.....	199	7,556	38	16.06
Maricopa.....	327	35,212	108	9.26
Pima .....	85	3,085	36	30.33
Pinal .....	115	6,919	60	11.25
Yavapai.....	91	3,762	41	31.00
Yuma.....	6	555	93	10.50

Taking all the counties in the territory, with their varying conditions, the average cost of water right was \$7.07 per acre. This includes all cases, from the one extreme, in which the farmer dug his own ditches from the river—the cost of water right in that case being the amount which the ditch cost him in labor and material—to the other extreme, in which he purchased his water right from some company, paying a certain sum per acre for the privilege of renting or buying water each year. The selling value placed upon this by the farmer, whenever his right was transferable, was \$12.58. The average annual cost for water was \$1.55 per acre, this expenditure being either in labor in keeping the main ditches and dams in repair or paid as a cash assessment or rental to an association or corporation.

Besides the first cost of the water and the annual assessment for its use, an estimate has been made of the first cost of bringing the land from a wild state under cultivation by irrigation beyond the expense for the water right. This estimate, which is \$8.60 per acre, includes the cost of plowing, grubbing sagebrush, cutting mesquite, fencing, and leveling, or otherwise preparing the ground for irrigation.

Assuming, then, that the original purchase price of the land was \$1.25 per acre, the cost of preparing for cultivation by irrigation \$8.60 per acre, and the first cost of water right \$7.07 per acre, the land cost the original owners a total of \$16.92 per acre. It is ascertained, for comparison with this, that the average valuation, including buildings, fences, and other improvements, of the land on which irrigation is practiced, is placed by the owners at \$48.68 per acre, showing an apparent profit, less cost of buildings, of \$31.76 per acre.

In comparison with the annual outlay for water it is found that the average annual value of farm products is \$13.92 per acre, leaving the farmer \$12.37 per acre per annum as a return for his labor and as interest on his investment.

On examination of the figures for the different counties it will be noticed that in general the value of products per acre increases as the average size of the farm diminishes. For example, in Maricopa county the average size, 108 acres, is the greatest in the territory, while the average value of product, \$9.26 per acre, is the least. Next comes Yuma county, with an average of 93 acres per farm and products averaging \$10.50 per acre; then Pinal, with an average of 60 acres per farm and products of \$11.25 per acre. In other words, the larger irrigated farms were not so closely tilled as were the smaller, and a lower-priced crop was the result.

Deducting the 79 large farms, on which the average value of product was \$9.05 per acre, there remain 996 farms, with an average extent of 43 acres each, on which the value of product was placed at \$16.75 per acre; that is to say, the farmers, in the main, if their statements are correct, must have supported themselves and made their profits out of gross earnings averaging \$720 per annum each.

These results have been computed from data acquired both by field work and correspondence. The enumerators in the several districts obtained the acreage and likewise the value of land and products of each farm. On the completion of this field work a blank schedule was mailed to each farmer, requesting a more detailed statement as to the location of his land, the source of his water supply, the cost of irrigation, and also as to local customs. The replies were compared with the statements of the enumerators, and in every case of apparent misunderstanding or serious discrepancy a second letter was sent. The information thus obtained was then carefully examined in the light of personal knowledge of the climate and products of the territory. Besides the blank schedule sent to farmers, correspondence was entered into with the owners or officers of canals, with a view of obtaining statistics as to cost of construction, etc. The result of this correspondence will be given at a later date.

The agricultural and irrigable land of Arizona is situated in the southwestern half of the territory. If a line be drawn from the northwestern to the southeastern corner diagonally across the territory, this line will lie for a greater portion of the distance along the face of the great escarpment which divides the high plateaus from the plains of the Gila basin. Against the face of this escarpment the larger portion of the available moisture is precipitated, rolling back to feed the tributaries of the Gila, thus rendering possible a certain amount of irrigation in the narrow valleys, especially on the Gila and Salt river plains near the point where their waters leave the cañons. High up on the edge of the plateau country and among the mountains, at elevations of from 5,000 to 7,000 feet, a little agriculture is successfully carried on without irrigation, usually in connection with stock raising or in the immediate vicinity of mining towns. The crops raised, however, are comparatively insignificant.

The acreage at present under irrigation may be regarded as approaching the maximum possible with the present supply of water and methods of using it. In other words, all the easily available water has been utilized, and expansion can come only by a greater economy in the use of the existing supply or by the adoption of systems of storage, for the conservation of the flood water now annually running to waste. The irrigators look forward to the latter alternative as the most effectual means of obtaining relief from present troubles and uncertainties. Progress in this direction will, however, be slow, from the necessity of a large outlay of capital before any return can be realized, and from the fact that the controllers of capital, whether governmental or private, have had comparatively few facts on which to base reliable estimates. The amount of water that can be reserved by storage is known from common observation to be very large, but it is usually greatly overestimated, from the fact that even a small volume of water, coming all at once and with great velocity, is often extremely destructive and creates a vivid impression, while the same amount, if distributed through as many days or weeks as it is hours, would not excite comment. Measurements have been made in a few instances by engineers and by the United States Geological Survey, but the operations of the latter were discontinued before a range of much over a year had been obtained. For example, taking what is probably the best storage site in Arizona, that on the Gila at the Buttes above Florence, the mean discharge at this place, as shown in the eleventh annual report of the director of the United States Geological Survey, from September 1, 1889, to August 31, 1890, when operations were suspended, was 503 second-feet, averaging 1,000 acre feet per day, or

365,000 acre feet for the whole year. Assuming a water duty of 100 acres to the second-foot, this, if all the water could be stored, would irrigate 50,000 acres, instead of the 7,000 acres or less now irrigated in the vicinity of Florence. A large reduction from this theoretical amount must, however, be made for losses by evaporation and seepage. Without going into a discussion of the measured water supply, this will suffice to show that it is possible to determine the volume and intensity of floods, and that when this has been done the water-storage problem will be in a fair way to solution, since only then will it be possible to prepare reliable estimates of costs and profits.

Shortage of water, and consequent loss of crops on irrigated land, are reported by the majority of farmers whose rights to water are secondary to those of the first comers. The latter, however, report that there is ample water for all their own needs except in general from the middle or latter part of June, through July, August, and into September. Before this time, however, the cereals with the exception of corn should be matured and probably two or more cuttings of alfalfa made.

For the greater part of the territory it may be said that irrigation is practiced or is necessary to successful farming throughout the entire year. In the lower plains the temperature is such that crops will grow and mature at any season of the year provided there is a sufficient supply of moisture. Crop follows crop in constant succession if only there is an abundance of water in the ditch or of summer rains. During the winter, and also in the early spring and late fall, water is used on the alfalfa and hay crops, from three to six cuttings of alfalfa being made annually, the average of the entire territory being five. Usually two waterings are given for each cutting, the total amount of water used being thus largely in excess of that required by any other crop. Later in the spring, when the rivers begin to decline, the alfalfa is neglected, all the water being needed for the cereals and vegetables, and still later, before the summer floods set in, in many places the entire flow has to be taken to save the trees and vines.

The water is in most cases applied by flooding, as, for instance, on alfalfa and grain, or through furrows laid off at regular intervals, no especial care being taken in the preparation of the fields. The Mexicans still practice the old method of flooding in small "pools" or rectangular areas, separated by ridges of earth. The farmers, almost without exception, look forward to better methods of distributing and applying water. Since the soil and local conditions vary so widely, there can be no absolute rule as to the number of waterings or the time required for the different products. There is a growing impression that in many cases too much water is used, and that better crops could be matured by using the water more sparingly, which would also have the effect of increasing the cultivable acreage.

APACHE COUNTY occupies the extreme northeastern corner of Arizona, and borders upon New Mexico on the east and Utah on the north. The Navajo Indian reservation covers the northern half of the county, and the Atlantic and Pacific railroad grants cross the southern half, thus leaving comparatively little of this vast area of 21,060 square miles open to settlement under the general land laws. The railroad just mentioned follows the Little Colorado river, and then turns up one of its tributaries, the Rio Puerco. The principal settlements are along this railroad and south of it on the Little Colorado and on Silver creek, a tributary of this stream.

In these valleys, which are at a general elevation of from 5,000 to 6,000 feet, are long stretches of good agricultural land, which only need water to become very productive. The water supply, however, is limited, and although great quantities run to waste in time of flood, there is generally a deficiency during June and July, so that the acreage now under cultivation does not always receive its full share. There are reported to be good facilities for water storage near the head of several streams. Dry farming is practiced on about twenty-five farms in the forest belt, and corn, wheat, rye, beans, potatoes, turnips, etc., are raised without irrigation in the vicinity of Show Low, the elevation here being 7,000 feet and upward. In the lower valleys, however, nothing can be grown without the application of water by artificial means.

As shown by the table, the total acreage irrigated is 5,545 acres. From the statements received from the farmers it is doubtful whether in ordinary seasons a larger acreage could be successfully cultivated without the use of stored waters. The principal ditches reported at this time are the East and West Taylor, East and West Snowflake, and the Woodruff, the total cost being \$25,000, and the land furnished with water aggregating 2,500 acres. One of the most notable engineering features is

the attempt to dam the Little Colorado river by a structure 225 feet long and 30 feet high. This has been washed out and replaced seven times.

The first cost of irrigation is reported to be from \$4 to \$12 per acre, the average being \$7.50, while the average selling value put upon the transferable water rights is quoted at \$9.65 per acre. The annual assessment, an expense for maintaining the ditches, varies from 25 cents to \$4 per acre, averaging \$1.60. Beyond the outlay for water, the general expense of preparing the ground for cultivation is \$7.25 per acre, thus making the first cost of irrigating land \$14.75 per acre, taking the county throughout.

COCHISE COUNTY is in the southeastern corner of Arizona, bordering upon Mexico and New Mexico. In altitude it ranges from 3,000 to over 6,000 feet. The northern end of the county is crossed by the Southern Pacific railroad, from which a branch line runs southward to Tombstone. There are in all 2,372 acres irrigated, the farms being confined almost exclusively to the valley along the San Pedro river. This stream is the main water supply of the county, the little farming that is done at any distance from the river being confined to the mountain valleys, where small springs occur.

There being far more arable land than river water, the latter is in great demand, and in many localities there is constant litigation concerning water rights, so much so that it may be said that the legal expenses are heavier than the cost of constructing ditches. During the periods of low water the entire stream is taken out by dams, some water, however, reappearing in the channel, to be diverted in turn by a dam below. There are a large number of small private ditches along the San Pedro river, but there is no comprehensive system for utilizing or dividing the water. The lowest stage of water in this river is usually reached in June, when there is the greatest demand, and the rise begins again after the commencement of the summer rains, during which time the flood waters run largely to waste. All the land which the ordinary unregulated flow of the river will supply, and probably more than can be supplied in certain seasons, is now under cultivation, and yet the demand for agricultural products far exceeds the amount that can be raised. The storage problem will, however, have to be settled before any further advance can be made.

It is impossible to raise crops without irrigation except in a very few localities in the mountain valleys, where, after the rainy season, small crops of corn and potatoes are successful. With irrigation, however, almost all the fruits and other products of the temperate zone are grown, with close cultivation one crop following another with but little loss of time.

GRAHAM COUNTY lies to the southeast of Gila, between Apache and Cochise counties, filling in the eastern side of the territory. It is thus in or near the headwaters of the Gila river, and, like Gila county, is largely mountainous. The principal area of agricultural land is in the Pueblo valley, extending from a cañon above Solomonsville for about thirty miles to Fort Thomas, the principal settlements being, in order, Solomonsville, Safford, Central, and Pima. The Gila is the source of supply for the valley. A number of dams are placed across it at intervals of two miles or more. When the flow of the stream diminishes in May and June the dams of logs, brush, and stone are tightened so as to turn all the water into the canals. Below each dam, however, the water begins to rise in the bed of the stream, so that by the time the next dam is reached there is apparently as much water as before. If the summer rains fail, the river may become entirely dry in July and August and a loss of crops be the result.

At present the acreage under cultivation is not greatly in excess of the usual water supply, and the losses are not such as to call for immediate water conservation. In view of future extensions, however, it is already recognized that active steps must soon be taken. There appears to be no comprehensive system of water distribution, and the present needs seem to point to a consolidation of the various small ditches into a few high-line canals, both to reduce the expenses and to effect a greater economy in the use of the water. The river, occupying a wide, sandy bed, is unstable, and during freshets is liable to cut new channels, leaving the dams on dry land.

Some cultivation by irrigation is successful in the valleys south of the river at the foot of the mountains, where small streams or springs issue. The greater portion of this water, however, is lost for lack of facilities for holding the spring flow until later in the season.

GILA COUNTY is the smallest in area in the territory. It occupies a position largely within the drainage basin of the Salt river, on the south crossing the mountains and reaching to the Gila river.

On account of its position it is comparatively well watered, but on the other hand the valleys are narrow, and there is little arable land. The White Mountain Indian reservation covers the greater portion of the county, leaving only a narrow strip of land on the western side. The tilled land is principally along Salt river between Pinal and Tonto creeks, or in their vicinity. Among the headwaters of Tonto creek and in the Tonto basin, at an elevation of from 6,000 to 7,000 feet, corn and potatoes are raised without irrigation if the land is carefully tilled. Other crops, however, require the artificial application of water.

MARICOPA COUNTY leads in agricultural development, as well as in the value and extent of irrigation. Over one-half of the irrigated land of the territory is situated in this county, the amount, however, being small in comparison with the arable land which may in the future be brought under cultivation. The water supply is derived almost entirely from Salt river and from the Gila below the junction with the Salt. A large number of canals take water from both sides of the first-named river, their head works being at irregular intervals from each other, beginning near the Verde and continuing to Gila Bend. Statistics relating to these canals, some of which are among the most notable in the United States, will be given in a future bulletin.

Taking the county as a whole, it may be said that the water supply is ample for the acreage now under cultivation except during the latter part of June and in July and August. Before this time of scarcity occurs, however, all the grain crops, with the exception of corn, should be matured, and probably two cuttings of hay obtained, so that the water can then be used to save the fruit trees and vines. On the older canals and ditches the farmers report that there is sufficient water, but on the newer systems there are many complaints against the exactions of the corporations and the amount of water and time allotted to each irrigator.

The need of better canal systems, of greater economy in the use of water, and especially of the storage of flood waters, is insisted upon by all irrigators. The enormous extent of good arable land and the volume of water going to waste every year seem to have impressed every resident of this county, and there is a unanimously expressed hope that either the national government or capitalists will in the near future begin the construction of reservoirs at one or more of the many favorable points. Storage in a small way has already been tried, and is reported to be successful.

Most of the existing dams and other contrivances for diverting water from the river to the smaller ditches are of such a temporary character as frequently to be partially or even wholly destroyed by floods, resulting in large expenditures of time and labor and in loss of crops. The ditches are all open, and their beds and banks are not lined, great loss by evaporation and seepage thereby necessarily occurring in so warm and dry a climate.

The inhabitants are enthusiastic as to the productiveness of the soil, and report that all the crops and fruits of temperate and semi-tropical zones flourish and attain a wonderful growth and perfection. The altitude varies from 500 to 2,000 feet, and the temperature is sufficiently high to insure the successful cultivation of cotton, sugar cane, and other southern products.

Taking the county as a whole, the cost of water is \$5.75 per acre, and the present value of this water right when transferable is quoted at \$10.87 per acre, while the estimated cost of bringing the land under cultivation beyond the above expense is \$6.45 per acre, making a total of \$12.20 for the average outlay required beyond the purchase price of the land before a crop can be raised. The annual assessment or cost of cleaning and repairing ditches is estimated at \$1.12.

The average size of irrigated farms in this county is 108 acres. Dividing them into two classes, those of 160 acres and upward and those under 160 acres, it is found that there are 64 farms of the first class, averaging 296 acres each, and 263 farms of the second class, averaging 62 acres each.

MOHAVE COUNTY occupies the extreme northwestern corner of the territory. There is as yet no cultivation reported, cattle raising being the only agricultural industry.

PIMA COUNTY is situated along the central part of the extreme southern border of the territory adjoining Mexico. Agriculture is confined to the eastern end, near Cochise county, where the elevations range from 2,500 feet upward. The Santa Cruz and Sonoita and their tributaries are the only sources of water supply, with the exception of a few springs among the foothills of the mountains. The amount of water is small in comparison to the acreage already under cultivation, and crops are frequently lost during the dry season.

PINAL COUNTY stands second in importance in regard to agricultural products. It lies between Maricopa and Pima counties, and includes the most favorable portion of the Gila valley; that is, the portion adjoining the foothills and cañons from which the river issues. The agricultural land is in the center of the county, around and near Florence, with the exception of a small amount in the San Pedro valley near Dudleyville.

The necessity of water storage is keenly felt in this county, from the scarcity experienced during a great part of the year. There are excellent opportunities for holding all the flood waters, and surveys have demonstrated the feasibility of the project, the only apparent obstacles being the lack of capital and of favorable legislation concerning the control of the water. The quantity of water in the Gila is reported to be decreasing on account of the large and increasing number of diversions on the upper portion of the stream, in Graham county.

The average cost of a water right is \$6.94 per acre, and of clearing and bringing the land under cultivation \$11.50, making a total of \$18.44 per acre. The annual cost per acre for water is estimated at \$1.81.

YAVAPAI COUNTY, while the largest in area, being one-fourth that of the entire territory, contains relatively the smallest proportion of irrigable land. This county lies in the northern half of Arizona, adjoining Utah on the north, and contains the greater portion of the grand cañons of the Colorado. These stupendous gorges, the most wonderful in the world, cut the great plateau to the depth of from 3,000 to 6,000 feet. The minor lateral cañons, in which flow the tributaries of the Colorado, are also cut to a great depth, which decreases toward their headwaters. Thus the water of the northern part of the territory, though large in amount, is wholly useless, lying as it does hundreds and thousands of feet below the level of the arable lands. It is only toward the southern portion of the county, where the great plateau begins to break off and the valleys are less deep and narrow, that agriculture has been seriously attempted. Along the line of the Atlantic and Pacific railroad, which crosses the county from east to west at an elevation of from 5,000 to 7,000 feet, some crops, especially for forage, are raised without irrigation. For example, at Flagstaff, at an elevation of about 7,000 feet, corn, potatoes, and vegetables, as well as a little wheat, oats, and barley, are thus cultivated, the cereals being generally cut for forage purposes. The same is true of Prescott, although near that place irrigation is employed wherever practicable. On the headwaters of the Agua Fria, at an elevation of about 4,500 feet, there is also a little dry farming.

The principal bodies of irrigated lands are on the Verde and its tributaries, Oak, Clear, and Beaver creeks, above and below Camp Verde, where a large number of small ditches are owned by private individuals. On Walnut creek, which heads west of Prescott and flows northward into Big Chino valley, and on Granite creek to the east, the available waters are all utilized, and there is already need for the storage of the waste waters of the floods. The valleys generally are narrow and shut in by steep walls, and the present agricultural land lies in long, narrow strips, thus obviating the necessity for large canals. The best lands lie high above the water, and can only be reached, if at all, by expensive dams and headworks.

YUMA COUNTY, in the southwestern corner of Arizona, comprises the lowest lands of the territory, and the drainage is consequently in that direction. The extreme lower border of the county is reported as possessing an almost tropical climate. The Colorado river forms the boundary between this county and California on the west, and is navigable, small steamers running the entire length of that side of the county. There is a large amount of arable land lying along the river, but it is doubtful if dams can ever be placed in this great stream to raise its waters into canals. It is, however, not improbable that considerable land above the flood plains can be irrigated by means of steam pumps. In this climate, where fruits of the choicest and most profitable varieties can be raised, the profits will undoubtedly warrant this method of utilizing a portion of the water.

The Gila river flows across the southern end of this county, but owing to the large number of canals deriving their water supply from this river in Maricopa county there is comparatively little water remaining. A number of projects have, however, been started, and in a few years there will probably be a large acreage under cultivation along this portion of the river, although the amount now under cultivation is extremely limited.

# CENSUS BULLETIN.



No. 36.

WASHINGTON, D. C.

Feb. 28, 1891.

## STATISTICS OF EDUCATION.

DEPARTMENT OF THE INTERIOR,  
CENSUS OFFICE,

WASHINGTON, D. C., February 19, 1891.

The first bulletin on statistics of education (No. 17, issued December 16, 1890) contained returns of public school attendance in three states, over one hundred cities, and the schools under the auspices of the Latter-day Saints. The present bulletin embraces reports of public schools in sixteen states and territories, the District of Columbia, and eighty-three cities, and the private schools of Oklahoma. In consequence of the demand made on the Census Office for educational statistics, the returns obtained to date are printed in bulletin form.

The subjoined table indicates the changes in population and in public school enrollment that have taken place between 1880 and 1890 in the states and territories thus far published:

### CHANGES FROM 1880 TO 1890.

STATE AND TERRITORY.	Per cent of gain in population.	Per cent of gain in public school enrollment.
Arizona .....	47.41	85.85
California .....	39.72	37.33
Connecticut .....	19.84	6.68
District of Columbia .....	29.71	39.59
Louisiana .....	19.01	33.52
Maine .....	1.87	47.38
Maryland .....	11.49	22.83
Massachusetts .....	23.57	17.33
Montana .....	237.49	260.12
New Hampshire .....	8.51	47.51
North Carolina .....	15.59	27.08
Ohio .....	14.83	5.98
Pennsylvania .....	22.77	1.50
Rhode Island .....	24.84	27.49
South Carolina .....	15.63	50.89
South Dakota .....	234.60	563.90
Vermont .....	0.04	410.42
Virginia .....	9.48	55.06
Wisconsin .....	28.23	16.97
Wyoming .....	192.01	142.50

a Loss.

An examination of the returns of public school attendance in 1890 in the twenty states and territories named in the two bulletins, compared with the report of the previous decade, shows a

remarkable stride in the endeavor to broaden the scope of literacy in a number of states hitherto far below the average in the United States. This is notably the case with all the southern states tabulated, and with Maryland, the District of Columbia, and Arizona, each showing a large increase in public school attendance in proportion to the increase of population.

Dakota was an undivided territory in 1880, and statistics were generally unobtainable for that portion now constituting the state of South Dakota; therefore the percentage of increase in public school attendance given in this bulletin is merely approximative.

The relation of men to women among teachers, as shown in the following table, appears to vary from a minimum of 10 men to 92 women in Massachusetts to a maximum of 100 men to 101 women in South Carolina. If the colored teachers of South Carolina are taken separately, there appear to be 100 men to 58 women. The other New England states shown in this table approach the relation shown in Massachusetts, while Ohio shows a higher ratio of men than any other northern state, or 100 men to 113 women, closely followed by Arizona and Pennsylvania.

The ratio of boys and girls in public schools has a small range of variation in this table. This is the more striking when the great variation in legal school age and the diverse conditions of the population are taken into account. It may be stated, in anticipation of further publication, that local disparities in the number of boys and girls in public schools, greater than those here shown between men and women as teachers, will hereafter appear. Uniform, therefore, as the relations of the sexes among enrolled pupils seem to be, they have an important bearing.

The extremes in this bulletin are Arizona, where 100 boys are enrolled to 85 girls, and the District of Columbia, where the enrollment is 100 boys to 113 girls.

#### RELATION OF THE SEXES IN PUBLIC SCHOOLS.

STATE AND TERRITORY.	Male teachers to female teachers nearly as—	Male pupils to female pupils nearly as—	STATE AND TERRITORY.	Male teachers to female teachers nearly as—	Male pupils to female pupils nearly as—	STATE AND TERRITORY.	Male teachers to female teachers nearly as—	Male pupils to female pupils nearly as—
Arizona	1 to 1.7	10 to 8.5	Maine	1 to 3.3	10 to 10.3	South Carolina	1 to 1.0	10 to 10.1
California	1 to 3.7	10 to 9.4	Massachusetts	1 to 9.2	10 to 9.7	White	1 to 1.4	10 to 9.3
Connecticut	1 to 6.0	10 to 10.1	Montana	1 to 3.5	10 to 9.6	Colored	1 to 0.6	10 to 10.9
District of Columbia	1 to 7.1	10 to 11.3	North Carolina	1 to 0.7	10 to 9.9	South Dakota	1 to 2.4	10 to 8.7
White	1 to 7.3	10 to 10.6	White	1 to 0.7	10 to 9.2	Vermont	1 to 7.3	10 to 9.5
Colored	1 to 6.8	10 to 12.8	Colored	1 to 0.6	10 to 11.1	Virginia	1 to 1.4	10 to 9.9
Maryland	1 to 2.6	10 to 9.6	Ohio	1 to 1.3	10 to 9.3	White	1 to 1.5	10 to 9.2
White	1 to 2.9	10 to 9.4	Pennsylvania	1 to 1.9	10 to 9.6	Colored	1 to 1.1	10 to 11.4
Colored	1 to 1.3	10 to 10.1	Rhode Island	1 to 6.9	10 to 9.9	Wyoming	1 to 3.5	10 to 10.2

The relative rank of the twenty states and territories already tabulated in the march of mental improvement may be grouped as follows: Ohio, Maine, Wisconsin, Virginia, North Carolina, South Dakota, over 20 per cent of school enrollment in proportion to population; Vermont, Pennsylvania, Maryland, South Carolina, from 17 to 20 per cent; Connecticut, Massachusetts, District of Columbia, New Hampshire, Rhode Island, from 15 to 17 per cent; Arizona, Montana, Wyoming, Louisiana, California, from 10 to 15 per cent.

An exhibit of full returns from all the states, which will be ready this year, will form an interesting study of the increase or decrease of school enrollment in 1890 compared with 1880 by states and geographical divisions. From these exhibits may be ascertained the increase of education compared with the increase of population.

*Robert T. Porter*

Superintendent of Census.

# STATISTICS OF EDUCATION.

ARIZONA, CALIFORNIA, CONNECTICUT, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS,  
MONTANA, NORTH CAROLINA, OHIO, OKLAHOMA, PENNSYLVANIA, RHODE ISLAND,  
SOUTH CAROLINA, SOUTH DAKOTA, VERMONT, VIRGINIA, WYOMING,  
AND EIGHTY-THREE CITIES.

BY JAMES H. BLODGETT.

The statements contained in this bulletin relative to public and private schools are subject to modification in the further progress of the work, and are only intended to furnish prompt information to the public and give opportunity for corrections in the final report.

The Census Office recognizes the courtesy of the officers through whom material for the statistics of public schools in this bulletin have been received, as well as the co-operation of many persons connected with private and parochial schools.

The distinction of color is not shown in the report from any northern state yet received, and the distinction of sex was not given in reports from any of the New England states except those of New Hampshire (published in Bulletin No. 17) and Rhode Island. The few colored people in these states are mainly in cities, and only actual numbers, or those estimated by local authorities, are entered in the tables, which therefore understate the total number. Returns as to sex have been largely obtained from local authorities, and from these an estimate has been made for the separation of the totals by sex. This is not equivalent to a definite report from complete records, but it is as fair a method as is available in dealing with records consolidated some time ago, without the sex and color distinctions in view. The particular conditions will be named in connection with the respective states.

## ELEMENTS OF ERROR.

There is an indeterminable element of error by duplication in summaries of annual school enrollment. In municipalities where the enrollment for the schools of a considerable territory is under a central control, and transfers from one school to another within that area are matters of systematic record, it is often possible to reject local duplications. Many cities report, among other details, "the number of different pupils enrolled during the year." Some duplications still remain from changes of residence.

The number of teachers employed is an item only less affected by causes of error than the number of pupils. An attempt has been made by some officers to reach a uniform basis of comparison by taking into account merely the teachers necessary to teach the schools rather than the number of persons actually employed. This would not preclude an error, since cases arise where one teacher instructs more than one school in the year.

The great diversity of legal school age is an obstacle to a comparison of different states on the basis of reported enrollment. The minimum varies from no-age limit in one state to eight years, and the maximum from sixteen to twenty-one years. Three states have no maximum limit. A reasonable comparison can hardly be made between the tables of attendance at public schools for a state that counts in its enrollment only the children between eight and sixteen years of age and the corresponding tables for a state that has no age limitations.

## COMBINED PUBLIC AND PRIVATE TUITION.

A condensed statement of the conditions in Richmond, Indiana, at a comparatively recent date, set forth in the historical pages of the report of its schools for 1889, illustrates a common experience. It shows that for about ten years the terms of free schools were preceded or followed by several months of private schools. Frequently the teachers employed in the public schools organized subscription schools of pupils in their respective grades to follow the public term. Often the teachers of private schools had no connection with public schools, except to use rooms in the public school buildings. In 1861 a scheme of reasonable success was adopted for conducting the schools under trustees, retaining the same organization throughout the year and collecting fees for the time not provided for by public money. Authority for taxation gradually provided additional means, till the "pay term" disappeared in 1868. At an earlier date, districts in Illinois pursued a similar course. Sometimes a small tuition fee was charged in each term to supplement public funds. The experience through which these states passed is the present experience in many states.

Private and public schools overlap in various ways, but these conditions mark the growth of systems of education. Even in states where public free schools, supported by local taxation, are popularly supposed to provide for all the children, private effort is largely used to supplement public effort. In some towns of New England an academy, the trustees of which retain almost absolute control of its exercises and appointments, is paid from the public fund to assume the instruction of advanced pupils in the locality, saving much of the expense of a separate high school. In the northwest thousands of children who attend public schools are gathered into parochial schools in the intervals between the fragmentary terms of country and village schools.

There is hardly a state without some schools showing a kindred combination of private and public effort. Neighborhood effort often furnishes buildings that serve for almost all public gatherings, including school and church. In towns this may take a recorded form, with a legal title for the building and site. In the open country, however, and in wooded regions, especially in the south, where the mildness of the climate favors ruder building, it is often the case that some individual permits the use of his land for a house, which is constructed by the people with timber taken from an adjacent forest. For localities that recently had no schools any effort of the people means progress.

It is in the south, so lately started in the effort for popular education, that the combination of public and private school work is most conspicuous. In several states it is quite common to give what public money there may be to teachers or institutions drawing much of their support from private or denominational resources, and in some instances it seems to be quite as much by the rule of unanimous consent as by statute law that the funds are so used. The returns to this office abundantly illustrate that so long as a community is essentially agreed in public policy or in religious preference little criticism arises as to the legal technicalities of efforts for the advantage of the public. The hamlet or town of one religious belief takes no offense at spending church and municipal money or any other obtainable funds in enlarging the work of the same school, nor do religious exercises in the school, conducted by those of their faith, give offense to the patrons. When a community combines people of widely diverse views of public policy or of religious faith in its efforts for free schools, the expenditure of money and the character of the exercises become matters of sensitive concern.

In the treatment of parochial schools care has been taken to exclude the temporary instruction given in what may be called catechetical classes, occupying but few days in the year and confined to religious instruction. Many catechetical classes assemble at hours which will not interfere with the attendance of children in public or other schools. Many parochial schools are held in the interval between terms of public schools, and represent an addition by parish effort to the instruction furnished by communities in their municipal character.

## CHARACTER OF THE INQUIRIES.

All complicated inquiries were rigidly excluded from the schedules for schools, and only the number, sex, and color of the teachers and pupils were sought, with such added questions as to

the control of a school and its relation to public funds as would enable this office to determine its classification as public, private, or under the subdivision of parochial, and some statement of its work that would indicate whether it was doing elementary, secondary, or superior work, or work of a professional character.

This office expects in due time to prepare a series of tables based upon the returns on the population schedules regarding the attendance of children at school. A comparison with previous dates can not be based on the results of these inquiries, as like ones were not made during the taking of the previous census.

## ARIZONA.

1880. Population..... 40,440. Enrolled in public schools ..... 4,212  
 1890. Population..... 59,620. Enrolled in public schools ..... 7,828  
 Gain of population..... 47.43 per cent. Gain of enrollment in public schools..... 85.85 per cent.

The following statement of the public schools of Arizona is from the manuscript report of Hon. George W. Cheyney, territorial superintendent of public instruction. The parochial schools and some of the private schools of Arizona are Catholic.

## PUBLIC SCHOOLS OF ARIZONA FOR THE YEAR ENDED JUNE 30, 1890.

COUNTIES.	TEACHERS.						PUPILS.							
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The Territory.....	233	233	86	147			7,828	7,828	4,237	3,591				
Apache.....	21	21	11	10			1,057	1,057	537	520				
Cochise.....	27	27	9	18			949	949	514	435				
Gila.....	9	9	2	7			210	210	113	97				
Graham.....	19	19	13	6			671	671	360	311				
Maricopa.....	50	50	14	36			1,796	1,796	934	862				
Mohave.....	9	9	2	7			128	128	60	68				
Pima.....	33	33	12	21			1,414	1,414	840	574				
Pinal.....	10	10	2	8			411	411	244	167				
Yavapai.....	48	48	20	28			1,036	1,036	535	501				
Yuma.....	7	7	1	6			156	156	100	56				

## SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	
Private.....	24	24	6	18			462	462	a 134	b 328
Parochial.....	9	9	1	8			418	418	183	235

a Includes 40 Indians. b Includes 39 Indians.

## CALIFORNIA.

1880. Population..... 864,694. Enrolled in public schools ..... 161,477  
 1890. Population..... 1,208,130. Enrolled in public schools ..... 221,756  
 Gain of population..... 39.72 per cent. Gain of enrollment in public schools..... 37.33 per cent.

Hon. Ira G. Hoitt, superintendent of public instruction of California, from whose report the following table is derived, devotes much space to private schools. He treats minutely the question of color, and shows that there are 1,294 negro, 94 Chinese, and 311 Indian pupils in the public schools, but not in the form of this tabulation. He states the attendance to be 18,081 pupils in the private (including parochial) schools named in his report, and by the state census he obtains a total of 21,460 persons between the ages of five and seventeen years who attended only private schools during the year.

There are 3,121 schoolhouses reported, of which 124 were built in the past year. The parochial schools of California thus far reported are mostly Catholic. There are also a few Lutheran schools

PUBLIC SCHOOLS OF CALIFORNIA FOR THE YEAR ENDED JUNE 30, 1890.

