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## SUMMARY FOR THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES,

POPULATION, JAN. 1, 1920.															
DIVISION AND STATE.		POPULATION, BY SEX.			NATIVE WHITE POPULATION.		FOREIGN-BORN WHITE POPULATION.		NEGRO POPULATION.		POPULATION 7 TO 20 YEARS OF AGE.		POPULATION 10 YEARS OF AGE AND OVER.		
		Total. <sup>1</sup>	Male.	Female.	Native parentage.	Foreign or mixed parentage.	Number.	Per cent of total.	Number.	Per cent of total.	Total.	Attending school.	Total.	Illiterate.	
														Number.	Per cent.
1	United States.....	2105,710,620	53,900,431	51,810,189	58,421,957	22,686,204	13,712,754	13.0	10,463,131	9.9	28,564,716	19,451,851	82,739,315	4,931,905	6.0
GEOGRAPHIC DIVS.:															
2	New England.....	7,400,909	3,672,591	3,728,318	2,803,149	2,642,276	1,870,654	25.3	79,051	1.1	1,768,290	1,223,623	5,045,989	289,700	4.9
3	Middle Atlantic.....	22,261,144	11,206,445	11,054,699	9,631,012	7,098,253	4,012,575	22.1	600,183	2.7	5,527,757	3,746,560	17,666,354	865,382	4.9
4	E. North Central.....	21,475,543	11,035,041	10,440,502	11,790,370	5,925,213	3,223,279	15.0	514,554	2.4	5,350,937	3,728,706	17,130,786	495,470	2.9
5	W. North Central.....	12,544,249	6,459,067	6,085,182	7,475,548	3,377,878	1,371,901	10.9	278,521	2.2	3,393,143	2,420,929	9,889,740	193,221	2.0
6	South Atlantic.....	13,990,272	7,035,843	6,954,429	8,779,416	553,604	315,920	2.3	4,325,120	30.9	4,323,620	2,818,406	10,513,447	1,212,942	11.5
7	E. South Central.....	8,893,307	4,471,690	4,421,617	6,092,782	202,826	71,939	0.8	2,523,532	28.4	2,818,595	1,858,659	6,677,220	845,459	12.7
8	W. South Central.....	10,242,224	5,265,829	4,976,395	6,959,785	696,609	459,333	4.5	2,063,579	20.1	3,259,000	2,097,596	7,739,536	773,637	10.0
9	Mountain.....	3,336,101	1,789,299	1,546,802	2,002,508	787,166	453,225	13.6	30,801	0.9	896,406	656,638	2,504,463	132,659	5.2
10	Pacific.....	5,666,871	2,964,626	2,602,245	2,887,387	1,432,379	1,038,868	18.6	47,790	0.9	1,227,268	900,734	4,611,771	123,435	2.7
NEW ENGLAND:															
11	Maine.....	768,014	388,752	379,262	495,780	162,566	107,349	14.0	1,310	0.2	188,822	134,299	621,233	20,240	3.3
12	New Hampshire.....	443,083	222,112	220,971	225,512	125,586	91,233	20.6	621	0.1	104,581	73,063	361,930	15,788	4.4
13	Vermont.....	352,428	178,854	173,574	228,326	78,966	44,526	12.6	572	0.2	87,302	62,544	284,472	8,488	3.0
14	Massachusetts.....	3,852,356	1,890,014	1,962,342	1,230,773	1,495,217	1,077,534	28.0	45,466	1.2	907,212	633,124	3,106,769	146,607	4.7
15	Rhode Island.....	604,397	297,524	306,873	173,553	246,928	173,499	28.7	10,036	1.7	149,774	95,499	483,788	31,312	6.5
16	Connecticut.....	1,380,631	695,335	685,296	449,206	533,013	376,513	27.3	21,046	1.5	330,599	225,094	1,087,797	67,265	6.2
MIDDLE ATLANTIC:															
17	New York.....	10,385,227	5,187,350	5,197,877	3,668,268	3,717,640	2,786,112	26.8	198,483	1.9	2,461,306	1,656,905	8,402,786	425,022	5.1
18	New Jersey.....	3,155,900	1,590,075	1,565,825	1,212,675	1,085,799	738,613	23.4	117,132	3.7	786,404	525,979	2,494,246	127,661	5.1
19	Pennsylvania.....	8,720,017	4,429,020	4,290,997	4,760,071	2,204,805	1,387,850	15.9	284,668	3.3	2,280,411	1,563,676	6,769,322	312,699	4.6
E. NORTH CENTRAL:															
20	Ohio.....	5,759,394	2,955,980	2,803,414	3,609,122	1,224,074	678,697	11.8	186,187	3.2	1,386,799	989,417	4,624,456	131,006	2.8
21	Indiana.....	2,930,390	1,489,074	1,441,316	2,329,544	368,659	160,868	5.1	80,810	2.8	745,281	515,237	2,356,214	52,034	2.2
22	Illinois.....	6,485,280	3,304,833	3,180,447	3,066,563	2,025,819	1,206,951	18.0	182,274	2.8	1,619,847	1,108,216	5,184,943	173,987	3.4
23	Michigan.....	3,668,412	1,928,430	1,739,976	1,670,447	1,204,545	726,635	19.8	60,082	1.6	893,744	626,165	2,895,606	88,046	3.0
24	Wisconsin.....	2,632,067	1,356,718	1,275,349	1,654,694	1,102,116	460,128	17.5	5,201	0.2	704,966	489,671	2,069,567	50,397	2.4
W. NORTH CENTRAL:															
25	Minnesota.....	2,387,125	1,245,537	1,141,588	827,627	1,055,145	486,164	20.4	8,809	0.4	643,287	451,096	1,877,132	34,487	1.8
26	Iowa.....	2,404,021	1,229,392	1,174,629	1,528,553	629,981	225,647	9.4	19,005	0.8	627,248	454,078	1,913,155	20,680	1.1
27	Missouri.....	3,404,055	1,723,319	1,680,736	2,536,936	502,082	186,026	5.5	178,241	5.2	901,694	624,395	2,737,771	83,403	3.0
28	North Dakota.....	646,872	341,673	305,199	207,966	300,485	131,503	20.3	467	0.1	198,020	146,289	470,210	9,937	2.1
29	South Dakota.....	636,547	337,120	299,427	308,598	228,158	82,301	12.9	832	0.1	181,271	131,943	482,195	8,109	1.7
30	Nebraska.....	1,296,372	672,805	623,567	757,064	372,593	149,652	11.5	13,242	1.0	358,143	256,961	1,012,552	13,784	1.4
31	Kansas.....	1,760,257	900,221	860,036	1,308,864	289,524	110,678	6.2	57,925	3.3	483,480	356,167	1,396,725	22,821	1.6
SOUTH ATLANTIC:															
32	Delaware.....	223,003	113,755	109,248	139,876	32,920	19,810	8.9	30,335	13.6	54,739	37,759	178,930	10,508	5.9
33	Maryland.....	1,449,661	729,455	720,206	893,088	209,472	102,177	7.0	244,479	16.9	381,106	246,056	1,158,953	64,434	5.6
34	Dist. Columbia.....	437,671	203,543	234,028	239,488	58,824	28,548	6.5	100,966	25.1	89,931	58,005	377,295	10,509	2.8
35	Virginia.....	2,806,187	1,168,492	1,140,695	1,534,494	52,630	30,785	1.3	990,017	29.9	709,980	460,037	1,748,868	195,159	11.2
36	West Virginia.....	1,463,701	763,100	700,601	1,232,857	82,472	61,906	4.2	86,345	5.9	437,703	297,044	1,083,395	69,413	6.4
37	North Carolina.....	2,559,123	1,279,062	1,280,061	1,765,203	11,477	7,099	0.3	763,407	29.8	839,574	576,239	1,844,673	241,603	13.1
38	South Carolina.....	1,683,724	838,293	845,431	799,413	12,719	6,401	0.4	894,719	51.4	576,564	393,077	1,219,316	220,667	18.1
39	Georgia.....	2,896,832	1,444,823	1,451,009	1,642,697	30,231	16,186	0.6	1,206,365	41.7	953,804	570,386	2,150,230	328,835	15.3
40	Florida.....	968,470	495,320	473,150	532,295	62,850	43,008	4.4	329,487	34.0	280,719	179,803	761,787	71,811	9.6
E. SOUTH CENTRAL:															
41	Kentucky.....	2,416,630	1,227,494	1,189,136	2,039,134	110,646	30,780	1.3	235,938	9.8	717,667	480,526	1,837,434	155,014	8.4
42	Tennessee.....	2,337,885	1,173,067	1,164,818	1,832,767	37,768	15,478	0.7	451,758	19.3	724,638	488,543	1,770,762	182,629	10.3
43	Alabama.....	2,348,174	1,173,105	1,175,069	1,894,129	35,241	17,652	0.8	900,652	38.4	774,048	499,888	1,730,421	278,082	16.1
44	Mississippi.....	1,790,618	897,124	893,494	826,762	19,181	8,019	0.4	935,184	52.2	602,192	389,702	1,338,612	220,734	17.2
W. SOUTH CENTRAL:															
45	Arkansas.....	1,752,204	895,228	856,976	1,226,692	39,090	13,975	0.8	472,220	27.0	569,870	375,115	1,302,905	121,837	9.4
46	Louisiana.....	1,798,509	903,535	895,174	941,724	110,016	44,871	2.5	700,257	38.9	574,202	327,540	1,366,066	289,082	21.9
47	Oklahoma.....	2,028,283	1,058,044	970,239	1,679,107	102,119	39,968	2.0	149,408	7.4	647,939	444,247	1,513,951	66,804	4.4
48	Texas.....	4,665,228	2,409,222	2,256,006	3,112,262	445,884	360,519	7.7	741,694	15.9	1,466,989	950,688	3,556,614	295,844	8.3
MOUNTAIN:															
49	Montana.....	548,889	299,941	248,948	275,803	104,837	93,620	17.1	1,658	0.3	135,886	102,621	421,443	9,544	2.3
50	Idaho.....	431,866	233,919	197,947	294,282	92,453	38,963	9.0	920	0.2	122,278	95,027	326,051	4,924	1.5
51	Wyoming.....	394,402	110,359	84,043	122,884	42,007	25,255	13.0	1,375	0.7	47,474	34,387	150,993	3,149	2.1
52	Colorado.....	639,629	490,731	448,898	603,941	204,108	110,954	12.4	11,818	1.2	239,926	175,745	747,485	24,208	3.2
53	New Mexico.....	360,350	190,456	169,894	273,317	32,279	29,077	8.1	5,793	1.6	109,738	75,119	287,595	41,637	15.6
54	Arizona.....	334,162	182,602	150,560	151,145	62,205	78,099	23.4	8,005	2.4	89,464	54,387	255,461	39,131	15.3
55	Utah.....	449,895	232,051	217,345	245,781	139,665	59,46								