COUNTIES.	TEACHERS.						PUPILS.							
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State	5,434	5,434	1,162	4,272			221,756	221,756	114,064	107,692				
Alameda	315	315	47	268			17,797	17,797	9,299	8,498				
Alpine	4	4		4			79	79	39	40				
Amador	71	71	18	53			2,330	2,330	1,157	1,173				
Butte	104	104	26	78			3,803	3,803	1,930	1,873				
Calaveras	55	55	14	41			1,924	1,924	965	959				
Colusa	86	86	36	50			2,872	2,872	1,486	1,386				
Contra Costa	70	70	13	57			2,873	2,873	1,477	1,396				
Del Norte	13	13	5	8			446	446	221	225				
El Dorado	69	69	20	49			1,722	1,722	862	800				
Fresno	162	162	59	112			6,010	6,010	3,044	2,966				
Humboldt	123	123	47	76			5,080	5,080	2,635	2,445				
Inyo	13	13	7	6			554	554	279	275				
Kern	51	51	16	35			1,549	1,549	739	810				
Lake	50	50	7	43			1,568	1,568	786	782				
Lassen	33	33	13	20			930	930	466	464				
Los Angeles	391	391	76	315			19,068	19,068	9,648	9,420				
Marin	47	47	10	37			1,575	1,575	825	750				
Mariposa	34	34	12	22			829	829	423	406				
Mendocino	103	103	34	69			3,986	3,986	2,036	1,950				
Merced	46	46	14	32			1,356	1,356	700	647				
Modoc	38	38	15	23			1,176	1,176	599	577				
Mono	10	10	3	7			265	265	133	132				
Monterey	110	110	17	93			3,701	3,701	1,953	1,748				
Napa	76	76	17	59			2,982	2,982	1,489	1,493				
Nevada	81	81	24	57			3,304	3,304	1,694	1,610				
Orange	70	70	27	43			3,451	3,451	1,766	1,685				
Placer	69	69	18	51			2,526	2,526	1,307	1,219				
Plumas	30	30	10	20			936	936	471	465				
Sacramento	173	173	16	157			6,534	6,534	3,208	3,326				
San Benito	51	51	14	37			1,606	1,606	803	803				
San Bernardino	118	118	28	90			4,916	4,916	2,552	2,364				
San Diego	199	199	36	163			6,908	6,908	3,431	3,477				
San Francisco	859	859	65	794			42,926	42,926	22,781	20,145				
San Joaquin	134	134	33	101			5,609	5,609	2,746	2,863				
San Luis Obispo	112	112	22	90			3,845	3,845	2,031	1,814				
San Mateo	51	51	10	41			1,864	1,864	975	889				
Santa Barbara	82	82	21	61			3,648	3,648	1,848	1,800				
Santa Clara	188	188	29	159			8,577	8,577	4,408	4,169				
Santa Cruz	97	97	13	84			4,088	4,088	2,059	2,029				
Shasta	190	190	31	159			3,228	3,228	1,642	1,586				
Sierra	28	28	11	17			887	887	445	442				
Siskiyou	68	68	37	31			2,289	2,289	1,172	1,117				
Solano	93	93	18	75			3,681	3,681	1,804	1,687				
Sonoma	194	194	31	163			6,840	6,840	3,499	3,341				
Stanislaus	68	68	18	50			2,051	2,051	1,029	1,022				
Sutter	42	42	18	24			1,253	1,253	626	627				
Tehama	76	76	10	66			2,275	2,275	1,133	1,142				
Trinity	18	18	4	14			535	535	244	291				
Tulare	147	147	50	97			5,387	5,387	2,844	2,543				
Tuolumne	36	36	4	32			1,329	1,329	663	666				
Ventura	57	57	14	43			2,244	2,244	1,195	1,049				
Yolo	76	76	17	59			2,820	2,820	1,427	1,393				
Yuba	52	52	16	36			1,724	1,724	871	853				

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Private	Parochial	Total	Male	Female	Total	Male	Female	
Private	1,084	1,084	458	626		17,720	17,720	9,359	8,361
Parochial	203	203	25	178		7,123	7,123	2,949	4,174

## CONNECTICUT.

1880. Population .....	622,700.	Enrolled in public schools.....	118,589
1890. Population .....	716,258.	Enrolled in public schools.....	126,505
Gain of population.....	19.84 per cent.	Gain of enrollment in public schools .....	6.68 per cent.

Hon. Charles D. Hine, secretary of the state board of education of Connecticut, has rendered important aid in the inquiry regarding the private schools of this state.

The total public school enrollment is from advance sheets of the secretary's report. The Census Office secured direct reports of some 85,000 pupils by sex from cities and towns and used them as a basis of estimate for the state. The colored pupils are only those actually reported to this office. The secretary's report shows the teachers for winter and those for summer. The number for winter, followed in this bulletin, includes more males and less females than the number for summer, but a greater aggregate. The number employed in summer is 356 males and 2,852 females.

The Catholic parochial schools of Connecticut reported to this date have nearly 13,000 pupils; the Lutheran a little over 400, and the Episcopal a few pupils only.

## PUBLIC SCHOOLS IN CONNECTICUT FOR THE YEAR ENDED JULY 14, 1890.

COUNTIES.	TEACHERS.						PUPILS.							
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State .....	3,226	3,226	2400	2,766			126,505	125,073	62,292	62,811	1,432	684	718	
Fairfield .....	550	550	68	482			23,350	23,072	11,643	11,429	278	123	155	
Hartford .....	611	611	84	527			24,165	23,995	11,973	12,022	170	81	89	
Litchfield .....	333	333	96	237			16,640	16,486	7,303	5,182	155	77	78	
Middlesex .....	168	168	21	147			6,956	6,937	3,125	2,912	19	10	9	
New Haven .....	816	816	64	752			36,719	36,090	18,297	17,892	620	301	319	
New London .....	389	389	76	313			14,917	13,918	6,098	7,820	99	50	49	
Tolland .....	153	153	27	126			4,476	4,452	2,198	2,254	24	11	13	
Windham .....	206	206	54	152			7,082	7,015	3,626	3,389	67	31	36	

## SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
Private .....	655	655	357	298			8,355	8,346	5,112	3,234	9	7
Parochial .....	268	268	13	255			13,459	13,459	6,563	6,896		

a Winter term.

## DISTRICT OF COLUMBIA.

1880. Population .....	177,624.	Enrolled in public schools.....	26,439
1890. Population .....	230,392.	Enrolled in public schools.....	36,906
Gain of population.....	29.71 per cent.	Gain of enrollment in public schools .....	39.59 per cent.

The statement for the public schools of the District of Columbia is from the manuscript of Mr. W. B. Powell, superintendent of schools, and includes the report of colored schools, under charge of Superintendent G. F. T. Cook, who rendered important aid as to statistics of private schools.

The parochial schools of the District of Columbia are mainly Catholic. There are also some Episcopal and Lutheran schools.

## PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA FOR THE YEAR ENDED JUNE 30, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
Washington	745	495	60	435	250	32	218	36,906	23,574	11,458	12,116	13,332	5,853	7,479

## SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Aggre- gate.	Total.	Male.	Female.	Total.	Male.	Female.	Aggre- gate.	Total.	Male.	Female.	Total.	Male.	Female.
Private	487	464	330	134	23	16	7	5,509	4,870	3,014	1,856	639	478	161
Parochial	58	56	4	52	2		2	2,402	1,992	984	1,008	410	162	248

## MAINE.

1880. Population	648,936.	Enrolled in public schools	150,811
1890. Population	661,086.	Enrolled in public schools	139,679
Gain of population	1.87 per cent.	Loss of enrollment in public schools	7.38 per cent.

The total enrollment for Maine is compiled from the manuscript of Hon. N. A. Luce, state superintendent of common schools. This office has direct reports of over 80,000 pupils by sex from cities and towns as a basis of estimate for the state and of the colored pupils in the table.

The male and female teachers of Maine are peculiarly reported. The total number employed in the year is not the sum of the columns, but is given by the superintendent as 7,517. The parochial schools and some private schools of Maine are Catholic.

## PUBLIC SCHOOLS OF MAINE FOR THE YEAR ENDED APRIL 1, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State	6,080	6,080	a1,412	b4,668				139,679	139,592	68,706	70,886	87	43	44
Androscoggin	314	314	56	258				7,771	7,764	3,831	3,933	7	4	3
Aroostook	515	515	98	417				13,313	13,313	6,907	6,406			
Cumberland	629	629	112	517				17,090	17,075	8,629	8,446	15	11	4
Franklin	239	239	61	178				4,052	4,052	2,015	2,037			
Hancock	400	400	115	285				9,579	9,579	4,643	5,036			
Kennebec	425	425	80	345				10,201	10,183	4,996	5,187	18	8	10
Knox	257	257	69	188				7,306	7,304	3,463	3,841	2	1	1
Lincoln	260	260	81	179				4,782	4,779	2,297	2,482	3	1	2
Oxford	441	441	125	316				7,356	7,352	3,577	3,775	4	3	1
Penobscot	684	684	146	538				14,885	14,874	7,386	7,488	c11	c6	c5
Piscataquis	182	182	38	144				3,551	3,551	1,609	1,852			
Sagadahoc	145	145	20	125				4,379	4,362	2,021	2,341	17	6	11
Somerset	368	368	72	296				6,910	6,910	3,570	3,340			
Waldo	385	385	132	253				6,533	6,529	3,162	3,367	4	2	2
Washington	384	384	102	282				11,063	10,999	5,514	5,485	4	1	3
York	452	452	105	347				10,968	10,966	5,096	5,870	2		2

## SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Aggre- gate.	Total.	Male.	Female.	Total.	Male.	Female.	Aggre- gate.	Total.	Male.	Female.	Total.	Male.	Female.
Private	358	358	191	167				7,330	7,325	a4,048	3,277	5	5	
Parochial	87	87	10	77				4,015	4,015	1,263	2,752			

a Number of male teachers employed in fall and winter terms. b Number of female teachers employed in spring and summer terms. c Indians.

MARYLAND.

1880. Population .....	934,943.	Enrolled in public schools .....	149,981
1890. Population .....	1,042,390.	Enrolled in public schools .....	184,251
Gain of population .....	11.49 per cent.	Gain of enrollment in public schools .....	22.85 per cent.

Hon. E. B. Prettyman, secretary of the state board of education of Maryland, furnished an advance statement of enrollment, showing color, but not sex. On request, the county examiners of all the counties except five furnished the necessary separation by sex, and the ratio shown in the remainder of the state was applied to the five counties for which sex of pupils was not reported.

Outside of Baltimore the report for the state was closed July 31, 1890. The city of Baltimore is not in any county, and its statistics represent here the different pupils enrolled in the year ended December 31, 1889. The statement for Baltimore in Bulletin No. 17 shows the enrollment as of date December 31, 1889, instead of the different pupils for the corresponding year, which this office aims to give in all cases.

The parochial schools so far reported from Maryland comprise nearly fifty Catholic schools, with nearly 8,000 pupils; eleven Episcopal schools, with nearly 500 pupils, and nine Lutheran schools, with nearly 700 pupils.

PUBLIC SCHOOLS OF MARYLAND FOR THE YEAR ENDED JULY 31, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State.....	3,826	3,346	858	2,488	480	207	273	184,251	148,224	70,288	71,936	36,027	17,932	18,095
Allegany.....	165	160	28	132	5	2	3	8,357	8,059	3,978	4,121	258	138	120
Anne Arundel (a).....	117	81	16	65	36	9	27	4,666	2,675	1,377	1,298	1,991	991	1,000
Baltimore.....	243	204	64	140	39	15	24	11,302	9,788	5,273	4,515	1,514	779	735
Baltimore city.....	1,187	1,171	111	1,060	16	3	13	63,515	54,247	27,117	27,130	9,298	4,234	5,064
Calvert.....	43	26	7	19	17	6	11	2,099	1,111	598	513	988	500	428
Caroline.....	80	60	7	53	20	13	7	3,733	2,676	1,458	1,218	1,657	604	453
Carroll.....	152	144	88	56	8	2	6	6,836	6,386	3,947	3,639	450	237	213
Cecil (a).....	134	120	13	107	14	5	9	5,538	4,800	2,471	2,329	738	367	371
Charles.....	67	42	20	22	25	9	16	2,956	1,586	859	727	1,370	642	728
Dorchester.....	143	105	41	64	38	21	14	5,496	3,665	1,904	1,761	1,831	952	879
Frederick.....	215	188	98	90	27	15	12	10,345	9,051	4,942	4,109	1,291	659	635
Garrett.....	110	110	57	53				3,473	3,441	1,812	1,629	32	8	24
Harford.....	136	114	18	96	22	7	15	5,999	4,839	2,421	2,418	1,160	628	532
Howard (a).....	62	47	11	36	15	6	9	3,053	2,276	1,171	1,105	777	387	390
Kent.....	78	61	13	48	17	7	10	3,692	2,354	1,253	1,101	1,398	698	640
Montgomery (a).....	104	76	33	43	28	14	14	5,737	3,773	1,942	1,831	1,964	978	986
Prince George's (a).....	83	57	14	43	26	8	18	4,724	2,737	1,409	1,328	1,987	989	998
Queen Anne's.....	81	63	19	44	18	10	8	4,204	2,964	1,591	1,373	1,240	702	538
Saint Mary's.....	65	47	25	22	18	8	10	2,796	1,585	864	721	1,211	580	631
Somerset.....	95	72	11	61	24	9	14	4,466	2,930	1,427	1,503	1,536	741	785
Talbot.....	82	65	14	51	17	6	11	4,085	2,760	1,436	1,324	1,325	691	634
Washington.....	206	192	107	85	14	7	7	8,719	8,175	4,496	3,679	544	299	245
Wicomico.....	85	67	25	42	18	11	7	4,473	3,440	1,667	1,773	1,033	525	508
Worcester.....	93	74	18	56	19	11	8	3,957	2,866	1,475	1,391	1,091	543	548

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	941	926	630	296	15	9	6	11,153	10,878	6,548	4,339	275	158	117
Private.....	236	239	63	167	6		6	8,943	8,236	5,432	2,804	707	338	309

a Sex calculated by the ratio shown in the rest of the state.

## MASSACHUSETTS.

1880. Population.....	1,783,085.	Enrolled in public schools.....	316,630
1890. Population.....	2,238,943.	Enrolled in public schools.....	371,492
Gain of population.....	25.57 per cent.	Gain of enrollment in public schools.....	17.33 per cent.

The total enrollment for Massachusetts is from a manuscript statement furnished by Hon. J. W. Dickinson, secretary of the state board of education. This office has direct reports of some 270,000 pupils by sex from cities and towns as a basis of estimate for the state and of the colored pupils in the table.

The secretary gives a summary of private schools and academies reported to May 1, 1890, as follows: Private schools, 419, with 41,044 pupils; academies, 92, with 17,135 pupils.

The parochial schools of Massachusetts are mostly Catholic. There are also a few Lutheran schools.

## PUBLIC SCHOOLS OF MASSACHUSETTS FOR THE YEAR ENDED MAY 1, 1890.

COUNTIES.	TEACHERS.						PUPILS.							
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State.....	10,324	10,324	1,017	9,307			371,492	370,803	188,424	182,469	599	311	288	
Barnstable.....	222	222	48	174			5,377	5,365	2,795	2,570	12	9	3	
Berkshire.....	562	562	64	498			15,826	15,681	7,707	7,974	145	74	71	
Bristol.....	827	827	63	764			29,956	29,927	15,230	14,697	29	16	14	
Dukes.....	32	32	6	26			637	590	263	327	47	24	23	
Essex.....	1,186	1,186	90	1,096			45,210	45,185	22,412	22,773	25	11	14	
Franklin.....	395	395	32	363			7,556	7,551	3,864	3,687	5	3	2	
Hampden.....	659	659	57	612			29,656	29,629	10,579	10,050	27	11	16	
Hampshire.....	405	405	34	371			9,725	9,710	4,750	4,960	13	7	8	
Middlesex.....	1,853	1,853	163	1,690			73,109	73,050	37,800	35,250	59	30	29	
Nantucket.....	14	14	1	13			375	369	154	215	6	3	3	
Norfolk.....	621	621	86	535			21,954	21,933	10,832	11,101	21	11	10	
Plymouth.....	531	531	62	469			15,962	15,926	8,113	7,813	36	17	19	
Suffolk.....	1,486	1,486	178	1,308			75,153	75,053	39,360	35,693	100	55	45	
Worcester.....	1,521	1,521	133	1,388			49,996	49,924	24,565	25,359	72	41	31	

## SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	
Private.....	2,381	2,381	1,262	1,119			28,629	28,551	15,889	12,662	78	52	26
Parochial.....	697	697	38	659			38,143	38,143	16,344	21,799			

## MONTANA.

1880. Population.....	39,159.	Enrolled in public schools.....	4,667
1890. Population.....	132,159.	Enrolled in public schools.....	16,807
Gain of population.....	237.49 per cent.	Gain of enrollment in public schools.....	260.12 per cent.

The following report of the public schools of Montana is from the manuscript of Hon. John Gannon, state superintendent of public instruction. The parochial schools are Catholic and Episcopal.

## PUBLIC SCHOOLS OF MONTANA FOR THE YEAR ENDED AUGUST 31, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State	549	549	421	128			16,897	16,718	8,518	8,200	89	46	43	
Beaver Head	30	30	2	28			774	772	391	371	2	2		
Cascade	29	29	10	19			831	821	432	379	10	6	4	
Choteau	18	18	8	10			394	391	209	185				
Custer	18	18	4	14			471	470	267	297	1	1		
Dawson	8	8	1	7			224	221	97	127				
Deer Lodge	50	50	13	37			1,925	1,924	816	1,107	2		2	
Fergus	37	37	11	26			481	481	300	181				
Gallatin	44	44	9	35			1,217	1,217	574	643				
Jefferson	39	39	6	33			800	800	450	350				
Lewis and Clarke	75	75	12	63			2,382	2,349	1,132	1,217	33	16	17	
Madison	41	41	14	27			918	915	572	343	3	3		
Meagher	28	28	8	20			826	819	419	400	7	3	4	
Missoula	54	54	12	42			1,871	1,871	979	892				
Park	27	27	4	23			964	961	492	469	3	2	1	
Silver Bow	44	44	6	38			2,376	2,363	1,175	1,178	23	10	13	
Yellowstone	16	16	1	15			413	408	197	211	5	3	2	

## SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Total.	Male.	Female.	Total.	Male.	Female.
Private	39	39	21	18	1,068	1,067
Parochial	10	10	1	9	384	384

## NORTH CAROLINA.

1880. Population	1,399,750.	Enrolled in public schools	256,422
1890. Population	1,617,947.	Enrolled in public schools	325,861
Gain of population	15.99 per cent.	Gain in enrollment in public schools	27.08 per cent.

Hon. S. M. Finger, superintendent of public instruction, has done much to facilitate census inquiries in this state. His recent report adds the distinction by sex, and he gives by name the private schools in the seventy-two counties which made reports, showing an aggregate attendance of 28,714 pupils, of which 24,391 are white and 4,413 colored. He estimates that there are 32,402 white and 5,884 colored pupils in the private schools of the state.

In North Carolina the public-school officers are legally authorized to contract with private schools for the instruction of the pupils of the vicinity during an agreed term for the public fund. The teachers are to hold certificates from public officers, and in general are to be responsible to them.

The Croatans, under Robeson county in the table, are a peculiar people, for whom the state has established special schools. They are of marked Indian type, and have an interest to students of history in a claim of descent from the Hatteras Indians and Sir Walter Raleigh's lost colony.

As the record for Yancey county was not available for the superintendent's table, it was deemed best to use the total enrollment for 1888, separated by sex, in the ratio shown in the remainder of the state, as securing a better approximation to facts.

The number of teachers in North Carolina is not given in direct form, but the superintendent thinks it will approximate the number of schools, with an allowance of perhaps one hundred and fifty additional teachers for the towns and cities. The number of schools is here used for the number of teachers, and the division by sex is based on the division of sex of licensed teachers.

The parochial schools of this state hitherto reported comprise over 700 pupils in Episcopal schools, with smaller numbers in Catholic, Lutheran, and Moravian schools.

PUBLIC SCHOOLS OF NORTH CAROLINA FOR THE YEAR ENDED JUNE 30, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State.....	6,865	4,541	2,682	1,859	2,324	1,410	914	325,861	208,844	108,633	100,211	117,617	55,523	61,494
Alamance.....	66	45	22	23	21	10	11	3,006	1,927	1,043	884	1,079	532	547
Alexander.....	48	43	35	8	5	5	-----	2,349	2,225	1,189	1,036	124	55	60
Alloghany.....	37	31	30	1	6	6	-----	1,449	1,333	730	603	116	56	60
Anson.....	73	37	22	15	36	28	8	3,704	1,460	750	710	2,244	1,126	1,118
Ashe.....	99	91	85	6	8	5	3	4,446	4,336	2,256	2,080	110	60	50
Beaufort.....	89	60	28	32	29	15	14	3,876	2,245	1,147	1,008	1,631	750	875
Bertie.....	96	54	17	37	42	27	15	4,193	1,512	821	691	2,681	1,243	1,438
Bladen.....	69	37	20	17	32	18	14	3,077	1,439	770	669	1,638	770	868
Brunswick.....	65	43	26	17	22	16	6	2,510	1,384	724	660	1,126	542	584
Buncombe.....	102	88	64	24	14	5	9	8,323	7,266	3,237	4,029	1,057	498	559
Burke.....	68	53	18	35	15	8	7	3,142	2,253	1,161	1,092	889	461	428
Cabarrus.....	80	54	24	30	26	13	13	3,646	2,651	1,420	1,231	995	602	493
Caldwell.....	63	53	39	14	10	6	4	2,971	2,594	1,341	1,253	377	192	185
Camden.....	31	19	12	7	12	10	2	1,659	970	500	470	689	389	300
Carteret.....	23	18	11	7	5	5	-----	945	707	355	352	238	108	130
Caswell.....	67	31	13	18	36	22	14	2,636	1,011	517	494	1,625	712	913
Catawba.....	81	64	55	9	17	16	1	4,163	3,619	1,934	1,685	544	258	286
Chatham.....	107	65	48	17	42	26	16	4,889	2,747	1,442	1,305	2,142	986	1,166
Cherokee.....	42	40	31	9	2	1	1	2,610	2,546	1,362	1,184	64	28	36
Chowan.....	39	18	6	12	12	7	5	2,466	742	402	340	1,724	765	959
Clay.....	20	18	13	5	2	2	-----	1,117	1,062	561	501	55	30	25
Cleveland.....	96	76	38	38	29	10	10	4,800	4,108	2,000	2,108	692	325	367
Columbus.....	93	57	35	22	36	22	14	3,785	2,281	1,199	1,082	1,504	741	783
Craven.....	66	34	10	24	32	14	18	3,804	1,829	729	800	2,275	1,050	1,225
Cumberland.....	101	52	18	34	49	26	23	4,814	2,028	1,058	970	2,786	1,322	1,464
Currituck.....	31	18	9	9	13	8	5	1,201	611	353	258	590	309	281
Dare.....	26	24	20	4	2	-----	2	1,111	1,016	541	475	95	53	42
Davidson.....	114	88	59	29	26	18	8	5,019	4,117	2,246	1,871	902	343	559
Davie.....	57	40	28	12	17	13	4	2,750	1,970	1,050	920	780	415	365
Duplin.....	108	64	25	39	44	25	19	4,601	2,504	1,301	1,203	2,097	902	1,195
Durham.....	59	34	20	14	25	18	7	3,256	1,918	985	933	1,338	610	728
Edgecombe.....	71	33	7	26	38	25	13	3,517	1,107	520	587	2,410	1,124	1,286
Forsyth.....	82	62	47	15	20	15	5	4,139	3,187	1,729	1,458	952	469	483
Franklin.....	81	40	18	22	41	18	23	3,261	1,560	760	800	1,701	780	921
Gaston.....	81	56	34	22	25	17	8	4,341	2,948	1,537	1,411	1,393	666	727
Gates.....	69	33	12	21	27	8	19	2,214	998	526	472	1,216	541	675
Graham.....	29	29	20	-----	-----	-----	-----	852	852	462	390	-----	-----	-----
Granville.....	80	41	9	32	39	27	12	3,821	1,861	917	944	1,060	612	1,048
Greene.....	46	24	4	20	22	17	5	1,723	931	466	465	792	374	418
Guilford.....	127	91	43	48	36	22	14	5,944	4,148	2,239	1,909	1,796	942	854
Halifax.....	92	39	19	20	53	30	23	6,164	1,591	826	765	4,573	2,321	2,252
Harnett(a).....	74	46	33	13	28	18	10	3,362	1,576	788	788	1,786	850	666
Haywood.....	60	56	34	22	4	4	-----	3,258	3,206	1,752	1,454	52	24	28
Henderson.....	57	46	36	10	11	7	4	3,043	2,763	1,293	1,590	280	150	130
Hertford.....	57	31	9	22	26	15	11	2,822	1,129	596	533	1,693	790	993
Hyde.....	27	15	8	7	12	7	5	2,340	1,050	600	450	1,290	650	640
Iredell.....	169	106	68	38	63	34	29	5,426	3,950	2,097	1,853	1,476	700	776
Jackson.....	31	29	19	10	2	1	1	2,210	2,112	1,075	1,037	98	49	49
Johnston.....	119	84	56	28	35	22	13	6,217	4,310	2,329	1,981	1,907	874	1,033
Jones.....	61	21	8	13	40	25	15	2,542	615	335	310	1,897	924	973
Lenoir.....	63	40	12	28	23	13	10	2,461	1,530	783	747	931	391	540
Lincoln.....	52	40	27	13	12	10	2	2,725	2,040	1,113	927	685	373	312
McDowell.....	51	41	26	15	19	9	1	2,237	1,909	1,048	861	328	152	176
Macon.....	56	51	26	25	5	4	1	2,693	2,463	1,306	1,157	140	60	80
Madison.....	59	57	44	13	2	1	1	4,145	4,084	2,217	1,867	61	30	31
Martin.....	69	42	18	24	27	17	10	3,207	1,731	910	821	1,476	673	803
Mecklenburg.....	135	75	39	36	60	35	25	7,067	3,631	1,968	1,663	3,436	1,750	1,677

<sup>a</sup> This county having failed to report for 1890, the figures inserted are for 1888.

PUBLIC SCHOOLS OF NORTH CAROLINA FOR THE YEAR ENDED JUNE 30, 1890—CONTINUED.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
Mitchell	59	59	48	11			2,387	2,387	1,291	1,096				
Montgomery	54	37	26	11	17	13	2,281	1,524	786	798	757	385	372	
Moore	78	58	47	11	29	6	2,745	2,071	1,090	981	674	390	374	
Nash	87	45	19	26	42	27	3,648	1,777	872	905	1,871	868	1,003	
New Hanover	28	13	1	12	15	6	2,911	1,320	661	719	1,591	739	861	
Northampton	76	37	16	21	39	28	3,255	1,324	753	571	1,561	893	1,038	
Onslow	57	39	22	17	18	14	2,418	1,675	894	741	783	377	406	
Orange	84	43	25	18	41	17	2,474	1,425	810	615	1,948	569	539	
Patrick	37	21	12	9	16	10	2,127	1,195	661	596	930	413	517	
Pasquotank	34	18	6	12	16	7	1,713	656	352	364	1,657	492	565	
Pender	53	30	14	16	23	18	2,221	1,072	594	478	1,149	497	652	
Perquimans	46	27	8	19	19	13	2,499	1,045	555	499	1,454	683	771	
Person	45	22	8	14	23	16	1,885	1,002	519	483	883	393	490	
Pitt	135	80	17	63	55	23	5,525	3,052	1,554	1,498	2,473	1,138	1,336	
Polk	36	23	13	10	13	7	1,492	934	503	451	468	290	268	
Randolph	119	97	63	34	22	15	5,838	5,007	2,470	2,537	831	382	449	
Richmond	84	40	26	14	44	39	4,072	1,383	740	643	2,689	1,235	1,454	
Robeson	167	100	73	27	67	37	5,401	2,692	1,393	1,299	2,709	1,271	1,438	
Crotans	18				18	14	422					422	234	188
Rockingham	101	58	19	39	43	18	4,750	2,637	1,370	1,267	2,113	1,041	1,072	
Bowen	136	74	58	16	62	48	6,456	4,699	2,367	2,333	1,796	862	934	
Rutherford	92	69	52	17	23	15	3,968	3,084	1,614	1,470	884	427	457	
Sampson	90	46	24	22	44	27	3,937	1,940	1,023	917	1,997	850	1,147	
Standy	71	61	47	14	10	8	3,353	2,885	1,516	1,369	468	231	237	
Stokes	79	63	31	32	16	15	3,457	2,845	1,523	1,322	612	287	325	
Surry	98	89	59	30	18	12	4,007	3,391	1,836	1,465	766	401	365	
Swain	28	27	24	3	1	1	1,232	1,299	627	582	23	14	9	
Transylvania	35	24	17	16	2	1	1,534	1,368	747	621	196	83	83	
Tyrrell	18	15	13	2	3	3	350	170	99	80	180	95	85	
Union	108	78	57	21	39	25	6,020	4,029	2,100	1,929	2,000	1,040	960	
Vance	50	25	1	24	25	16	2,255	769	393	376	1,486	692	794	
Wake	143	70	38	32	73	43	8,790	4,385	2,291	2,094	4,375	2,025	2,350	
Warren	66	33	4	29	33	19	3,281	685	429	456	2,396	1,079	1,317	
Washington	47	39	13	17	17	6	2,249	1,167	596	571	1,082	499	583	
Watauga	57	53	43	10	4	3	2,519	2,445	1,299	1,155	74	35	39	
Wayne	92	51	16	35	41	15	3,717	2,070	1,045	1,025	1,647	751	896	
Wilkes	87	79	69	10	8	5	4,229	3,914	2,076	1,838	306	160	146	
Wilson (a)	71	42	23	19	29	15	3,965	2,075	1,037	1,038	1,890	945	945	
Yadkin	65	56	46	10	9	5	3,521	3,089	1,499	1,590	432	221	211	
Yancey (a)	47	41	36	5	6	3	3,128	3,000	1,360	1,440	128	68	60	

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
Private	1,048	983	447	536	65	30	35	25,651	23,029	11,929	11,100	2,622
Parochial	43	35	13	22	8	4	4	1,320	554	318	236	766
												1,168
												443

a These counties having failed to report for 1890, the figures inserted are for 1888.

OHIO.

1880. Population.....	3,198,062.	Enrolled in public schools.....	752,442
1890. Population.....	3,672,316.	Enrolled in public schools.....	797,439
Gain of population.....	14.83 per cent.	Gain of enrollment in public schools.....	5.98 per cent.

The statement for Ohio is from the manuscript of Hon. John Hancock, state commissioner of common schools. The report for 1886 gave the colored pupils separately, showing 5,699 boys and 5,577 girls, a total of 11,276. It is not thought that the colored attendance has changed materially since 1886.

The parochial schools reported to this date comprise a little over two hundred Catholic schools, with about 50,000 pupils; ninety-two Lutheran schools, with nearly 4,000 pupils, and twelve German Evangelical schools, with about 600 pupils.

PUBLIC SCHOOLS OF OHIO FOR THE YEAR ENDED AUGUST 31, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State.....	25,156	25,156	10,841	14,315				797,439	797,439	414,439	384,000			
Adams.....	180	180	122	58				6,710	6,710	3,549	3,181			
Allen.....	272	272	148	124				8,916	8,916	4,693	4,223			
Ashland.....	230	230	115	115				6,415	6,415	3,372	3,043			
Ashtabula.....	540	540	167	373				9,913	9,913	4,939	4,974			
Athens.....	306	306	109	197				8,842	8,842	4,559	4,283			
Aughize.....	206	206	116	90				7,167	7,167	3,780	3,387			
Belmont.....	348	348	164	184				14,092	14,092	7,165	6,927			
Brown.....	214	214	124	90				7,881	7,881	4,159	3,722			
Butler.....	229	229	97	132				8,827	8,827	4,440	4,387			
Carroll.....	206	206	117	89				5,073	5,073	2,617	2,450			
Champaign.....	199	199	103	96				6,500	6,500	3,414	3,086			
Clark.....	266	266	104	162				10,156	10,156	5,316	4,840			
Clermont.....	235	235	121	114				8,378	8,378	4,425	3,953			
Clinton.....	192	192	110	82				6,029	6,029	3,193	2,836			
Columbiana.....	425	425	161	264				13,528	13,528	7,014	6,484			
Coshocton.....	184	184	120	64				7,431	7,431	3,950	3,481			
Crawford.....	279	279	119	160				7,641	7,641	3,914	3,727			
Cuyahoga.....	991	991	113	878				46,308	46,308	23,548	22,760			
Darke.....	370	370	217	153				11,765	11,765	6,200	5,565			
Defiance.....	249	249	94	155				6,448	6,448	3,453	2,995			
Delaware.....	280	280	98	182				6,613	6,613	3,293	3,320			
Erie.....	247	247	57	190				7,128	7,128	3,735	3,393			
Fairfield.....	270	270	167	103				8,571	8,571	4,541	4,030			
Fayette.....	171	171	89	82				5,565	5,565	2,869	2,696			
Franklin.....	543	543	159	384				20,773	20,773	10,404	10,369			
Fulton.....	240	240	111	129				5,738	5,738	3,008	2,730			
Gallia.....	241	241	146	95				7,919	7,919	4,076	3,843			
Genuga.....	227	227	69	158				3,379	3,379	1,827	1,552			
Greene.....	198	198	84	114				6,832	6,832	3,575	3,257			
Guernsey.....	260	260	149	111				8,182	8,182	4,234	3,948			
Hamilton.....	1,049	1,049	209	840				47,494	47,494	24,226	23,268			
Hancock.....	306	306	154	152				9,652	9,652	5,066	4,586			
Hardin.....	285	285	122	163				7,982	7,982	4,075	3,907			
Harrison.....	178	178	105	73				5,567	5,567	2,861	2,636			
Henry.....	239	239	99	140				6,683	6,683	3,586	3,097			
Highland.....	256	256	150	106				7,585	7,585	3,987	3,598			
Hoeking.....	167	167	90	77				6,201	6,201	3,185	3,016			
Holmes.....	181	181	123	58				5,769	5,769	3,163	2,606			
Huron.....	350	350	117	233				7,614	7,614	3,997	3,617			
Jackson.....	168	168	96	72				7,836	7,836	4,026	3,810			
Jefferson.....	246	246	110	136				8,897	8,897	4,593	4,304			
Knox.....	272	272	165	107				6,710	6,710	3,518	3,192			

PUBLIC SCHOOLS OF OHIO FOR THE YEAR ENDED AUGUST 31, 1890—CONTINUED.

COUNTIES.	TEACHERS.						PUPILS.							
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
Lake	161	161	30	131			3,377	3,377	1,747	1,630				
Lawrence	204	204	116	88			9,987	9,987	5,147	4,840				
Licking	434	434	175	259			10,150	10,150	5,195	4,954				
Logan	275	275	132	143			6,659	6,659	3,459	3,200				
Lorain	362	362	78	284			8,537	8,537	4,347	4,190				
Lucas	365	365	61	304			15,265	15,265	7,779	7,486				
Madison	174	174	82	92			4,992	4,992	2,543	2,350				
Mahoning	355	355	141	214			10,900	10,900	5,526	5,374				
Marion	286	286	115	171			6,423	6,423	3,269	3,153				
Medina	274	274	124	150			5,698	5,698	2,978	2,729				
Meigs	267	267	120	147			8,051	8,051	4,237	3,814				
Mercer	177	177	111	66			7,256	7,256	3,828	3,428				
Miami	261	261	128	133			8,515	8,515	4,495	4,029				
Monroe	211	211	169	42			7,067	7,067	3,894	3,173				
Montgomery	424	424	135	289			17,803	17,803	9,139	8,664				
Morgan	244	244	134	110			5,095	5,095	2,678	2,417				
Morrow	245	245	111	134			4,786	4,786	2,539	2,247				
Muskingum	359	359	160	199			11,276	11,276	5,847	5,429				
Noble	237	237	170	67			5,926	5,926	3,171	2,755				
Ottawa	143	143	45	98			5,847	5,847	2,982	2,865				
Paulding	192	192	93	99			7,289	7,289	3,793	3,526				
Perry	209	209	122	87			8,025	8,025	4,198	3,827				
Pickaway	263	263	125	78			6,739	6,739	3,553	3,186				
Pike	135	135	84	51			4,744	4,744	2,563	2,211				
Portage	351	351	124	227			6,562	6,562	3,348	3,214				
Preble	189	189	108	81			5,885	5,885	3,186	2,699				
Putnam	241	241	139	102			7,795	7,795	4,062	3,733				
Richland	353	353	139	214			8,660	8,660	4,485	4,175				
Ross	283	283	108	175			9,299	9,299	4,748	4,461				
Sandusky	261	261	101	160			6,962	6,962	3,692	3,270				
Scioto	187	187	94	93			8,510	8,510	4,351	4,159				
Seneca	350	350	166	184			8,942	8,942	4,629	4,322				
Shelby	196	196	166	90			5,947	5,947	3,244	2,703				
Stark	505	505	239	266			18,809	18,809	9,616	9,193				
Summit	367	367	116	251			11,177	11,177	5,674	5,503				
Trumbull	410	410	142	268			9,729	9,729	4,911	4,818				
Tuscarawas	311	311	175	136			12,615	12,615	6,641	5,974				
Union	246	246	118	128			6,074	6,074	3,149	2,925				
Van Wert	257	257	126	131			8,789	8,789	4,633	4,156				
Vinton	160	160	85	75			4,546	4,546	2,351	2,195				
Warren	172	172	78	94			5,717	5,717	3,040	2,677				
Washington	391	391	154	237			11,237	11,237	5,873	5,364				
Wayne	339	339	182	157			10,611	10,611	5,541	5,070				
Williams	265	265	118	147			6,270	6,270	3,173	3,097				
Wood	389	389	133	256			10,820	10,820	5,688	5,132				
Wyandot	241	241	119	122			5,587	5,587	3,030	2,557				

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	1,783	1,772	1,150	622	11	7	4	35,864	35,377	21,710	13,667	287	165	122
Private	1,783	1,772	1,150	622	11	7	4	35,864	35,377	21,710	13,667	287	165	122
Parochial	1,011	1,011	256	755				57,905	57,905	28,851	29,054			

OKLAHOMA.

The territory of Oklahoma was formed too recently to organize public schools in the census year. A public school system was established by an act of the territorial legislature approved December 5, 1890. At an election held December 30, 1890, one person was elected as president of the school board in each township having a sufficient school population, and one member of the school board was elected from each school district thereof, and in each city a president and one person from each ward thereof were elected as members of the school board. Private effort anticipated municipal organization, speedy as that has been in the new territory.

PRIVATE SCHOOLS OF OKLAHOMA REPORTED TO JANUARY 15, 1891.

SCHOOLS.	TEACHERS.						PUPILS.							
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The Territory	14	14	6	8			537	537	272	265				

PENNSYLVANIA.

1880. Population..... 4,282,891. Enrolled in public schools..... 950,800  
 1890. Population..... 5,258,014. Enrolled in public schools..... 965,444  
 Gain of population..... 22.77 per cent. Gain of enrollment in public schools..... 1.59 per cent.

The statement for the public schools of Pennsylvania is from the report of Hon. J. D. Waller, jr., superintendent of public instruction. The report for Philadelphia closed December 31, 1889. There are 14,195 schoolhouses reported in Pennsylvania, of which number 386 were built in the past year.

The parochial schools of Pennsylvania reported to this date comprise over 55,000 pupils in nearly two hundred Catholic schools, over 4,000 pupils in over fifty Lutheran schools, about 600 pupils in thirteen Episcopal schools, and 800 pupils in twelve Evangelical and single German Presbyterian, Reformed, and Reformed Episcopal schools.

PUBLIC SCHOOLS OF PENNSYLVANIA FOR THE YEAR ENDED JUNE 2, 1890.

COUNTIES.	TEACHERS.						PUPILS.							
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State	24,493	24,493	8,382	16,111			965,444	965,444	401,491	473,953				
Adams	187	187	100	87			7,204	7,204	3,780	3,484				
Allegheny	1,601	1,601	195	1,406			82,571	82,571	41,582	40,989				
Armstrong	292	292	146	146			12,214	12,214	6,254	5,960				
Beaver	263	263	87	176			10,425	10,425	5,445	4,980				
Bedford	293	293	192	101			10,596	10,698	5,568	5,030				
Berks	661	661	372	289			27,114	27,114	14,140	12,965				
Blair	303	303	134	169			13,824	13,824	7,029	6,795				
Bradford	665	665	152	513			14,187	14,187	7,327	6,860				
Bucks	313	313	127	186			12,935	12,935	6,983	5,952				
Butler	340	340	150	190			14,320	14,320	7,434	6,886				
Cambria	256	296	91	197			12,752	12,752	6,512	6,240				
Cameron	63	63	7	53			1,509	1,500	729	771				
Carbon	180	180	87	93			8,766	8,766	4,527	4,239				
Centre	261	261	157	104			10,389	10,389	5,436	4,953				
Chester	414	414	63	351			17,441	17,441	8,726	8,715				
Clarion	269	269	105	164			9,446	9,446	4,857	4,589				

PUBLIC SCHOOLS OF PENNSYLVANIA FOR THE YEAR ENDED JUNE 2, 1890—CONTINUED.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
Clearfield	331	331	123	208			15,083	15,083	7,516	7,567				
Clinton	175	175	71	104			6,009	6,009	2,940	3,069				
Columbia	219	219	84	135			9,296	9,296	4,999	4,297				
Crawford	726	726	150	576			15,281	15,281	7,841	7,440				
Cumberland	248	248	130	118			9,652	9,652	4,923	4,729				
Dauphin	397	397	222	175			19,244	19,244	9,668	9,576				
Delaware	244	244	18	226			12,054	12,054	6,067	5,987				
Elk	136	136	49	96			4,015	4,015	2,106	1,909				
Erie	618	618	93	525			15,607	15,607	7,865	7,722				
Fayette	348	348	180	168			16,271	16,271	8,416	7,855				
Forest	103	103	25	78			1,887	1,887	973	914				
Franklin	319	319	197	122			12,163	12,163	6,374	5,789				
Fulton	73	73	48	25			2,845	2,845	1,539	1,315				
Greene	298	298	127	81			7,607	7,607	4,146	3,461				
Huntingdon	248	248	149	99			8,751	8,751	4,487	4,264				
Indiana	282	282	149	133			10,687	10,687	5,552	5,135				
Jefferson	252	252	127	125			10,688	10,688	5,554	5,134				
Juniata	107	107	68	39			4,314	4,314	2,232	2,082				
Lackawanna	464	464	73	391			24,235	24,235	11,368	12,867				
Lancaster	658	658	302	356			29,873	29,873	15,687	14,186				
Lawrence	226	226	79	147			7,897	7,897	4,019	3,878				
Lebanon	236	236	106	70			9,455	9,455	4,930	4,525				
Lehigh	348	348	217	131			15,309	15,309	8,070	7,239				
Luzerne	699	699	180	519			35,995	35,995	17,917	18,078				
Lycoming	378	378	145	233			14,259	14,259	7,209	7,050				
McKean	279	279	37	242			9,469	9,469	4,777	4,692				
Mercer	595	595	175	330			13,227	13,227	6,969	6,258				
Mifflin	114	114	59	55			5,038	5,038	2,497	2,541				
Monroe	136	136	97	39			4,855	4,855	2,538	2,297				
Montgomery	447	447	161	286			29,352	29,352	19,322	10,030				
Montour	84	84	36	48			2,810	2,810	1,498	1,402				
Northampton	383	383	242	141			16,554	16,554	8,722	7,832				
Northumberland	320	320	169	151			15,904	15,904	8,056	7,848				
Perry	189	189	123	66			6,944	6,944	3,570	3,374				
Philadelphia	2,607	2,607	93	2,514			116,389	116,389	57,063	59,326				
Pike	68	68	17	51			2,033	2,033	1,034	999				
Potter	242	242	39	203			4,432	4,432	2,391	2,131				
Schuylkill	622	622	266	356			32,105	32,105	16,105	16,000				
Snyder	115	115	94	21			4,649	4,649	2,456	2,193				
Somerset	276	276	196	80			10,099	10,099	5,158	4,941				
Sullivan	97	97	21	76			2,417	2,417	1,238	1,179				
Susquehanna	452	452	91	361			8,682	8,682	4,557	4,125				
Tioga	442	442	91	351			11,894	11,894	6,133	5,761				
Union	102	102	69	33			4,057	4,057	2,146	1,911				
Venango	348	348	110	238			11,307	11,307	5,679	5,628				
Warren	300	300	42	258			7,906	7,906	3,970	3,930				
Washington	379	379	129	250			14,788	14,788	7,389	7,399				
Wayne	366	366	58	308			7,139	7,139	3,556	3,583				
Westmoreland	561	561	267	294			22,921	22,921	11,805	11,116				
Wyoming	183	183	48	135			3,790	3,790	1,997	1,793				
York	492	492	316	176			21,550	21,550	11,259	10,290				

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	3,185	3,170	1,733	1,437	15	5	10	47,761	47,525	28,399	19,126	236	233	3
Private	1,098	1,098	151	947				69,923	69,676	29,225	31,451	247	123	124

## RHODE ISLAND.

1880. Population .....	276,531.	Enrolled in public schools.....	42,489
1890. Population .....	345,506.	Enrolled in public schools.....	54,170
Gain of population.....	24.94 per cent.	Gain of enrollment in public schools .....	27.49 per cent.

The data for the Rhode Island public schools are taken from the manuscript of Hon. Thomas B. Stockwell, commissioner of public schools, who, from the state census of January, 1890, reports 9,753 pupils attending private (including parochial) schools in 1889. His report from these schools has not been submitted. The parochial schools so far reported are Catholic.

## PUBLIC SCHOOLS OF RHODE ISLAND FOR THE YEAR ENDED APRIL 30, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State .....	1,378	1,378	174	1,204				54,170	54,170	27,207	26,963			
Bristol .....	54	54	10	44				1,960	1,960	962	998			
Kent .....	110	110	26	84				3,991	3,991	2,051	1,940			
Newport .....	130	130	18	112				4,029	4,029	2,035	1,994			
Providence .....	899	899	79	820				39,278	39,278	19,718	19,560			
Washington .....	185	185	41	144				4,912	4,912	2,441	2,471			

## SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Aggre- gate.	Total.	Male.	Female.	Aggre- gate.	Total.	Male.	Female.	Aggre- gate.	Total.	Male.	Female.
Private .....	234	234	104	130	3,814	3,812	2,250	1,553	2	2		
Parochial .....	95	95	3	92	5,940	5,940	2,717	3,223				

## SOUTH CAROLINA.

1880. Population.....	995,577.	Enrolled in public schools .....	134,842
1890. Population.....	1,151,149.	Enrolled in public schools .....	203,461
Gain of population .....	15.63 per cent.	Gain of enrollment in public schools.....	50.89 per cent.

The data for the public schools of South Carolina are from the report of Hon. James H. Rice, late superintendent of public instruction.

The parochial schools reported from South Carolina contain a little over four hundred Catholic pupils, nearly two hundred Reformed Episcopal pupils, and nearly fifty Episcopal pupils.

PUBLIC SCHOOLS OF SOUTH CAROLINA FOR THE YEAR 1889-90.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State.....	4,321	2,677	1,192	1,575	1,611	1,044	600	293,491	99,651	46,761	43,290	113,419	54,279	59,131
Abbeville.....	205	119	35	84	86	41	45	9,344	3,480	1,731	1,729	5,864	2,659	3,205
Aiken.....	132	81	34	47	51	34	17	6,492	2,778	1,472	1,306	3,624	1,712	1,912
Anderson.....	156	102	31	71	54	42	12	7,450	4,107	2,192	2,065	2,083	1,400	1,583
Barwell.....	144	85	35	50	59	30	29	7,224	2,681	1,407	1,274	4,543	2,231	2,312
Beaufort.....	83	18	2	16	65	51	14	6,391	520	232	288	5,871	2,762	3,109
Berkeley.....	127	49	26	23	78	36	42	5,636	997	568	429	4,639	2,473	2,166
Charleston.....	122	111	10	101	11	2	9	6,465	2,978	1,111	1,867	3,427	1,457	1,970
Chester.....	133	78	23	55	55	31	24	5,471	1,864	944	920	3,697	1,683	1,924
Chesterfield.....	69	45	33	12	24	16	8	3,156	2,221	1,180	1,044	1,132	621	611
Clarendon.....	77	52	19	33	25	17	8	2,889	1,258	650	608	1,631	834	797
Colleton.....	139	86	44	42	44	38	6	5,983	3,066	1,668	1,398	2,917	1,546	1,371
Darlington.....	76	45	14	31	31	18	13	4,724	2,011	1,057	954	2,713	1,270	1,343
Edgefield.....	218	121	43	78	97	45	52	8,913	3,659	1,800	1,799	5,263	2,443	2,820
Fairfield.....	114	66	32	34	48	22	26	5,612	1,544	781	763	4,068	1,867	2,201
Florence.....	109	72	27	45	37	28	9	5,385	2,386	1,166	1,220	2,999	1,478	1,521
Georgetown.....	67	22	10	12	45	33	12	2,829	640	350	290	2,189	1,143	1,046
Greenville.....	223	154	71	83	69	35	34	9,658	5,369	2,873	2,516	4,289	2,039	2,250
Hampton.....	78	48	19	29	30	18	12	2,599	1,414	758	656	1,185	516	639
Horry.....	89	66	55	11	23	23	—	3,931	2,759	1,511	1,245	1,172	576	596
Kershaw.....	92	65	36	29	27	18	9	4,405	2,007	1,024	983	2,398	1,158	1,240
Laurens.....	83	55	26	29	28	22	6	3,797	2,059	1,048	1,011	1,738	851	887
Laurens.....	143	88	27	61	55	30	25	6,487	3,050	1,748	1,302	3,457	1,589	1,867
Lexington.....	93	55	37	18	38	28	10	3,646	1,912	1,006	906	1,734	501	633
Marion.....	151	101	69	32	53	40	13	6,254	3,158	1,659	1,499	3,096	1,518	1,578
Marlborough.....	84	53	24	29	31	22	9	4,049	1,817	933	884	2,232	1,063	1,139
Newberry.....	107	63	16	47	44	23	21	5,405	1,933	933	940	3,472	1,574	1,898
Oconee.....	116	86	39	50	30	22	8	4,013	2,945	1,531	1,414	1,068	503	565
Orangeburg.....	171	89	46	43	82	70	12	9,275	3,103	1,640	1,463	6,172	3,073	3,099
Pickens.....	88	66	25	41	22	16	6	4,220	3,279	1,725	1,554	950	476	474
Richland.....	90	51	17	34	39	24	15	6,029	1,844	925	909	4,185	1,939	2,226
Spartanburg.....	186	146	48	98	40	23	17	11,282	7,310	3,913	3,397	3,972	1,943	2,029
Sumter.....	144	86	21	65	58	32	26	7,774	2,215	1,173	1,042	5,559	2,689	2,870
Union.....	104	55	21	34	49	23	26	4,733	1,910	956	951	2,833	1,330	1,503
Williamsburg.....	93	62	28	34	31	20	11	4,154	1,760	924	836	2,394	1,107	1,289
York.....	221	136	62	74	85	62	23	8,617	3,903	2,069	1,894	4,654	2,215	2,439

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Private	Parochial	Total	Male	Female	Total	Male	Female
Private.....	571	520	238	282	51	20	31	13,623
Parochial.....	21	19	6	13	2	—	2	634
Total.....	592	539	244	295	53	20	33	14,257

SOUTH DAKOTA.

1880. Population..... 98,268. Enrolled in public schools..... 9,972  
 1890. Population..... 328,808. Enrolled in public schools..... 66,150  
 Gain of population..... 234.60 per cent. Gain of enrollment in public schools..... 563.36 per cent.

The data for the public schools of South Dakota are from the report of Hon. G. L. Pinkham, superintendent of public instruction. The population of South Dakota in 1880 can be closely determined by taking the population of the counties now comprising the state for that year. The school enrollment was not given by counties in 1880. The best available approximation is on the presumption that the ratio of school enrollment in 1880 and of the population of what is now South Dakota to the enrollment and the population of Dakota were the same. South Dakota reports 3,074 schoolhouses. Of the seventy-eight counties in South Dakota, the state superintendent reports public schools in only fifty-one, the remaining counties not being organized.

PUBLIC SCHOOLS OF SOUTH DAKOTA FOR THE YEAR ENDED JUNE 30, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State	4,356	4,356	1,292	3,064				66,150	66,150	35,311	30,839			
Aurora	98	98	39	59				1,146	1,146	591	555			
Beadle	156	156	44	112				1,782	1,782	947	835			
Bon Homme	80	80	32	48				1,745	1,745	911	834			
Brookings	154	154	56	98				2,357	2,357	1,291	1,066			
Brown	240	240	74	166				2,846	2,846	1,517	1,329			
Brule	111	111	39	72				1,824	1,824	1,068	816			
Buffalo	16	16	1	15				224	224	110	114			
Butte	15	15	1	14				210	210	114	96			
Campbell	35	35	8	27				378	378	193	185			
Charles Mix	59	59	18	41				1,068	1,068	592	476			
Clark	126	126	53	93				1,548	1,548	819	729			
Clay	75	75	21	54				1,637	1,637	884	753			
Codington	88	88	18	70				1,747	1,747	894	853			
Custer	35	35	5	30				664	664	387	277			
Davison	79	79	17	53				810	810	432	378			
Day	135	135	34	101				1,972	1,972	980	992			
Deuel	90	90	26	64				1,362	1,362	752	610			
Douglas	70	70	26	44				1,109	1,109	584	625			
Edmunds	68	68	18	50				1,090	1,090	563	527			
Fall River	51	51	6	25				517	517	258	259			
Faulk	84	84	21	63				949	949	517	432			
Grant	102	102	33	69				1,335	1,335	738	597			
Hauflin	64	64	21	43				1,107	1,107	558	549			
Hand	145	145	45	100				1,834	1,834	1,005	829			
Hanson	72	72	18	54				914	914	514	400			
Hughes	39	39	17	22				527	527	269	258			
Hutchinson	103	103	70	33				2,259	2,259	1,154	1,105			
Hyde	65	65	8	57				540	540	273	267			
Jerauld	67	67	19	48				968	968	538	430			
Kingsbury	142	142	42	100				1,553	1,553	799	754			
Lake	128	128	34	94				1,418	1,418	788	630			
Lawrence	49	49	8	41				1,671	1,671	808	863			
Lincoln	126	126	31	95				2,279	2,279	1,233	1,046			
McCook	108	108	37	71				1,455	1,455	813	642			
McPherson	35	35	12	23				447	447	245	202			
Marshall	74	74	7	67				800	800	430	370			
Meade	23	23	3	20				569	569	312	257			
Miner	102	102	23	79				1,231	1,231	675	556			
Minnehaha	146	146	55	91				4,413	4,413	2,383	2,030			
Moody	90	90	14	76				1,197	1,197	673	524			
Pennington	48	48	10	38				831	831	458	373			
Potter	68	68	14	54				660	660	317	343			
Roberts	37	37	12	25				452	452	242	210			
Sanborn	98	98	27	71				1,024	1,024	547	477			
Spink	205	205	61	142				2,278	2,278	1,200	1,018			
Stanley	2	2		2				42	42	21	21			
Sully	66	66	18	48				564	564	299	265			
Turner	117	117	44	73				2,295	2,295	1,224	1,071			
Union	92	92	39	53				2,531	2,531	1,290	1,241			
Walworth	31	31	6	25				337	337	189	148			
Yankton	76	76	25	51				1,634	1,634	912	722			

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Total.	Male.	Female.	Total.	Male.	Female.
Private	172	172	76	96		
Parochial	55	55	34	21		

VERMONT.

1880. Population ..... 332,286. Enrolled in public schools..... 73,237  
 1890. Population ..... 332,422. Enrolled in public schools..... 65,608  
 Gain of population ..... 0.04 per cent. Loss of enrollment in public schools..... 10.42 per cent.

The county totals in the table for the public schools for Vermont are from the report of Hon. Edwin F. Palmer, superintendent of public instruction. This office has as a basis of estimate of sex for the state, mainly from districts, the reports of over 56,000 pupils by sex, including the full reports for their respective counties of County Supervisors E. W. Goodhue, of Orange county; Mason S. Stone, of Orleans county, and C. P. Hall, of Windham county.

The superintendent's report gives 6,225 as the number of pupils attending private and parochial schools. The parochial schools of Vermont are Catholic.

PUBLIC SCHOOLS OF VERMONT FOR THE YEAR ENDED JUNE 30, 1890.

COUNTIES.	TEACHERS.						PUPILS (between 5 and 18 years of age).							
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State .....	4,400	4,400	528	3,872			65,608	65,500	33,630	31,870	108	47	61	
Addison .....	320	320	31	289			4,633	4,622	2,504	2,118	11	7	4	
Bennington .....	228	228	30	198			4,219	4,197	2,224	1,973	22	10	12	
Caledonia .....	352	352	23	329			4,209	4,206	2,155	2,051	3	2	1	
Chittenden .....	298	298	44	254			5,633	5,681	2,924	2,757	12	4	8	
Essex .....	130	130	8	122			1,862	1,862	963	959				
Franklin .....	346	346	35	311			6,254	6,254	3,342	2,912				
Grand Isle .....	39	39	7	32			1,087	1,087	571	516				
Lamoille .....	211	211	34	177			2,806	2,803	1,448	1,355	3	2	1	
Orange .....	338	338	50	288			3,834	3,834	1,969	1,865				
Orleans .....	353	353	50	303			4,996	4,996	2,476	2,520				
Rutland .....	449	449	45	404			8,683	8,657	4,254	4,403	26	10	16	
Washington .....	386	386	49	337			5,666	5,660	2,859	2,801	6	3	3	
Windham .....	412	412	68	344			5,067	5,081	2,649	2,432	16	7	9	
Windsor .....	538	538	54	484			6,569	6,560	3,352	3,208	9	2	7	

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Total.	Male.	Female.	Total.	Male.	Female.
Private .....	228	228	83	145		
Parochial .....	62	62	1	61		

VIRGINIA.

1880. Population ..... 1,512,565. Enrolled in public schools ..... 220,733  
 1890. Population ..... 1,655,980. Enrolled in public schools ..... 342,269  
 Gain of population ..... 9.48 per cent. Gain of enrollment in public schools ..... 55.06 per cent.

Hon. John E. Massey, superintendent of public instruction, furnished in manuscript the material for the following table relative to the public schools of Virginia, with the item of sex added to the tables as heretofore made. Petersburg is not in any county, though for convenience it is usually considered as in Dinwiddie county.

The parochial schools of Virginia so far reported comprise a little over fourteen hundred Catholic, a little over five hundred Episcopal, and some Lutheran pupils.

## PUBLIC SCHOOLS OF VIRGINIA FOR THE YEAR ENDED JULY 31, 1890.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggregate.	White.			Colored.			Aggregate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State	7,523	5,550	2,189	3,361	1,973	930	1,043	342,269	220,210	114,762	105,448	122,059	57,011	65,048
Accomack	101	79	29	50	22	10	12	5,832	3,849	2,003	1,846	1,983	930	1,053
Albemarle	127	82	15	67	45	26	19	5,718	3,087	1,580	1,507	2,631	1,231	1,400
Alexandria	39	22	3	19	17	10	7	2,459	1,338	772	566	1,121	559	562
Alleghany	46	40	21	19	6	3	3	1,862	1,400	756	704	402	189	213
Amelia	40	22	6	16	18	6	12	1,858	672	355	317	1,186	530	656
Amherst	86	56	14	42	30	14	16	4,504	2,200	1,185	1,105	2,214	1,024	1,190
Appomattox	46	29	5	24	17	11	6	2,216	1,208	629	579	1,008	442	566
Augusta	237	185	66	119	52	32	20	8,213	6,062	3,143	2,919	2,151	1,101	1,050
Bath	31	27	15	12	4	2	2	971	822	427	395	149	89	60
Bedford	146	102	35	67	44	26	18	7,276	4,728	2,517	2,211	2,548	1,206	1,342
Bland	40	38	25	13	2			1,594	1,536	784	752	58	24	34
Botetourt	107	83	33	50	24	16	8	3,793	2,829	1,455	1,374	964	492	472
Brunswick	82	50	10	40	32	15	17	3,630	1,498	774	724	2,132	907	1,225
Buchanan	39	39	30					1,126	1,126	610	516			
Buckingham	85	60	17	43	25	7	18	3,075	1,419	731	688	1,656	734	922
Campbell	137	103	21	82	54	29	25	7,855	4,162	1,991	2,171	3,693	1,604	2,089
Caroline	74	51	11	40	23	5	18	3,237	1,427	760	667	1,810	837	973
Carroll	91	88	74	14	3	3		4,341	4,267	2,197	2,070	74	41	33
Charles City	23	11	4	7	12	4	8	1,002	297	149	148	705	333	372
Charlotte	67	38	5	33	29	19	10	3,159	1,321	720	601	1,838	802	1,036
Chesterfield	93	59	6	53	34	14	20	4,224	2,387	1,222	1,165	1,837	818	1,019
Clarke	38	25	10	15	13	5	8	1,551	995	585	410	556	296	260
Craig	36	34	26	8	2	2		1,247	1,203	698	505	44	28	16
Culpeper	68	41	14	27	27	11	16	2,759	1,359	740	619	1,400	719	681
Cumberland	47	39	19	20	17	8	9	1,925	700	322	378	1,225	540	685
Dickenson	25	25	22	3				1,078	1,078	590	479			
Dinwiddie	74	49	10	39	25	10	15	2,805	1,198	623	575	1,607	702	906
Elizabeth City	31	14	4	10	17	3	14	1,679	653	346	307	1,020	517	509
Essex	44	27	8	19	17	5	12	2,033	665	357	308	1,368	620	748
Fairfax	88	63	16	47	25	13	12	3,820	2,578	1,375	1,203	1,242	604	578
Fauquier	121	83	39	44	38	25	13	6,235	3,597	1,998	1,599	2,638	1,348	1,290
Floyd	99	90	58	32	9	8	1	4,289	3,951	2,147	1,804	338	177	161
Frivanna	53	40	14	26	13	8	5	2,633	1,052	566	486	981	472	509
Franklin	147	118	50	68	29	11	15	7,133	5,679	2,880	2,799	1,454	718	736
Frederick	102	92	53	39	10	6	4	4,239	3,819	2,051	1,768	420	219	201
Giles	60	54	32	22	6	2	4	2,380	2,200	1,184	1,016	180	89	91
Gloucester	52	25	7	18	27	11	16	2,444	1,020	514	506	1,424	677	747
Goochland	63	52	14	38	11	3	8	2,314	990	519	471	1,324	654	670
Grayson	86	81	70	11	5	4	1	4,296	4,087	2,155	1,932	209	101	108
Greene	31	24	8	16	7	2	5	1,282	961	482	479	321	162	159
Greensville	37	19	3	16	18	5	13	1,511	587	302	285	924	399	525
Halifax	136	91	21	70	45	28	17	6,339	3,297	1,688	1,609	3,042	1,304	1,738
Hanover	83	57	13	44	26	12	14	3,605	1,713	876	837	1,892	900	992
Henrico	391	195	21	174	106	30	76	15,043	8,346	4,101	4,245	6,097	2,969	3,728
Henry	82	57	11	46	25	19	6	4,556	2,670	1,407	1,263	1,886	895	991
Highland	47	44	23	21	3	3		1,487	1,403	760	643	84	52	32
Isle of Wight	58	38	8	30	20	6	14	2,434	1,376	693	683	1,058	481	577
James City	21	11	3	8	10	7	3	910	329	166	163	581	242	339
King and Queen	48	27	5	22	21	4	17	2,045	919	465	454	1,126	535	591
King George	33	23	12	11	10	7	3	1,441	705	346	359	736	378	358
King William	42	24	3	21	18	8	10	1,894	738	394	344	1,156	567	589
Lancaster	26	16	2	14	10	5	5	1,267	597	307	290	670	270	400
Lee	99	90	61	29	9	6	3	4,840	4,598	2,427	2,171	242	121	121
Loudoun	116	85	43	42	31	21	10	5,184	3,598	2,007	1,591	1,586	847	739
Louisa	97	82	24	58	15	7	8	3,881	1,608	811	797	2,273	1,052	1,221
Lunenburg	49	32	6	26	17	8	9	2,237	1,068	533	535	1,169	510	650
Madison	70	47	24	23	23	10	13	2,499	1,521	791	820	978	495	483
Mathews	34	23	8	15	11	5	6	1,542	1,016	547	469	526	268	258



WYOMING.

1880. Population..... 20,789. Enrolled in public schools..... 2,907  
 1890. Population..... 60,705. Enrolled in public schools..... 7,052  
 Gain of population ..... 192.01 per cent. Gain of enrollment in public schools ..... 142.59 per cent.

Hon. S. F. Farwell, superintendent of public instruction, furnished the manuscript for the table of public schools in Wyoming.

The parochial schools are Catholic. Some Indian schools, not here included, will be added in the final summary.

PUBLIC SCHOOLS OF WYOMING FOR THE YEAR ENDED AUGUST 31, 1889.

COUNTIES.	TEACHERS.							PUPILS.						
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
The State.....	259	259	58	201				7,052	7,052	3,492	3,560			
Albany.....	31	34	2	32				971	971	512	459			
Carbon.....	30	30	4	26				929	929	462	467			
Converse.....	20	20	5	15				415	415	220	195			
Crook (a).....	11	11	2	9				258	258	62	196			
Fremont.....	17	17	4	13				375	375	180	195			
Johnson.....	11	11	2	9				253	253	127	126			
Laramie.....	72	72	14	58				1,315	1,315	681	634			
National Park Reservation (b).....														
Natrona (c).....														
Sheridan.....	22	22	9	13				406	406	215	191			
Sweetwater.....	9	9	2	7				560	560	243	317			
Uinta.....	33	33	14	19				1,570	1,570	790	780			

SUMMARY OF PRIVATE AND PAROCHIAL SCHOOLS REPORTED TO JANUARY 15, 1891.

SCHOOLS.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	
Private.....	8	8	1	7			140	140	35	105
Parochial.....	5	5		5			191	191	73	118

a No report (estimated).

b No report.

c Not organized in 1889.

## CITIES.

Bulletin No. 17 gave a general statement of school enrollment in one hundred and two cities having over ten thousand population, to which is here added a further list of eighty-three cities.

In the following table the cities showing no colored pupils are those which have definitely reported no colored pupils in their schools. There is considerable delay in ascertaining the sex or color of pupils for the census year in some cities whose records were closed without reference to one or both of these particulars. Correspondence with superintendents and teachers is enlarging the number of reports.

There are other particulars that require attention in some instances before giving out returns. Sometimes the boundaries of the territory supporting a system of schools differ greatly from the city lines. For example: Aurora, Illinois, contains two independent school systems, which, when combined, as in this table, are not precisely coterminous with the city, leaving still a small error to be eliminated if rigid accuracy of comparison of attendance within city limits were demanded.

The conditions in the city of New York are peculiar. The schools directly or indirectly controlled by the board of education are: Ward schools, grammar and primary; nautical school; corporate schools; evening schools; evening high schools; College of the city of New York, and Normal College of the city of New York.

The ward schools, the college, and the normal college correspond to the day schools of many other cities, and it is their aggregate enrollment which appears in the table.

The nautical school, with one hundred and forty-nine boys and two male instructors, not included in the table, is free to boys between the ages of fifteen and twenty years. The pupils live on shipboard.

The evening schools and evening high schools are comparable with like work elsewhere.

The corporate schools comprise sixteen asylums and other institutions, responsible under local law to the board of education. Ten kindred institutions have similar relations to the board of education in the city of Brooklyn. Like institutions do not usually report to boards of education.

## PUBLIC SCHOOLS OF EIGHTY-THREE CITIES WITH 10,000 INHABITANTS AND OVER.

STATES AND CITIES.	TEACHERS.						PUPILS.							
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
<b>ALABAMA:</b>														
Birmingham	59	40	5	35	19	5	14	3,338	1,876	875	1,001	1,462	664	792
Mobile	65	43	9	34	22	5	17	3,709	2,559	1,211	1,348	1,150	538	612
<b>COLORADO:</b>														
Pueblo (a)	62	62	9	53				2,849	2,800	1,400	1,400	49	23	26
<b>CONNECTICUT:</b>														
New Haven (b)	319	319	24	295				15,673	15,063	7,679	7,384	510	250	260
<b>FLORIDA:</b>														
Jacksonville	67	35	6	29	32	8	24	2,559	1,079	555	524	1,480	690	790
Key West	28	18	4	14	10	2	8	1,235	637	267	370	598	277	321
<b>ILLINOIS:</b>														
Alton	28	28	3	25				1,515	1,375	651	724	140	64	76
Aurora	72	72	5	67				3,234	3,193	1,619	1,574	41	20	21
Cairo	29	19	1	18	10	1	9	1,517	929	435	494	588	237	251
Danville	58	58	8	50				2,719	2,699	1,374	1,325	20	10	10
Decatur (a)	48	48	6	42				3,116	2,990	1,498	1,498	120	45	75
East Saint Louis	39	36	8	28	3	2	1	1,594	1,450	746	704	144	71	73
Galesburg	53	53	3	50				2,308	2,156	1,051	1,105	152	70	82
Mobile (a)	44	44	3	41				2,126	2,096	1,014	1,082	30	15	15
Peoria (a)	142	142	13	129				7,561	7,448	3,586	3,862	113	57	56
Rock Island (a)	48	48	4	44				2,340	2,307	1,147	1,160	33	13	20
Springfield	80	80	8	72				3,659	3,159	1,619	1,540	500	243	257
<b>INDIANA:</b>														
Indianapolis (a)	314	300	15	285	14	3	11	16,276	14,799	6,768	8,031	1,477	632	845
La Fayette (a)	59	58	5	53	1	1		7,139	7,059	3,479	3,580	80	45	35
Richmond	62	62	5	57				2,689	2,463	1,179	1,284	226	103	123
<b>IOWA:</b>														
Clinton	54	54	2	52				2,692	2,648	1,320	1,328	44	20	24
<b>KANSAS:</b>														
Wichita (a)	90	90	17	73				4,804	4,651	2,239	2,412	153	79	74
<b>KENTUCKY:</b>														
Lexington	62	42	2	40	20	3	17	2,905	2,008	1,021	987	897	395	502
Newport	56	55	2	53	1	1		3,273	3,198	1,511	1,687	75	34	41
<b>LOUISIANA:</b>														
Shreveport	19	10	3	7	9	6	3	722	310	168	142	412	198	214
<b>MAINE:</b>														
Auburn	59	59	3	56				1,820	1,820	870	950			
Biddeford	51	51	7	44				1,930	1,930	1,065	865			
Portland (a)	167	167	11	156				6,167	6,150	3,550	2,600	17	13	4
<b>MARYLAND:</b>														
Cumberland	26	23	3	20	3	2	1	1,724	1,559	775	764	185	98	87
Hagerstown	38	36	8	27	3	1	2	1,671	1,488	754	734	183	89	94
<b>MASSACHUSETTS:</b>														
Brockton (c)	85	85	9	76				3,892	3,890	2,022	1,868	2		2
Everett	42	42	3	39				1,998	1,985	925	1,060	13	6	7
Lynn	166	165	10	155	1		1	8,550	8,550	4,354	4,196			
Newburyport (a)	38	38	5	33				1,737	1,726	867	859	11	6	5
North Adams (a)	67	67	2	65				2,631	2,619	1,352	1,267	12	6	6
Peabody	44	44	5	39				2,129	2,129	1,016	1,113			
Somerville (a)	142	142	11	131				7,757	7,737	4,077	3,680	20	10	10
Springfield (a)	152	152	8	144	1		1	6,266	6,066	2,801	3,265	200	100	100
<b>MICHIGAN:</b>														
Kalamazoo (a)	70	70	2	68				3,289	3,214	1,547	1,667	75	30	45
Lansing	38	38	1	37				2,322	2,262	1,000	1,262	60	20	40
Menominee	30	30	1	29				1,423	1,423	697	726			
Muskegon	101	101	7	94				5,171	5,171	2,571	2,600			

a Number of colored pupils estimated from the present attendance.

b Number of colored pupils and ratio of the sexes estimated from the present attendance.

c Sex estimated.