<sup>1</sup> The number of whites and Negroes is less than total population, because of the inclusion in the total of other nonwhites (Indians, Chinese, Japanese, and "all other").  
<sup>2</sup> Continental United States only. The total population of the United States, including outlying possessions, is 117,823,165, as follows: Continental United States, 105,710,620; Alaska, 55,036; Hawaii, 255,912; Porto Rico, 1,299,809; American Samoa, 8,056; Guam, 13,275; Panama Canal Zone, 22,858; Philippine Islands, 10,314,310 (Dec. 31, 1918); Virgin Islands, 28,051 (Nov. 1, 1917); military and naval, etc., services abroad, 117,238.</



## FOR POPULATION, AGRICULTURE, MANUFACTURES, AND MINES AND QUARRIES.

[Table continued on following page.]

POPULATION, JAN. 1, 1920.										AGRICULTURE.						
POPULATION 21 YEARS OF AGE AND OVER.										LAND IN FARMS, 1920						
All classes.			Foreign-born white.			Negro.			Farm population, 1920	Number of farms, 1920	Per cent operated by tenants.					
Total.	Illiterate.		Native white.	Total.	Naturalized.	Per cent illiterate.	Total.	Per cent illiterate.				Total (acres).	Average per farm.	Improved (acres).	Per cent improved.	
	Number.	Per cent.														
60,886,520	4,333,111	7.1	42,614,741	12,498,720	6,208,697	13.7	5,522,475	27.4	31,614,269	6,448,343	38.1	955,883,715	148.2	503,073,007	52.6	1
4,591,477	280,826	6.1	2,829,337	1,705,291	755,527	14.8	52,315	8.5	625,877	156,564	7.4	16,990,642	108.5	6,114,601	36.0	2
13,451,656	843,582	6.3	8,549,966	4,477,752	2,024,619	16.7	409,441	6.0	1,892,789	425,147	20.7	40,572,901	95.4	26,562,107	65.5	3
13,025,595	480,238	3.7	9,076,910	2,978,575	1,576,687	11.4	356,341	8.7	4,913,683	1,084,744	28.1	117,735,179	108.5	87,894,835	74.7	4
7,278,548	180,616	2.5	5,777,875	1,291,794	874,132	6.5	187,865	12.5	5,171,596	1,096,951	34.2	250,973,229	234.3	171,394,439	68.7	5
7,212,523	1,006,764	14.0	4,805,560	287,215	131,423	13.5	2,111,952	31.5	6,416,698	1,158,976	46.8	97,775,243	84.4	48,509,886	49.6	6
4,523,944	700,098	15.5	3,171,417	67,242	38,335	9.3	1,284,099	34.1	5,182,937	1,051,600	49.7	78,897,463	75.0	44,380,132	56.3	7
5,243,779	611,363	11.7	3,796,823	367,220	114,258	29.1	1,062,244	30.5	5,228,199	990,088	52.9	173,449,127	174.1	64,189,606	37.0	8
1,888,921	113,384	6.0	1,421,859	394,008	210,894	12.7	23,881	5.8	1,168,867	244,109	15.4	117,337,226	480.7	30,105,868	25.7	9
3,670,077	116,240	3.2	2,584,988	939,623	482,872	8.8	34,367	5.4	1,014,173	234,164	20.1	56,152,705	239.8	23,921,533	42.6	10
475,191	18,572	3.9	379,356	94,329	40,479	12.0	876	6.8	197,601	48,227	4.2	5,425,968	112.5	1,977,329	36.4	11
281,026	15,257	5.4	198,481	82,049	36,621	16.4	388	7.7	76,021	20,523	6.7	2,603,806	126.9	702,002	27.0	12
217,042	8,152	3.8	178,442	38,232	19,825	12.5	342	8.2	125,263	29,075	11.6	4,235,811	145.7	1,691,595	39.9	13
2,411,507	142,760	5.9	1,889,441	988,913	441,416	13.5	30,412	8.2	118,554	32,001	7.1	2,494,477	77.9	908,834	36.4	14
368,637	30,319	8.2	204,916	166,866	78,175	17.5	6,554	12.5	15,136	4,083	15.5	331,600	81.2	132,855	40.1	15
838,074	65,776	7.8	478,701	344,902	139,011	18.1	13,743	7.5	93,302	22,655	8.5	1,898,980	83.8	701,086	36.9	16
6,514,681	415,359	6.4	3,832,852	2,528,497	1,153,813	15.2	142,544	3.4	800,747	193,195	19.2	20,632,803	106.8	13,158,781	63.8	17
1,897,884	124,368	6.6	1,145,506	675,222	305,516	16.3	75,671	7.5	343,708	29,702	23.0	2,282,585	76.8	1,555,607	68.2	18
5,039,091	303,895	6.0	3,571,608	1,274,033	505,290	20.1	191,220	7.3	948,384	202,250	21.9	17,657,513	87.3	11,847,719	67.1	19
3,558,481	126,645	3.6	2,807,874	622,523	293,535	13.4	129,940	9.7	1,139,329	256,695	29.5	23,515,888	91.6	18,542,353	78.9	20
1,779,820	50,147	2.8	1,585,076	140,373	63,507	12.4	53,935	11.7	907,285	205,126	32.0	21,003,332	102.7	16,680,212	79.2	21
3,944,197	169,127	4.3	2,694,677	1,117,928	639,446	11.7	128,450	7.9	1,098,262	237,181	42.7	31,974,775	134.8	27,294,533	85.4	22
2,215,436	85,613	3.9	1,604,907	663,160	330,958	10.5	45,407	4.9	848,710	196,447	17.7	19,032,961	96.9	12,928,521	67.9	23
1,527,661	43,706	3.2	1,084,382	434,591	249,161	8.8	3,609	4.8	920,037	189,295	14.4	22,148,223	117.0	12,452,216	56.2	24
1,380,834	32,869	2.4	906,810	462,582	319,390	5.6	6,666	3.5	897,181	178,478	24.7	30,221,758	169.3	21,481,710	71.1	25
1,428,682	19,444	1.4	1,201,080	214,479	153,271	5.0	12,568	9.0	984,799	213,439	41.7	33,474,896	156.8	28,606,951	85.5	26
2,038,814	77,348	3.8	1,743,313	178,551	104,448	10.0	121,828	14.3	1,211,346	263,004	28.8	34,774,679	132.2	24,832,966	71.4	27
322,918	9,373	2.9	198,345	121,047	91,187	5.9	386	4.8	394,500	77,690	25.6	36,214,751	466.1	24,503,178	67.8	28
344,846	7,640	2.2	267,595	78,027	55,104	4.9	820	6.7	362,221	74,637	34.9	34,636,491	464.1	18,100,260	52.5	29
738,310	12,972	1.8	585,753	140,899	89,783	6.6	9,437	5.7	584,172	124,417	42.9	42,225,475	339.4	23,109,624	54.7	30
1,024,144	20,970	2.0	884,979	101,209	60,889	10.2	37,010	11.2	737,377	165,286	40.4	45,425,179	274.8	30,600,760	67.4	31
136,521	10,088	7.4	100,114	18,245	8,027	18.2	18,113	24.6	51,212	10,140	39.3	944,511	93.1	653,052	69.1	32
862,391	58,877	6.8	626,388	93,624	49,764	14.3	141,991	22.2	279,225	47,908	28.9	4,757,999	99.3	3,136,728	65.9	33
305,255	10,190	3.3	204,804	26,376	14,712	6.4	73,448	10.7	204	894	41.7	5,668	27.8	4,258	75.1	34
1,207,074	162,376	13.5	827,272	27,851	14,057	7.5	351,231	29.3	1,064,417	186,242	25.6	18,561,112	99.7	9,460,492	51.0	35
752,344	61,408	8.2	645,641	55,465	14,141	25.4	51,145	18.9	477,924	87,289	16.2	9,569,780	109.6	5,520,308	57.7	36
1,210,727	204,492	16.9	856,567	6,488	3,235	7.0	342,766	32.4	1,501,227	269,783	43.5	20,021,786	74.2	8,198,409	40.9	37
779,991	179,432	23.0	396,855	5,941	3,062	6.5	376,930	38.7	1,074,693	192,693	64.5	12,428,675	64.5	6,184,159	49.8	38
1,421,606	261,294	18.4	831,173	14,855	8,316	5.6	575,330	35.8	1,685,213	310,732	66.6	25,441,061	81.9	13,055,209	51.3	39
536,614	58,497	10.9	316,746	38,370	16,109	6.6	181,008	24.8	281,893	54,005	25.3	6,046,691	112.0	2,297,271	38.0	40
1,289,496	136,235	10.6	1,116,037	20,488	18,493	7.5	143,881	26.4	1,304,862	270,626	33.4	21,612,772	79.9	13,975,746	64.7	41
1,214,947	153,163	12.6	955,125	14,319	7,708	8.7	245,395	26.9	1,271,708	252,774	41.1	19,510,856	77.2	11,185,302	57.3	42
1,143,395	228,565	20.0	685,926	16,105	8,503	11.3	441,130	38.8	1,335,885	256,099	57.9	19,576,856	76.4	9,893,407	50.5	43
876,106	182,135	20.8	414,329	7,330	3,631	13.4	453,663	35.9	1,270,482	272,101	66.1	18,196,979	66.9	9,326,677	51.2	44
867,292	99,413	11.5	611,737	13,166	7,569	8.3	242,234	26.5	1,147,049	232,604	51.3	17,456,750	75.0	9,210,556	52.8	45
924,184	229,980	24.9	522,789	41,228	15,196	22.6	359,251	43.8	786,050	135,463	57.1	10,019,822	74.0	5,026,226	56.2	46
1,021,518	48,076	4.7	884,745	36,108	19,372	13.4	76,331	16.4	1,017,327	191,988	61.0	31,951,934	166.4	18,125,321	56.7	47
2,430,715	233,894	9.6	1,777,552	266,718	72,121	33.3	384,428	23.4	2,277,773	436,038	53.3	114,020,021	261.5	31,227,603	27.4	48
320,562	9,071	2.8	226,355	85,709	56,627	6.0	1,262	6.7	225,667	57,877	11.3	35,070,656	608.1	11,067,278	31.4	49
234,076	4,510	1.9	193,818	23,804	23,804	6.6	699	5.9	200,902	42,106	15.9	8,375,873	198.9	4,511,680	53.9	50
115,739	2,940	2.5	89,625	23,057	12,008	9.2	1,065	6.1	87,306	15,748	12.5	11,809,351	749.9	2,102,005	17.8	51
564,529	22,080	3.9	448,781	105,017	62,318	12.8	8,106	7.4	266,073	59,934	23.0	24,462,014	408.1	7,744,767	31.7	52
185,186	34,952	18.9	149,224	21,933	5,881	28.6	4,809	4.4	161,446	29,844	12.2	24,409,633	317.9	1,717,224	7.0	53
187,929	30,636	16.3	108,656	55,973	10,708	28.7	6,559	4.8	90,560	9,975	18.1	5,802,128	581.7	712,803	12.3	54
228,682	5,679	2.5	171,375	52,254	33,192	6.5	1,104	5.0	140,249	25,662	10.9	5,050,410	196.8	1,715,380	34.0	55
52,218	3,516	6.7	34,025	13,895	6,236	8.5	277	4.7</								