## PUBLIC SCHOOLS OF EIGHTY-THREE CITIES WITH 10,000 INHABITANTS AND OVER—CONTINUED.

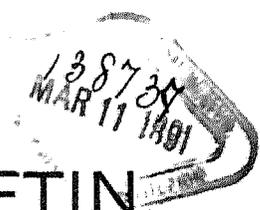
STATES AND CITIES.	TEACHERS.							PUPILS.						
	Aggre- gate.	White.			Colored.			Aggre- gate.	White.			Colored.		
		Total.	Male.	Female.	Total.	Male.	Female.		Total.	Male.	Female.	Total.	Male.	Female.
MINNESOTA:														
Duluth	70	70	3	67			3,197	3,191	1,654	1,537	6	4	2	
MONTANA:														
Butte City	50	50	7	43			2,447	2,425	1,206	1,219	22	9	13	
Helena (a)	33	33	2	31			1,565	1,560	724	636	35	18	17	
NEW YORK:														
Auburn (a)	102	102	5	97			3,534	3,459	1,706	1,753	75	40	35	
Binghamton (a)	102	102	6	96			4,763	4,722	2,325	2,397	41	21	20	
Brooklyn (b)	1,958	1,940	80	1,860	18	2	16	110,722	109,086	54,647	54,439	1,636	839	797
Colosse	55	55	1	54			2,619	2,619	1,362	1,257				
Elmira (a)	98	98	5	93			4,629	4,528	2,317	2,211	161	40	61	
New York (c)	3,706	3,690	329	3,361	16	1	15	197,945	196,333	98,029	98,304	1,612	806	806
Rochester	442	442	17	425			17,024	16,955	8,358	8,597	69	31	38	
Rome (a)	41	41	4	37			2,096	2,086	1,094	992	10	5	5	
Saratoga Springs	47	47	5	42			2,273	2,204	1,088	1,116	69	35	34	
Yonkers (a)	68	68	4	64			3,624	3,594	1,878	1,716	30	15	15	
OHIO:														
Canton	80	80	12	68			4,253	4,241	2,107	2,134	12	4	8	
Newark (a)	56	56	5	51			2,588	2,545	1,212	1,333	43	16	27	
Sandusky	66	66	6	60			3,029	2,934	1,480	1,445	95	40	55	
Springfield (a)	113	113	18	95			5,098	4,400	2,239	2,161	698	344	354	
Steubenville	60	60	12	48			2,556	2,431	1,301	1,130	125	55	70	
PENNSYLVANIA:														
Allentown	74	74	14	60			4,362	4,362	2,181	2,181				
Bradford	44	44	1	43			1,733	1,717	764	1,013	16	7	9	
Carbondale	32	32	4	28			1,740	1,740	824	916				
Columbia	33	32	2	30	1	1		1,883	1,760	860	900	123	59	64
Hazleton	34	34	6	28			1,809	1,809	899	910				
Mahanoy City	31	31	5	26			1,959	1,939	1,093	846				
Oil City	36	36	2	34			2,118	2,093	994	1,099	25	6	19	
Pottsville	52	52	7	45			2,462	2,435	1,285	1,150	27	9	18	
Reading (a)	189	189	7	182			8,687	8,587	4,303	4,284	100	50	50	
Shenandoah	43	43	8	35			2,684	2,684	1,294	1,390				
RHODE ISLAND:														
Pawtucket (a)	85	85	8	77			5,019	5,004	2,558	2,446	15	8	7	
Woonsocket	46	46	4	42			2,231	2,231	1,150	1,081				
SOUTH CAROLINA:														
Charleston	110	106	9	97	4		4	5,287	2,803	1,641	1,762	2,484	1,004	1,390
SOUTH DAKOTA:														
Sioux Falls	35	35	3	32			1,441	1,438	717	721	3		3	
VERMONT:														
Rutland	29	29	2	27			1,211	1,211	427	784				
VIRGINIA:														
Lynchburg	52	38	4	34	24	8	16	3,350	1,677	799	878	1,673	680	993
Portsmouth	23	16	2	14	7	1	6	1,705	1,088	527	561	617	290	327
Roanoke	18	13	2	11	5	1	4	2,033	1,424	670	754	609	273	336
WASHINGTON:														
Tacoma (a)	59	59	4	55			5,556	5,551	2,810	2,741	5	3	2	
WEST VIRGINIA:														
Huntington	30	27	2	25	3	2	1	1,506	1,324	673	651	182	80	102
WISCONSIN:														
Fond du Lac	47	47	1	46			2,294	2,260	1,187	1,103	34	19	15	
Oshkosh	62	62	9	53			7,808	7,808	3,802	3,906				
WYOMING:														
Cheyenne	23	23	2	21			993	980	510	470	13	6	7	

a Number of colored pupils estimated from the present attendance.

c Colored pupils partly estimated.

b Number of colored pupils and ratio of the sexes estimated from the present attendance.

[7-010]



# CENSUS BULLETIN.

No. 37.

WASHINGTON, D. C.

March 7, 1891.

## POPULATION BY COUNTIES.

North Atlantic and South Atlantic Divisions.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., March 3, 1891.

This bulletin gives the population in detail by counties for the states and territories comprised within the North Atlantic and South Atlantic divisions, as follows:

**NORTH ATLANTIC DIVISION:** Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania.

**SOUTH ATLANTIC DIVISION:** Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

The figures given in this bulletin are according to the official count of the returns of the Eleventh Census as finally determined. The population for each county as returned in 1880 is given for purposes of comparison, together with the increase or decrease during the decade.

Similar statements of population by counties are issued as separate bulletins for the states comprising the North Central division and for the states and territories comprising the South Central and Western divisions. The states and territories included in these divisions are as follows:

[AS A SEPARATE BULLETIN.]

**NORTH CENTRAL DIVISION:** Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

[AS A SEPARATE BULLETIN.]

**SOUTH CENTRAL DIVISION:** Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas.

**WESTERN DIVISION:** Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon, California.

# POPULATION BY COUNTIES.

## NORTH ATLANTIC DIVISION.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<b>Maine</b> .....	661,086	648,936	12,150		<b>Connecticut</b> .....	746,258	622,700	123,558	
Androscoggin.....	48,968	45,042	3,926		Fairfield.....	150,081	112,042	38,039	
Aroostook.....	49,589	41,700	7,889		Hartford.....	147,180	125,382	21,798	
Cumberland.....	90,949	86,359	4,590		Hitchfield.....	58,542	52,044	6,498	
Franklin.....	17,053	18,180		1,127	Middlesex.....	39,524	35,589	3,935	
Hancock.....	37,312	34,129		817	New Haven.....	200,058	156,523	43,535	
Kennebec.....	57,012	53,058	3,954		New London.....	76,634	73,152	3,482	
Knox.....	31,473	32,863		1,390	Tolland.....	25,081	24,112	969	
Lincoln.....	21,006	24,821		2,825	Windham.....	45,158	48,856		1,802
Oxford.....	50,586	32,627		2,041	<b>New York</b> .....	5,997,853	5,082,871	914,982	
Penobscot.....	72,868	70,476	2,392		Albany.....	104,555	154,890		9,665
Piscataquis.....	10,134	14,872		1,262	Allegany.....	43,240	41,810	1,430	
Sagadahoc.....	19,452	19,272	180		Broome.....	62,973	49,483	13,490	
Somerset.....	32,627	32,333	294		Cattaraugus.....	60,866	55,806	5,060	
Waldo.....	27,759	32,433		4,704	Cayuga.....	65,302	65,081	221	
Washington.....	44,482	44,484		2	Chautauqua.....	75,202	65,842	9,860	
York.....	62,829	62,257	572		Chemung.....	48,265	43,065	5,200	
<b>New Hampshire</b> .....	376,530	346,901	29,629		Chenango.....	37,776	39,891		2,115
Belknap.....	20,321	17,948	2,373		Clinton.....	46,437	50,897		4,460
Carroll.....	18,124	18,224		100	Columbia.....	46,172	47,923		1,751
Cheshire.....	20,579	28,734		845	Corland.....	28,657	25,825	2,832	
Cocos.....	23,211	18,580	4,631		Delaware.....	45,496	42,721	2,775	
Grafton.....	37,217	38,788		1,571	Dutchess.....	77,879	79,184		1,805
Hillsborough.....	63,247	75,634		17,613	Erie.....	322,981	219,884	103,097	
Merrimack.....	49,435	46,300	3,135		Essex.....	33,052	34,515		1,463
Rockingham.....	49,650	49,064	586		Franklin.....	88,110	82,390	5,720	
Strafford.....	38,442	35,558	2,884		Fulton.....	37,850	30,985	6,665	
Sullivan.....	17,304	18,161		857	Genesee.....	33,265	32,806	459	
<b>Vermont</b> .....	332,422	332,286	136		Greene.....	31,598	32,695		1,097
Addison.....	22,277	24,173		1,896	Hamilton.....	4,762	3,623	839	
Bennington.....	20,448	21,950		1,502	Herkimer.....	45,608	42,669	2,939	
Caledonia.....	23,436	23,607		171	Jefferson.....	68,806	66,108	2,708	
Chittenden.....	65,389	82,702		2,597	Kings.....	838,547	599,495	239,052	
Essex.....	9,511	7,931	1,580		Lewis.....	29,806	31,416		1,610
Franklin.....	29,755	30,225		470	Livingston.....	37,801	39,562		1,761
Grand Isle.....	3,843	4,124		281	Madison.....	42,892	44,112		1,220
Lamoille.....	12,831	12,684	147		Monroe.....	189,586	144,903	44,683	
Orange.....	19,575	23,525		3,950	Montgomery.....	45,669	38,815	7,854	
Orleans.....	22,101	22,083	18		New York.....	1,515,301	1,206,299	309,002	
Rutland.....	45,397	41,829	3,568		Niagara.....	62,461	54,173	8,288	
Washington.....	29,606	25,044	4,562		Oneida.....	122,922	115,475	7,447	
Windham.....	25,547	26,763		216	Onondaga.....	146,247	117,898	28,349	
Windsor.....	81,706	35,196		3,490	Ontario.....	48,433	49,541		1,088
<b>Massachusetts</b> .....	2,238,943	1,783,085	455,858		Orange.....	97,859	88,220	9,639	
Barnstable.....	29,172	31,897		2,725	Orleans.....	30,803	30,128	675	
Berkshire.....	81,198	69,032	12,076		Oswego.....	71,883	77,011		5,028
Bristol.....	186,405	139,040	47,425		Otsego.....	50,861	51,397		536
Dukes.....	4,869	4,300	569		Putnam.....	14,849	15,181		332
Essex.....	299,985	244,635	55,460		Queens.....	128,050	90,574	37,476	
Franklin.....	38,610	36,001	2,609		Rensselaer.....	124,511	115,323	9,188	
Hampden.....	135,713	104,142	31,571		Richmond.....	51,693	38,991	12,702	
Hampshire.....	51,859	47,232	4,627		Rockland.....	35,162	27,090	7,472	
Middlesex.....	431,167	317,830	113,337		Saint Lawrence.....	85,048	85,997		949
Nantucket.....	3,268	3,727		459	Saratoga.....	57,663	55,150	2,507	
Norfolk.....	118,950	96,507	22,443		Schenectady.....	29,797	23,538	6,259	
Plymouth.....	92,700	74,018	18,682		Schoharie.....	29,164	32,010		8,746
Suffolk.....	484,780	387,927	96,853		Schuylcr.....	16,711	18,842		2,131
Worcester.....	290,767	225,897	64,870		Seneca.....	23,227	29,278		1,051
<b>Rhode Island</b> .....	345,506	276,531	68,975		Steuben.....	81,473	77,586	3,887	
Bristol.....	11,428	11,394	34		Suffolk.....	62,491	53,888	8,603	
Kent.....	26,754	20,588	6,166		Sullivan.....	81,081	82,491		1,410
Newport.....	28,652	24,180	4,472		Tioga.....	29,935	32,673		2,738
Providence.....	255,123	197,574	57,549		Tompkins.....	32,923	34,445		1,522
Washington.....	22,649	22,456	1,193		Ulster.....	87,062	85,838	1,224	
			1,164		Warren.....	27,866	26,179	1,687	
					Washington.....	45,680	47,871		2,191
					Wayne.....	49,729	51,700		1,971
					Westchester.....	146,772	108,988	37,784	
					Wyoming.....	31,193	30,907	286	
					Yates.....	21,001	21,067		66

POPULATION BY COUNTIES—NORTH ATLANTIC DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<b>New Jersey</b> .....	1,444,993	1,181,116	313,817		<b>Pennsylvania—Continued.</b>				
Atlantic.....	28,836	18,704	10,132		Cumberland.....	47,271	45,977	1,294	
Bergen.....	47,226	36,786	10,440		Dauphin.....	96,977	76,148	20,829	
Burlington.....	58,528	55,402	3,126		Delaware.....	74,683	56,101	18,582	
Camden.....	87,687	62,942	24,745		Elk.....	22,239	12,860	9,379	
Cape May.....	11,268	9,705	1,563		Eric.....	86,074	74,688	11,386	
Cumberland.....	45,428	37,687	7,741		Fayette.....	80,006	58,842	21,164	
Essex.....	256,098	189,929	66,169		Forest.....	8,482	4,385	4,097	
Gloucester.....	28,649	25,886	2,763		Franklin.....	31,433	49,855	1,578	
Hudson.....	275,126	187,944	87,182		Fulton.....	16,137	16,149		12
Hunterdon.....	35,358	38,570		3,215	Greene.....	28,965	28,478	662	
Mercer.....	79,978	58,061	21,917		Huntingdon.....	35,781	33,954	1,797	
Middlesex.....	61,754	52,286	9,468		Indiana.....	42,175	46,527	1,648	
Monmouth.....	60,128	55,538	4,590		Jefferson.....	44,005	27,935	16,070	
Morris.....	54,101	50,861	3,240		Juniata.....	16,655	18,227		1,572
Ocean.....	15,974	14,455	1,519		Lackawanna.....	142,088	89,269	52,819	
Passaic.....	105,046	68,800	36,186		Lancaster.....	143,665	139,447	4,218	
Salem.....	25,151	24,579	572		Lawrence.....	37,617	33,312	4,305	
Somerset.....	28,311	27,162	1,149		Lebanon.....	48,131	38,476	9,655	
Sussex.....	22,259	23,539		1,280	Lehigh.....	76,631	65,969	10,662	
Union.....	72,467	55,571	16,896		Luzerne.....	291,293	133,965	157,328	
Warren.....	36,553	36,589		36	Lycoming.....	70,679	57,486	13,693	
<b>Pennsylvania</b> .....	5,258,014	4,282,891	975,123		McKean.....	46,863	42,505	4,358	
Adams.....	33,486	32,455	1,031		Mercer.....	55,744	56,161		417
Allegheny.....	551,959	355,869	196,090		Mifflin.....	19,996	19,577		419
Armstrong.....	46,747	47,611		864	Monroe.....	26,111	26,179		64
Beaver.....	50,077	39,605	10,472		Montgomery.....	123,299	96,494	26,796	
Bedford.....	38,644	34,929	3,715		Moutour.....	15,645	15,468		177
Berks.....	137,327	122,597	14,730		Northampton.....	84,229	70,312	13,908	
Blair.....	70,866	52,740	18,126		Northumberland.....	74,698	53,122	21,576	
Bradford.....	59,233	58,541	692		Perry.....	26,276	27,522		1,246
Bucks.....	70,615	68,656	1,959		Philadelphia.....	1,046,964	847,170	199,794	
Butler.....	55,339	52,536	2,803		Pike.....	9,412	9,663		251
Cambria.....	66,375	40,811	25,564		Potter.....	22,778	13,797	8,981	
Cameron.....	7,288	5,159	2,079		Schuylkill.....	154,163	129,974	24,189	
Carbon.....	28,624	31,923	6,701		Snyder.....	17,651	17,797		146
Centre.....	43,269	37,922	5,347		Somerset.....	37,317	33,110	4,207	
Chester.....	89,377	83,481	5,896		Sullivan.....	11,629	8,073	3,557	
Clarion.....	36,802	40,328		3,526	Susquehanna.....	40,063	40,354		291
Clearfield.....	69,565	43,408	26,157		Tioga.....	52,313	45,814	6,499	
Clinton.....	28,685	26,278	2,407		Union.....	17,829	16,905	915	
Columbia.....	36,832	32,409	4,423		Venango.....	46,649	43,676	2,973	
Crawford.....	65,324	68,607		3,283	Warren.....	37,585	27,981	9,604	

SOUTH ATLANTIC DIVISION.

<b>Delaware</b> .....	168,493	146,608	21,885		<b>Maryland—Continued.</b>				
Kent.....	32,664	32,874		210	Montgomery.....	27,185	24,759	2,426	
New Castle.....	97,132	77,716	19,466		Prince George.....	26,069	23,451	2,618	871
Sussex.....	38,647	36,018	2,629		Queen Anne.....	18,461	19,287		726
<b>Maryland</b> .....	1,042,390	994,943	107,447		Saint Mary.....	15,819	16,834		1,115
Allegany.....	41,571	38,012	3,559		Somerset.....	24,155	21,668	2,487	
Anne Arundel.....	34,094	28,526	5,568		Talbot.....	19,736	19,065	671	
Baltimore.....	72,909	83,336		10,427	Washington.....	33,782	38,561	1,221	
Baltimore city.....	434,439	332,313	102,126		Wicomico.....	19,630	18,016	1,614	
Calvert.....	9,860	10,538		678	Worcester.....	19,747	19,529	218	
Caroline.....	13,908	13,766	137		<b>District of Columbia.</b>	230,362	177,624	52,738	
Carrroll.....	32,376	30,992	1,384		<b>The District.</b>	230,362	177,624	52,738	
Cecil.....	25,851	27,108		1,257	<b>Virginia</b> .....	1,655,969	1,512,565	143,415	
Charles.....	15,191	18,548		3,357	Accomac.....	27,277	24,408	2,869	
Dorchester.....	24,843	23,110	1,733		Albemarle.....	32,379	32,518		239
Frederick.....	49,512	50,482		970	Alexandria.....	18,597	17,546	1,051	
Garrett.....	14,213	12,175	2,038		Alleghany.....	9,283	5,586	3,697	
Harford.....	28,993	28,042	951		Amelia.....	9,068	10,377		1,309
Howard.....	16,269	16,140	129						
Kent.....	17,471	17,605		134					

## POPULATION BY COUNTIES—SOUTH ATLANTIC DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<b>Virginia—Continued.</b>					<b>Virginia—Continued.</b>				
Amherst.....	17,551	18,706	.....	1,158	Roanoke.....	80,101	13,105	16,996	.....
Appomattox.....	9,589	10,980	.....	491	Rockbridge.....	23,082	20,003	3,059	.....
Augusta.....	37,005	35,710	1,255	.....	Rockingham.....	31,299	29,567	1,732	.....
Bath.....	4,547	4,482	105	.....	Russell.....	16,126	13,905	2,220	.....
Bedford.....	31,213	31,205	8	.....	Scott.....	21,694	17,233	4,461	.....
Bland.....	5,129	5,004	125	.....	Shenandoah.....	19,671	13,204	1,467	.....
Boletour.....	14,854	14,809	45	.....	Smyth.....	13,360	12,160	1,200	.....
Brunswick.....	17,245	16,707	538	.....	Southampton.....	20,078	18,012	2,066	.....
Buchanan.....	5,857	5,094	173	.....	Spottsylvania.....	14,233	14,828	.....	595
Buckingham.....	14,383	15,540	.....	1,157	Stafford.....	7,362	7,211	151	.....
Campbell.....	41,087	36,250	4,837	.....	Surry.....	8,256	7,391	865	.....
Caroline.....	16,681	17,243	.....	562	Sussex.....	11,100	10,002	1,098	.....
Carroll.....	15,497	13,323	2,174	.....	Tazewell.....	10,899	12,861	7,088	.....
Charles City.....	5,066	5,512	.....	446	Warren.....	8,280	7,399	881	.....
Charlotte.....	15,077	16,653	.....	1,576	Warwick.....	6,650	2,258	4,392	.....
Chesterfield.....	26,211	25,085	1,126	.....	Washington.....	29,020	25,203	3,817	.....
Clarke.....	8,071	7,682	389	.....	Westmoreland.....	8,309	8,846	.....	447
Craig.....	3,835	3,794	41	.....	Wise.....	9,345	7,772	1,573	.....
Culpeper.....	13,238	13,408	.....	175	Wythe.....	18,019	14,318	3,701	.....
Cumberland.....	9,482	10,540	.....	1,058	York.....	7,596	7,349	247	.....
Dickenson.....	5,077	.....	5,077	.....	<b>West Virginia.....</b>				
Dinwiddie.....	36,195	32,870	3,325	.....	762,704	618,457	144,337	.....	.....
Elizabeth City.....	16,168	10,689	5,479	.....	Barbour.....	12,702	11,870	832	.....
Essex.....	10,047	11,082	.....	985	Berkeley.....	18,702	17,380	1,322	.....
Fairfax.....	16,655	16,025	630	.....	Boone.....	6,885	5,824	1,061	.....
Fauquier.....	22,590	22,993	.....	403	Braxton.....	13,928	9,787	4,141	.....
Floyd.....	14,405	13,255	1,150	.....	Brooke.....	6,660	6,013	647	.....
Fuvanna.....	9,508	10,502	.....	1,204	Cabell.....	23,595	13,744	9,851	.....
Franklin.....	24,985	25,084	.....	99	Calhoun.....	8,165	6,072	2,083	.....
Frederick.....	17,830	17,568	.....	262	Clay.....	4,659	3,460	1,199	.....
Giles.....	9,060	8,794	.....	266	Clay.....	12,183	10,552	1,631	.....
Gloucester.....	11,653	11,876	.....	223	Doddridge.....	20,542	11,560	8,982	.....
Goochland.....	9,958	10,292	.....	334	Fayette.....	.....	.....	.....	.....
Grayson.....	14,394	13,063	1,326	.....	Gilmer.....	9,746	7,108	2,638	.....
Greene.....	5,622	5,830	.....	208	Grant.....	6,802	5,542	1,260	.....
Greensville.....	8,230	8,407	.....	177	Greenbrier.....	18,034	15,069	2,974	.....
Halifax.....	34,424	33,588	836	.....	Hampshire.....	11,419	10,366	1,053	.....
Hanover.....	17,492	18,588	.....	1,186	Hancock.....	6,414	4,882	1,532	.....
Henrico.....	108,394	82,703	20,691	.....	Hardy.....	7,567	6,794	773	.....
Henry.....	18,203	16,009	2,199	.....	Harrison.....	21,919	20,181	1,738	.....
Highland.....	5,352	5,164	188	.....	Jackson.....	19,021	16,312	2,709	.....
Isle of Wight.....	11,313	10,872	441	.....	Jefferson.....	15,553	15,005	548	.....
James City.....	5,043	5,422	.....	379	Kanawha.....	42,756	32,466	10,290	.....
King and Queen.....	9,689	10,802	.....	1,113	Lewis.....	15,805	13,269	2,536	.....
King George.....	6,641	6,397	.....	244	Lincoln.....	11,246	8,739	2,507	.....
King William.....	9,005	8,751	.....	254	Logan.....	11,101	7,329	3,772	.....
Lancaster.....	7,191	6,160	1,031	.....	McDowell.....	7,300	3,074	4,226	.....
Lee.....	18,216	15,116	3,100	.....	Marion.....	20,721	17,198	3,523	.....
Loudoun.....	23,274	23,634	.....	360	Marshall.....	20,735	18,840	1,895	.....
Louisa.....	16,907	18,942	.....	1,945	Mason.....	22,303	22,263	40	.....
Lunenburg.....	11,872	11,535	.....	337	Mercer.....	16,002	7,467	8,535	.....
Madison.....	10,225	10,562	.....	337	Mineral.....	12,085	8,680	3,405	.....
Mathews.....	7,584	7,501	.....	83	Monongalia.....	15,705	14,985	720	.....
Mecklenburg.....	25,359	24,610	.....	749	Monroe.....	12,420	11,501	919	.....
Middlesex.....	7,453	6,252	1,201	.....	Morgan.....	6,744	5,777	967	.....
Montgomery.....	17,742	16,093	1,649	.....	Nicholas.....	9,309	7,223	2,086	.....
Nansemond.....	19,692	15,903	3,789	.....	Ohio.....	41,657	37,457	4,200	.....
Nelson.....	15,336	19,536	.....	1,200	Pendleton.....	8,711	8,022	689	.....
New Kent.....	5,511	5,515	.....	4	Pleasants.....	7,539	6,256	1,283	.....
Norfolk.....	77,038	68,667	18,381	.....	Pocahontas.....	6,814	5,591	1,223	.....
Northampton.....	10,313	9,182	1,131	.....	Preston.....	20,855	19,001	1,854	.....
Northumberland.....	7,385	7,929	.....	544	Putnam.....	14,842	11,375	2,967	.....
Nottoway.....	11,582	11,156	426	.....	Raleigh.....	9,597	7,367	2,230	.....
Orange.....	12,814	12,082	832	.....	Randolph.....	11,033	8,102	2,931	.....
Page.....	13,092	9,905	3,187	.....	Ritchie.....	16,621	13,474	3,147	.....
Patriot.....	14,147	13,833	314	.....	Roane.....	15,303	12,184	3,119	.....
Pittsylvania.....	59,841	52,589	7,252	.....	Summers.....	13,117	9,038	4,084	.....
Powhatan.....	4,791	7,817	.....	1,026	Taylor.....	12,147	11,465	682	.....
Prince Edward.....	14,094	14,668	.....	574	Tucker.....	6,459	3,151	3,308	.....
Prince George.....	7,872	10,054	.....	2,182	Tyler.....	11,962	11,073	889	.....
Princess Anne.....	9,510	9,894	.....	384	Upshur.....	12,714	10,249	2,465	.....
Prince William.....	9,806	9,180	.....	626	Wayne.....	18,652	14,739	3,913	.....
Pulaski.....	12,790	8,735	4,055	.....	Webster.....	4,783	3,207	1,576	.....
Rappahannock.....	8,678	9,201	.....	523	Wetzel.....	16,841	13,896	2,945	.....
Richmond.....	7,146	7,195	.....	49	Wirt.....	9,411	7,104	2,307	.....
					Wood.....	28,012	25,006	3,006	.....
					Wyoming.....	6,247	4,322	1,925	.....

POPULATION BY COUNTIES—SOUTH ATLANTIC DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
North Carolina.....	1,617,947	1,399,750	218,197		North Carolina - Con- tinued.....				
Alamance.....	18,271	14,613	3,658		Rockingham.....	25,893	21,744	3,619	
Alexander.....	9,430	8,355	1,075		Rowan.....	24,123	19,955	4,158	
Alleghany.....	6,523	5,486	1,037		Rutherford.....	18,770	15,198	3,572	
Anson.....	20,027	17,904	2,033		Sampson.....	25,095	22,894	2,202	
Ashie.....	15,628	14,437	1,191		Stanly.....	12,136	19,565	1,681	
Beaufort.....	21,072	17,474	3,598		Stokes.....	17,159	13,353	1,846	
Bertie.....	19,176	16,999	2,777		Surry.....	19,281	15,302	3,979	
Bladen.....	16,703	16,158	505		Swain.....	6,577	3,784	2,793	
Brunswick.....	10,900	9,299	1,611		Transylvania.....	5,881	5,340	541	
Buncombe.....	35,266	21,909	13,357		Tyrrell.....	4,225	4,545		320
Burke.....	14,939	12,809	2,130		Union.....	21,259	18,056	3,203	
Cabarrus.....	18,142	14,904	3,178		Vance.....	17,581		17,581	
Caldwell.....	12,248	10,291	2,007		Wake.....	49,207	47,929	1,268	
Camden.....	5,667	6,274		607	Warren.....	19,269	22,619		3,259
Cherokee.....	10,825	9,784	1,041		Washington.....	10,260	8,928	1,272	
Caswell.....	16,028	17,825		1,797	Watauga.....	10,611	8,160	2,451	
Catawba.....	18,689	14,046	3,743		Wayne.....	26,100	24,561	1,539	
Chatham.....	25,413	23,453	1,960		Wilkes.....	22,675	19,181	3,494	
Cherokee.....	9,976	8,182	1,794		Wilson.....	18,644	16,064	2,580	
Chowan.....	9,167	7,900	1,267		Yadkin.....	12,790	12,420	1,370	
Clay.....	4,197	3,316	881		Yancey.....	9,490	7,694	1,796	
Cleveland.....	20,394	16,571	3,823						
Columbus.....	17,856	14,439	3,417		South Carolina.....	1,151,149	965,577	155,572	
Craven.....	20,533	19,729	804		Abbeville.....	46,854	40,815	6,039	
Cumberland.....	27,321	23,836	3,485		Alcon.....	31,822	28,112	3,710	
Currituck.....	6,747	6,476	271		Anderson.....	43,696	33,612	10,084	
Dare.....	3,768	3,243	525		Barwell.....	44,613	39,867	4,746	
Davidson.....	21,702	20,323	1,369		Beaufort.....	31,119	30,176	943	
Davidson.....	11,621	11,696		75	Berkeley.....	55,428		55,428	
Duplin.....	18,690	18,773		83	Charleston.....	59,403	102,900		42,897
Durham.....	18,041		18,041		Chester.....	25,660	24,153	2,507	
Edgecombe.....	24,113	26,181		2,068	Chesterfield.....	18,468	16,945	2,123	
Forsyth.....	28,484	18,070	10,364		Cherokee.....	23,293	19,160	4,043	
Franklin.....	21,090	20,829	261		Colleton.....	40,293	36,386	3,907	
Gaston.....	17,704	14,254	3,510		Darlington.....	29,134	34,485		5,351
Gates.....	10,252	8,897	1,355		Edgefield.....	49,259	45,814	3,415	
Granham.....	8,318	2,335	978		Fairfield.....	28,599	27,765	834	
Granville.....	24,484	31,236		6,802	Florence.....	25,027		25,027	
Greene.....	10,039	10,037	2		Georgetown.....	20,877	19,613	1,244	
Guilford.....	28,032	23,585	4,467		Greenville.....	44,310	37,496	6,814	
Halifax.....	28,908	30,390		1,392	Hampton.....	20,544	18,741	1,803	
Harnett.....	13,700	10,862	2,838		Horry.....	19,256	15,574	3,682	
Haywood.....	13,346	10,271	3,075		Kershaw.....	22,861	21,538	1,323	
Henderson.....	12,589	10,281	2,308		Lancaster.....	20,781	16,903	3,878	
Hertford.....	13,851	11,843	2,008		Laurens.....	31,610	29,444	2,166	
Hyde.....	8,903	7,765	1,138		Lexington.....	22,181	18,564	3,617	
Iredell.....	25,402	22,075	2,787		Marion.....	29,976	34,107		4,131
Jackson.....	9,512	7,843	2,169		Marlborough.....	23,800	20,998	2,802	
Johnston.....	27,239	23,461	3,778		Newberry.....	26,434	26,497		63
Jones.....	7,403	7,461		58	Oconee.....	18,687	16,256	2,431	
Lenoir.....	14,879	15,344		465	Orangeburg.....	49,393	41,395	7,998	
Lincoln.....	12,588	11,061	1,525		Pickens.....	16,389	14,589	2,000	
McDowell.....	10,939	9,836	1,103		Richland.....	36,821	28,573	8,248	
Macon.....	10,102	8,064	2,038		Spartanburg.....	55,398	40,409	14,976	
Madison.....	17,815	12,810	4,995		Sumter.....	43,615	37,037	6,568	
Martin.....	15,221	13,140	2,081		Union.....	25,303	24,080	1,223	
Mecklenburg.....	42,673	34,175	8,498		Williamsburg.....	27,777	24,110	3,667	
Mitchell.....	12,807	9,435	3,372		York.....	38,831	30,713	8,118	
Montgomery.....	11,239	9,374	1,865						
Moore.....	20,479	16,821	3,658		Georgia.....	1,837,353	1,542,180	295,173	
Nash.....	20,707	17,781	2,976		Appling.....	8,676	5,276	3,400	
New Hanover.....	21,026	21,376	2,650		Baker.....	6,144	7,307		1,163
Northampton.....	21,242	20,032	1,210		Baldwin.....	14,608	13,806	802	
Onslow.....	10,303	9,829	474		Banks.....	8,562	7,337	1,225	
Orange.....	14,948	23,698		8,750	Barrow.....	20,616	18,690	1,926	
Pamlico.....	7,146	6,323	823		Berrien.....	10,691	6,619	4,075	
Pasquotank.....	10,748	10,869	879		Bibb.....	42,379	27,147	15,232	
Pender.....	12,514	12,468	46		Brooks.....	13,979	11,727	2,252	
Perquimans.....	9,293	9,466		173	Bryan.....	5,320	4,629	661	
Person.....	15,151	12,719	2,432		Rulloch.....	13,712	8,063	5,659	
Pitt.....	25,519	21,794	3,725		Barke.....	28,501	27,129	1,373	
Polk.....	6,902	5,062	1,840		Batts.....	10,565	8,311	2,254	
Randolph.....	23,195	20,836	2,359		Calhoun.....	8,438	7,024	1,414	
Richmond.....	23,948	18,245	5,703		Camden.....	6,178	6,183		5
Robeson.....	31,483	23,880	7,603		Campbell.....	9,115	9,970		855

## POPULATION BY COUNTIES—SOUTH ATLANTIC DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<i>Georgia—Continued.</i>					<i>Georgia—Continued.</i>				
Carroll.....	22,301	16,901	5,400		Murray.....	8,461	8,269	192	
Catoosa.....	5,431	4,739	692		Muscogee.....	27,781	19,322	8,459	
Charlton.....	3,335	2,184	1,151		Newton.....	14,310	13,023	1,287	
Chatham.....	57,740	45,023	12,717		Oconee.....	7,713	6,351	1,362	
Chattahoochee.....	4,922	5,670		768	Oglethorpe.....	16,951	15,400	1,551	
Chitloga.....	11,202	10,021	1,181		Paulding.....	11,948	10,887	1,061	
Cherokee.....	15,412	14,325	1,087		Pickens.....	8,182	6,790	1,392	
Clarke.....	15,146	11,792	3,354		Pierce.....	6,379	4,538	1,841	
Clay.....	7,817	6,650	1,167		Pike.....	16,300	15,849	451	
Clayton.....	8,295	8,027	268		Polk.....	14,945	11,952	2,993	
Clinch.....	6,652	4,138	2,514		Polaski.....	16,559	14,058	2,501	
Cobb.....	22,286	20,748	1,538		Putnam.....	14,842	14,539	303	
Coffee.....	10,483	5,070	5,413		Quitman.....	4,471	4,392	79	
Colquitt.....	4,794	2,527	2,267		Rocky.....	5,006	4,634	372	
Columbia.....	11,281	10,465	816		Randolph.....	15,267	13,341	1,926	
Coweta.....	22,354	21,109	1,245		Richmond.....	45,194	34,665	10,529	
Crawford.....	9,315	8,656	659		Rockdale.....	6,813	6,838		25
Dade.....	5,707	4,702	1,005		Schley.....	5,443	5,302	141	
Dawson.....	5,612	5,837		225	Screven.....	14,424	12,768	1,656	
Decatur.....	19,949	19,072	877		Spalding.....	13,117	12,585	532	
De Kalb.....	17,189	14,497	2,692		Stewart.....	15,682	13,998	1,684	
Dodge.....	11,452	5,358	6,094		Sumter.....	22,107	18,239	3,868	
Dooly.....	18,146	12,420	5,726		Talbot.....	13,238	14,715		887
Dougherty.....	12,206	12,622		416	Taliferro.....	7,291	7,034	257	
Douglas.....	7,794	6,634	1,160		Tattnell.....	10,253	6,988	3,265	
Early.....	9,792	7,611	2,181		Taylor.....	8,666	8,567	99	
Echols.....	3,079	2,553	526		Telfair.....	5,477	4,828	649	
Effingham.....	6,509	5,979	530	380	Terrell.....	14,508	10,451	4,057	
Elbert.....	15,376	12,957	2,419		Thomas.....	26,154	20,597	5,557	
Emanuel.....	14,703	9,759	4,944		Towns.....	4,064	3,201	863	
Fannin.....	8,724	7,245	1,479		Troup.....	20,723	20,565	158	
Fayette.....	8,724	8,605	119		Twiggs.....	8,195	8,918		723
Floyd.....	24,391	24,418	27		Union.....	7,749	6,431	1,318	
Forsyth.....	11,155	10,559	596		Upson.....	12,188	12,400		212
Franklin.....	14,670	11,453	3,217		Walker.....	13,282	11,056	2,226	
Fulton.....	81,655	49,137	32,518		Walton.....	17,467	15,622	1,845	
Gilmer.....	9,074	8,388	686		Ware.....	8,811	4,159	4,652	
Gloucester.....	3,720	3,577	143		Warren.....	10,057	10,885		728
Glynn.....	13,420	6,497	6,923		Washington.....	25,237	21,964	3,273	
Gordon.....	12,758	11,171	1,587		Wayne.....	7,485	5,980	1,505	
Greene.....	17,051	17,547		496	Webster.....	5,696	5,237	459	
Gwinnett.....	19,899	19,511	388		White.....	6,751	5,311	1,440	
Habersham.....	11,573	8,718	2,855		Whitfield.....	12,916	17,000		1,016
Hall.....	18,047	15,298	2,749		Wilcox.....	7,980	8,109	4,871	
Hancock.....	17,119	16,989	130		Wilkes.....	18,081	15,985	2,096	
Haralson.....	11,316	5,974	5,342		Wilkinson.....	10,781	12,061		1,280
Harris.....	16,797	15,754	1,043		Worth.....	10,048	5,892	4,156	
Hart.....	10,887	9,694	1,193		Florida.....	391,422	269,498	121,924	
Heard.....	9,557	8,709	848		Alachua.....	22,934	16,462	6,472	
Henry.....	16,220	14,193	2,027		Baker.....	3,333	2,303	1,030	
Houston.....	21,613	22,414		801	Bradford.....	7,516	6,112	1,404	
Irwin.....	6,218	2,686	3,532		Brevard.....	3,400	1,478	1,923	
Jackson.....	19,176	16,297	2,879		Calhoun.....	1,681	1,580	101	
Jasper.....	13,879	11,551	2,328		Citrus.....	2,394		2,394	
Jefferson.....	17,213	15,671	1,542		Clay.....	5,154	2,838	2,316	
Johnson.....	6,129	4,800	1,329		Columbia.....	12,877	9,589	3,288	
Jones.....	12,709	11,613	1,096		Dade.....	881	257	624	
Laurens.....	13,747	10,052	3,694		De Soto.....	4,014		4,014	
Lee.....	9,074	10,577		1,503	Duval.....	26,890	19,431	7,459	
Liberty.....	12,887	10,649	2,238		Escambia.....	20,138	12,156	7,982	
Lincoln.....	6,146	6,412		266	Franklin.....	3,328	1,791	1,537	
Lowndes.....	15,102	11,049	4,053		Gadsden.....	11,864	12,169		275
Lumpkin.....	4,867	6,526		1,659	Hamilton.....	8,607	6,790	1,817	
McDuffie.....	8,789	9,449		660	Hernando.....	2,476	4,248		1,772
McIntosh.....	6,470	6,241	229		Hillsborough.....	14,941	5,814	9,127	
Macon.....	13,183	11,675	1,508		Holmes.....	4,336	2,170	2,166	
Madison.....	11,024	7,978	3,046		Jackson.....	17,644	14,372	3,272	
Marion.....	7,728	8,598		870	Jefferson.....	16,757	16,065	692	
Meriwether.....	20,740	17,651	3,089		La Fayette.....	3,686	2,441	1,245	
Miller.....	4,275	3,720	555		Lake.....	8,034	8,034		
Milton.....	6,208	6,261		53	Lee.....	1,414		1,414	
Mitchell.....	10,906	9,392	1,514		Leon.....	17,752	19,662		1,910
Monroe.....	19,137	13,808	5,329		Levy.....	6,683	5,767	816	
Montgomery.....	9,248	6,881	2,367						
Morgan.....	16,041	14,022	2,019						

## POPULATION BY COUNTIES—SOUTH ATLANTIC DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
Florida—Continued.					Florida—Continued.				
Liberty.....	1,452	1,362	90		Putnam.....	11,186	6,261	4,925	
Madison.....	14,316	14,798		482	Saint John.....	8,712	4,335	4,177	
Munatee.....	2,895	3,544		649	Santa Rosa.....	7,961	6,645	1,316	
Marion.....	20,796	13,046	7,750		Sumter.....	5,363	4,686	677	
Monroe.....	18,786	10,940	7,846		Suwannee.....	10,524	7,161	3,363	
Nassau.....	8,294	6,635	1,659		Taylor.....	2,122	2,279		157
Orange.....	12,584	6,618	5,966		Volusia.....	8,467	3,294	5,173	
Osceola.....	3,133		3,133		Wakulla.....	3,117	2,723	394	
Pasco.....	4,249		4,249		Walton.....	4,816	4,201	615	
Polk.....	7,905	3,181	4,724		Washington.....	6,426	4,089	2,337	

ROBERT P. PORTER,  
*Superintendent of Census.*

[7-010]



# CENSUS BULLETIN.

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WASHINGTON, D. C.