## SUMMARY FOR THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES,

Table continued from preceding page.]

DIVISION AND STATE.		AGRICULTURE—Continued.								
		VALUE OF FARM PROPERTY: 1920				VALUE OF FARM PRODUCTS: 1919				
		Total.	Land and buildings.	Implements and machinery.	Live stock.	Total (gross value.) <sup>1</sup>	Live-stock products <sup>2</sup>	Domestic animals sold, etc. <sup>3</sup>	Crops.	Miscellaneous products. <sup>4</sup>
		Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
1	United States .....	77,924,100,338	66,316,002,602	3,594,772,928	8,013,324,808	21,425,623,614	2,667,072,273	3,511,050,000	14,755,364,894	492,136,447
2	GEOGRAPHIC DIVISIONS:									
3	New England.....	1,173,019,594	917,468,584	92,387,525	163,163,485	505,397,039	132,411,030	55,500,000	275,175,536	42,310,473
4	Middle Atlantic.....	3,949,684,183	3,002,137,754	359,152,336	588,394,093	1,501,158,784	412,960,765	170,200,000	914,499,927	63,498,002
5	East North Central.....	17,245,862,593	14,937,041,671	786,070,805	1,521,644,117	4,410,240,680	721,387,402	784,200,000	2,818,367,762	86,285,426
6	West North Central.....	27,991,434,545	24,469,495,169	1,162,938,204	2,359,001,112	5,581,297,432	550,742,614	1,312,000,000	3,670,902,149	41,052,669
7	South Atlantic.....	6,132,917,760	5,201,773,472	283,980,857	647,163,431	2,020,345,466	204,301,993	221,550,000	2,083,808,429	119,685,074
8	East South Central.....	4,419,466,237	3,663,693,303	170,064,886	579,707,938	1,795,544,716	189,643,789	250,600,000	1,306,170,989	73,220,988
9	West South Central.....	7,622,069,027	6,291,188,072	311,093,790	1,019,779,165	2,739,481,559	181,340,648	352,200,000	2,168,622,049	37,312,262
10	Mountain.....	4,083,137,939	3,163,187,783	190,715,673	729,234,483	1,821,882,633	121,132,909	230,700,000	562,954,399	7,005,265
11	Pacific.....	5,307,011,400	4,609,410,734	232,357,792	405,236,934	1,281,275,305	183,145,033	127,600,000	948,854,024	21,676,248
12	NEW ENGLAND:									
13	Maine.....	270,620,733	204,108,971	26,637,660	39,780,102	154,076,196	20,075,219	15,700,000	100,152,324	12,148,653
14	New Hampshire.....	113,650,115	89,995,870	9,499,322	19,100,923	51,771,831	14,681,368	7,700,000	23,509,665	5,880,298
15	Vermont.....	222,736,620	159,117,159	21,234,130	42,335,331	90,473,142	31,673,340	13,300,000	47,999,600	6,600,202
16	Massachusetts.....	300,471,743	247,587,831	19,359,755	33,524,157	109,223,194	33,850,892	10,900,000	53,700,925	10,771,377
17	Rhode Island.....	33,636,766	26,387,026	2,408,561	4,840,279	13,082,138	5,367,831	1,300,000	5,340,378	1,673,879
18	Connecticut.....	226,991,617	190,270,827	13,248,097	23,472,693	77,171,038	20,862,330	6,600,000	44,472,644	5,236,064
19	MIDDLE ATLANTIC:									
20	New York.....	1,908,493,201	1,425,061,740	169,866,766	313,554,695	743,823,392	225,465,739	71,000,000	417,048,864	30,310,789
21	New Jersey.....	311,847,943	250,323,938	25,459,205	36,064,767	135,000,544	31,432,945	8,700,000	87,484,136	7,333,413
22	Pennsylvania.....	1,729,353,034	1,326,752,028	168,826,865	238,774,641	682,334,848	156,012,081	90,500,000	409,968,877	25,853,890
23	EAST NORTH CENTRAL:									
24	Ohio.....	3,095,666,336	2,661,435,949	146,575,209	287,655,118	941,739,697	155,587,919	159,400,000	607,037,562	19,704,216
25	Indiana.....	3,042,311,247	2,653,643,973	127,403,086	261,264,188	782,101,107	99,350,023	171,100,000	497,229,719	14,421,425
26	Illinois.....	6,066,707,236	5,997,993,506	222,610,605	446,154,064	1,238,906,947	142,351,262	274,800,000	864,737,833	17,017,852
27	Michigan.....	1,763,894,778	1,436,680,210	122,389,930	204,258,632	606,886,581	111,076,235	75,600,000	404,014,810	16,195,536
28	Wisconsin.....	2,677,282,997	2,187,881,973	107,088,909	322,312,115	780,616,288	213,022,023	103,800,000	445,347,858	18,946,397
29	WEST NORTH CENTRAL:									
30	Minnesota.....	3,787,420,118	3,301,168,325	181,087,968	305,163,825	734,485,441	113,236,965	104,000,000	508,020,233	11,228,243
31	Iowa.....	3,524,870,956	7,001,772,290	309,172,398	613,926,268	1,447,638,473	130,250,447	420,800,000	800,391,299	6,996,727
32	Missouri.....	3,991,068,085	3,002,967,700	138,261,340	389,839,045	962,963,283	106,601,436	270,800,000	550,047,854	17,213,063
33	North Dakota.....	1,769,742,995	1,438,521,495	114,186,886	157,034,616	383,055,890	30,979,832	34,900,000	301,782,935	393,022
34	South Dakota.....	2,829,870,212	2,472,838,681	112,408,268	238,563,263	411,111,307	35,736,209	63,700,000	311,006,809	665,289
35	Nebraska.....	4,201,655,962	3,712,107,700	163,104,448	336,443,784	784,677,206	54,612,075	208,700,000	509,729,771	1,635,360
36	Kansas.....	3,302,806,187	2,830,063,018	154,716,977	318,025,292	882,365,863	80,822,550	210,200,000	588,623,248	2,920,065
37	SOUTH ATLANTIC:									
38	Delaware.....	80,137,614	64,755,631	6,781,318	8,600,665	32,182,526	5,778,747	2,400,000	23,058,906	944,873
39	Maryland.....	463,638,120	388,596,850	28,970,020	48,071,250	158,178,779	26,322,172	16,800,000	109,558,608	5,997,999
40	District of Columbia.....	5,927,987	5,577,369	104,252	246,366	1,019,770	119,263	50,000	307,614	542,893
41	Virginia.....	1,196,558,772	1,024,435,025	50,161,466	121,969,281	425,199,212	48,311,494	61,100,000	292,824,260	24,963,458
42	West Virginia.....	496,436,617	410,783,406	18,395,058	67,261,153	169,066,516	26,332,670	34,600,000	96,537,459	11,596,087
43	North Carolina.....	1,250,169,995	1,076,392,060	54,621,363	119,152,672	614,934,854	35,890,056	41,600,000	508,229,813	33,395,483
44	South Carolina.....	653,064,742	513,484,200	48,002,387	91,518,155	489,979,710	20,854,060	18,000,000	437,121,837	14,603,812
45	Georgia.....	1,356,685,186	1,138,293,627	63,343,220	155,043,349	638,430,053	36,401,318	39,000,000	540,613,626	22,415,111
46	Florida.....	330,301,717	281,449,404	13,551,773	35,300,540	101,204,046	7,621,885	8,000,000	80,256,806	5,325,355
47	EAST SOUTH CENTRAL:									
48	Kentucky.....	1,511,901,077	1,305,158,936	48,354,857	158,387,284	492,459,424	50,928,217	96,800,000	347,338,888	17,892,319
49	Tennessee.....	1,251,964,685	1,024,979,894	53,462,556	173,622,135	512,607,214	50,960,694	101,000,000	318,285,307	22,161,213
50	Alabama.....	690,843,720	543,657,755	34,366,217	112,824,748	383,178,270	30,420,993	29,100,000	304,348,638	19,302,648
51	Mississippi.....	964,751,855	789,896,778	39,881,256	134,973,821	407,499,709	27,327,885	29,600,000	336,207,156	14,864,758
52	WEST SOUTH CENTRAL:									
53	Arkansas.....	924,395,483	753,110,066	43,432,237	127,852,580	424,486,802	30,083,950	39,400,000	340,813,256	14,189,596
54	Louisiana.....	689,826,079	474,038,793	32,715,010	83,072,876	237,028,052	13,613,465	12,100,000	206,182,548	5,732,039
55	Oklahoma.....	1,600,423,544	1,363,865,294	80,630,547	215,927,703	707,895,000	49,887,518	103,800,000	550,084,742	4,122,740
56	Texas.....	4,447,420,321	3,700,173,319	154,320,996	592,926,006	1,369,471,705	87,761,715	196,900,000	1,071,542,103	13,267,887
57	MOUNTAIN:									
58	Montana.....	985,061,308	776,767,529	55,004,212	154,189,567	412,597,141	24,809,029	46,000,000	69,975,185	1,812,027
59	Idaho.....	176,137,910	151,511,964	38,417,253	96,208,668	181,709,556	22,225,355	30,500,000	126,495,111	2,489,090
60	Wyoming.....	334,410,500	234,748,125	11,777,949	87,884,516	186,153,818	14,004,109	23,700,000	30,270,630	1,709,079
61	Colorado.....	1,076,794,749	866,013,660	49,804,509	160,976,580	280,295,333	26,921,292	70,600,000	181,065,239	1,708,802
62	New Mexico.....	325,185,999	221,814,212	9,745,369	93,026,418	75,172,758	8,447,826	25,700,000	40,619,634	405,298
63	Arizona.....	233,592,989	172,325,321	8,820,067	52,447,001	95,771,694	6,294,886	10,900,000	42,481,230	95,578
64	Utah.....	311,274,728	243,751,758	13,514,787	54,008,183	87,764,314	13,735,823	15,600,000	58,067,067	361,424
65	Nevada.....	99,779,666	60,255,214	3,630,927	29,893,525	26,418,019	4,694,649	7,700,000	13,980,303	43,067
66	PACIFIC:									
67	Washington.....	1,057,429,848	920,392,341	54,721,377	82,316,130	301,271,159	44,066,349	23,900,000	227,212,008	6,092,802
68	Oregon.....	818,569,751	675,213,284	41,587,125	101,770,342	208,459,265	35,146,671	36,200,000	131,884,639	6,227,956
69	California.....	3,431,021,861	3,073,811,109	136,069,290	221,141,462	770,544,880	103,932,013	67,500,000	589,757,377	9,355,490

<sup>1</sup> The gross value of farm products, obtained by adding the value of crops, live-stock products, etc., contains a considerable amount of duplication, on account of crops fed to live-stock. It is roughly analogous to the value of products in manufactures, with its duplication on account of the use of the products of one establishment as materials in another.

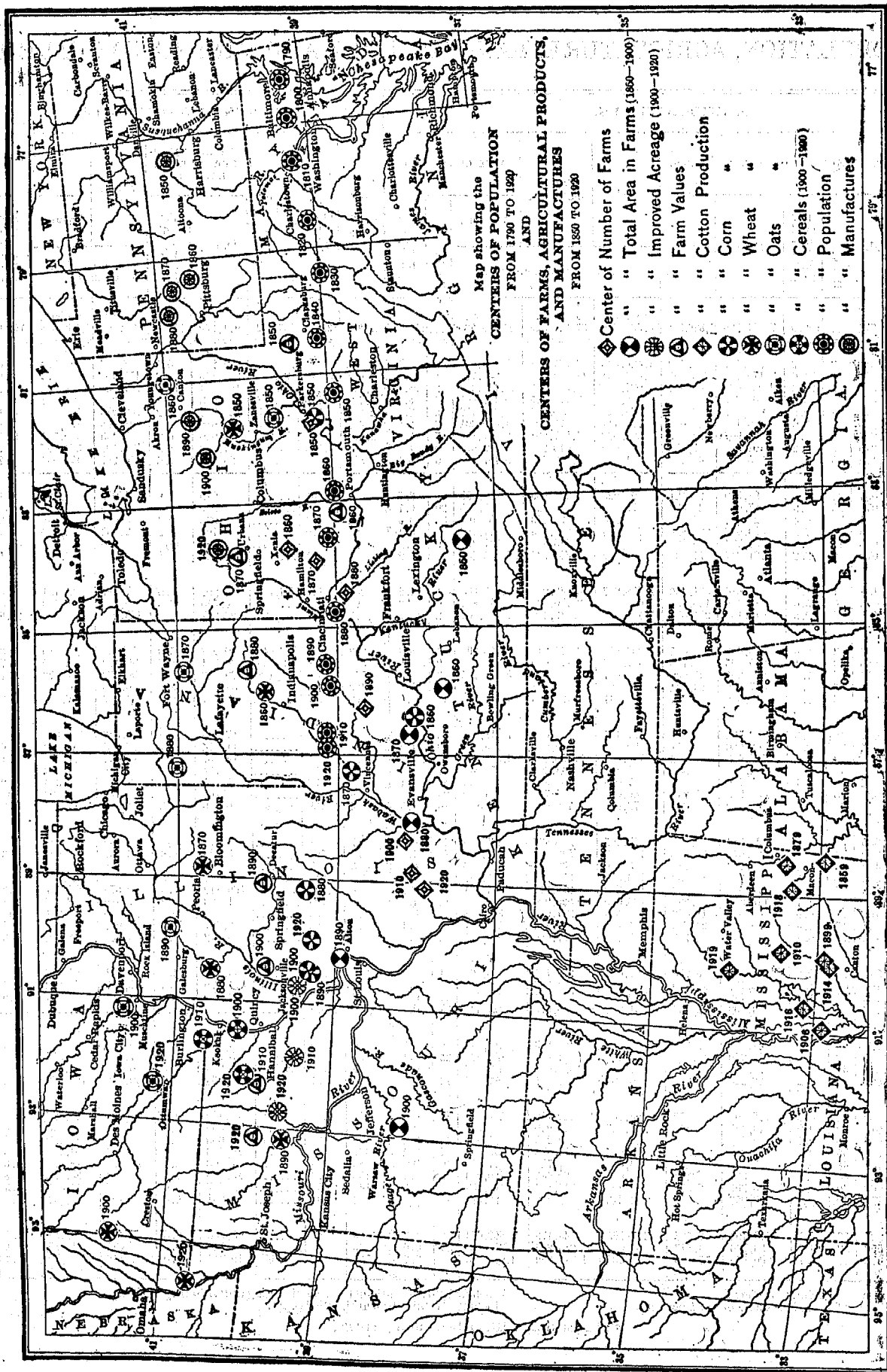
<sup>2</sup> These include dairy products, wool and mohair, eggs and chickens, and honey and wax.

<sup>3</sup> Estimated value of domestic animals sold by farmers and animals slaughtered on the farms, whether for sale or for home consumption.

<sup>4</sup> These include forest products of farms valued (for the United States) at \$394,321,823, nursery products valued at \$20,434,389, and greenhouse products valued at \$77,380,230.

## FOR POPULATION, AGRICULTURE, MANUFACTURES, AND MINES AND QUARRIES.

MANUFACTURES.*													MINES AND QUARRIES.*																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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NOTE.—The centers for manufactures and for all crops except cotton are based on data for the year preceding the census year indicated on the map; for the centers of cotton production the exact dates are shown on the map.

# MICHIGAN.

## NUMBER AND DISTRIBUTION OF INHABITANTS.

**Population of the state.**—According to the Fourteenth Census, taken as of January 1, 1920, the population of Michigan is 3,668,412, which represents an increase of 858,239, or 30.5 per cent, since 1910. During the same period the population of the United

States increased by 14.9 per cent. The following summary shows the population of the state from 1810 to 1920, inclusive, with the increase for each decade, in comparison with the increase for the United States:

POPULATION OF MICHIGAN: 1810 TO 1920.

CENSUS YEAR.	Population.	INCREASE OVER PRECEDING CENSUS.		Per cent of increase for the United States.
		Number.	Per cent.	
1920.....	3,668,412	858,239	30.5	14.9
1910.....	2,810,173	389,191	16.1	21.0
1900.....	2,420,982	327,092	15.6	20.7
1890.....	2,093,890	456,953	27.9	25.5
1880.....	1,636,937	452,878	38.2	30.1
1870.....	1,184,059	434,946	58.1	22.6
1860.....	749,113	351,459	88.4	35.6
1850.....	397,654	185,387	87.3	35.9
1840.....	212,267	180,628	570.9	32.7
1830.....	<sup>1</sup> 31,639	22,743	255.7	33.5
1820.....	<sup>1</sup> 8,896	4,134	86.8	33.1
1810.....	<sup>1</sup> 4,762			

<sup>1</sup> Population returns for 1810, 1820, and 1830 refer to Michigan as constituted at time census was taken. Boundaries changed in 1818, 1834, and 1837. (See historical note.)

**Counties.**—Michigan has 83 counties, of which 35 show increases and 48 decreases as compared with 1910. (See Table 1.) There have been no changes in county boundaries since 1910.

**Density of population.**—The total land area of the state is 57,480 square miles. The average number of inhabitants to the square mile in 1920 is 63.8 (see Table 1), as against 48.9 in 1910 and 42.1 in 1900.

**Minor civil divisions.**—The political units into which the counties are divided are collectively termed

"minor civil divisions." The 83 counties of Michigan are made up of 1,376 primary divisions, comprising 1,258 organized townships, 5 unorganized townships, and 113 cities. The incorporated villages, 337 in number, constitute the secondary divisions. Each of 284 villages forms a part of the township in which it is located, and each of the remaining 53 villages comprises parts of two or more townships. (See Table 2.)

**Cities.**—Michigan has 113 cities, of which Detroit, with a population of 993,678, is the largest. Grand

**HISTORICAL NOTE.**—Michigan derives its name from the lake which forms a part of its western boundary. The word is of Indian origin and probably signifies "great lake" or "great water," though some authorities claim that its meaning is "place for catching fish."

The first well authenticated exploration by white men within the region now constituting Michigan was in 1634, when Jean Nicollet, a French explorer, passed through the Straits of Mackinaw and discovered Lake Michigan. The first settlement by Europeans within the present limits of the state was made in 1668 at Sault Ste. Marie by Father Marquette and others, who founded a mission there. In 1701 Antoine de la Motte-Cadillac, under a commission from Louis XIV of France, founded Detroit.

In 1763, at the close of the French and Indian War, this territory was transferred to the English; and in 1783, at the close of the Revolution, it passed into the hands of the United States. The British did not immediately relinquish their hold, however, and it was not until the summer of 1796 that the United States took actual possession, at Detroit.

The states which claimed title to lands northwest of the Ohio ceded their rights to the United States before 1787, and in that year this region (which included, in addition to the area northwest of the Ohio and east of the Mississippi, the drainage basin of the Red River of the North, which forms the boundary between the present states of Minnesota and North Dakota) was named the Territory Northwest of the Ohio River. In 1800, when the territory of Indiana was formed, the

western part of what is now the Lower Peninsula of Michigan and most of the Upper Peninsula were made a part of that territory; and two years later, when Ohio was organized as a state, the remaining portions of both peninsulas were added to Indiana. In 1805 the Lower Peninsula and that part of the Upper lying east of a line drawn due north from the northern extremity of Lake Michigan were organized as the territory of Michigan. In 1809 the region between the Louisiana Purchase (the former French possessions) and the present western line of Indiana, prolonged northward to the Canadian boundary, was organized as the territory of Illinois. The portion of the Upper Peninsula lying between Michigan and Illinois remained a part of Indiana until 1816, when Indiana was admitted to the Union. In 1818, when Illinois, with its present boundaries, became a state, the limits of Michigan were extended westward to the northeastern boundary of the Louisiana Purchase.

In 1834 the boundaries of Michigan were further extended westward to the Missouri and White Earth Rivers and southward to the northern boundary of Missouri. Thus the territory included, in addition to the area of the present state, the region now constituting Wisconsin, Iowa, Minnesota, and parts of North and South Dakota.

In 1835 a state constitution for Michigan was adopted; in the following year Congress passed an enabling act by which the boundary between Ohio and Michigan was established; and on January 26, 1837, Michigan, with boundaries as at present, was admitted to the Union as the twenty-sixth state. Meanwhile, in 1836, Wisconsin had been organized as a separate territory.



Rapids, with 137,634, is the only other city having more than 100,000 inhabitants. (See Tables 3 and 4.)

The following summary shows, for each city or

village having 25,000 or more inhabitants in 1920, the population at each census for which figures are available, together with the number and per cent of increase during the preceding decade:

POPULATION OF PRINCIPAL CITIES AND VILLAGES, FROM EARLIEST CENSUS TO 1920.

[A minus sign (—) denotes decrease.]