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## AGRICULTURE.—VITICULTURE.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., February 27, 1891.

For the first time the Census Office has made a special investigation for the purpose of ascertaining the extent and value of the grape, raisin, and wine industries of the United States. The results of this inquiry, while not all that could be desired, have certainly cleared the way for future reports. An industry representing a total value in land, improvements, machinery, and appurtenances of \$155,661,150, and furnishing employment to 200,780 persons, deserves a special place in the decennial inventory of the nation's wealth and resources. Unfortunately there are no reliable data by which a comparison of the growth of this important branch of agriculture can be made. Unless retarded by the ravages of those destroying insects and the fungoid diseases that have played such havoc with vineyards in some sections of the country, a still more remarkable development of viticulture may be expected, especially in what are termed established districts.

The accompanying bulletin, relating to the culture of the vine in the United States for the production of table grapes, raisins, and wine, has been prepared by Mr. H. GARDNER, special agent, under the supervision of Mr. MORTIMER WHITEHEAD, special agent in charge of the Division of Agriculture "B." It shows the location of the several grape-growing districts of the United States, with a total of 401,261 acres in 1889, of which 307,575 acres were in bearing, producing 572,139 tons, of which 267,271 tons were table grapes and 240,450 tons were used for producing wine, making 24,306,905 gallons, 41,166 tons for raisins, making 1,372,195 boxes (20 pounds each), and 23,252 tons for dried grapes and purposes other than table fruit. The material from which these exhibits have been compiled was obtained direct by the Census Office from the producers and by traveling special agents, and is regarded as trustworthy in every particular.

Superintendent of Census.

# VITICULTURE.

## STATISTICS OF GRAPE GROWING AND WINE PRODUCTION IN THE UNITED STATES.

BY H. GARDNER.

Viticulture as an industry is comparatively in its infancy in this country. For more than one hundred years efforts were made to grow the European varieties of grapes in the open air, always, however, resulting in failure, except in California. Pomologists then turned their attention to the improvement of native vines, and the result is the development of many choice and valuable varieties. It is only since these improved varieties of native grapes have been planted and cultivated that the industry has become profitable and has grown to its great proportions in various parts of the country east of the Rocky mountains, while in California the foreign varieties have found a most congenial home and are grown to perfection. Viticulture was introduced in California by the Franciscan fathers before it came into the possession of the United States.

In New York state, in what is known as the Lake Keuka district, a grower of grapes shipped his first crop, amounting to fifty pounds, to the New York market about 1845 by way of the New York and Erie canal. The grapes were delivered in good condition, and the commission houses handling them wrote encouragingly to the shipper, advising further shipments. The next year the grower was able to ship some 200 or 300 pounds. He overdid the matter, however, and the New York market on grapes broke under the pressure. It is estimated that during this last season (1890) there have been shipped from this same district and carried by the different railroad and express companies to New York, Boston, Philadelphia, and other distributing markets about 20,000 tons or 40,000,000 pounds of grapes, and probably one-quarter of this amount was, in addition, sold to wine manufacturers.

The Hudson River district, in the same state, is estimated to have shipped to the New York and other markets during the same time between 13,000 and 15,000 tons or 28,000,000 pounds of grapes, while the Chautauqua district of New York, where the industry has been growing and prospering only through the past decade, furnished as its 1890 crop for the different markets of the country probably about 1,200 car loads or 30,000,000 pounds of table grapes, making a grand total of 98,000,000 pounds as the product of what is known as the New York State district. This does not include the large amount of grapes used in the district for wine, the figures and report upon which will be found elsewhere in this bulletin.

As a further instance of the proportions to which the industry has grown in the United States, as will be seen by the accompanying tables, the product of California for the season of 1889 was 14,626,000 gallons of wine and 1,372,195 boxes of raisins. The product of 1890 is estimated, by schedules sent directly to the Census Office, at 16,500,000 gallons of wine and 2,197,463 boxes of raisins, with young raisin vineyards enough to increase the yield of raisins within the next five years to 8,000,000 or 10,000,000 boxes.

The area in which the industry may be found has been separated into five divisions, some of which are again subdivided into districts. These divisions are as follows:

First. The Eastern division, comprising about 51,000 acres in cultivation in the states of New York and Pennsylvania, includes the Keuka district, Canandaigua district, Ontario and Wayne district, Seneca district, Chautauqua County (New York) and Erie County (Pennsylvania) district, and the Hudson River district.

Second. The Middle division, with 42,633 acres in the states of Illinois, Indiana, and Ohio, the latter including the Islands district and the Euclid district.

Third. The Western division, with 17,306 acres in the states of Kansas and Missouri.

Fourth. The Southern division, with 17,092 acres in Georgia, North Carolina, Tennessee, and Virginia.

Fifth. The Pacific division, with 213,230 acres in California, including its several districts, and Arizona and New Mexico.

Outside of these five divisions all other states and territories show upward of 60,000 acres in cultivation.

For the purposes of this investigation, the products of viticulture have been classed under three distinct heads, namely, grapes for table use, grapes for raisins, and grapes for wine.

The following table shows the area and production of vineyards, capital invested in land, buildings, etc., and labor employed in the United States by states:

TOTAL AREA AND PRODUCTION OF VINEYARDS AND CAPITAL INVESTED IN THE UNITED STATES, BY STATES.

STATES.	Area in bearing vines.	Area in non-bearing vines.	Average yield of grapes per acre.	Market value of grapes per ton.	Grapes sold for table use.	Grapes sold to wineries.	Wine made.	Market value of wine per gallon.	Raisins produced (20 pounds to box).	Market value of raisins per box.	Total value of plant, including land.	Total laborers employed (all kinds).
	Acres.	Acres.	Tons.	Dollars.	Tons.	Tons.	Gallons.	Dollars.	Boxes.	Dollars.	Dollars.	Number.
Total.....	307,875	93,686	.....	.....	267,271	304,868	24,306,905	.....	1,372,195	.....	155,661,150	200,780
Arizona.....	1,000	1,500	3.00	16.50	2,850	150	25,000	1.00	.....	.....	75,000	1,250
California.....	155,272	45,272	1.77	17.66	38,785	6235,526	14,628,000	0.19	1,372,195	1.60	86,640,350	100,422
Georgia.....	1,938	2,154	1.33	96.00	1,938	646	107,666	1.15	.....	.....	1,227,600	2,046
Illinois.....	3,750	990	2.00	54.00	6,000	1,500	250,000	1.00	.....	.....	1,422,000	2,370
Indiana.....	3,850	1,000	1.75	67.00	5,390	1,347	224,500	1.00	.....	.....	1,455,000	2,425
Kansas.....	4,542	1,000	2.00	58.00	8,294	790	130,990	0.80	.....	.....	1,662,600	2,771
Missouri.....	10,000	1,764	3.00	50.00	22,500	7,500	1,250,000	0.56	.....	.....	4,605,600	5,882
New Mexico.....	1,186	9,000	3.00	45.00	1,779	1,779	296,500	0.86	.....	.....	3,055,800	5,093
New York (c).....	43,350	7,650	1.75	70.00	60,687	15,172	2,528,250	0.50	.....	.....	20,400,000	25,500
North Carolina.....	4,000	1,200	1.75	60.00	4,667	2,333	388,833	1.00	.....	.....	1,560,000	2,600
Ohio.....	28,087	4,956	1.80	57.00	38,947	11,609	1,934,838	0.56	.....	.....	13,217,200	16,521
Tennessee.....	1,500	600	2.50	89.00	2,500	1,250	208,333	1.00	.....	.....	630,000	1,050
Virginia.....	4,100	1,600	2.00	60.00	5,434	2,766	461,000	1.00	.....	.....	1,710,000	2,850
Other states and territories.	45,000	15,000	2.00	60.00	67,500	22,500	1,875,000	1.00	.....	.....	18,000,000	30,000

a It should be noted that while the average number of laborers employed in viticulture is shown to be one person to two acres, the average for those directly employed in growing the grapes is but one person to three acres, the others being engaged in the curing of raisins, manufacture of wine, transportation of products, etc.

b This includes for California 41,166 tons made into raisins and 23,252 tons used for dried grapes and purposes other than table fruit.

c Includes 1,000 acres in Erie county, Pennsylvania, known as part of the Chautauqua district of New York.

The table on the following page shows the area and production of vineyards, capital invested, and labor employed in the United States by geographical divisions and districts.

The area in which the industry may be found has been separated into five divisions, some of which are again subdivided into districts. These divisions are as follows:

First. The Eastern division, comprising about 51,000 acres in cultivation in the states of New York and Pennsylvania, includes the Keuka district, Canandaigua district, Ontario and Wayne district, Seneca district, Chautauqua County (New York) and Erie County (Pennsylvania) district, and the Hudson River district.

Second. The Middle division, with 42,633 acres in the states of Illinois, Indiana, and Ohio, the latter including the Islands district and the Euclid district.

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Fifth. The Pacific division, with 213,230 acres in California, including its several districts, and Arizona and New Mexico.

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For the purposes of this investigation, the products of viticulture have been classed under three distinct heads, namely, grapes for table use, grapes for raisins, and grapes for wine.

The following table shows the area and production of vineyards, capital invested in land, buildings, etc., and labor employed in the United States by states:

TOTAL AREA AND PRODUCTION OF VINEYARDS AND CAPITAL INVESTED IN THE UNITED STATES, BY STATES.

STATES.	Area in bearing vines.	Area in non-bearing vines.	Average yield of grapes per acre.	Market value of grapes per ton.	Grapes sold for table use.	Grapes sold to wineries.	Wine made.	Market value of wine per gallon.	Raisins produced (20 pounds to box).	Market value of raisins per box.	Total value of plant, including land.	Total laborers employed (all kinds).
	Acres.	Acres.	Tons.	Dollars.	Tons.	Tons.	Gallons.	Dollars.	Boxes.	Dollars.	Dollars.	Number.
Total.....	807,575	98,686	.....	.....	267,271	304,868	24,806,905	.....	1,372,195	.....	155,661,150	200,780
Arizona.....	1,000	1,500	3.00	16.50	2,850	150	25,000	1.00	.....	.....	75,000	1,250
California.....	155,272	45,272	1.77	17.66	38,785	235,526	14,626,000	0.19	1,372,195	1.60	86,640,350	100,422
Georgia.....	1,938	2,154	1.33	96.00	1,938	646	107,666	1.15	.....	.....	1,227,600	2,046
Illinois.....	3,750	990	2.00	54.00	6,000	1,500	250,000	1.00	.....	.....	1,422,000	2,870
Indiana.....	2,850	1,000	1.75	67.00	5,390	1,347	224,500	1.00	.....	.....	1,455,000	2,425
Kansas.....	4,542	1,000	2.00	58.00	8,294	790	130,990	0.80	.....	.....	1,662,600	2,771
Missouri.....	10,000	1,764	3.00	50.00	22,500	7,500	1,250,000	0.56	.....	.....	4,605,600	5,882
New Mexico.....	1,186	9,000	3.00	45.00	1,779	1,779	296,500	0.86	.....	.....	3,055,800	5,093
New York (c).....	43,350	7,650	1.75	70.00	60,687	15,172	2,523,250	0.50	.....	.....	20,400,000	25,500
North Carolina.....	4,000	1,200	1.75	60.00	4,667	2,333	388,833	1.00	.....	.....	1,560,000	2,600
Ohio.....	28,087	4,956	1.80	57.00	38,947	11,609	1,934,833	0.56	.....	.....	13,217,200	16,521
Tennessee.....	1,500	600	2.50	89.00	2,500	1,250	208,333	1.00	.....	.....	630,000	1,050
Virginia.....	4,100	1,600	2.00	60.00	5,484	2,766	461,000	1.00	.....	.....	1,710,000	2,850
Other states and territories.	45,000	15,000	2.00	60.00	67,500	22,500	1,875,000	1.00	.....	.....	18,000,000	30,000

a It should be noted that while the average number of laborers employed in viticulture is shown to be one person to two acres, the average for those directly employed in growing the grapes is but one person to three acres, the others being engaged in the curing of raisins, manufacture of wine, transportation of products, etc.

b This includes for California 41,166 tons made into raisins and 23,252 tons used for dried grapes and purposes other than table fruit.

c Includes 1,000 acres in Erie county, Pennsylvania, known as part of the Chautauqua district of New York.

The table on the following page shows the area and production of vineyards, capital invested, and labor employed in the United States by geographical divisions and districts.

AREA AND PRODUCTION OF VINEYARDS AND CAPITAL INVESTED IN THE UNITED STATES, BY  
GEOGRAPHICAL DIVISIONS AND DISTRICTS.

DIVISIONS AND STATES.	Area in bearing vines.	Area in non-bearing vines.	Average yield of grapes per acre.	Market value of grapes per ton.	Grapes sold for table use.	Grapes sold to wineries.	Wine made.	Market value of wine per gallon.	Raisins produced (20 pounds to box).	Market value of raisins per box.	Total value of plant, including land.	Total laborers employed (all kinds).
	Acres.	Acres.	Tons.	Dollars.	Tons.	Tons.	Gallons.	Dollars.	Boxes.	Dollars.	Dollars.	Number.
<b>Grand total.....</b>	<b>307,575</b>	<b>93,686</b>			<b>267,271</b>	<b>230,456</b>	<b>24,366,965</b>		<b>1,372,195</b>		<b>155,661,150</b>	<b>200,780</b>
<b>EASTERN DIVISION.....</b>	<b>43,350</b>	<b>7,650</b>			<b>60,687</b>	<b>15,172</b>	<b>2,528,250</b>				<b>20,400,000</b>	<b>25,500</b>
<b>New York and Pennsylvania:</b>												
Keuka district.....	12,325	2,175	1.75	70.00	17,254	4,313	718,833	0.50			5,800,000	7,250
Canandaigua district	2,720	480	1.75	70.00	3,810	954	159,000	0.50			1,280,000	1,600
Ontario and Wayne district.	1,020	180	1.75	70.00	1,428	367	59,500	0.50			480,000	600
Seneca district.....	4,250	750	1.75	70.00	5,949	1,437	247,824	0.50			2,000,000	2,500
Chautauqua County (New York) and Erie County (Pennsylvania) district.	9,180	1,620	1.75	70.00	12,852	3,213	535,000	0.50			4,320,000	5,400
Hudson River district.	11,050	1,950	1.75	70.00	15,469	3,867	644,500	0.50			5,200,000	6,500
Other counties.....	2,805	495	1.75	70.00	3,925	981	163,583	0.50			1,320,000	1,650
<b>MIDDLE DIVISION.....</b>	<b>35,687</b>	<b>6,946</b>			<b>50,337</b>	<b>14,456</b>	<b>2,409,333</b>				<b>16,694,200</b>	<b>21,316</b>
Illinois.....	3,750	990	2.00	54.00	6,000	1,500	250,000	1.00			1,422,000	2,370
Indiana.....	3,850	1,000	1.75	67.00	5,390	1,347	224,500	1.00			1,455,000	2,425
<b>Ohio:</b>												
Lake Erie Islands.....	3,169	559	1.80	57.00	4,564	1,140	190,000	0.56			1,491,200	1,864
Erie county.....	1,275	225	1.80	57.00	1,836	459	76,500	0.56			600,000	750
Cuyahoga county.....	4,250	750	1.80	57.00	5,850	1,800	300,000	0.56			2,000,000	2,500
Other counties.....	10,393	3,422	1.80	57.00	26,697	8,210	1,368,333	0.56			9,126,000	11,407
<b>WESTERN DIVISION.....</b>	<b>14,542</b>	<b>2,764</b>			<b>30,794</b>	<b>8,290</b>	<b>1,380,990</b>				<b>6,268,200</b>	<b>8,053</b>
Kansas.....	4,542	1,000	2.00	58.00	8,294	790	120,990	0.80			1,662,600	2,771
Missouri.....	10,000	1,764	3.00	50.00	22,500	7,500	1,259,000	0.56			4,605,600	5,282
<b>SOUTHERN DIVISION.....</b>	<b>11,538</b>	<b>5,554</b>			<b>14,539</b>	<b>6,995</b>	<b>1,165,822</b>				<b>5,127,600</b>	<b>8,546</b>
Georgia.....	1,938	2,154	1.33	96.00	1,988	646	107,666	1.15			1,227,600	2,046
North Carolina.....	4,000	1,200	1.75	60.00	4,667	2,333	388,333	1.00			1,560,000	2,600
Tennessee.....	1,500	600	2.50	89.00	2,500	1,250	203,333	1.00			630,000	1,050
Virginia.....	4,100	1,600	2.00	60.00	5,434	2,766	461,000	1.00			1,710,000	2,850
<b>PACIFIC DIVISION.....</b>	<b>157,458</b>	<b>55,772</b>			<b>43,414</b>	<b>173,087</b>	<b>14,947,500</b>		<b>1,372,195</b>		<b>89,771,150</b>	<b>106,765</b>
Arizona.....	1,000	1,500	3.00	16.50	2,850	150	25,000	1.00			75,000	1,250
<b>California:</b>												
Alameda county.....	6,500	1,625	1.50	17.66	600	9,150	1,000,000	0.19			4,062,500	4,000
Amador county.....	1,000	250	1.50	17.66	100	1,400	80,000	0.19			500,000	640
Butte county.....	800	100	1.94	17.66	1,000	200	32,000	0.19	11,800	1.60	360,000	450
Calaveras county.....	1,440	360	1.51	17.66	400	1,760	115,200	0.19	800	1.60	720,000	900
Colusa county.....	506	126	2.13	17.66	1,060	42	40,500	0.19			221,200	300
Contra Costa county.	4,000	1,000	1.50	17.66	700	5,300	320,000	0.19			2,000,000	2,500
El Dorado county.....	1,600	400	1.80	17.66	600	1,800	128,000	0.19			700,000	1,000
Fresno county.....	16,000	3,750	1.75	17.66	360	9,000	1,200,000	0.19	626,595	1.60	7,900,000	9,900
Inyo county.....	96	24	1.44	17.66	30	167	7,600	0.19			41,650	60
Kern county.....	750	187	1.50	17.66	150	975	60,000	0.19			237,950	470
Lake county.....	1,185	246	1.80	17.66	900	877	78,800	0.19			500,850	700
Los Angeles county..	13,120	4,580	1.51	17.66	1,000	25,820	1,242,800	0.19	20,000	1.60	11,325,000	11,500
Marin county.....	520	130	1.50	17.66	100	680	41,600	0.19			227,500	300
Mariposa county.....	500	125	1.50	17.66	100	650	40,000	0.19			215,750	300
Mendocino county ..	208	27	1.50	17.66		312	8,700	0.19			82,350	150
Merced county.....	2,014	123	2.36	17.66	400	2,621	41,200	0.19	58,400	1.60	856,800	1,100
Monterey county.....	500	50	2.00	17.66	1,000		16,000	0.19			191,500	300
Napa county.....	16,611	4,132	1.60	17.66	530	24,336	3,000,000	0.19			10,381,500	10,300

a This does not include for California 41,166 tons made into raisins and 23,252 tons used for dried grapes and purposes other than table fruit.

## AREA AND PRODUCTION OF VINEYARDS, ETC.—CONTINUED.

DIVISIONS AND STATES.	Area in bearing vines.	Area in non-bearing vines.	Average yield of grapes per acre.	Market value of grapes per ton.	Grapes sold for table use.	Grapes sold to wineries.	Wine made.	Market value of wine per gallon.	Raisins produced (20 pounds to box).	Market value of raisins per box.	Total value of plant, including land.	Total laborers employed (all kinds).
	Acres.	Acres.	Tons.	Dollars.	Tons.	Tons.	Gallons.	Dollars.	Boxes.	Dollars.	Dollars.	Number.
PACIFIC DIVISION—Continued.												
California—continued.												
Nevada county.....	235	59	1.59	17.66	40	312	18,800	0.19			102,900	150
Placer county.....	2,621	555	1.72	17.66	3,620	311	177,700	0.19	19,400	1.60	1,270,000	1,600
Sacramento county...	6,465	1,616	1.54	17.66	3,050	6,647	872,850	0.19	9,000	1.60	3,232,400	4,050
San Benito county....	110	27	1.50	17.66	35	130	8,800	0.19			47,950	70
San Bernardino county.	9,562	4,125	1.98	17.66	1,700	6,900	279,000	0.19	375,000	1.60	4,780,450	6,850
San Diego county.....	6,000	7,500	1.50	17.66	1,220	3,280	30,000	0.19	150,000	1.60	4,725,000	6,750
San Joaquin county..	2,000	500	1.75	17.66	1,840	1,160	160,000	0.19	17,200	1.60	1,000,000	1,250
San Luis Obispo county.	652	138	1.59	17.66	1,000	38	5,000	0.19			270,500	400
San Mateo county....	750	187	1.63	17.66	160	1,065	60,000	0.19			327,050	470
Santa Barbara county	1,125	281	1.82	17.66	2,000	56	7,500	0.19			492,100	700
Santa Clara county...	10,000	2,500	1.50	17.66	1,500	13,500	2,260,000	0.19			6,250,000	6,250
Santa Cruz county....	1,500	375	1.50	17.66	640	1,610	284,000	0.19			656,250	950
Shasta county.....	500	125	1.84	17.66	200	550	25,000	0.19	5,800	1.60	218,750	300
Sierra county.....	250	62	1.50	17.66		375	12,500	0.19			105,000	150
Siskiyou county.....	4	1		17.66			200	0.19			800	2
Solano county.....	3,500	875	1.50	17.66	700	4,550	280,000	0.19			1,780,000	2,200
Sonoma county.....	21,683	5,421	1.50	17.66	2,150	30,374	1,756,300	0.19			13,552,000	13,550
Stanislaus county....	498	124	1.50	17.66		747	39,900	0.19			217,700	300
Sutter county.....	430	207	2.00	17.66	190	455	35,400	0.19	20,200	1.60	222,350	350
Tehama county.....	4,972	1,243	1.50	17.66	850	6,608	397,800	0.19			2,480,000	3,100
Trinity county.....	220	5	1.82	17.66	400	2	250	0.19			74,750	110
Tulare county.....	4,500	875	2.00	17.66	6,700	2,000	15,000	0.19	10,000	1.60	1,881,250	2,700
Tuolumne county....	890	222	1.50	17.66		1,335	71,200	0.19			288,200	350
Ventura county.....	800	200	1.50	17.66	160	1,040	8,000	0.19			350,000	500
Yolo county.....	3,491	798	1.91	17.66	1,600	3,636	255,200	0.19	48,000	1.60	1,720,000	2,150
Yuba county.....	165	41	1.50	17.66		247	13,200	0.19			70,000	100
New Mexico.....	1,186	9,000	3.00	45.00	1,779	1,779	200,500	0.86			3,035,800	5,000
Other states and territories.	45,000	15,000	2.00	60.00	67,500	22,500	1,875,000	1.00			18,000,000	20,000

EASTERN DIVISION.—Viticulture in the Eastern division is mainly confined to a few counties in New Jersey; the Hudson River district of New York state, comprising about 13,000 acres, situated in the counties of Orange, Ulster, Rockland, Putnam and Westchester; the Keuka district, of 14,500 acres, on Lake Keuka, including Yates and Steuben counties; the Canandaigua district, of 3,200 acres, comprising parts of Ontario and Yates counties bordering on Canandaigua lake; the Ontario and Wayne district, of 1,200 acres, including portions of counties of the same names; the Seneca district, with 5,000 acres, found in portions of Seneca and Schuyler counties; the Chautauqua district, of 10,800 acres, near the shores of Lake Erie, in Chautauqua county, New York, and Erie county, Pennsylvania; in addition to which Niagara and other counties of New York have vineyards aggregating 3,300 acres.

Four-fifths of the grapes grown in the Eastern division are used for table purposes, the crop of 1890 amounting in round numbers to 98,000,000 pounds or 49,000 tons, and requiring nearly 5,000 cars for its transportation to market. The varieties most largely grown and generally in favor are the Concord, Catawba, and Delaware, while other market varieties are Moore's Early, Niagara, Diana, Worden, Isabella, Wyoming, and Brighton.

This division supplies the eastern markets with table grapes from early in September until the following March or April. The favorite packages are five and ten pound baskets, those put up in the most attractive manner returning the best prices. Sales are mainly made through commission merchants, although some localities have of late organized "exchanges," through which they make their own shipments and sell in a more direct manner, effecting a saving in the expense of handling and transportation. In this division, as well as in all others east of the Rocky mountains, the fungoid

diseases have of late years worked great injury to the industry, and the year 1889 was a particularly disastrous one. Not only did these diseases retard the work and discourage many of the growers, but frost destroyed the buds generally (in the month of May). It was also an unusually rainy season, developing mildew and the black, brown, and gray rot, and causing a loss of at least fifty per cent.

There are in the Eastern division (in the Keuka district, in New York state) eight wine cellars, each with a capacity of from 20,000 to 300,000 gallons. Two of these carry a stock of 300,000 bottles of champagne each. There are other wine cellars in this locality making champagne in a smaller way by fermentation in the bottle.

MIDDLE DIVISION.—This division comprises the states of Illinois, Indiana, and Ohio. In Ohio the industry is mainly found on the Lake Erie islands and in the northern tier of counties bordering on the lake. To some extent, however, it exists in almost every portion of the state. The Lake Erie islands and the lake counties were personally visited in the month of September last. There are in this district, in all, 10,228 acres. The islands furnish to the markets about one-half of their product for table grapes, the remainder being sent to the wine cellars. Erie county furnishes four-fifths of its product for table grapes and one-fifth for wine. In Cuyahoga county, embracing what is known as the Euclid district, nearly all the product is shipped to various western markets, and while this investigation was being made (about October 1, 1890) at Euclid, Cuyahoga county, the special agent saw nine car loads of grapes started on their way to Denver, Colorado, in one shipment. There were shipped from Euclid, in all, the same season 600 tons or 1,200,000 pounds; from Dover, Cuyahoga county, 900 tons of table grapes or 1,800,000 pounds; from Nottingham, 106 tons or 212,000 pounds. There were also shipped from Vermillion, Erie county, 95 tons, mostly for wine, and from Ceylon station, Erie county, 55 tons for wine and about 25 tons of table grapes, while the Lake Erie islands furnished 4,564 tons for table grapes, and the balance of their product (1,140 tons) for wine.

As an item of interest it may be mentioned that in this district there is a monster wine cask containing 36,000 gallons, one of the largest in the world. This cask is made of Ohio oak, and is of the finest cooperage. The winery where this cask was shown has a capacity of 850,000 gallons. There are a number of large cellars on the islands and peninsula, at Kelley's island, Middle Bass, Marblehead, Toledo, and Sandusky. A small amount of champagne is made in this locality.

In the states of Illinois and Indiana, with 4,740 and 4,850 acres, respectively, and in counties of Ohio not before mentioned, with 22,815 acres, viticulture has hardly held its own during the last decade. Fungoid diseases have found the vines an easy prey in these states, and the vineyards in many localities have been practically abandoned. There are some vineyards in the Mississippi valley and in favored localities where both wine and table grapes are grown for local markets. As growers become familiar with the use of spraying apparatus and fungicides their hopes and interests are being renewed, and brighter days seem to be dawning in this direction.

WESTERN DIVISION.—This division, consisting of Missouri and Kansas, has made but little progress during the past ten years. The vineyards in Missouri, except in a few localities, have been devastated or ruined. Mr. Herman Jaegers, government experimental agent for the state of Missouri, says: "In Newton county there are but 20 acres left, but this does not apply to grapes grown in gardens on most farms. From 1866 to 1875 there were several hundred acres of vineyards in Newton and adjoining counties. Most of these were grubbed up and abandoned, owing to the prevalence of black rot. Now that we are certain that we can prevent black rot and mildew with spraying, replanting has commenced, and will probably become general in a year or two more. As far as I know, the situation is similar to this all over southwestern Missouri."

For the purposes of this investigation Hermann, in Gasconade county, Missouri, was visited, but no devastation was seen in the vineyards. One of the largest and best vineyards in the state is located here, and contains 80 acres, apparently nearly all wine grapes.

Mr. Miessner, of Bushburg, Jefferson county, Missouri, a well known and reliable authority, reports to this office that the ravages of the black rot did not become ruinous until 1875, when the disease developed over a large portion of the southern half of the state and resulted in the greatest damage to the grape crop of that section. Since that year black rot has been of annual recurrence, marked by

more or less disastrous consequences to the grape crop. In some years the loss would be no less than half the crop, or even more, while in other seasons it would be but a small percentage, confined chiefly to varieties most subject to the disease. Mr. Miessner further says: "The growth of viticulture in many sections of our state has received a check. A large number of the vineyards have been abandoned. The planting of new vineyards has been reduced in some localities. Spraying the vines, as recommended by the Department of Agriculture, with the Bordeaux mixture and Eau Celeste has been experimented with by many growers, and when applied early, thoroughly, and often enough, has given encouraging results. There is now a well-founded hope that by the intelligent and persistent use of the copper salt remedies we shall conquer the black rot, as well as the mildew, peronospora, and other fungoid diseases."

In Kansas, in this division, there have been small plantings of vines in various parts of the state, aggregating some 5,542 acres of young and old vines, raising some table grapes and making some wine for its home market. The prospects for grape growing in the western division are improving.

**SOUTHERN DIVISION.**—This division includes the states of Georgia, North Carolina, Tennessee, and Virginia, of which Georgia has 1,938 acres of bearing vines and 2,154 acres of new vineyards; North Carolina, 4,000 acres of bearing vines and 1,200 acres of new vineyards; Tennessee, 1,500 acres of bearing vines and 600 acres of new vineyards; and Virginia, 4,100 acres of bearing vines and 1,600 acres of new vineyards. Georgia, in 1889, produced 107,666 gallons of wine and 3,876,000 pounds of table grapes. The latter ripen early, reaching the northern markets a month earlier than those grown in Ohio or New York, and consequently bring much higher prices than the northern and western grapes. A variety that is meeting with much success in the southern states is the Niagara, a white grape, very hardy, ripening early, and doing well in Georgia. One of the evidences that viticulture is prospering in that state is shown in the extent of the new plantings, the reports to the Census Office showing that 2,154 acres were planted within the last two years.

North Carolina's 4,000 acres of bearing vines in 1889 produced 388,833 gallons of wine and 9,334,000 pounds of table grapes. Tennessee, with 1,500 acres, produced 208,333 gallons of wine and furnished 5,000,000 pounds of table grapes. Virginia had 4,100 acres of bearing vines, which produced 461,000 gallons of wine and 10,868,000 pounds of table grapes.

Virginia during the past decade has held her own, although growers have had to fight the various enemies, such as mildew and black rot, but are thoroughly awake to the importance of using the remedies recommended by the Department of Agriculture.

This investigation has shown an extension of vineyards during the past two or three years in the state of Florida. The Elvira and Niagara have been planted somewhat extensively, and part of the Niagara product reaches the northern markets as early as the latter part of July or the first of August, bringing higher prices in consequence, selling from 25 to 30 cents per pound. The varieties mentioned are white grapes, very hardy, and may succeed.

There are in this division 11,538 acres of bearing vines and 5,554 acres of new vineyards, which produced 1,165,832 gallons of wine and 29,078,000 pounds of table grapes in 1889. The outlook for successful viticulture in the southern division for wine, and particularly for the finer varieties of table grapes grown for the early northern and western markets, is full of encouragement to the careful and earnest cultivator.

**PACIFIC DIVISION.**—This division embraces Arizona, New Mexico, and California. Viticulture in Arizona and New Mexico is comparatively new, but is thought to have a prosperous future. Not only do the native varieties of grapes grow in these territories, but the European, or vinifera, also flourishes here. The Muscat varieties, grown so successfully in California for raisins, grow equally well in these territories; also varieties that produce a fine sherry wine. This is one of the most prominent features of viticulture in Arizona. Mr. J. De Barth Shorb, a prominent vine grower and wine maker of southern California, after experimenting in Arizona, reports that the sherries produced there have the true sherry flavor and are made by the natural process; that is, without it being necessary to "bake" them. They not only have the flavor of the Spanish sherries, but also the same excellent qualities. So far, the fine sherries produced in this country have come from that territory. The same authority states that Arizona will be to the United States what Spain is now to Europe. There were in 1889 in Arizona

1,000 acres of bearing vines and 1,500 acres of new vineyards. The product was 2,850 tons or 5,700,000 pounds of table grapes, of which 150 tons or 300,000 pounds were sold to wineries.