CITY OR VILLAGE AND CENSUS YEAR.	Population.	INCREASE OVER PRECEDING CENSUS.		CITY OR VILLAGE AND CENSUS YEAR.	Population.	INCREASE OVER PRECEDING CENSUS.		CITY OR VILLAGE AND CENSUS YEAR.	Population.	INCREASE OVER PRECEDING CENSUS.	
		Number.	Per cent.			Number.	Per cent.			Number.	Per cent.
<b>Battle Creek:</b>				<b>Grand Rapids:</b>				<b>Lansing:</b>			
1920.....	36,164	10,897	43.1	1920.....	137,634	25,063	22.3	1920.....	57,327	26,098	83.6
1910.....	25,267	6,704	36.1	1910.....	112,571	25,006	28.6	1910.....	31,229	14,744	89.4
1900.....	18,563	5,366	40.7	1900.....	87,565	27,287	45.3	1900.....	16,485	3,383	25.8
1890.....	13,197	6,134	86.8	1890.....	60,278	28,262	88.3	1890.....	13,102	4,783	57.5
1880.....	7,063	1,225	21.0	1880.....	32,016	15,509	94.0	1880.....	8,319	3,078	58.7
1870.....	5,838			1870.....	16,507	8,422	104.2	1870.....	5,241	2,167	70.5
1860.....	(1)			1860.....	8,085	5,399	201.0	1860.....	3,074		
1850.....	1,084			1850.....	2,686						
<b>Bay City:</b>				<b>Hamtramck:</b>				<b>Muskegon:</b>			
1920.....	47,554	2,388	5.3	1920.....	48,615	45,056	1,266.0	1920.....	38,570	12,508	52.0
1910.....	45,166	17,538	63.5	1910.....	3,559			1910.....	24,062	3,244	15.6
1900.....	27,628	—211	—0.8					1900.....	20,818	—1,884	—8.3
1890.....	27,839	7,146	34.5	<b>Highland Park:</b>				1890.....	22,702	11,440	101.6
1880.....	20,693	13,629	192.9	1920.....	46,499	42,379	1,028.6	1880.....	11,282	5,200	87.6
1870.....	7,064	5,481	346.2	1910.....	4,120	3,693	864.9	1870.....	6,002		
1860.....	1,583			1900.....	427			<b>Pontiac:</b>			
<b>Detroit:</b>				<b>Jackson:</b>				1920.....	34,273	19,741	135.8
1920.....	993,678	527,912	113.3	1920.....	48,374	16,941	53.9	1910.....	14,532	4,763	48.8
1910.....	465,766	180,062	63.0	1910.....	31,433	6,259	24.8	1900.....	9,769	3,569	57.6
1900.....	285,704	79,828	38.8	1900.....	25,180	4,382	21.1	1890.....	6,200	1,691	37.5
1890.....	205,876	89,536	77.0	1890.....	20,798	4,093	29.1	1880.....	4,609	—358	—7.4
1880.....	116,340	36,763	40.2	1880.....	16,108	4,658	40.7	<b>Port Huron:</b>			
1870.....	79,577	33,958	74.4	1870.....	11,447	6,648	138.5	1920.....	25,044	7,081	37.5
1860.....	45,619	24,600	117.0	1860.....	4,799	2,436	103.1	1910.....	19,868	—295	—1.5
1850.....	21,019	11,917	130.9	1850.....	2,363			1900.....	19,158	5,615	41.5
1840.....	9,102	6,880	309.6	<b>Kalamazoo:</b>				1890.....	13,543	4,060	52.6
1830.....	2,222	800	56.3	1920.....	48,487	9,050	22.9	1880.....	8,838	2,910	48.7
1820.....	1,422			1910.....	39,437	15,033	61.6	1870.....	5,973	1,602	36.7
<b>Flint:</b>				1900.....	24,404	6,551	36.7	1860.....	4,371		
1920.....	91,599	53,049	137.6	1890.....	17,853	5,916	49.6	<b>Saginaw:</b>			
1910.....	38,550	25,447	194.2	1880.....	11,937	2,756	30.0	1920.....	61,908	11,393	22.6
1900.....	13,103	3,300	33.7	1870.....	9,181	3,111	51.3	1910.....	50,510	8,165	19.3
1890.....	9,803	1,394	16.6	1860.....	6,070	3,563	142.1	1900.....	42,345	—3,977	—8.6
1880.....	8,409	3,023	56.1					1890.....	46,322	35,797	340.1
1870.....	5,386	2,436	82.6					1880.....	10,625	3,065	41.1
1860.....	2,950							1870.....	7,460	5,761	339.1
								1860.....	1,699		

1 Not returned separately.

Urban and rural population.—The Census Bureau defines urban population as that residing in cities and other incorporated places having 2,500 inhabitants or more, and rural population as that residing outside such incorporated places.

The following summary presents, for the last three censuses, figures showing the urban and rural population of the state distributed among places grouped according to specified limits of population. The classification for each census is based upon the popu-

lation of the various places as shown by the returns of that census. Consequently the territory comprised within any one class of cities or that designated as urban or as rural does not remain fixed, because any given place may, through the growth or the decline of its population, pass from one class to another at successive censuses. The proportion of the population of Michigan living in places of 2,500 or more increased from 39.3 per cent in 1900 to 47.2 per cent in 1910 and to 61.1 per cent in 1920.

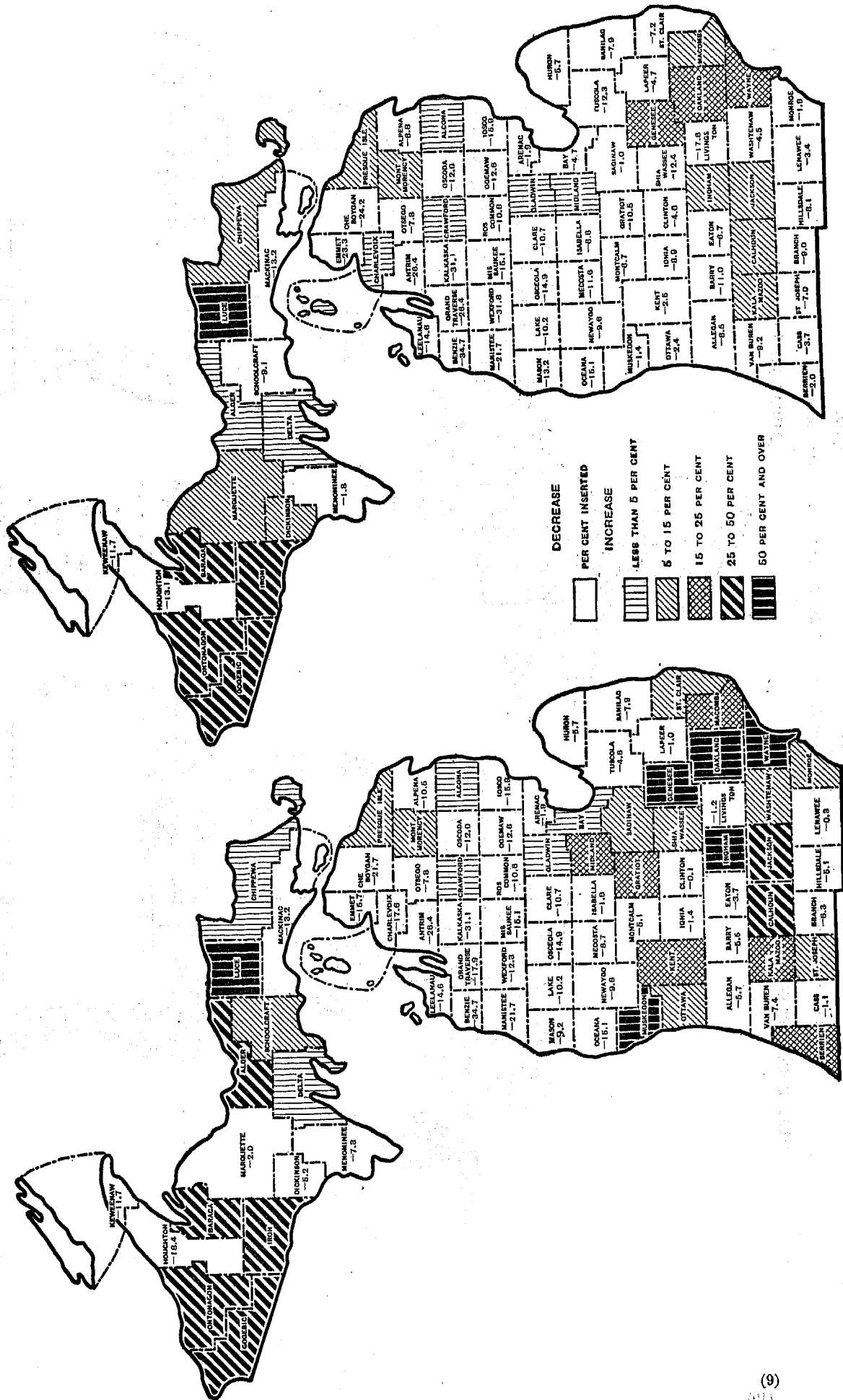
URBAN AND RURAL POPULATION: 1920, 1910, AND 1900.

CLASS OF PLACES.	1920		1910		1900		PER CENT OF TOTAL POPULATION.		
	Number of places.	Population.	Number of places.	Population.	Number of places.	Population.	1920	1910	1900
Total population.....		3,068,412		2,810,173		2,420,982	100.0	100.0	100.0
<b>Urban territory</b> .....	93	2,241,560	79	1,327,044	71	952,323	61.1	47.2	39.3
Cities and villages of—									
500,000 inhabitants or more.....	1	993,678	2	578,337	1	285,704	27.1		
100,000 to 500,000 inhabitants.....	1	137,034	1	50,510	1	87,565	3.8	20.6	11.8
50,000 to 100,000 inhabitants.....	3	210,829	1	211,082	3	95,153	5.7	1.8	3.6
25,000 to 50,000 inhabitants.....	9	372,480	6	203,817	3	212,890	10.2	7.5	3.9
10,000 to 25,000 inhabitants.....	14	179,991	15	166,749	14	158,649	4.9	5.3	8.8
5,000 to 10,000 inhabitants.....	32	225,476	24	116,549	22	112,362	6.1	7.9	6.6
2,500 to 5,000 inhabitants.....	33	121,472	31		30		3.3	4.1	4.5
<b>Rural territory</b> .....									
Cities and villages of less than 2,500 inhabitants.....	367	1,426,852	357	1,483,129	311	1,468,659	38.9	52.8	60.7
Other rural territory.....		286,944		285,955		261,539	7.8	10.2	10.8
		1,140,208		1,197,174		1,207,120	31.1	42.6	49.9

Rural population is defined as that residing outside of incorporated places having 2,500 inhabitants or more.

### RURAL POPULATION.

**TOTAL POPULATION.**

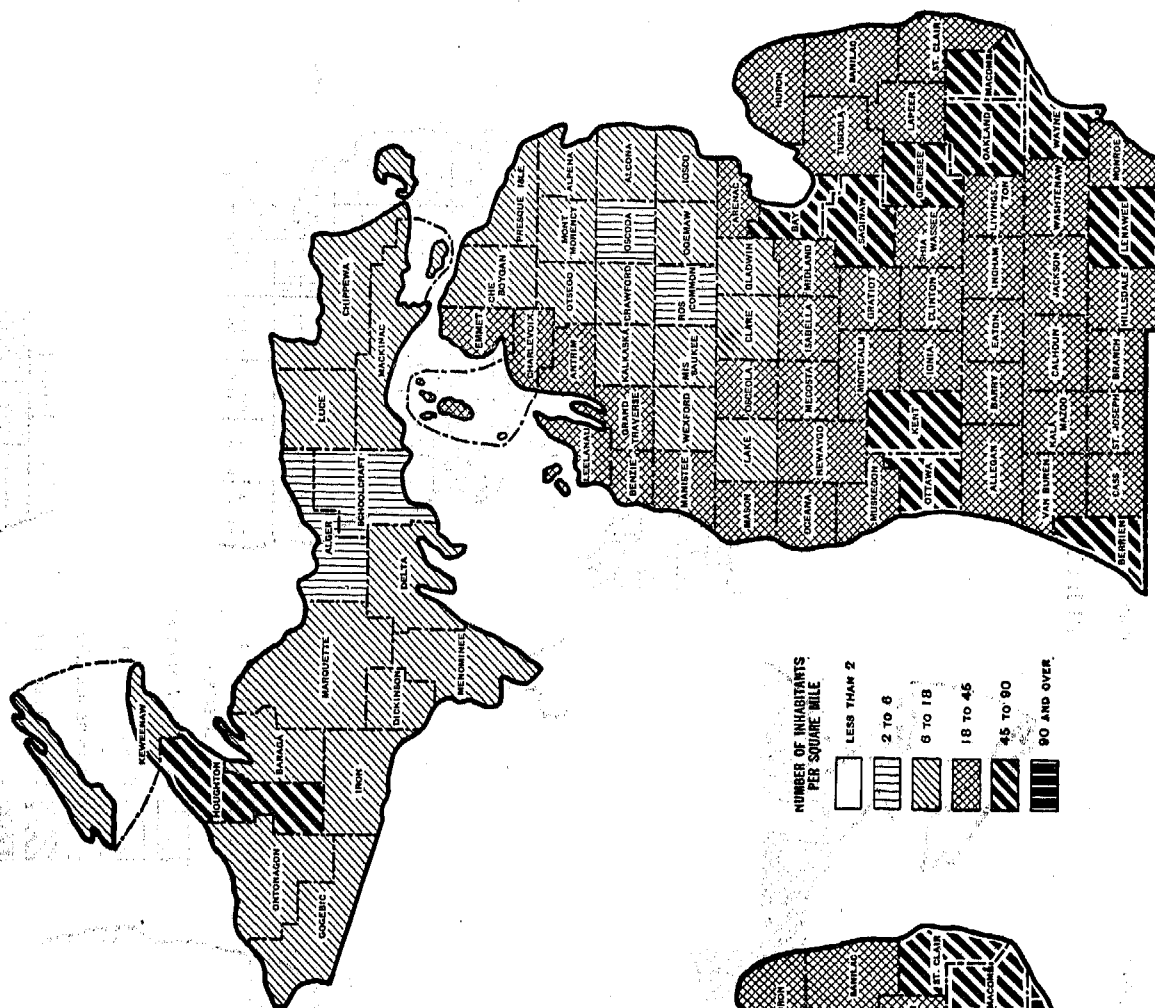


Rural population is defined as that residing outside of incorporated places having 2,500 inhabitants or more.

**TOTAL POPULATION.**



**RURAL POPULATION.**



# NUMBER AND DISTRIBUTION.

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TABLE 1.—AREA AND POPULATION OF COUNTIES: 1850 TO 1920.

[A minus sign (—) denotes decrease.]