In New Mexico in 1889 there were 1,186 acres of bearing vines and 9,000 acres of new vineyards, which produced 296,500 gallons of wine and 1,779 tons or 3,558,000 pounds of table grapes. The information received from New Mexico by the Census Office shows a great advance in viticulture since irrigation has proven practicable. Two companies are building immense canals 45 feet wide at the bottom, capable of carrying 7 feet of water. These canals will irrigate 400,000 acres of as rich land as can be found in the world adapted to the growth of fruit and grapes. Mr. E. G. Shields, a leading horticultural authority, says: "I have tested thoroughly peaches, apricots, apples, nectarines, and French and German prunes, and am much pleased with their success. I have also planted olives. This is their third year. Reference is here made to the Pecos valley, New Mexico, which for cultivation is yet in its infancy. La Mesilla valley is next in importance. It has about 10,000 acres of vines of new plantings. The Mission variety is grown almost exclusively in this locality, although the Muscat of Alexandria and the Muscatel are grown by some. The varieties that grow successfully in New Mexico for raisins are the Muscat of Alexandria, Muscatel de Gordo Blanco, and Sultana, and for wine the Zinfandel, Mataro, Cabernet, Sauvignon, Cabernet Franc, Mission, Petite Pino, and Chasselas Fontainebleau. I feel assured that in two years there will be 100,000 acres of grapes in the Pecos valley. I have now about 20,000 vines (33 acres) in fine condition, and will add 100 acres."

The industry in New Mexico and Arizona is as yet too young to speak of as to its possibilities, but the start already made seems to justify all that the pioneers are claiming for it.

CALIFORNIA.—There are fifty-three counties in California, nearly all producing grapes in a greater or less degree, the larger proportion of them producing wine for home consumption or export. There is an established demand for this wine to the amount of 1,000,000 gallons per month from this country alone, making 12,000,000 gallons annually, and an exportation to foreign countries of 811,920 gallons in 1889, valued at \$217,098.

California may be divided into three grape-growing districts: The Coast, which includes Sonoma, Lake, Napa, Alameda, Santa Clara, and Santa Cruz counties; the Sierra Nevada Foothill and Sacramento Valley district, which includes Placer, El Dorado, Calaveras, Tuolumne, Yuba, Yolo, Butte, Sacramento, and Tehama counties; and the Southern district, which includes San Joaquin, Merced, Fresno, Tulare, Kern, Ventura, Santa Barbara, San Bernardino, Los Angeles, and San Diego counties.

In the first district the finer grades of white and red dry wines are made. The choice varieties of the French and German types seem to come nearer to reproducing themselves here than elsewhere. In this district are successfully grown the finest varieties of French champagne grapes, which yield a handsome profit to the producers. There is one cellar in this district with a capacity of 800,000 bottles, producing champagne by natural fermentation in the bottle. The champagne industry in California is a growing one, and its future is bright with promise. While wine is the leading viticultural product, fine table grapes are also produced in this district.

Some good, wholesome dry wines are produced in the second district, but they are of a different character from the German and French types. Grapes for table use and raisins are extensively grown, a large portion of the new plantings being for raisins.

In the Sacramento and San Joaquin valleys, and in the southern district, some excellent dry wines are produced, but these valleys excel in their Port, Muscatel, Angelica, and other heavy sweet wines.

For the purposes of this bulletin it is only necessary to treat of the principal counties in each district where the heaviest viticultural products are found.

In Napa county, in the first district, there are 20,768 acres. Phylloxera has destroyed many acres of vines in this county, but the acreage has been kept up to about the same point by replanting on resistant stock and the planting of new vineyards farther up on the foothills, where a choice variety of grapes is grown and phylloxera is not such a scourge. There are 142 wine cellars in Napa, many of them of modern construction, containing all the appliances for the manufacture and handling of wines. There were 8,000,000 gallons of wine made in this county in the census year 1889.

Sonoma county, in this district, in 1889 had 21,683 acres of bearing vineyards. The same conditions exist here relative to the quality of grapes and wines produced as in Napa. The ravages of phylloxera were felt in Sonoma at an earlier day than in Napa, appearing about 1874, and a great many vineyards were destroyed. It is now generally believed that the destruction caused by the phylloxera can be stayed by growing the native resistant stock and grafting upon that the foreign vinifera.

In Sonoma county in 1889 there were produced about 1,756,300 gallons of wine and 250,000 gallons of brandy. The quality of the dry white wines was marked.

Santa Clara county, in this district, contains some 12,500 acres of bearing vineyards, and should enjoy a reputation for fine white and red wines equal to Sonoma and Napa. This and Santa Cruz county in 1889 produced 2,544,000 gallons of wine. As yet the phylloxera has troubled the vineyards but little in comparison with the counties before mentioned. There is said to be a deep gravelly bed underlying this whole surface, in which the growers say the phylloxera does not work with success.

Alameda county, in the first district, has 6,500 acres of bearing vines, and produces a type of wine resembling the white and red wines of France, and in this part of the district, known as the "Livermore district," a high grade of Sauterne and claret is produced. The geological formation of the valleys and slopes of the Mount Diablo range more nearly reproduce the soil conditions that characterize the department of the Gironde in France than any other section on the coast. In this district there were produced in 1889 some 60,000 gallons of wine, noted more for the quality than for the quantity which it produces. This is comparatively a new wine district, and has grown up within the last decade. The first systematic planting of high grade grapes began in 1882.

There is in the second district a great viticultural interest, embracing table grapes, raisins, sweet and dry wines, and brandies, excelling in the latter. Sacramento, Placer, El Dorado, Tehama, Yuba, Butte, and Yolo counties produce large quantities of table grapes, and quite a quantity of raisins is shipped from some of these counties. Tehama has the largest vineyard in the world, 3,800 acres, to which the manager says 1,000 acres of new vines are to be added within a year. There were in the distillery on this vineyard in April, 1890, when visited by the special agent of the Census Office, 300,000 gallons of brandy and 1,000,000 gallons of wine. Another large vineyard, the second largest in the state, contains 1,500 acres, and is situated at Folsom, Sacramento county. The winery belonging to the vineyard has a capacity of 600,000 gallons. Many table grapes are shipped from this vineyard to the eastern markets. The sales in this direction have largely increased during the past two seasons.

The third district is composed of San Joaquin, Merced, Fresno, Tulare, Kern, Ventura, Santa Barbara, Los Angeles, San Bernardino, Orange, and San Diego counties. Near Stockton, in San Joaquin county, is located one of the largest vineyards and wineries. Fine brandies are made in this district; also sherries, ports, and some excellent clarets. Fresno county contains at this time some 25,000 acres of bearing vines and 15,000 acres of new plantings, the larger portion of which is grown for raisins. There are, however, a great many gallons of wine and brandy made in this county. The wines are mostly sweet, and of excellent quality. The raisin pack in 1889 was 626,595 boxes; the wine produced, 1,200,000 gallons. The California "Wines and Vines," speaking of the Muscatel de Gordo Blanco, the true raisin grape, says: "The soil seems to impart a vigor to the vines that is unknown elsewhere in the world. The second crop is often very nearly equal to the first, and the third comes before the leaves fall off." More than half the raisin grapes grown in California are produced in Fresno county.

San Bernardino county, in this district, is also principally devoted to the growing of raisin grapes. There are 9,562 acres of bearing and 4,125 acres of non-bearing vines, and the raisin pack for 1889 amounted to 375,000 boxes. Two wineries in San Bernardino county produced 279,000 gallons of wine in 1889. There were also shipped from this district 1,700 tons of table grapes.

Los Angeles county has 18,120 acres of bearing vines. A new and mysterious disease attacked the vines of the southern portion of this district about 1885, and ruined more than one-half of the acreage. Every effort has been made to discover the cause and remedy the evil. The most expert scientists have been consulted by the State Board of Viticulture in California, and the Department of Agriculture appointed an expert to investigate and report upon the matter. There were produced in 1889 in Los Angeles county 25,820 tons or 51,640,000 pounds of grapes for wine, and 1,000 tons or 2,000,000

pounds of grapes for table purposes. The wines in this county are justly celebrated, and were the first shipped from California to the eastern markets. This county excels in its sherries, ports, and brandies. There were 20,000 boxes of raisins packed in 1889, the new disease having reduced the product about one-half. The product of Orange, a county lately formed from portions of Los Angeles county, is included in the above figures.

In San Diego county there is an acreage of 6,000 bearing and 7,500 non-bearing vines. Of the latter, 6,000 were just coming into bearing in 1889, and did not add much to the product. While this shows a fair increase in the growth of the industry during the last four years, the increase is accounted for by the fact that the new disease that was so injurious in Los Angeles did not affect San Diego county. It is in the El Cajon valley of San Diego county that the most progress has been made in viticulture. There are 27,000 acres adapted to fruit growing, and 3,000 acres of bearing raisin vineyards in El Cajon. The raisins from this valley are among the finest produced in California. The product of the El Cajon valley in 1889 was 75,000 boxes; in the balance of San Diego county the pack was 75,000 boxes; in all, 150,000 boxes. Another successful branch of viticulture in this district is the shipment of table grapes to the eastern markets. Many of the elevated localities are so free from frost that grapes can be left on the vines until January.

As it has been noted in this bulletin that California has the largest vineyard in the world, it may be well to state that she has also the smallest. It is a vineyard consisting of a single vine, in Santa Barbara county. It was planted by a Mexican woman about sixty-eight years ago, and has a diameter one foot from the ground of 12 inches, its branches covering an area of 12,000 feet, and produces annually from 10,000 to 12,000 pounds of grapes of the Mission variety (many bunches weighing six and seven pounds), the crop being generally made into wine. The old lady who planted this one-vine vineyard died in 1865 at the age of 107.

Viticulture, already a great industry in the Pacific division, promises to become still greater in the near future.

The census investigation of viticulture shows that outside of the regular districts already mentioned there are probably 45,000 acres of bearing and 15,000 acres of non-bearing vines, an aggregate of small vineyards from one-fourth of an acre upward, grown to supply a home demand for this healthy and delicious fruit and a like demand for wine. This class of vineyards is to be found in every state and territory of the Union, producing, in 1889, 67,500 tons of table grapes and 22,500 tons of wine grapes, or 1,875,000 gallons of wine. These small plantings are more or less experimental, and, when proven a success in a small way, will doubtless lead to larger enterprises. In localities where the industry has thrived in past years, and has been abandoned on account of mildew and black rot, now that the United States government, through its Department of Agriculture, is so successfully experimenting in regard to the causes of the diseases and the remedies to be applied to save the vines, and the favorable results are being known, a new interest is being manifested, and no doubt, when another decade has passed, the grape industry will be again successful and greatly increased in many of the now comparatively small grape-growing sections.



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# CENSUS BULLETIN.

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## WEALTH AND RESOURCES OF ALASKA.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., March 5, 1891.

The accompanying review of the wealth and resources of Alaska has been prepared by Mr. IVAN PETROFF, special agent, at the request of the Superintendent of Census, and, in view of the extraordinary interest now being manifested in everything that relates to this remote and hitherto comparatively unknown territory, has anticipated to that extent the publication of the final report. The review deals, in the order of their importance, with the four principal sources of wealth in this remarkable region (furs, fish, minerals, and timber), and presents some almost startling figures as the result of investigations by the special agent and his assistants.

The value of fur-seal skins shipped from Alaska and sold in the London markets since the territory came into the possession of the United States is given as nearly \$33,000,000, and of other furs as \$16,000,000.

With regard to the fisheries of the territory, the value of the product of the salmon canneries alone from 1884 to 1890 is reported at nearly \$7,000,000, and of salmon salted at \$500,000. In 1890 over 3,000,000 salmon were taken at Karluk, where the largest cannery in the world is situated, and no fewer than 200,000 cases of salmon were canned at this place last year, 1,100 fishermen and packers being employed therein. The herring fishery at Killisnoo yields annually over 150,000 gallons of oil and nearly 1,000 tons of fertilizing material, and the value of the codfish catch in Alaskan waters since 1868 is stated to be fully \$3,000,000.

One of the most eminent authorities on Alaska recently stated it as his belief that the salmon, cod, and herring fisheries of the territory would become of such immense value in the event of the entire destruction of the fur seal, which now preys upon the fish, that its possible extermination is a contingency that need not excite serious alarm. Among the facts brought out is that the red salmon and king salmon (the latter sometimes attaining a length of from five to six feet and a weight of 120 pounds) literally crowd the waters of the great Yukon river for a distance of several hundred miles.

The whale fisheries of the Arctic ocean in 1890 yielded 226,402 pounds of whalebone, worth from

\$2.50 to \$3.50 per pound; 3,980 pounds of ivory, worth 50 cents per pound, and 14,567 barrels of oil, worth from 30 to 60 cents per gallon.

The total value of the precious metals exported from Alaska up to the present time approaches \$4,000,000, the annual production of gold dust and bullion being now \$700,000. Within a radius of 100 miles from Juneau quartz mills have been established, with an aggregate capacity of 500 stamps. Of these, 240 stamps are employed at the well-known Treadwell or Paris mine, on Douglas island, capable of reducing 600 tons of ore per diem when both steam and water power are utilized. There are said to be extensive deposits of copper in the territory, but the difficulty of transportation has hitherto prevented its development. Lignite coal of superior quality is also found in various places, but is mined at only one point.

Mr. PETROFF states that it is difficult to ascertain the quantity of merchantable timber in the territory, but is very confident that the amount has been greatly overestimated. Especially is this true of the yellow cedar, an exceedingly valuable tree, which is to be found only in isolated groves. Nine saw mills are already in operation, supplying the requirements of the local market, the exportation of timber products being prohibited by law, and even their local utilization is much restricted.

The report concludes with an expression of regret that the development of the vast resources of Alaska is impoverishing instead of enriching the country, the principal industries being carried on by imported labor, and no equivalent being left in the territory for the valuable products annually exported. These various interesting questions will be more fully dealt with in the final report, which is expected to be ready for publication before the close of the present year. As stated in Bulletin No. 15, Alaska was divided for census purposes into eight districts, to each of which an assistant special agent familiar with the resources of the district and with the languages of the people was appointed. Each of these assistant special agents has been directed to embody the results of his personal investigations in a special report, which will be incorporated in the final report, thus forming the most elaborate and comprehensive treatise on Alaska that has ever been published.



*Superintendent of Census.*

# WEALTH AND RESOURCES OF ALASKA

BY IVAN PETROFF.

The discussion of the wealth and resources of Alaska can be properly classified under four heads: Furs, fish, minerals, and timber. This classification will give these products in the order of their relative value and magnitude of proportions.

The fur trade, the most important industry of Alaska, may be divided into two branches, namely, the trade in land furs and the pursuit of marine mammals, such as fur seals and sea otters. The trade in land furs, though a decline has been noticed in the supply of certain sections, can not be said to have decreased in volume. There is no doubt that fur-bearing animals are hunted and trapped with greater persistency and energy than ever before, and, as a natural consequence, there must in the future be a greater decline in numbers. The land furs exported at present from Alaska consist of the skins of bears, both black and brown; foxes of three or four different species, including the most valuable among them, the silver or black fox, and another kind, known as the blue fox; the land otter, which inhabits all the rivers and streams; the marten or Alaska sable; the beaver; the mink, and the muskrat, to which must be added a few pelts of the lynx, wolf, and wolverine. The pelagic furs consist of two kinds, the sea otter and fur seal. Of these fur-bearing animals the fur seal is by far the most important, constituting so far as explored and known fully one-half of Alaska's natural wealth and resources. The value of fur-seal skins shipped from the territory and sold in the London markets during the twenty-three years of American occupancy foots up nearly \$33,000,000, while the total value of all other products combined during the same period does not quite reach \$30,000,000, of which more than one-half, or \$16,000,000, represents furs of various kinds, chief among which is that of the sea otter.

The canned salmon product of Alaska, which does not date prior to the year 1884, foots up nearly \$7,000,000, including the pack of 1890, to which must be added \$500,000 worth of salted salmon shipped from the territory since its purchase. The value of the codfish catch in Alaskan waters since 1868 is fully \$3,000,000.

Thus far no actual falling off has been noticed in the annual yield of any of these products with the single exception of the fur seal, and in this instance it may be said to threaten to an alarming extent; and no doubt can exist in the mind of any one who has been enabled to base an opinion upon personal observation that this, the most valuable among Alaskan industries, is threatened with extinction.

The Alaskan products ranking next in value to furs and fish are gold and silver, the first gold mines to yield returns being located toward the end of the year 1880 in the vicinity of the present town of Juneau. From year to year discoveries of gold and silver bearing quartz have been made and located, and in many instances the mines were operated in a primitive and desultory manner. At present but three or four gold-producing quartz mines are known to ship bullion, among them the famous Treadwell or Paris mine, said to be the largest now in existence, which supplies a mill with a capacity of 240 stamps. The output of this mine has been variously and vaguely stated at figures ranging from \$50,000 to more than \$100,000 per month, but as it has been possible to ascertain the total shipment of dust and bullion from Alaska, which does not now exceed \$700,000 per annum, it is evident that the yield of this mine must have been greatly exaggerated.

The surface mines of the Yukon region, though frequently reported as being located within British Columbia, have been definitely ascertained to be within the boundaries of Alaska. These mines have produced gold dust for a period of six or seven years, and averaged between \$40,000 and \$50,000 per annum until the season of 1890. In that year the output was nearly \$90,000, the gold being found in rather coarse dust and nuggets. The total value of the gold thus far exported from Alaska since its

purchase approaches \$4,000,000, but it is safe to say that this sum does not exceed the amount expended in prospecting and in the purchase of mining and milling plants in southeastern Alaska—a state of affairs experienced in all mineral countries in the early stages of development. The output of silver in Alaska has been quite insignificant, not exceeding \$3,000 per annum.

Of other minerals only coal has thus far been prospected, and it has been discovered in various parts of the territory. The veins thus far located show only lignite coal, some of which is of the best quality. At the present writing only one of these coal veins is operated, and this vein is situated on Herendeen bay, on the north side of the Alaskan peninsula. The product of this mine was tested for the first time during the summer of 1890, and although the surface yield did not prove very satisfactory in steam-making qualities, there is every prospect of better coal being secured as the deeper layers of the mineral are reached. This mine has the advantage of being accessible both from Bering sea and the North Pacific ocean, two deep bays being separated only by a narrow isthmus thirteen miles in width, over which a railway will be built in the near future. Some veins of coal near Cape Lisburne, on the Arctic coast, are utilized annually by whale ships and revenue cutters to replenish their stock of fuel, but they can not be said to be systematically worked. Another coal mine is being developed on Kuchekmak gulf, at the mouth of Cook inlet, but this deposit has not advanced beyond the prospecting stage, its nature being lignite, like all other veins previously mentioned.

Large deposits of copper, said to be of great richness, are known to exist in the interior of Alaska, but their location is such that the difficulties of transportation are almost insurmountable. This wealth will not probably be utilized until the far distant future.

Several deposits of cinnabar are also known to exist in the Kuskokwim region; but, though located on the banks of a river navigable by light-draught steamers, mining men have thus far declined to invest money in their development.

A mining enterprise was inaugurated five or six years ago on the banks of Fish river, which empties into Norton sound, for the development of a deposit of silver-bearing galena ore of considerable richness, but the company met with a series of disasters, including the loss of several supply vessels, one of them with their whole operating force on board. Thus far the shipments of ore from this point have not reached more than \$13,000. At present operations are entirely suspended, and it is generally reported that the deposit is not found in one continuous vein or series of veins, but only in so-called pockets.

The Alaskan product ranking fourth in the classification of resources is timber, which, however, can scarcely at the present day be considered one of the sources of wealth, since the exportation of timber products is prohibited by the United States government, and even the utilization of the forests for local use, both in the shape of lumber and fuel, is much restricted. It would be a difficult task, indeed, to ascertain the quantity of marketable timber to be found in Alaska. We know that vast forests cover the hills of the coast region as far westward as the island of Kadiak, and that perhaps one-fourth of the interior of Alaska is covered with forest growth wherever the land does not attain a greater altitude than 1,000 feet above sea level. The greater proportion of this timber consists of what is called Sitka spruce, a rather knotty and somewhat stunted tree, which furnishes good fuel but rather indifferent lumber.

The section of Alaska lying between its southeastern boundary and the shores of Prince William sound contains by far the best supply of timber. Not only the Sitka spruce is found here, but also several varieties of pine and hemlock, and, in addition, the most valuable tree of all, the yellow cedar. Nine saw mills have been established in this region, some of them in connection with missionary stations, for the purpose of supplying lumber to the natives, while others are being worked in connection with mining claims to supply timber and sawed lumber. It is the opinion of the managers of these mills that it is impossible to find any large, continuous tract of marketable timber in southeastern Alaska. Groves or groups of yellow cedar, hemlock, and pine are found which yield from twenty to thirty thousand feet of logs, but to find another such group it is often necessary to travel from fifteen to twenty miles. Some of these groups do not cover more than a few acres, and owing to this peculiarity in the distribution of trees in Alaskan forests it will be always necessary to obtain the raw material for mills by picking here and there, leaving the universal spruce intact.

Having thus given a general review of what constitutes the natural wealth of Alaska, it will be of interest to proceed in detail, following up the coast line of the country and reviewing the resources of each section as they present themselves to the observer.

On entering the territory of Alaska at its southern boundary there is found a densely-wooded region extending over the large islands of Revilla Gigedo and Prince of Wales and a few similar outlying groups of islands. The elevation of these islands does not exceed from three to four thousand feet, rising gradually from the seashore. The first evidence of industrial progress to strike the eye is the salmon salting establishment near Fort Tongass, which has been in existence for six or seven years. Close by is an Indian settlement, the inhabitants of which furnish the labor for the saltery during the fishing season, at other times of the year being engaged in hunting the seal in the water and the deer on land, the latter a small kind of red deer peculiar to this section of Alaska. On these islands, as well as on the adjacent mainland, there are groves of yellow cedar, but they have not thus far been utilized. Proceeding northward from Tongass, another fishing establishment is found on Tongass narrows, at a settlement called Kichikan. Here also native labor is utilized, consisting chiefly of men and women from the Tongass settlement. Still further northward, on Revilla Gigedo island, we find Naha bay, with the canning establishment of Loring. Here the annual pack of the last three years has been about 25,000 cases, the labor employed consisting of Chinese and white fishermen, who return to California at the end of the season. An extensive trade in furs is also carried on here with the native tribes of these and the adjacent islands, and a large number of deer skins are purchased for shipment to California tanneries. From figures obtained at the various custom-houses, it appears that the number of deer skins shipped from this section during the year 1890 footed up 23,652. These skins were obtained from the Indians in trade at a cost of 45 cents each, or about the equivalent of a can of meat, four pounds of sugar, or three yards of calico, and were sold for about 90 cents each in San Francisco. Where such numbers are brought to one or two small trading posts it must necessarily be estimated that a large proportion of them were procured for sale only, and that the meat of the animal was wasted. On the channel which separates this island from the mainland, called the Behm canal, two other canning establishments are located, one at Burrough's bay, near Cape Lee, and the other at Yess bay.

Westward of Loring lies Annette island, upon which is situated the Tsimpsean settlement of Rev. William Duncan, which was removed to Alaska from British Columbia about three years ago. Here is found the only saw mill avowedly producing lumber for sale. This mill is operated entirely by Indians, even the office work and bookkeeping being done by them. These people also have blacksmith shops, tin shops, etc., and have erected a cannery, which produces a few thousand cases of salmon annually. In order to establish this settlement it was necessary to clear the whole area of its covering of forest and undergrowth, and after erecting a town of comfortable cottages, arranged in regular streets and squares, these people are just beginning to make their first attempt at horticulture. Annette island is densely timbered and well stocked with deer, its streams abound in salmon, and the surrounding waters furnish an ample supply of halibut and codfish. An attempt is being made to have this island declared a reserve for the sole use of the Tsimpseans.

Bounded by Clarence strait on the east and the Pacific ocean on the west lies the vast archipelago commonly designated by the name of Prince of Wales island. A large number of fishing stations, chiefly salteries, are found here, and there is also a salmon canning establishment on the west coast, at the head of Port Bucareli. The southern portion of this archipelago contains the most extensive forests in this section, and at Howkan, the site of the Presbyterian mission establishment, a saw mill is in operation, while on the northern extremity of Prince of Wales island, near the settlement of Chikan, there is another saw mill. The salting stations of this group are located on Karta bay, Lake bay, Tolstoi bay, Kassan bay, and Salmon bay, and the number of these enterprises centering here indicates a great abundance of fish in the streams and surrounding waters. Deer is also still plentiful throughout the archipelago. This group of islands is bounded on the north by Sumner strait, which extends directly westward from the mouth of the Stikine river, near which, upon the island of Etolin, is located the town of Wrangell. The principal wealth of this section consists of fish, which are not confined to the salmon species. Large quantities of the eulachon are caught during the season, and

used chiefly for consumption by the natives. The town of Wrangell is also an important point of trade in transit with the gold mines on the upper Stikine river within the British possessions.

To the northward of Sunner strait lies a vast archipelago which bears the names of the Kuiu and Kupreanof islands. This region, which is intersected in every direction by navigable though dangerously rocky channels, is but little known, but large forests of yellow cedar and hemlock are said to exist here, though no mill has as yet been established for utilizing the timber. Codfish and halibut are very abundant in these waters.

A line drawn from Cape Fairweather, on the mainland, eastward and southward along the waters of Frederick sound and Chatham strait may be considered the southern boundary of the mineral region of southeastern Alaska; at least no deposits of precious metal in paying quantities are known to exist to the south of this line. The first mining camp met with after passing this line is situated on Holkham bay, in the vicinity of the settlements of Schuk and Sundum. The deposit consists of surface gold, which has been mined with moderate and varying success for a period of over ten years. From this point northward along the mainland the mountainous coast has been pretty thoroughly prospected and a large number of discoveries located, though but few of them have advanced to the stage of actual operation. On Admiralty island, which should more properly be designated an archipelago, a number of quartz veins, bearing both gold and silver, have been located, the most important of which are at Funtor bay and Salmon creek. Veins of good quality coal, but not easily accessible, were discovered on this group of islands within a few years after the purchase of Alaska; but though the southeastern section of the territory annually imports great quantities of coal from British Columbia for the use of its shipping and numerous mining enterprises, no capitalist has as yet attempted to develop our own deposits. Between the northern end of the Admiralty group and the mainland lies Douglas island, the site of the first mineral discovery of magnitude in Alaska. Ten years ago the now famous Treadwell mine was located on this island, and since then a number of other locations have been made on the same extension. The operations at this point began with washing the surface gold contained in decomposed croppings of ledges, but it was soon discovered that the real wealth was hidden in the interior of the veins, which here assume almost the dimensions of a quarry of gold-bearing rock. On the eastern shore of Gastineaux channel a large number of quartz veins have been located, and the town of Juneau has sprung up there with the gradual development of these mines. The principal mining districts in the immediate vicinity of Juneau, on the mainland, are Sheep Creek and Silver Bow Basin, and within a radius of 100 miles from the town twelve quartz mills have been established, with an aggregate capacity of 500 stamps, 240 of which are contained in the works of the Paris mine, which is reported to reduce 600 tons of ore per diem when both steam and water power are employed. Of the remaining 260 stamps, perhaps one-half are idle during the greater part of the year, and probably a hundred have never been in active operation.

The timber of this region is inferior in quality, but is found in the greatest abundance all over the islands and on the coast of the mainland adjoining and freely utilized in the operation of mines and other enterprises. Portions of Douglas island have become almost denuded of forests. The streams abound in salmon, and a salting establishment has been located at Takoo inlet, near the mouth of a glacial stream. The various deep-water channels are filled with halibut and codfish, which constitute the most important food supply of the native population.

The deep estuary known as the Lynn canal, lying immediately north of the Admiralty group, has many glaciers and precipitous mountains, but at a few points on the mainland small settlements have sprung up in the vicinity of mineral deposits, but have not advanced beyond the prospective stage. The most important group of mineral locations in this section is found at Berner's bay and Seward City. At the head of Lynn canal, near the mouth of the Chilkat and Chilkoot rivers, three salmon canneries have been located and operated for a number of years. This point is also an important center of the fur trade, furnishing fully one-half of the annual supply of southeastern Alaska. Chilkoot is also a starting point for miners attempting the overland route to the Yukon river diggings, which affords a very remunerative occupation to the Indians of the neighborhood, who are employed as packers on the trail crossing the divide between Alaska and British Columbia.

The principal industry on the west side of the Admiralty group is the herring fishery at Killisnoo,

on the small island of Kenesaw. This fishery is operated by the Alaska Oil and Guano Company, and produces over 150,000 gallons of oil per annum and nearly 1,000 tons of fertilizer, the latter manufactured from the refuse of herring. A large settlement of Indians in the immediate vicinity supplies nearly all the labor required. The immense schools of herring which visit this vicinity attract halibut, but only a limited number of packages of these fish are put up annually. A trading store is also carried on in connection with the herring fishery, for the purpose of buying up the furs secured by the native population, which consist chiefly of the skins of the black bear, land otter, sea otter, and fox. Deer skins also form quite an important item of trade. No use is made of the timber resources of the Admiralty group beyond the local supply for fuel.

To the southwest of this group lies Baranof island, and on its western shore is located Sitka, the present capital of the territory. Salmon salteries are located at several points on Peril strait, which divides Baranof from Chichagof island, and at the head of Silver bay, near Sitka, a small salmon cannery is in operation, in connection with which a limited quantity of halibut is salted. Baranof island is abundantly supplied with timber, and furnishes an almost inexhaustible supply to the natives. The forests and mountains are full of deer, while the surrounding waters fairly throng with halibut, herring, and fish of the salmon species. In the Silver Bay district, within twelve miles of Sitka, a number of quartz lodes have been located and operated in rather a desultory manner for many years, but the shipments of bullion from these lodes have been small. One of the most remunerative industries of the native population of Sitka consists in the manufacture of so-called curios, for which there is a steady demand from the large number of tourists who annually visit this section of Alaska.

The only settlement of importance on the large island or rather group of islands bearing the name of Chichagof is the village of Hoonah, where a Presbyterian mission has been established. The waters of Icy strait, which bound this group on the north, as well as of Chatham strait and Lynn canal, in the immediate vicinity, fairly teem with the hair seal, attracted by the presence of the floating ice which is constantly discharged from the glaciers of Glacier bay. These seals, together with the sea otter, form the principal source of revenue of the natives of Hoonah, some of whom, however, find employment in the fishing season at the salmon cannery at Bartlett bay, on the other side of Icy strait. Deer and fur-bearing animals are still abundant on Chichagof island, and its waters are filled with the same abundance of piscatorial wealth encountered in nearly all parts of this district. The timber on the Chichagof group consists chiefly of spruce, but thus far no use has been made of it.

From Cross sound northward, and westward to the mouth of Copper river, the coast line consists of a comparatively narrow shelf of level land, swampy but densely timbered, overhung by a chain of very high, precipitous mountains, known as the Fairweather Range and Saint Elias Alps, the only break in the long coast line, extending over three hundred miles, being caused by the bays of Lituya and Yakutat. A few rivers wind their tortuous channels over this narrow strip of level country, and are filled with many varieties of salmon, chiefly those used for the subsistence of the Indians. The timber in this region consists of spruce, with some hemlock of large size, and the forests are well stocked with fur-bearing animals, such as bears, land otters, foxes, and martens. Midway between Lituya and Yakutat bay a few miners are washing the auriferous sands of the beach, making fair wages during a few months of the year, and at Yakutat the beach sands have at times been utilized in a similar manner, but with no very satisfactory result. Quartz veins have been discovered by isolated prospectors in the mountain ranges, but have not been developed. The sea adjoining this coast line was long ago named the Fairweather whaling ground, and was reported as quite prolific in the past. Of late, however, only two or three whale ships visit the ground every third or fourth year. Between Yakutat bay and the mouth of Copper river sea otters are still found and hunted by the natives of Yakutat and Comptroller bays. Near the western extremity of this coast line, in the vicinity of Cape Suckling, there are several Indian villages, the natives of which furnish all the labor for the salmon cannery located at the mouth of Copper river. The furs procured from this section consist chiefly of sea otter, bear, and land otter. The vast valley of the Copper river, which has been explored at various times by military expeditions and private individuals, is known to abound in copper ore, which, however, is too far removed from shipping facilities to be of any value at present.

The few scattered tribes of Indians that are settled on Copper river and its tributaries annually descend to the sea and dispose of such furs as they can obtain, the most valuable among them being the black fox, which is here found in its highest perfection.

But a short distance westward from the mouth of Copper river, and connected therewith by a series of lakes and channels, is the settlement of Odiak or Iggiak, where two large canning establishments are located, the annual output being about 40,000 cases of an excellent quality of canned salmon.

The whole coast line of Prince William sound consists of an uninterrupted series of deeply indented fiords and bays, sheltered by groups of small islands and overhung by the towering peaks of a continuation of the Alpine chain of Saint Elias, and in nearly every bay and fiord there are several large glaciers. The narrow line of level ground between the seashore and the precipitous mountains is heavily timbered with spruce trees. The waters of Prince William sound contain, perhaps, less fish than other sections of the territory, the most abundant species being the dogfish, which seems to have driven away the codfish and nearly exterminated the herring, upon which it feeds. The whole region, however, abounds in fur-bearing animals, such as bears, land otters, and foxes, and sea otters are still found on the southern shores of Montague and Nuchek islands. On the eastern coast of Prince William sound, in the vicinity of Resurrection bay, are found several large "rookeries" of sea lions, which have apparently never been disturbed by the hunter. The whole of the eastern coast of the Kenai peninsula, which forms the southeastern boundary of this sound, displays the same character: high mountains rising abruptly from the water, with a narrow fringe of stumpy timber around the foot, frequently interrupted by glaciers. No inhabitants are found in this section, owing probably to the limited supply of fish and fur-bearing animals, though moose and reindeer are known to exist on the higher tiers of the mountain range, in the immediate vicinity of the line of eternal snow.

Passing around the southernmost end of Kenai peninsula at Cape Elizabeth, the first settlement at English bay or Graham harbor is found, at which there is a trading store and a small salmon saltery. The natives of this settlement and of a few smaller ones adjoining are chiefly engaged during the summer season in hunting the sea otter. The supply of fish is limited, but the natives secure sufficient food by adding to their larder the meat of the marmot and porcupine. The furs procured in this region consist of the skins of the black bear and fox. The timber which covers the base of the mountains is rather stunted in growth and very knotty.

On the north side of English bay, near its entrance, the Russians at one time operated an extensive coal mine, traces of which are still to be seen in the shape of solid stone piers, a few dilapidated buildings, and the frame of hoisting works, but it was abandoned because the steam-making qualities of the coal were not satisfactory. To the north of English bay, across the gulf of Kuchekmak, another deposit of coal is found, probably of a nature similar to that just described, toward the working of which some progress has been made, a building having been erected and a tunnel started, from which several hundred tons of coal have thus far been taken and used in trials as to its quality. Within view of the beach there are four distinct veins of coal, varying from three to six feet in thickness. As the mouth of the tunnel at this mine is within a few feet of tide water, this coal could be mined and shipped at very little expense should the quality prove such as to warrant its use for steaming. The shores of Kuchekmak gulf are heavily timbered, but the further we progress northward the more stunted the spruce becomes, until it can scarcely be said to possess any commercial value.

Just beyond the gulf of Kuchekmak, at Anchor point, three miners were engaged in washing the gravel cast up on the beach for gold, which is found in extremely fine particles of the kind known as flour gold. This kind of gold can only be secured by the help of mercury, and the whole operation is confined to the open season of spring and summer, and even then a drought of unusual duration may interrupt production for weeks at a time. The gold thus far sent from these diggings does not exceed \$1,000 in amount, and to secure this insignificant result it was necessary to construct a ditch more than two miles in length.