COUNTY.	Land area in square miles: 1920.	POPULATION.									Per cent of increase.		
		1920		1910	1900	1890	1880	1870	1860	1850	1910 to 1920.	1900 to 1910.	1890 to 1900.
		Total.	Per square mile.										
Michigan <sup>1</sup> .....	57,480	3,668,412	63.8	2,810,173	2,420,982	12,093,890	11,636,937	11,184,059	1,749,113	397,654	30.5	16.1	15.6
Alcona.....	684	5,912	8.6	5,703	5,691	5,409	3,107	696	185	.....	3.7	0.2	5.2
Alger.....	920	9,983	10.9	7,075	5,868	1,238	.....	.....	.....	.....	30.1	30.8	374.0
Alegan.....	833	37,540	45.1	39,819	38,812	38,961	37,815	32,105	16,087	5,125	-5.7	2.6	-0.4
Alpena.....	584	17,869	30.6	19,965	18,284	15,581	8,789	2,756	290	.....	-10.5	9.4	17.2
Antrim.....	476	11,543	24.3	15,692	10,568	10,413	5,237	1,985	179	.....	-26.4	-5.3	59.1
Arenac <sup>1</sup> .....	374	9,460	25.3	9,640	9,821	5,683	.....	.....	.....	.....	-1.9	-1.8	72.8
Baraga <sup>1</sup> .....	917	7,662	8.4	6,127	4,320	3,036	1,804	.....	.....	.....	25.1	41.8	42.3
Barry.....	556	21,383	38.5	22,633	22,514	23,783	25,317	22,199	13,858	5,072	-5.6	0.5	-5.3
Bay <sup>1</sup> .....	443	69,548	157.0	68,238	62,378	56,412	38,081	15,900	3,104	.....	-1.9	9.4	10.6
Benzie.....	314	6,947	22.1	10,638	9,685	6,237	3,433	2,184	.....	.....	-34.7	9.8	84.9
Berrien.....	569	62,653	110.1	53,622	49,165	41,985	36,785	35,104	22,378	11,417	16.8	-9.1	19.1
Branch.....	497	23,997	48.3	25,605	27,811	26,791	27,941	26,226	20,981	12,472	-6.3	-7.9	3.8
Calhoun.....	693	73,918	105.2	56,638	49,315	43,501	38,452	36,569	28,554	19,162	28.7	14.8	13.4
Cass.....	493	20,395	41.4	20,624	20,876	20,953	22,009	21,094	17,721	10,907	-1.1	-1.2	-0.4
Charlevoix <sup>1</sup> .....	411	15,788	38.4	19,167	13,956	9,686	5,115	1,724	.....	.....	-17.6	37.3	44.1
Cheboygan.....	725	13,991	19.3	17,872	15,516	11,980	6,524	2,196	517	.....	-21.7	15.2	29.5
Chippewa <sup>1</sup> .....	1,573	24,818	15.8	24,472	21,338	12,019	5,245	1,689	1,603	898	-1.4	14.7	77.5
Clare.....	582	8,250	14.2	9,240	8,360	7,558	4,187	366	.....	.....	-10.7	10.5	10.6
Clinton.....	571	23,110	40.5	23,129	25,136	26,509	28,100	22,845	19,916	5,102	-0.1	-8.0	-5.2
Crawford.....	575	4,049	7.0	3,934	2,943	2,962	1,169	.....	.....	.....	2.9	33.7	-0.6
Delta.....	1,169	30,909	26.4	30,108	23,881	15,330	6,812	2,542	1,172	.....	2.7	26.1	55.8
Dickinson <sup>1</sup> .....	776	19,456	25.1	20,524	17,890	.....	.....	.....	.....	.....	-5.2	14.7	.....
Eaton.....	571	29,377	51.4	30,499	31,668	32,094	31,225	25,171	16,476	7,058	-3.7	-3.7	-1.3
Emmet <sup>1</sup> .....	485	15,639	32.2	18,561	15,981	8,756	6,639	1,211	1,149	.....	-15.7	16.5	81.9
Genesee.....	655	125,668	191.9	64,555	41,804	39,430	39,220	33,900	22,498	12,031	94.7	54.4	6.0
Gladwin.....	519	8,827	17.0	8,413	6,564	4,208	1,127	(*)	14	.....	4.9	28.2	56.0
Gogebic <sup>1</sup> .....	1,133	33,225	29.3	23,333	16,738	13,166	.....	.....	.....	.....	42.4	39.4	27.1
Grand Traverse.....	467	19,518	41.8	23,784	20,479	13,355	8,422	4,443	1,286	.....	-17.9	16.1	53.3
Gratiot.....	579	33,914	58.6	28,820	29,889	28,668	21,936	11,810	4,042	.....	17.7	-3.6	4.3
Hillsdale.....	597	28,161	47.2	29,673	29,865	30,660	32,723	31,684	25,675	16,159	-5.1	-0.6	-2.6
Houghton <sup>1</sup> .....	1,019	71,930	70.6	88,098	66,063	35,389	22,473	13,879	9,234	708	-18.4	33.4	86.7
Huron.....	854	32,786	38.4	34,758	34,162	28,546	20,089	9,049	3,165	210	-5.7	1.7	19.7
Ingham.....	553	81,554	147.5	53,310	39,818	37,666	33,676	25,268	17,435	8,631	53.0	33.9	5.7
Ionia.....	579	33,087	57.1	33,550	34,329	32,801	33,872	27,681	16,682	7,597	-1.4	-2.3	4.7
Iosco.....	570	8,199	14.4	9,753	10,246	16,224	6,873	3,163	175	.....	-15.9	-4.8	-32.7
Iron <sup>1</sup> .....	1,200	22,107	18.4	15,164	8,990	4,432	.....	.....	.....	.....	45.8	68.7	102.8
Isabella.....	572	22,610	39.5	23,029	22,784	18,784	12,169	4,113	1,443	.....	-1.8	1.1	21.3
Jackson.....	707	72,539	102.6	53,426	48,222	45,031	42,031	36,047	26,671	19,431	35.8	10.8	7.1
Kalamazoo.....	562	71,225	126.7	60,427	44,310	39,273	34,342	32,054	24,646	13,179	17.9	36.4	12.8