From Anchor point northward along the west coast of Cook inlet is found a wide belt or level plateau, extending from the high mountain range on the extreme west to the seashore. This plateau is covered with mossy tundra and scattered groves of stunted spruce, and overlies a strata of blue clay, under which is found sandstone, with narrow veins of coal. Strange to say, gold exists throughout the

swampy soil of this immense surface, and a few light, floury colors can be washed out from almost any panful of dirt picked at random. No paying mining claims have been thus far located in the Kenai peninsula.

The two larger streams cutting across this plateau teem during the season with salmon of the finest quality. There are two large canning establishments located at the mouth of the Kasilof river and one on the Kenai river. The fur trade of this region, once famous for its magnitude, has now become quite insignificant, and is confined to a small number of skins of the bear, marten, fox, and beaver. A few parties are sent out every season to the opposite shore of the inlet to hunt sea otter, that animal having become extinct on the west coast.

The appearance of the surface of the peninsula remains the same until its northern end is reached, at the deeply indented arm of Turnagain. Here in one of the innumerable ravines three miners have been at work for two seasons washing the surface gravel for its precious contents, but the result thus far has not been very satisfactory, the total yield amounting to between seven and eight hundred dollars.

On this western table-land of the Kenai peninsula is found one of the few regions in Alaska affording some agricultural prospects, and there are many localities where water courses have drained the tundra to such a degree as to allow of quite extensive areas of pasture and of soil capable of producing potatoes and other vegetables, and perhaps barley and oats. At one point a settlement named Ninitchik was formed more than a century ago by immigrants from Siberia, and ever since that time these people have engaged to a certain extent in agricultural pursuits. There can be no doubt that at various points on the peninsula settlers could find land capable of cultivation and ample pasture for large herds of cattle, as the summers are dry enough to insure a sufficient supply of hay for feeding cattle during the long, cold winter.

On the west coast of Cook inlet, which along its whole length is overshadowed by a high volcanic chain of mountains with several active craters, the level land lying between the seashore and the mountains is extremely narrow. There is but one harbor on this coast line between the head of Cook inlet and its southernmost point at Cape Douglas, and settlements are few and far between. The lower portion of the coast, however, is visited every season by large hunting parties (fitted out by trading companies) in pursuit of the sea otter. Natives in search of this valuable animal even come here from the distant shores of Bering sea, making their way along the coast and across a series of lakes, and finally carry their canoes over the main chain of mountains.

At Beluga creek, about fifty miles south of the mouth of the Shushetno river, surface diggings were discovered many years ago and worked occasionally with indifferent results by successive parties of prospectors. Near the Cape of West Foreland, in the vicinity of the trading station of Toyonok, a vein of good coal has been located, which will probably be thoroughly prospected during the coming season. The coal in sight is of the usual lignite quality found in so many parts of Alaska, but the tremendous tides rushing up and down this estuary of Cook inlet wash out and cast up on the beach fragments of coal of superior quality. We can therefore confidently predict that when shafts are sunk these veins will prove to be valuable. The proprietors of the three canneries established on the eastern shore of the inlet send their steamers to every stream emptying into its waters in search of additional supplies of the magnificent king salmon, which frequent these waters.

Directly south of Cook inlet lies the Kadiak group of islands, consisting of Kadiak proper, Shuyak, Afognak, Sitkalidak, and the islands of Trinidad in the south. This group forms the center of the salmon-canning industry of Alaska, and furnishes almost two-thirds of the whole pack of the country. Ten canneries have been thus far established in this group, eight of which depend for their supply upon one small river, the Karluk, which falls into the waters of Shelikoff strait, on the west coast of Kadiak. The first cannery was established at Karluk in the year 1884, and produced in that season 4,000 cases. During the following season this pack was increased to 16,000 cases, and the largest canning establishment in the world was then fitted up. The almost phenomenal product of this institution immediately attracted attention, and competitors came into the field. During the last season a force of nearly 1,100 fishermen and packers were engaged in handling the output of this small river, which can be easily waded at low tide. The number of fish secured in the season of 1890 foots up a little over three millions, representing a pack of over 200,000 cases.

Two other canneries, located at Afognak, also depend for the greater part of their supply upon the Karluk, with which constant communication is kept by means of a small steamer. The two remaining canneries of this group, at Alitak and Olga bay, are also branches of Karluk firms, and are partly supplied from the same river. Quite a number of fish are also secured by means of steamers from the opposite coast of the Alaskan peninsula, chiefly from the bays of Kukak and Katmai, and salting stations have been located at various points in this group, generally in connection with the different canneries, the most important of which is located at Eagle harbor, on the east coast of Kadiak island.

The settlement of Saint Paul, on the northeastern shore of Kadiak island, is the most important fur-trading center in central Alaska, from which all stations of the Alaska Commercial Company throughout the district are supplied. The fur product of the islands of this group consists of foxes, land otters, and brown bears, but sea otters are killed in considerable numbers in the waters adjoining its southern extremity. The annual shipments from the Saint Paul station up to within the last two or three years amounted to between \$250,000 and \$300,000, but lately an active competition has considerably reduced these figures. The eastern and southern shores of these islands contain vast tracts of level and gently rolling land, covered with excellent pasture, and the climate is of extraordinary mildness, the thermometer never at any time descending below zero. It is safe to predict that in course of time this section of Alaska will be utilized for sheep and cattle raising, as it is an authenticated fact that both sheep and cattle can graze here throughout the year without shelter and with only a few brief interruptions, caused by occasional snow storms. The native population of this section, having been in contact with civilization and exposed to christianizing influences for more than a century, have always engaged in agriculture to a limited extent, and in the larger settlements have never been without potato gardens and a few head of cattle. At present some three hundred head of cattle and over thirty sheep are kept in the vicinity of Saint Paul.

The southern coast line of the Alaskan peninsula, extending from Cape Douglas to False pass or Issanak strait, presents the spectacle of a precipitous mountain chain rising abruptly from the sea, broken by deep indentations and sheltered by outlying islands. At a few points, such as Chignik bay, Wrangell, Portage, and Pavloff bay, the rivers forming the outlet of lakes afford an abundant supply of salmon, and canneries have been located at Chignik and Thin point, with an aggregate output of 50,000 cases per annum.

Directly south from the center of this coast line are the Shumagin islands. On the island of Unga there is a coal vein of considerable extent, which was located soon after the acquisition of the territory, but after futile attempts to place the coal in the San Francisco market the claim fell into the hands of two men, who settled down and confined themselves to taking out annually a small quantity for local consumption. On the same island the gold mine of the Apollo Gold and Silver Mining Company has been operated for several successive seasons, giving employment to a force of twenty-five or thirty men. No shipment of bullion from this mine has thus far been reported, but prospects are said to be promising for the future. At the settlement of Unga there is also a trading station and base of supplies for this district, but the most important industry is the cod fishery, having its headquarters on the island of Popoff, separated from Unga by a narrow strait. Here at Pirate cove and Humboldt harbor two fishing stations have been established for many years. The greater part of the fishing is done in small boats, and the product is carried to San Francisco by vessels, which make regular trips during the season. On these islands cattle and sheep could probably be profitably raised. The outlying rocks and islets of this group afford some of the most prolific sea-otter hunting grounds of Alaska.

Directly north of this group is Portage bay, which is separated from Herendeen bay by an isthmus about thirteen miles in width, debouching into Bering sea on the north side of the peninsula. Within a short distance of this isthmus a coal deposit has been discovered and is now in course of development under the auspices of the Alaska Commercial Company. There is no doubt that this deposit will become of great value in the near future, especially after the isthmus shall have been crossed by a proposed tramway, making the mine accessible from the Pacific ocean without entering Bering sea. From the western extremity of the Alaskan peninsula westward for nearly a thousand miles extends the long line of islands known as the Aleutian group. The chief settlement of

the Aleutian chain is Unalaska, which is not only a fur-trading center of great importance, but also a point of call and base of supplies for the whaling fleet annually cruising in Bering sea and the Arctic ocean. The natural wealth of this long chain of islands is confined almost solely to products of the sea. The furs are confined to a limited number of foxes of inferior quality and sea otters, the latter decreasing in numbers from year to year. Fish in immense quantities and of great variety can be found in the waters surrounding these islands. Nearly all the numerous bays and harbors are visited by schools of herring two or three times a year, and every stream and rivulet has its run of salmon, while the bays and adjoining banks are crowded with codfish and a striped fish resembling mackerel, which is of most excellent flavor and great richness. No part of this piscatory wealth, however, is utilized at present beyond the annual supply of dried fish for the natives of the islands, who have decreased during the last decade from 2,500 to less than 900 of both sexes. The climate of these islands is mild, and there can be no doubt that many of them that contain level land could be utilized for purposes of stock and sheep raising were it not for the difficulty of bringing the product to market.

Nearly two hundred miles north of Unalaska are the two small islands composing the Pribilof group, from which up to one year ago fur-seal skins to the value of nearly one and a half million dollars were annually exported. This important industry is now declining in value, owing to the rapid decrease in the number of seals, caused by their indiscriminate slaughter at sea. A few hundred foxes of the species known as the blue fox are annually killed on these islands. Should the fur seal become exterminated, or the killing of this valuable animal be temporarily suspended by the United States government, it would be either necessary to find other employment for the natives living on these islands or supply them with food and raiment.

In connection with this question, it may be well to point out one source from which these people might supply themselves in an emergency such as indicated. It is well known that the bone supply of the globe is limited, and that firms dealing in this material are constantly sending out prospectors for additional supplies. On these islands seals have been killed in almost countless numbers for more than a century, and the accumulation of bones is correspondingly large. To give an idea of this deposit it is only necessary to consider that a single year, under present circumstances, would yield a hundred thousand carcasses, each containing at least twenty pounds of bone, or a total of one thousand tons.

The northern coast of the Alaskan peninsula, which in times past was the resort of large herds of walrus during the breeding season, is now almost totally deserted by these animals, and the few inhabitants of the widely-scattered villages depend for their food supply upon the fish which through the rivers and the reindeer which are still found in the uplands. The only harbor on all this long line of coast is Herendeen bay, previously mentioned in connection with the coal mine located there. The whole surface of the peninsula between the high mountains on the east and the coast of Bering sea on the west is a vast extent of tundra, interspersed here and there in the more northern sections with a stunted growth of spruce.

Bristol bay forms the westernmost portion of Bering sea, and is the outlet of two rivers: the Kvichak, which affords egress to the waters of Ilyanna lake, the largest in Alaska, and the Nushegak, which enters the bay of the same name from the north. On this bay four large salmon canneries have been located, with an annual output of 150,000 cases, a great portion of which consists of the best quality of king salmon. The canning establishments located at Nushegak also obtain additional supplies of fish by means of small steamers plying to the various streams draining the peninsular plateau. The course of the Nushegak river lies through a rolling country having alternate strata of gravel and clay, in which at various places promising indications of gold have been discovered, but no development of these deposits has yet taken place.

The occupations of the natives of this section, who formerly obtained quantities of whalebone and walrus ivory, are now confined to labor in the fishing establishments and the hunting of such fur-bearing animals as the country affords, the bear, land otter, fox, and marten.

That portion of Bering sea lying to the northward and westward of the Alaskan peninsula and south of the Kuskokwim delta has been ascertained to be an excellent cod fishing-ground, the banks having been definitely located during recent explorations by the United States Fish Commission steamer

Albatross. Only one or two vessels have thus far attempted to fish in these grounds. There can be no doubt that were it not for the presence of large numbers of seals in this part of Bering sea during the greater portion of the year the whole western part would afford an exceedingly prolific fishing ground, the sea being comparatively shallow and easily accessible. The seals, however, now consume enormous quantities of codfish.

Westward from Nushegak river is the Togiak river, a shallow stream, with an abundance of fish of a species only adapted to food supply for the natives. The number of fur-bearing animals in the country drained by the Togiak has decreased to a considerable degree within the last ten years, causing hunters to migrate to great distances in search of profitable game. It is from this region that parties are fitted out to hunt sea otters in the waters of Cook inlet. The walrus, which formerly frequented the sand dunes lining this portion of the coast, has nearly disappeared.

The Kuskokwim river, which is probably second in size among Alaskan streams, empties its waters through a wide estuary into Bering sea. A dense population, amounting to several thousand, is found settled in numerous villages along the lower course of this river, depending entirely for food supply upon the river and adjoining sea. Fish of various kinds are extremely abundant in this river, but the only marketable salmon is the king salmon, which makes its appearance but once during the season in a very brief run. The fish most common in the Kuskokwim is the whitefish of the *Coregonus* species, which is caught at all times of the year, during the winter through holes cut in the ice. The abundance of fish attracts large numbers of seals and white whales, or belugas, who, in turn, are hunted by the natives, affording them an abundant supply of their favorite food, oil and blubber. Along the upper course of the Kuskokwim many indications of the presence of precious metals have been discovered, including several veins of cinnabar. The mountains of the interior afford a well-stocked hunting and trapping ground for fur-bearing animals, the most valuable of which is the marten or Alaskan sable. A large number of skins of the black bear of very fine quality are also secured here. There is but one trader in this district, who gains possession of the furs partly by direct purchase and partly by exchange for oil and blubber.

The delta land confined between the lower courses of the Yukon and Kuskokwim rivers in the west and Bering sea in the east could perhaps be rightly termed the section of Alaska poorer in natural wealth than any other section known. This whole region consists of a flat morass, intersected by innumerable channels and shallow lakes, and the only fur-bearing animal known to exist in this section is the mink, which is of poor quality and of nominal value. This inhospitable region is quite densely populated, the people depending entirely upon the products of the sea and interior waters, such as seals, beluga, fish, and immense flocks of water fowl in their season. On the island of Numivak, lying a few miles to the westward of this coast, reindeer are said to exist, but the greater part of the subsistence of the inhabitants is afforded by the sea.

Proceeding northward, we reach the greatest river of Alaska, and perhaps of North America, the Yukon, which discharges its turbid waters through numerous channels into a part of Bering sea so shallow that vessels will run aground before even sighting land. There can be no doubt that navigable channels exist somewhere, but until the government extends its surveys of this region the mouth of this important river must remain closed to commerce. The Yukon will probably in the future be looked upon as the chief salmon river of Alaska as soon as it is made accessible by surveys or perhaps by railway connection. The quantity of marketable fish, both of red and king salmon, thronging this river and crowding its waters during three months of the year is truly wonderful. A large portion of these fish ascend the river for a distance of between twelve and fifteen hundred miles, where they are to be found in an edible condition upon their first arrival. The thousands of people, both Eskimos and Athabaskans, who line the banks of this river depend altogether upon the red salmon for their food supply, the magnificent king salmon, which here reaches a length of from five to six feet and a weight of from eighty to one hundred and twenty pounds, being consumed by them fresh. Schools of white whales can be met with in this river from four to five hundred miles from its mouth in pursuit of salmon and other fish. The fur trade of the Yukon region, which has been in the hands of one firm for the last ten years, does not exhibit any signs of decrease in the supply, though there can be no doubt that this is due to a display of greater energy in hunting the animals. The value of the

annual catch which is collected at the trading station of Saint Michael's is about \$75,000, the most valuable furs being the black fox, the marten, and the beaver.

Both banks of the Yukon down to within three hundred miles of its mouth are lined with dense forests of spruce, with here and there a few groves of stunted hemlock. These forests do not, however, extend far into the interior. A few miles from the river, on either side, the explorer emerges from the forest upon an apparently limitless extent of tundra land, a peculiarity of which is the existence of a frozen subsoil and layers of ice, which are thoroughly protected from the effects of solar heat by a thick coat of sphagnous growth. Though the forests of the Yukon will probably not be of great commercial value in the future, they will certainly afford much needed material to the prospectors and miners now gradually advancing into the interior of Alaska. The whole country is dotted with lakes and shallow water courses, which in the summer season are crowded with millions of water fowl—swans, geese, ducks, etc. At many points on the river, where natural drainage has freed the soil of the universal moisture, it would no doubt be possible during the short but warm summer to cultivate vegetables, and perhaps even the hardy grains. A few attempts in this direction have been made, the most promising by the Jesuit fathers in charge of Catholic mission work on the Yukon river. The Sisters of Saint Anne, connected with this mission, have also introduced an industry which will be of the greatest importance and assistance, at least to the female portion of the native population. They are training small children in the manufacture of Brussels lace under the guidance of one of the sisters, who is a professional lacemaker from Belgium.

Though the appearance of the gravelly banks of the Yukon river would indicate the presence of precious metals, it is not until Anvik is reached, at the mouth of the Koyukuk river, that actual operations in this line are met with. Three or four men who are now mining on this northern tributary of the Yukon report encouraging prospects, having secured between three and four thousand dollars' worth of gold dust within the last two seasons.

On the Tananah river, the principal tributary of the Yukon from the south, three camps of prospectors are now in existence, from which between seven and eight thousand dollars' worth of gold has been shipped within the last two years. The prospector in this country is beset by unusual difficulties and many almost insurmountable obstacles, and, in consequence, the development of the precious metals existing here will be exceedingly slow.

From the mountain range which lies between the Tananah river and the upper Yukon a number of small tributaries enter the main river, nearly all of which have been prospected with gratifying success during the last few years. Bar diggings are now being worked on most of these streams, the most prolific being the famous Forty-mile creek, from which the greater part of the gold shipments of this district have been made. One hundred and fifty miners have been working here for six or seven years, and have succeeded in washing out of the gravelly banks some fifty or sixty thousand dollars' worth of gold per annum. During the season of 1890 this amount was probably increased by nearly one-half through the discovery of new bars on what is known as Lady Franklin's gulch. As the summer season is exceedingly short, the miners resort to the expedient of piling logs upon the bars in winter and setting fire to them, thus thawing the deposit sufficiently to permit of its being carried to the banks, ready for washing out in the spring. Without this expedient, probably the mining in this region would not be profitable. One firm of miners has secured steam pumps, with which to draw up fine gravel and sand from the river bed, but the result of the experiment is not yet known.

The coast line from Saint Michael's northward and westward to Cape Prince of Wales, on Bering strait, consists of low hills and tundra, over which are scattered a few small settlements of Eskimo. The first break in this shore line occurs at Golovin bay, at the head of which, on Fish river, a mining enterprise was inaugurated many years ago to develop deposits of galena or silver lead-bearing ore. Owing, perhaps, to both misfortune and mismanagement, the results of this enterprise thus far have not been gratifying, the total value of the ore shipped not exceeding \$13,000, a sum in no way commensurate with the expense incurred. Westward from Golovin bay lies the bay of Port Clarence, a rendezvous for whale ships previous to entering the Arctic ocean. Both of these bays are visited by large schools of fish well adapted for the subsistence of the natives, but not of much marketable value. The furs obtained from the coast and interior are those of the fox, bear, land otter, and polar bear.

On the long line of coast extending from Cape Prince of Wales northward and westward around Point Barrow, and thence to the boundary line, the widely-scattered Eskimos formerly depended for their food supply upon the walrus, seal, and whale found along the coast and on ice floes; also upon the reindeer, which at the time of the acquisition of Alaska were found in immense herds within short distances from the coast. Annexation to the United States brought with it the introduction of breech-loading arms, which resulted in the almost total extermination of the reindeer in an incredibly short period, the Eskimos shooting the animal by hundreds for the mere sport of using the new weapon. On the other hand, the constant pursuit of the walrus and whale has resulted in a diminution of this source of supply amounting almost to extermination. It is true that fish of every kind abound in the rivers, but time will be required to induce the Eskimos to look upon the whale and walrus as their chief supply.

In the vicinity of Cape Lisburne there are several veins of coal, which afford whaling steamers and revenue vessels an opportunity to replenish their supply, but no other mineral deposits have thus far been reported on this coast. The timber line, marked here by a very stunted growth of spruce, does not approach to within many miles of the seacoast, being confined almost exclusively to the river courses.

The waters, however, immediately adjoining this poverty-stricken region have been a source of great wealth to the New Bedford and San Francisco firms engaged in whaling in the Arctic ocean. This wealth can not properly be included among the resources of Alaska, as it might have been secured by whalers even if Russia had not ceded the country. A great part of the business of these whalers is done by traffic with natives for such whalebone as they are able to secure from the shore or on the ice and for walrus ivory and furs, the latter consisting chiefly of the skins of the beaver, polar bear, and white fox. The whaling catch of the fleet for the season of 1890, which also covers parts of the ocean not contiguous to Alaska, foots up as follows: Oil, 14,567 barrels; whalebone, 226,402 pounds; ivory, 3,980 pounds. The whalebone is worth from \$2.50 to \$3.50 a pound, the oil from thirty to sixty cents a gallon, and the ivory fifty cents a pound.

In this survey of the wealth and resources of Alaska the observer is struck with one rather discouraging feature: that all these vast resources, the products of land and sea, are taken out of the country without leaving any equivalent to the inhabitants. The chief industries, such as salmon canneries, cod fisheries, mines, and the fur trade, are carried on with labor imported into Alaska and taken away again, thus taking out of the country the wages earned. Every pound of subsistence for these laborers, as well as all of the clothing they use, is carried by them into Alaska. The shipping of Alaska, which has become of considerable value, is also carried on wholly by non-residents of the territory, chiefly from California, Oregon, and Washington, and this state of affairs extends even to the important tourists' travel to the southeastern district of Alaska. Not only the passage money, but the whole cost of subsistence of these tourists during their stay in Alaska, goes to the California owners of the steamship lines. To give an idea of the magnitude of this traffic, it is only necessary to state that the number of tourists' tickets sold each season exceeds five thousand, each ticket representing an expenditure of not less than \$100, making a total of \$500,000.

The insignificant payments for furs and labor to natives are absorbed entirely in the purchase of small quantities of food and raiment. The spectacle of so vast a tract of country being thus drained continually for twenty-three years without receiving anything to speak of in return can not probably be equaled in any other part of the United States, and perhaps of the world. At the same time the only prospect for a change in these circumstances, by immigration and settlement of people, who could supply the demand for labor and develop the industries as residents of the country, would appear to be still in the far distant future.

In view of the general and frequently expressed desire on the part of the public to know more of Alaska, the investigations in connection with this branch of the Census Office inquiries have been extended over a wider field, embracing subjects not included in the general census. The results, as far as at hand, make it possible to state that in the final report there will be embraced a complete exhibit of Alaskan commerce in its entirety, as well as a very satisfactory account of the geographical and topographical features of the country, its resources, and the habits, customs, and present status of the

native population. With a view to this end, arrangements have been made and are about to be carried out for obtaining a series of authoritative descriptive articles covering all sections of Alaska, from the pens of intelligent men who have resided in their respective sections for many years. At least three of these articles will come from what is now considered and described as the "unknown" part of Alaska. There is every prospect of completing the work connected with this investigation by the end of the present year.



[7-010]

# CENSUS BULLETIN.

No. 40.

WASHINGTON, D. C.

March 17, 1891.

## POPULATION BY COUNTIES.

North Central Division.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., March 13, 1891.

This bulletin gives the population in detail by counties for the states and territories comprised within the North Central division, as follows:

NORTH CENTRAL DIVISION: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

The figures given in this bulletin are according to the official count of the returns of the Eleventh Census as finally determined. The population for each county as returned in 1880 is given for purposes of comparison, together with the increase or decrease during the decade.

Similar statements by counties are issued as separate bulletins for the states and territories comprising the North Atlantic and South Atlantic divisions, and for the states and territories comprising the South Central and Western divisions. The states and territories included in these divisions are as follows:

[AS A SEPARATE BULLETIN.]

NORTH ATLANTIC DIVISION: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania.

SOUTH ATLANTIC DIVISION: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

[AS A SEPARATE BULLETIN.]

SOUTH CENTRAL DIVISION: Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas.

WESTERN DIVISION: Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon, California.

# POPULATION BY COUNTIES.

## NORTH CENTRAL DIVISION.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<b>Ohio</b> .....	3,672,316	3,198,062	474,254		<b>Ohio—Continued.</b>				
Adams.....	26,093	24,005	2,088		Ross.....	39,454	40,307		853
Allen.....	40,644	31,314	9,330		Sandusky.....	30,617	32,057		1,440
Ashland.....	22,223	23,883		1,660	Scioto.....	35,377	33,511		1,866
Ashtabula.....	43,655	37,139	6,516		Seneca.....	40,869	36,947		3,922
Athens.....	35,194	28,411	6,783		Shelby.....	24,707	24,187		520
Auglaize.....	28,100	25,444	2,656		Stark.....	84,170	61,031		23,139
Belmont.....	57,413	49,638	7,775		Sunmit.....	54,089	43,788		10,301
Browa.....	29,899	32,911		3,012	Trumbull.....	42,373	44,880		2,507
Butler.....	48,597	42,379	6,018		Tuscarawas.....	46,618	40,198		6,420
Carroll.....	17,566	16,416	1,150		Union.....	22,860	22,375		485
Champaign.....	26,980	27,817		837	Van Wert.....	29,671	23,028		6,643
Clark.....	52,277	41,948	10,329		Vinton.....	16,045	17,223		1,178
Clermont.....	33,553	36,713		3,160	Warren.....	25,468	28,392		2,924
Clinton.....	24,240	24,756		516	Washington.....	42,380	43,244		864
Columbiana.....	59,029	48,602	10,427		Wayne.....	30,005	40,076		1,071
Coshocton.....	26,703	26,642		61	Williams.....	24,897	23,821		1,076
Crawford.....	31,927	30,583	1,344		Wood.....	44,392	34,022		10,370
Cuyahoga.....	309,970	196,943	113,027		Wyandot.....	21,722	22,365		643
Darke.....	42,961	40,496	2,465		<b>Indiana</b> .....	2,192,404	1,978,301	214,103	
DeLaware.....	25,769	22,515	3,254		Adams.....	20,181	15,385		4,796
Delaware.....	27,180	27,381		192	Allen.....	66,689	54,763		11,926
Erie.....	35,462	32,640	2,822		Bartholomew.....	23,867	22,777		1,090
Fairfield.....	33,939	34,284		345	Benton.....	11,903	11,108		795
Fayette.....	22,309	20,364	1,945		Blackford.....	10,461	8,020		2,441
Franklin.....	124,087	86,797	37,290		Boone.....	26,572	25,922		650
Fulton.....	22,023	21,053	970		Brown.....	10,308	10,264		44
Gallia.....	27,005	28,124		1,119	Carroll.....	20,021	18,345		1,676
Greoga.....	13,489	14,251		762	Cass.....	31,152	27,611		3,541
Greene.....	29,829	31,349		1,529	Clark.....	30,259	28,610		1,649
Guernsey.....	28,645	27,197	1,448		Clay.....	30,536	25,854		4,682
Hamilton.....	374,573	313,374	61,199		Clinton.....	27,370	23,472		3,898
Hancock.....	42,563	27,784	14,779		Crawford.....	13,941	12,356		1,585
Hardin.....	28,639	27,923	1,916		Daviess.....	26,227	21,552		4,675
Harrison.....	20,830	20,456	374		Dearborn.....	23,364	26,671		3,307
Henry.....	25,089	20,385	4,705		Decatur.....	19,277	19,779		502
Highland.....	29,048	30,281		1,233	De Kalb.....	24,307	20,225		4,082
Hocking.....	22,658	21,126	1,532		Delaware.....	30,131	22,926		7,205
Holmes.....	21,139	20,776	363		Dubois.....	20,263	15,992		4,261
Huron.....	31,949	31,609	340		Elkhart.....	39,201	33,454		5,747
Jackson.....	28,408	23,686	4,722		Fayette.....	12,630	11,394		1,236
Jefferson.....	39,415	33,018	6,397		Floyd.....	29,458	24,590		4,868
Knox.....	27,600	27,431	169		Foundation.....	19,553	20,223		670
Lake.....	18,235	16,326	1,909		Franklin.....	18,366	20,062		1,726
Lawrence.....	39,556	39,068	488		Fulton.....	16,746	14,301		2,445
Licking.....	43,279	40,450	2,829		Gibson.....	24,920	22,742		2,178
Logan.....	27,386	26,267	1,119		Grant.....	31,493	23,618		7,875
Lorain.....	40,295	35,526	4,769		Greene.....	24,379	22,966		1,383
Lucas.....	102,296	67,377	34,919		Hamilton.....	26,123	24,801		1,322
Madison.....	20,057	20,129		72	Hancock.....	17,829	17,123		706
Mahoning.....	55,979	42,871	13,108		Harrison.....	20,786	21,326		540
Marion.....	24,727	20,565	4,162		Hendricks.....	21,408	22,981		1,483
Medina.....	21,742	21,453	289		Henry.....	23,879	24,016		137
Meigs.....	29,813	32,325		2,512	Howard.....	26,180	19,584		6,602
Mercer.....	27,220	21,808	5,412		Huntington.....	27,644	21,805		5,839
Miami.....	39,754	36,158	3,596		Jackson.....	24,139	23,050		1,089
Monroe.....	25,175	26,496		1,321	Jasper.....	11,185	9,464		1,721
Montgomery.....	100,852	78,550	22,302		Jay.....	19,478	19,282		196
Morgan.....	19,143	20,074		931	Jefferson.....	24,507	25,977		1,470
Morrow.....	18,120	19,072		952	Jennings.....	14,603	16,453		1,850
Muskingum.....	51,210	49,774	1,436		Johnson.....	19,561	19,537		24
Noble.....	20,753	21,138		385	Knox.....	28,044	26,324		1,720
Ontawa.....	21,974	19,762	2,212		Kosciusko.....	28,645	26,494		2,151
Paulding.....	25,932	13,485	12,447		Lagrange.....	15,615	15,680		65
Perry.....	31,151	28,218	2,933		Lake.....	23,886	15,091		8,795
Pickaway.....	26,939	27,415		476	La Porte.....	34,445	30,985		3,460
Pike.....	17,482	17,927		445	Lawrence.....	19,792	18,543		1,249
Portage.....	27,868	27,500	368		Madison.....	36,487	27,827		8,660
Preble.....	23,421	24,533		1,112	Marion.....	141,156	102,782		38,374
Putnam.....	30,188	23,713	6,475		Marshall.....	23,818	23,414		404
Richland.....	33,072	36,306		1,766					

## POPULATION BY COUNTIES—NORTH CENTRAL DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1800.	1880.				1800.	1880.		
<b>Indiana—Continued.</b>					<b>Illinois—Continued.</b>				
Martin.....	13,973	13,475	498		Greene.....	23,791	23,010	781	
Miami.....	25,823	24,083	1,740		Grundy.....	21,024	16,732	4,292	
Monroe.....	17,073	15,875	1,708		Hamilton.....	17,809	16,712	1,098	
Montgomery.....	28,025	27,316	709		Hancock.....	31,907	35,337		3,430
Morgan.....	18,643	18,900		257	Hardin.....	7,234	6,024	1,210	
Newton.....	8,803	8,167	636		Henderson.....	9,876	10,722		846
Noble.....	23,350	22,956	403		Henry.....	33,338	36,597		3,259
Ohio.....	4,055	5,563		608	Iroquois.....	35,167	35,451		284
Orange.....	14,678	14,363	315		Jackson.....	27,869	22,505	5,364	
Owen.....	15,040	15,901		861	Jasper.....	18,188	14,515	3,673	
Parke.....	20,296	19,460	836		Jefferson.....	22,590	20,686	1,904	
Perry.....	18,240	16,997	1,243		Jersey.....	14,810	15,542		732
Pike.....	18,544	16,383	2,161		Jo Daviess.....	25,101	27,528		2,427
Porter.....	18,052	17,227	825		Johnson.....	15,013	13,078	1,935	
Posey.....	21,529	20,857	672		Kane.....	65,061	44,959	20,122	
Pulaski.....	11,233	9,851	1,382		Kankakee.....	28,732	25,047	3,685	
Putnam.....	22,335	22,501		166	Kendall.....	12,106	13,083		977
Randolph.....	28,085	26,435	1,650		Knox.....	38,752	38,344		408
Ripley.....	19,350	21,627		2,277	Lake.....	24,255	21,236	2,959	
Rush.....	19,034	19,238		204	La Salle.....	80,798	70,403	10,395	
Saint Joseph.....	42,457	33,178	9,279		Lawrence.....	14,693	13,663	1,030	
Scott.....	7,833	8,343		510	Lee.....	26,187	27,431		1,244
Shelby.....	25,454	25,257	197		Livingston.....	38,455	38,450		5
Spencer.....	22,060	22,122		62	Logan.....	25,439	25,037	452	
Starke.....	7,339	5,105	2,234		McDonough.....	27,407	27,970		563
Steuhen.....	14,478	14,645		167	McHenry.....	26,114	24,508	1,606	
Sullivan.....	21,877	20,336	1,541		McLean.....	63,036	60,100	2,936	
Switzerland.....	12,514	13,336		822	Macoupin.....	38,083	30,665	7,418	
Tippecanoe.....	35,078	35,966		888	Macoupin.....	40,380	37,692	2,688	
Tipton.....	18,157	14,407	3,750		Madison.....	51,545	50,126	1,409	
Union.....	7,006	7,673		667	Marion.....	24,341	23,686	655	
Vanderburg.....	59,809	42,193	17,616		Marshall.....	13,633	15,055		1,422
Vermillion.....	13,154	12,025	1,129		Mason.....	16,067	16,242		175
Vigo.....	50,195	45,658	4,537		Massac.....	11,313	10,443	870	
Wabash.....	27,126	25,241	1,885		Menard.....	13,120	13,024	96	
Warren.....	10,955	11,497		542	Mercer.....	18,545	19,502		957
Warrick.....	21,161	20,162	999		Monroe.....	12,948	13,682		734
Washington.....	18,619	18,955		336	Montgomery.....	30,003	28,078	1,925	
Wayne.....	37,628	38,613		985	Morgan.....	32,636	31,514	1,122	
Wells.....	21,514	18,442	3,072		Moultrie.....	14,481	13,699	782	
White.....	15,671	13,705	1,876		Ogle.....	28,710	29,937		1,227
Whitley.....	17,768	16,941	827		Peoria.....	70,378	55,355	15,023	
<b>Illinois.....</b>	<b>3,826,351</b>	<b>3,077,871</b>	<b>748,480</b>		Perry.....	17,529	16,007	1,522	
Adams.....	61,888	59,135	2,753		Piatt.....	17,062	15,583	1,479	
Alexander.....	16,563	14,808	1,755		Pike.....	31,000	33,751		2,751
Bond.....	14,550	14,866		316	Pope.....	14,016	13,256	760	
Boone.....	12,203	11,508	695		Pulaski.....	11,355	9,507	1,848	
Brown.....	11,951	13,041		1,090	Putnam.....	4,730	5,554		824
Bureau.....	35,014	33,172	1,842		Randolph.....	25,049	23,690	1,359	
Calhoun.....	7,652	7,467	185		Richland.....	15,019	15,545		526
Carroll.....	18,320	16,976	1,344		Rock Island.....	41,917	38,302	3,615	
Cass.....	15,963	14,493	1,470		Saint Clair.....	66,571	61,906	4,765	
Champaign.....	42,159	40,863	1,296		Saline.....	19,342	18,940	402	
Christian.....	30,531	28,227	2,304		Sangamon.....	61,195	52,894	8,301	
Clark.....	21,899	21,894	5		Schuyler.....	16,013	16,249		236
Clay.....	16,772	16,192	580		Scott.....	10,304	10,741		437
Clinton.....	17,411	18,714		1,303	Shelby.....	31,191	30,270	921	
Coles.....	30,093	27,042	3,051		Stark.....	9,582	11,207		1,625
Cook.....	1,191,922	607,524	584,398		Stephenson.....	31,338	31,063	275	
Crawford.....	17,283	16,197	1,086		Tazewell.....	29,556	29,066	490	
Cumberland.....	15,443	13,759	1,684		Union.....	21,549	18,102	3,447	
De Kalb.....	27,066	26,768	298		Vermillion.....	49,495	41,588	8,907	
De Witt.....	17,011	17,010	1		Wabash.....	13,866	9,945	3,921	
Douglas.....	17,669	15,853	1,816		Warren.....	21,281	22,633		1,352
Du Page.....	22,651	19,161	3,490		Washington.....	19,262	21,112		1,850
Edgar.....	20,787	25,499		1,288	Wayne.....	23,806	21,291	2,515	
Edwards.....	9,444	8,597	847		White.....	25,005	23,087	1,918	
Eldingham.....	19,358	18,920	438		Whiteside.....	30,854	30,885		31
Payette.....	23,367	23,241	126		Will.....	62,007	53,422	8,585	
Ford.....	17,085	16,129	856		Williamson.....	22,226	19,324	2,902	
Franklin.....	17,138	16,129	1,009		Winnebago.....	39,538	30,505	9,033	
Fulton.....	43,110	41,240	1,870		Woodford.....	21,429	21,620		191
Gallatin.....	14,935	12,861	2,074						

## POPULATION BY COUNTIES—NORTH CENTRAL DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
Michigan.....	2,093,889	1,636,937	456,952		Michigan—Continued.				
Alcona.....	5,400	3,107	2,302		Saint Joseph.....	25,356	29,626		1,270
Alger.....	1,238		1,238		Sanilac.....	32,589	26,341	6,248	
Allegan.....	38,961	37,815	1,146		Schoolcraft.....	5,818	1,575	4,243	
Alpena.....	15,561	8,789	6,772		Shiawassee.....	30,952	27,059	3,893	
Antrim.....	10,413	5,237	5,176		Tuscola.....	32,508	25,738	6,770	
Arenac.....	5,683		5,683		Van Buren.....	30,541	30,807		266
Baraga.....	3,036	1,804	1,232		Washtenaw.....	42,210	41,848	362	
Barry.....	23,783	25,317	1,534		Wayne.....	257,114	166,444	90,670	
Bay.....	56,412	38,081	18,331		Wexford.....	11,278	6,815	4,463	
Benzie.....	5,237	3,433	1,804		Wisconsin.....	1,080,880	1,315,497	371,383	
Berrien.....	41,285	36,785	4,500		Adams.....	6,889	6,741	148	
Branch.....	26,791	27,941	1,150		Ashland.....	20,063	1,559	18,504	
Calhoun.....	43,601	38,452	5,019		Barron.....	15,416	7,024	8,392	
Cass.....	20,953	22,009	1,056		Bayfield.....	7,390	564	6,826	
Charlevoix.....	9,686	5,115	4,571		Brown.....	39,164	34,078	5,086	
Cheboygan.....	11,986	6,524	5,462		Buffalo.....	15,997	15,528	469	
Chippewa.....	12,019	5,248	6,771		Burnett.....	4,393	3,140	1,253	
Clare.....	7,558	4,187	3,371		Calumet.....	16,639	16,632	7	
Clinton.....	26,509	28,100	1,591		Chippewa.....	25,143	15,491	9,652	
Crawford.....	2,962	1,139	1,823		Clark.....	17,708	10,715	6,993	
Delta.....	15,330	6,812	8,518		Columbia.....	28,350	28,065	285	
Eaton.....	32,094	31,225	869		Crawford.....	15,987	15,644	343	
Emmet.....	8,756	6,639	2,117		Dane.....	59,578	53,233	6,345	
Genesee.....	39,430	39,220	210		Dodge.....	44,984	45,931	947	
Gladwin.....	4,208	1,127	3,081		Door.....	15,682	11,645	4,037	
Gogebie.....	13,166		13,166		Douglas.....	13,468	655	12,813	
Grand Traverse.....	13,355	8,422	4,933		Dunn.....	22,664	16,317	6,347	
Grafton.....	28,668	21,536	7,132		Eau Claire.....	80,673	19,993	10,680	
Hillsdale.....	30,660	32,723	2,063		Florence.....	2,604		2,604	
Houghton.....	35,389	22,473	12,916		Fond du Lac.....	44,088	46,859	2,771	
Huron.....	28,545	20,089	8,456		Forest.....	1,012		1,012	
Ingham.....	37,666	33,675	3,990		Grant.....	36,651	37,852	1,201	
Ionia.....	32,801	33,872	1,071		Green.....	22,732	21,729	1,003	
Iosco.....	15,224	6,873	8,351		Green Lake.....	15,163	14,483	680	
Iron.....	4,432		4,432		Iowa.....	22,117	23,628	1,511	
Isabella.....	18,784	12,159	6,625		Jackson.....	15,797	13,285	2,512	
Isle Royal.....	135	55	80		Jefferson.....	33,530	32,156	1,374	
Jackson.....	43,031	42,031	3,000		Juneau.....	17,121	15,682	1,439	
Kalamazoo.....	39,273	34,342	4,931		Kenosha.....	15,581	13,550	2,031	
Kalkaska.....	5,160	2,937	2,223		Kewaunee.....	16,153	15,807	346	
Kent.....	109,922	73,253	36,669		La Crosse.....	38,801	27,073	11,728	
Keweenaw.....	2,894	4,270	1,376		Lafayette.....	20,265	21,279	1,014	
Lake.....	6,565	3,233	3,332		Langlade.....	9,465	685	8,780	
Lapeer.....	29,213	30,138	925		Lincoln.....	12,008	2,011	9,997	
Leelanaw.....	7,944	6,253	1,691		Manitowoc.....	37,831	37,505	326	
Lenawee.....	48,448	48,343	105		Marathon.....	30,369	17,121	13,248	
Livingston.....	20,858	22,251	1,393		Marquette.....	20,304	8,929	11,375	
Luce.....	2,455		2,455		Marquette.....	9,676	8,908	768	
Mackinac.....	7,830	2,902	4,928		Milwaukee.....	236,101	138,537	97,564	
Macomb.....	31,818	31,627	191		Monroe.....	23,211	21,607	1,604	
Manistee.....	24,230	12,532	11,698		Oconto.....	15,009	9,848	5,161	
Manitou.....	860	1,334	474		Oneida.....	5,010		5,010	
Marquette.....	39,521	25,394	14,127		Outagamie.....	38,690	28,716	9,974	
Mason.....	16,385	10,065	6,320		Ozaukee.....	14,943	15,461	518	
McCosta.....	19,697	13,973	5,724		Pepin.....	6,932	6,226	706	
Menominee.....	33,639	11,987	21,652		Pierce.....	20,385	17,744	2,641	
Midland.....	10,657	6,893	3,764		Polk.....	12,968	10,018	2,950	
Missaukee.....	5,048	1,553	3,495		Portage.....	24,798	17,731	7,067	
Monroe.....	32,337	33,624	1,287		Price.....	5,258	785	4,473	
Montcalm.....	32,637	33,148	511		Racine.....	36,268	30,922	5,346	
Montmorency.....	1,487		1,487		Richland.....	19,121	18,174	947	
Muskegon.....	40,013	26,586	13,427		Rock.....	43,250	38,823	4,427	
Newaygo.....	20,476	14,688	5,788		Saint Croix.....	23,139	18,956	4,183	
Oakland.....	41,245	41,537	292		Snark.....	30,575	28,729	1,846	
Oceana.....	15,698	11,699	3,999		Sawyer.....	1,977		1,977	
Ogemaw.....	5,583	1,914	3,669		Shawano.....	19,236	10,371	8,865	
Ontonagon.....	3,756	2,565	1,191		Sheboygan.....	42,489	34,206	8,283	
Oscoda.....	14,680	10,777	3,903		Taylor.....	6,731	2,311	4,420	
Oscoda.....	1,004	467	537		Trempealeau.....	18,920	17,189	1,731	
Otsego.....	4,272	1,974	2,298		Vernon.....	25,111	23,235	1,876	
Ottawa.....	35,358	33,126	2,232		Walworth.....	27,860	26,249	1,611	
Presque Isle.....	4,687	3,113	1,574		Washburn.....	2,926		2,926	
Roscommon.....	2,033	1,459	574		Washington.....	22,751	23,442	691	
Saginaw.....	82,273	59,095	23,178		Waukesha.....	33,270	28,957	4,313	
Saint Clair.....	52,105	46,197	5,908		Waupaca.....	26,794	20,955	5,839	
					Waushara.....	13,507	12,687	820	
					Winnebago.....	60,097	42,740	17,357	
					Wood.....	18,127	8,981	9,146	

## POPULATION BY COUNTIES—NORTH CENTRAL DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
Minnesota.....	1,301,826	780,773	521,053		Minnesota—Continued.				
Aitkin.....	2,462	366	2,096		Watsonwan.....	7,746	5,104	2,642	
Anoka.....	9,884	7,108	2,776		Wilkin.....	4,346	1,906	2,440	
Becker.....	9,401	5,218	4,183		Winona.....	33,797	27,197	6,600	
Beltrami.....	312	10	302		Wright.....	24,164	18,104	6,060	
Benton.....	6,284	3,012	3,272		Yellow Medicine.....	9,854	5,884	3,970	
Big Stone.....	5,722	3,688	2,034		Iowa.....	1,911,896	1,624,615	287,281	
Blue Earth.....	29,210	22,889	6,321		Adair.....	14,534	11,667	2,867	
Brown.....	15,817	12,018	3,799		Adams.....	12,292	11,888	404	
Carlton.....	5,272	1,230	4,042		Allamakee.....	17,907	19,791	1,884	
Carver.....	16,582	14,140	2,392		Appanoose.....	18,961	16,636	2,325	
Cass.....	1,247	486	761		Audubon.....	12,412	7,448	4,964	
Chippewa.....	8,585	5,408	3,147		Benton.....	24,178	24,888	710	
Chisago.....	10,359	7,982	2,377		Black Hawk.....	24,219	23,913	306	
Clay.....	11,517	5,887	5,630		Boone.....	23,772	20,838	2,934	
Cook.....	98	65	33		Bremer.....	14,630	14,081	549	
Cottonwood.....	7,412	5,533	1,879		Buchanan.....	18,997	18,546	451	
Crow Wing.....	8,852	2,319	6,533		Buena Vista.....	13,548	7,537	6,011	
Dakota.....	20,240	17,891	2,849		Butler.....	15,463	14,293	1,170	
Dodge.....	10,864	11,944	480		Calhoun.....	13,107	5,565	7,542	
Douglas.....	14,606	9,130	5,476		Carroll.....	18,428	12,351	6,477	
Faribault.....	16,708	13,016	3,692		Cass.....	19,643	16,943	2,702	
Fillmore.....	26,339	28,162	1,824		Cedar.....	18,253	18,996	743	
Freeborn.....	17,962	16,069	1,893		Cerro Gordo.....	14,864	11,461	3,403	
Goodhue.....	29,806	29,651	155		Cherokee.....	15,659	8,240	7,419	
Grant.....	6,875	3,004	3,871		Chickasaw.....	15,019	14,534	485	
Hennepin.....	185,294	67,013	118,281		Clarke.....	11,332	11,513	181	
Houston.....	14,653	16,332	1,679		Clay.....	9,309	4,248	5,061	
Hubbard.....	1,412	1,412			Clayton.....	26,733	28,829	2,096	
Isanti.....	7,007	5,063	2,544		Clinton.....	41,199	36,763	4,436	
Itasca.....	743	124	619		Crawford.....	18,594	12,413	6,481	
Jackson.....	8,924	4,806	4,118		Dallas.....	20,479	18,746	1,733	
Kanabec.....	1,579	505	1,074		David.....	15,258	16,468	1,210	
Kandiyohi.....	13,997	10,159	3,838		Decatur.....	15,643	15,396	247	
Kittson.....	5,387	905	4,482		Delaware.....	17,349	17,950	601	
Lac-qui-parle.....	10,382	4,891	5,491		Des Moines.....	35,099	32,225	2,874	
Lake.....	1,299	106	1,193		Dickinson.....	4,328	1,901	2,427	
Le Sueur.....	19,037	16,103	2,934		Dubuque.....	49,848	42,996	6,852	
Lincoln.....	5,691	2,945	2,746		Emmet.....	4,274	1,550	2,724	
Lyon.....	9,501	6,257	3,244		Fayette.....	23,141	22,258	883	
McLeod.....	17,026	12,342	4,684		Floyd.....	15,424	14,677	747	
Marshall.....	9,130	992	8,138		Franklin.....	12,871	10,249	2,622	
Martin.....	9,403	5,249	4,154		Fremont.....	16,842	17,652	810	
Meeker.....	15,496	11,739	3,717		Greene.....	15,797	12,727	3,070	
Mille Lacs.....	2,845	1,501	1,344		Grundy.....	13,215	12,639	576	
Morrison.....	13,325	5,875	7,450		Guthrie.....	17,890	14,394	3,496	
Mower.....	18,019	16,799	1,220		Hamilton.....	15,319	11,332	3,987	
Murray.....	6,692	3,604	3,088		Hancock.....	7,621	3,453	4,168	
Nicollet.....	13,382	12,333	1,049		Hardin.....	19,003	17,807	1,196	
Nobles.....	7,958	4,435	3,523		Harrison.....	21,856	18,649	3,207	
Norman.....	10,618	10,618			Henry.....	18,895	20,956	2,061	
Olmsted.....	19,434	21,543	2,109		Howard.....	11,182	10,837	345	
Otter Tail.....	34,232	18,675	15,557		Humboldt.....	9,896	5,341	4,555	
Pine.....	4,632	1,365	3,267		Ida.....	10,705	4,382	6,323	
Pipe Stone.....	5,132	2,092	3,040		Iowa.....	18,270	19,221	951	
Polk.....	30,192	11,433	18,759		Jackson.....	22,771	23,771	1,000	
Pope.....	10,032	5,874	4,158		Jasper.....	24,943	25,963	1,020	
Ramsey.....	139,736	45,899	93,837		Jefferson.....	15,134	17,469	2,335	
Redwood.....	9,386	5,375	4,011		Johnson.....	23,082	25,429	2,347	
Renville.....	17,069	10,791	6,278		Jones.....	20,233	21,052	819	
Rice.....	23,968	22,481	1,487		Keokuk.....	23,862	21,258	2,604	
Rock.....	6,817	3,669	3,148		Kossuth.....	13,120	6,178	6,942	
Saint Louis.....	44,862	4,504	40,358		Lee.....	37,715	34,859	2,856	
Scott.....	13,831	13,516	315		Linn.....	45,303	37,237	8,066	
Sherburne.....	5,908	3,855	2,053		Louis.....	11,873	13,142	1,269	
Sibley.....	15,199	10,637	4,562		Lucas.....	14,563	14,530	33	
Stearns.....	34,844	21,956	12,888		Lyon.....	8,680	1,968	6,712	
Steele.....	13,232	12,400	832		Madison.....	15,977	17,224	1,247	
Stevens.....	5,251	3,911	1,340		Mahaska.....	28,805	25,292	3,513	
Swift.....	10,161	7,473	2,688		Marion.....	23,058	25,111	2,053	
Todd.....	12,690	6,133	6,797		Marshall.....	25,842	23,752	2,090	
Traverse.....	4,516	1,507	3,009		Mills.....	14,548	14,137	411	
Wabasha.....	16,972	18,206	1,234		Mitchell.....	13,299	14,363	1,064	
Wadena.....	4,053	2,080	1,973		Monona.....	14,515	9,055	5,460	
Waseca.....	13,313	12,385	928		Monroe.....	13,666	13,719	53	
Washington.....	25,992	19,563	6,429		Montgomery.....	15,848	15,895	47	
					Muscatine.....	24,504	23,170	1,334	

## POPULATION BY COUNTIES—NORTH CENTRAL DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<b>Iowa—Continued.</b>					<b>Missouri—Continued.</b>				
O'Brien	13,000	4,155	8,905		Howell	18,618	8,814	9,804	
Oscola	5,574	2,219	3,355		Iron	9,119	8,183	936	
Page	21,341	19,667	1,674		Jackson	160,510	82,325	78,185	
Palo Alto	9,318	4,131	5,187		Jasper	50,500	32,019	18,481	
Plymouth	19,568	8,566	11,002		Jefferson	22,484	18,736	3,748	
Pocahontas	9,553	3,713	5,840		Johnson	28,132	28,172		40
Polk	65,410	42,395	23,015		Knox	13,501	13,047	454	
Pottawattamie	47,430	39,850	7,580		Laclede	14,701	11,524	3,177	
Poweshiek	13,394	18,636		542	Lafayette	30,184	25,710	4,474	
Ringgold	13,556	12,085	1,471		Lawrence	22,223	17,583	8,645	
Sac	14,522	8,774	5,748		Lewis	15,935	15,925	10	
Scott	43,164	41,266	1,898		Lincoln	18,346	17,426	920	
Shelby	17,611	12,696	4,915		Linn	24,121	20,016	4,105	
Sioux	18,370	5,426	12,944		Livingston	20,668	20,196	472	
Story	18,127	16,906	1,221		McDonald	11,283	7,816	3,467	
Tama	21,051	21,585	66		Macon	30,575	26,222	4,353	
Taylor	16,384	15,635	749		Madison	9,268	8,876	392	
Union	16,900	14,980	1,920		Maries	8,600	7,304	1,296	
Van Buren	16,253	17,043		790	Marion	26,233	24,337	1,896	
Wapello	30,426	25,285	5,141		Mercer	14,581	14,673		92
Warren	18,269	19,578		1,309	Miller	14,162	9,805	4,357	
Washington	18,468	20,374		1,906	Mississippi	10,134	9,270	864	
Wayne	15,670	16,127		457	Monteau	15,630	14,346	1,284	
Webster	21,582	15,951	5,631		Monroe	20,790	19,071	1,719	
Winnebago	7,325	4,917	2,408		Montgomery	16,850	16,249	601	
Winneshiek	22,528	23,938		1,410	Morgan	12,311	10,132	2,179	
Woodbury	55,632	14,996	40,636		New Madrid	9,817	7,694	1,623	
Worth	9,247	7,953	1,294		Newton	22,108	18,947	3,161	
Wright	12,057	5,062	6,995		Nodaway	30,914	29,544	1,370	
					Oregon	10,257	5,791	4,466	
Missouri	2,679,184	2,168,380	510,804		Osage	13,080	11,824	1,256	
Adair	17,417	15,190	2,227		Ozark	9,795	5,618	4,177	
Andrew	16,000	16,318		318	Pemiscot	5,975	4,299	1,676	
Atchison	15,533	14,566	977		Perry	13,287	11,895	1,392	
Audrain	22,074	19,732	2,342		Pettis	31,151	27,271	3,880	
Barry	22,943	14,405	8,538		Phelps	12,036	12,568	68	
Burton	18,504	10,332	8,172		Pike	26,821	26,715	106	
Bates	32,223	25,381	6,842		Platte	16,248	17,366		1,118
Benton	14,973	12,396	2,577		Polk	20,839	15,784	4,665	
Bollinger	13,121	11,180	1,991		Pulaski	9,887	7,250	2,137	
Boone	26,043	25,422	621		Putnam	15,365	13,555	1,810	
Buchanan	70,100	49,792	20,308		Ralls	12,294	11,838	456	
Butler	9,964	6,011	3,953		Randolph	24,893	22,751	2,142	
Caldwell	15,152	13,646	1,506		Ray	24,215	20,190	4,025	
Callaway	25,181	23,670	1,461		Reynolds	6,633	5,722	911	
Camden	10,040	7,266	2,774		Ripley	8,332	5,377	2,955	
Cape Girardeau	22,060	20,998	1,062		Saint Charles	22,077	23,065		88
Carroll	25,742	23,274	2,468		Saint Clair	16,747	14,125	2,622	
Carter	5,799	2,168	3,631		Sainte Genevieve	9,833	10,390		507
Cass	23,301	22,431	870		Saint Francois	17,347	13,822	3,525	
Cedar	15,620	10,741	4,879		Saint Louis	36,307	31,888	4,419	
Chariton	26,254	25,224	1,030		Saint Louis city	451,770	350,518	101,252	
Christian	14,017	9,628	4,389		Saline	33,762	29,911	3,851	
Clark	15,126	15,031	95		Schuyler	11,249	10,470	779	
Clay	19,856	15,572	4,284		Scotland	12,674	12,508	166	
Clinton	17,138	10,073	1,065		Scott	11,223	8,587	2,641	
Cole	17,281	15,515	1,766		Shannon	8,718	3,441	5,277	
Cooper	22,707	21,596	1,111		Shelby	15,612	14,024	1,618	
Crawford	11,961	10,758	1,205		Stoddard	17,327	13,431	3,896	
Dade	17,526	12,557	4,969		Stone	7,090	4,404	2,686	
Dallas	12,647	9,263	3,384		Sullivan	19,000	16,569	2,431	
Davies	20,456	19,145	1,311		Taney	7,973	5,599	2,374	
De Kalb	14,539	13,334	1,205		Texas	19,406	12,206	7,200	
Dent	12,149	10,646	1,503		Vernon	31,505	19,369	12,136	
Douglas	14,111	7,733	6,378		Warren	9,913	10,806		893
Dunklin	15,085	9,604	5,481		Washington	18,153	12,896	5,257	
Franklin	28,056	26,534	1,522		Wayne	11,727	9,096	2,631	
Gasconade	11,706	11,153	553		Webster	15,177	12,175	3,002	
Gentry	19,018	17,176	1,842		Worth	8,738	8,203	535	
Greene	45,616	23,801	19,815		Wright	14,484	9,712	4,772	
Grundy	17,876	15,185	2,691						
Harrison	21,033	20,304	729		North Dakota	182,719	36,909	145,810	
Henry	23,235	23,006	229		Alred (a)				
Hickory	9,453	7,387	2,066		Barnes	7,045	1,585	5,460	
Holt	15,469	15,509		40	Benson	2,460	1,323	2,460	
Howard	17,371	18,428		1,057	Billings	170			1,153
					Bottineau	2,893		2,893	

(a) No population.

## POPULATION BY COUNTIES—NORTH CENTRAL DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<b>North Dakota—Continued.</b>					<b>South Dakota—Continued.</b>				
Bowman.....	6		6		Deuel.....	4,574	2,302	2,272	
Bulford.....	803		803		Dewey (a).....				
Burleigh.....	4,232	3,246	1,006		Douglas.....	4,000	6	4,594	
Cass.....	10,613	8,958	10,615		Edmunds.....	4,399		4,399	
Cavalier.....	6,471		6,471		Ewing.....	16		16	
Church (a).....					Fall River.....	4,478		4,478	
Dickey.....	5,573		5,573		Faulk.....	4,062	4	4,058	
Dunn.....	159		159		Grant.....	6,814	3,010	3,804	
Eddy.....	1,377		1,377		Gregory.....		295	295	
Emmons.....	1,971	38	1,933		Hamlin.....	4,625	668	3,957	
Flannery.....	72		72		Hand.....	6,546	153	6,393	
Foster.....	1,210	37	1,173		Hanson.....	4,267	1,301	2,966	
Garfield.....	33		33		Harding.....	167		167	
Grand Forks.....	18,357	6,248	12,109		Hughes.....	5,044	268	4,776	
Griggs.....	2,817		2,817		Hutchinson.....	10,469	5,573	4,896	
Hettinger.....	81		81		Hyde.....	1,860		1,860	
Howard.....		12		12	Jackson.....	30		30	
Kidder.....	1,211	89	1,122		Jerauld.....	3,605		3,605	
La Moure.....	3,187	20	3,167		Kingsbury.....	8,562	1,102	7,460	
Logan.....	597		597		Lake.....	7,508	2,657	4,851	
McHenry.....	1,658		1,658		Lawrence.....	11,673	13,248		1,575
McIntosh.....	3,248		3,248		Lincoln.....	9,143	5,896	3,247	
McKenzie.....	3		3		Lugenbeel (a).....				
McLean.....	860		860		Lynnan.....	233	124	109	
Mercer.....	428		428		McCook.....	6,448	1,283	5,165	
Morton.....	4,728	200	4,528		McPherson.....	5,940		5,940	
Mountrail.....	122	13	109		Marshall.....	4,544		4,544	
Nelson.....	4,203		4,203		Martin.....		7	7	
Oliver.....	464		464		Meade.....	4,640		4,640	
Pembina.....	14,334	4,862	9,472		Meyer (a).....		115		115
Pierce.....	905		905		Miner.....	5,165	363	4,802	
Ramsey.....	4,418	281	4,137		Minnehaha.....	21,879	8,251	13,628	
Ransom.....	5,393	537	4,856		Moody.....	5,941	3,915	2,026	
Renville.....	99		99		Nowlin.....	149		149	
Richland.....	10,751	3,597	7,154		Pennington.....	6,540	2,244	4,296	
Rolette.....	2,427		2,427		Potter.....	2,910		2,910	
Sargent.....	5,076		5,076		Pratt.....	23		23	
Sheridan (a).....					Presko.....	181		181	
Stark.....	2,304		2,304		Pyatt.....	34		34	
Steele.....	3,777		3,777		Rinehart (a).....				
Stevens.....	16	247		231	Roberts.....	1,997		1,997	
Stutsman.....	5,266	1,007	4,259		Rusk.....		46		46
Towner.....	1,450		1,450		Sauborn.....	4,610		4,610	
Trall.....	10,217	4,123	6,094		Schmasse (a).....				
Wallace.....	24		24		Scobey.....	32		32	
Wallette.....		432		432	Shannon.....	(a)	113		113
Walsh.....	16,587		16,587		Spink.....	10,581	477	10,104	
Ward.....	1,681		1,681		Stanley.....	1,028	793	235	
Wells.....	1,212		1,212		Sterling.....	96		96	
Williams.....	109	14	95		Sully.....	2,412	296	2,116	
Unorganized territory (b).....	511		511		Todd.....	188	203		15
<b>South Dakota.....</b>	<b>323,808</b>	<b>98,268</b>	<b>230,540</b>		Tripp (a).....				
					Turner.....	10,256	5,320	4,936	
					Union.....	9,130	6,813	2,317	
					Wagner (a).....				
Aurora.....	5,045	69	4,976		Walworth.....	2,153	46	2,107	
Beadle.....	9,586	1,290	8,296		Washburn (a).....				
Bon Homme.....	9,057	5,468	3,589		Washington.....	40		40	
Boreman.....	(a)	534		534	Yankton.....	10,444	8,390	2,054	
Brookings.....	10,132	4,965	5,167		Ziebach.....	510		510	
Brown.....	16,855	353	16,502		Sisseton and Wahpeton Indian reservation.....		207		207
Brule.....	6,737	238	6,499		<b>Nebraska.....</b>	<b>1,058,910</b>	<b>452,402</b>	<b>606,508</b>	
Buffalo.....	993	63	930		Adams.....	24,303	10,235	14,068	
Butte.....	1,037		1,037		Antelope.....	10,399	3,953	6,446	
Campbell.....	3,510	50	3,460		Arthur.....	91		91	
Charles Mix.....	4,178	407	3,771		Banner.....	2,435		2,435	
Chouteau.....	8		8		Blackbird.....		109		109
Clark.....	6,729	114	6,614		Blaine.....	1,146		1,146	
Clay.....	7,500	5,001	2,500		Boone.....	8,683	4,170	4,513	
Codington.....	7,037	2,156	4,881		Box Butte.....	5,494		5,494	
Custer.....	4,891	995	3,896		Brown.....	4,359		4,359	
Davidson.....	5,440	1,256	4,184		Buffalo.....	22,162	7,531	14,631	
Day.....	9,168	97	9,071						
Delano.....	40		40						

a No population.

b Formerly part of Boreman county, Dakota.

## POPULATION BY COUNTIES—NORTH CENTRAL DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<b>Nebraska—Continued.</b>					<b>Nebraska—Continued.</b>				
Burt.....	11,069	6,937	4,132		Washington.....	11,869	8,631	3,238	
Butler.....	15,454	9,194	6,260		Wayne.....	6,169	813	5,356	
Cass.....	24,080	16,683	7,397		Webster.....	11,210	7,104	4,106	
Cedar.....	7,023	2,899	4,129		Wheeler.....	1,083	644	1,039	
Chase.....	4,807	70	4,737		York.....	17,279	11,170	6,109	
Cherry.....	6,423		6,423		Unorganized territory....	695	2,913		2,218
Cheyenne.....	5,693	1,558	4,135						
Clay.....	16,310	11,294	5,016		<b>Kansas.....</b>	<b>1,427,096</b>	<b>996,096</b>	<b>431,000</b>	
Collfax.....	10,453	6,588	3,865		Allen.....	13,509	11,303	2,206	
Cuming.....	12,265	5,569	6,696		Anderson.....	14,203	9,057	5,146	
Custer.....	21,677	2,211	19,466		Atchafaloe.....		3		3
Dakota.....	5,396	3,213	2,173		Atchison.....	26,758	26,668	90	
Dawes.....	9,722		9,722		Barber.....	7,673	2,661	5,312	
Dawson.....	10,129	2,909	7,220		Barton.....	13,172	10,318	2,854	
Deuel.....	2,893		2,893		Bourbon.....	28,575	19,591	8,984	
Dixon.....	8,084	4,177	3,907		Brown.....	20,319	12,817	7,502	
Dodge.....	19,260	11,263	7,997		Buffalo.....		191		191
Douglas.....	158,008	87,645	70,363		Butler.....	24,055	18,586	5,469	
Dundy.....	4,012	87	3,925		Chase.....	8,233	6,081	2,152	
Fillmore.....	16,022	10,204	5,818		Chautauqua.....	12,297	11,072	1,225	
Franklin.....	7,693	5,465	2,228		Cherokee.....	27,770	21,905	5,865	
Frontier.....	8,497	934	7,563		Cheyenne.....	4,401	37	4,364	
Furnas.....	9,840	6,407	3,433		Clark.....	2,357	163	2,194	
Gage.....	36,344	19,104	17,180		Clay.....	16,146	12,320	3,826	
Garfield.....	1,659		1,659		Cloud.....	19,295	15,343	3,952	
Gosper.....	4,816	1,673	3,143		Coffey.....	15,856	11,438	4,418	
Grant.....	458		458		Comanche.....	2,549	872	2,177	
Greeley.....	4,869	1,461	3,408		Cowley.....	34,478	21,538	12,940	
Hall.....	16,513	8,572	7,941		Crawford.....	30,286	16,851	13,435	
Hamilton.....	14,066	8,267	5,829		Decatur.....	8,414	4,180	4,234	
Harlan.....	8,158	6,086	2,072		Dickinson.....	22,273	15,251	7,022	
Hayes.....	3,953	119	3,834		Doniphan.....	13,535	14,257		722
Hitchcock.....	5,799	1,012	4,787		Douglas.....	23,961	21,700	2,261	
Holt.....	13,672	3,287	10,385		Edwards.....	3,600	2,409	1,191	
Hooker.....	426		426		Elk.....	12,216	10,623	1,593	
Howard.....	9,430	4,391	5,039		Ellis.....	7,942	6,179	1,763	
Jefferson.....	14,850	8,096	6,754		Ellsworth.....	9,272	8,494	778	
Johnson.....	10,333	7,595	2,738		Finney.....	3,350		3,350	
Kearney.....	9,061	4,072	4,989		Foote.....		411		411
Keith.....	2,556	194	2,362		Ford.....	5,308	3,122	2,186	
Keya Paha.....	3,920		3,920		Franklin.....	20,279	16,779	3,482	
Kimball.....	959		959		Garfield.....	881		881	
Knox.....	8,582	3,666	4,916		Geary (a).....	10,423	6,994	3,429	
Lancaster.....	76,395	28,090	48,305		Gove.....	2,994	1,196	1,798	
Lincoln.....	10,441	3,632	6,809		Graham.....	5,029	4,258	771	
Logan.....	1,378		1,378		Grant.....	1,308	9	1,299	
Loup.....	1,662		1,662		Gray.....	2,415		2,415	
McPherson.....	401		401		Greeley.....	1,264	3	1,261	
Madison.....	13,669	5,589	8,080		Greenwood.....	16,309	10,548	5,761	
Merrick.....	8,758	5,341	3,417		Hamilton.....	2,027	168	1,859	
Nance.....	5,773	1,212	4,561		Harper.....	13,266	4,133	9,133	
Nemaha.....	12,930	10,451	2,479		Harvey.....	17,601	11,451	6,150	
Nuckolls.....	11,417	4,235	7,182		Haskell.....	1,077		1,077	
Otoe.....	25,403	15,727	9,676		Hodgeman.....	2,395	1,704	691	
Pawnee.....	10,340	6,920	3,420		Jackson.....	14,626	10,718	3,908	
Perkins.....	4,364		4,364		Jefferson.....	16,620	15,563	1,057	
Phelps.....	9,869	2,447	7,422		Jewell.....	19,349	17,475	1,874	
Pierce.....	4,364	1,302	3,062		Johnson.....	17,385	16,853	532	
Platte.....	15,437	9,511	5,926		<b>Kansas.....</b>		9		9
Polk.....	10,817	6,816	3,971		Kearny.....	1,571	159	1,412	
Red Willow.....	8,837	3,044	5,793		Kingman.....	11,823	3,713	8,110	
Richardson.....	17,574	15,031	2,543		Kiowa.....	2,873		2,873	
Rock.....	3,083		3,083		Labette.....	27,586	22,735	4,851	
Saline.....	20,097	14,491	5,606		Lane.....	2,060	601	1,459	
Sarpy.....	6,875	4,481	2,394		Leavenworth.....	38,485	32,355	6,130	
Saunders.....	21,577	15,810	5,767		Lincoln.....	9,709	8,582	1,127	
Scott's Bluff.....	1,888		1,888		Linn.....	17,215	15,298	1,917	
Seward.....	16,140	11,147	4,993		Logan.....	3,384		3,384	
Sheridan.....	3,687		3,687		Lyon.....	23,196	17,326	5,870	
Sherman.....	6,399	2,061	4,338		McPherson.....	21,614	17,143	4,471	
Sioux.....	2,452	699	1,753		Marion.....	20,539	12,453	8,086	
Stanton.....	4,619	1,813	2,806		Marshall.....	23,912	16,136	7,776	
Thayer.....	12,738	6,113	6,625		Meade.....	2,542	296	2,246	
Thomson.....	517		517						
Thurston.....	3,176		3,176						
Valley.....	7,092	2,324	4,768						

a Formerly Davis county.

## POPULATION BY COUNTIES—NORTH CENTRAL DIVISION—CONTINUED.

STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.	STATES AND COUNTIES.	POPULATION.		Increase.	Decrease.
	1890.	1880.				1890.	1880.		
<b>Kansas—Continued.</b>					<b>Kansas—Continued.</b>				
Miami.....	19,614	17,802	1,812		Russell.....	7,333	7,351		18
Mitchell.....	15,037	14,911	126		Saline.....	17,442	13,808	3,634	
Montgomery.....	23,104	18,213	4,891		Scott.....	1,262	43	1,219	
Morris.....	11,381	9,265	2,116		Sedgwick.....	43,626	18,753	24,873	
Morton.....	724		724		Sequoyah.....		568		568
Nemaha.....	19,249	12,462	6,787		Seward.....	1,503	5	1,498	
Neosho.....	18,561	15,121	3,440		Shawnee.....	49,172	29,093	20,079	
Ness.....	4,944	3,722	1,222		Sheridan.....	3,733	1,567	2,166	
Norton.....	10,617	6,998	3,619		Sherman.....	5,261	13	5,248	
Osage.....	25,062	19,642	5,420		Smith.....	15,613	13,883	1,730	
Osborne.....	12,083	12,517		434	Stafford.....	8,520	4,755	3,765	
Ottawa.....	12,581	10,307	2,274		Stanton.....	1,031	5	1,026	
Pawnee.....	5,204	5,396		192	Stevens.....	1,418	12	1,406	
Phillips.....	13,661	12,014	1,647		Sumner.....	30,271	20,812	9,459	
Pottawatomie.....	17,722	16,350	1,372		Thomas.....	5,538	161	5,377	
Pratt.....	8,118	1,890	6,228		Trego.....	2,535	2,535		
Rawlins.....	6,756	1,623	5,133		Wabunsee.....	11,720	8,756	2,964	
Reno.....	27,079	12,826	14,253		Wallace.....	2,468	686	1,782	
Republic.....	19,002	14,013	4,989		Washington.....	22,894	14,910	7,984	
Rice.....	14,451	9,292	5,159		Wichita.....	1,827	14	1,813	
Riley.....	13,183	10,490	2,733		Wilson.....	15,286	13,775	1,511	
Rooks.....	8,018	8,112		94	Woodson.....	9,021	6,535	2,486	
Rush.....	5,204	5,490		286	Wyandotte.....	54,407	19,143	35,264	

ROBERT P. PORTER,  
Superintendent of Census.