Kalamazoo.....	573	5,577	9.7	8,097	7,133	5,160	2,937	424	.....	.....	-31.1	13.5	38.2
Kent.....	860	183,041	212.8	159,145	129,714	109,922	73,253	50,403	30,716	12,016	15.0	22.7	18.0
Keweenaw <sup>1</sup> .....	554	6,322	11.4	7,156	3,217	2,694	4,270	4,205	.....	.....	-11.7	122.4	11.2
Lake.....	579	4,437	7.7	4,939	4,957	6,505	3,233	548	.....	.....	-10.2	-0.4	-23.8
Lapeer.....	666	25,782	38.7	26,033	27,641	29,213	30,138	21,345	14,754	7,029	-1.0	-5.8	-5.4
Leelanau <sup>1</sup> .....	338	9,061	26.8	10,608	10,556	7,944	6,253	4,576	2,158	.....	-14.6	0.5	32.9
Lenawee.....	743	47,767	64.3	47,907	48,406	48,448	48,343	45,595	38,112	26,372	-0.3	-1.0	-0.1
Livingston.....	568	17,522	30.8	17,736	19,664	20,858	22,251	19,336	16,561	13,485	-1.2	-9.8	-5.7
Luce <sup>1</sup> .....	920	6,149	6.7	4,004	2,983	2,455	.....	.....	.....	.....	53.6	34.2	21.5
Mackinac <sup>1</sup> .....	1,044	8,026	7.7	9,240	7,703	7,830	2,902	1,716	1,038	3,598	-13.2	20.1	-1.6
Macomb.....	472	38,103	80.7	32,606	33,244	31,813	31,627	27,616	22,343	15,530	16.9	-1.9	4.5
Manistee <sup>1</sup> .....	562	20,899	37.2	26,688	27,856	24,230	12,532	6,074	975	.....	-21.7	-4.2	15.0
Marquette <sup>1</sup> .....	1,870	45,786	24.5	46,739	41,239	30,521	25,394	15,033	2,321	136	-2.0	13.3	4.3
Mason.....	494	19,831	40.1	21,832	18,885	16,385	10,065	3,263	831	93	-9.2	15.6	15.3
Meosota.....	571	17,765	31.1	19,466	20,693	19,697	13,973	5,642	970	.....	-8.7	-5.9	5.1
Menominee <sup>1</sup> .....	1,066	23,778	22.5	25,643	27,046	33,639	11,987	1,791	.....	.....	-7.3	-5.2	-19.6

## CHANGES IN BOUNDARIES, ETC.

THE STATE.—State totals include population (995 in 1890; 1,389 in 1880; 891 in 1870; 1,042 in 1860) of Isle Royal and Manitou Counties, annexed to Keweenaw, Charlevoix, and Leelanau Counties between 1890 and 1900; total for 1890 also includes 1 Indian, specially enumerated and not returned as part of the population of any county.

ALGER.—Organized from part of Schoolcraft in 1885.

ARENAC.—Organized from part of Bay in 1883.

BARAGA.—Organized from part of Houghton in 1875.

BAY.—Part taken to form Arenac in 1883.

CHARLEVOIX.—Part annexed to Emmet between 1890 and 1900; part of Manistee annexed in 1896.

CHIPPewa.—Part taken to form part of Luce in 1887.

DICKINSON.—Organized from parts of Iron, Marquette, and Menominee in 1891.

EMMET.—Part of Charlevoix annexed between 1890 and 1900.

GOGEBIC.—Organized from part of Ontonagon in 1887.

HOUGHTON.—Part taken to form Baraga in 1875.

IRON.—Organized from parts of Marquette and Menominee in 1885; parts of Marquette and Menominee annexed in 1891; part taken to form part of Dickinson in 1891.

KEWEENAW.—Isle Royal annexed in 1897.

LEELANAU.—Part of Manistee annexed in 1896.

LUCE.—Organized from parts of Chippewa and Mackinac in 1887.

MACKINAC.—Name changed from Michilimackinac between 1890 and 1870; part taken to form part of Luce in 1887.

MANISTEE.—Part annexed to Wexford in 1873; part of Wexford annexed between 1890 and 1896.

MARQUETTE.—Parts taken to form part of Iron in 1885 and part of Dickinson in 1891; part annexed to Iron in 1891.

MENOMINEE.—Parts taken to form part of Iron in 1885 and part of Dickinson in 1891; part annexed to Iron in 1891.

<sup>2</sup> Total shown for Marquette County for 1870 includes population of Gladwin, Montmorency, Otsego, Roscommon, and Schoolcraft Counties, not returned separately.

<sup>3</sup> Total shown for Michilimackinac (now Mackinac) County for 1850 includes population of 21 unorganized counties not returned separately.

## POPULATION—MICHIGAN.

TABLE 1.—AREA AND POPULATION OF COUNTIES: 1850 TO 1920—Continued.

[A minus sign (—) denotes decrease.]

COUNTY.	Land area in square miles: 1920.	POPULATION.									Percent of increase.		
		1920		1910	1900	1890	1880	1870	1860	1850	1910 to 1920.	1900 to 1910.	1890 to 1900.
		Total.	Per square mile.										
Midland.....	529	17,237	32.6	14,005	14,439	10,657	6,893	3,285	787	65	23.1	—3.0	35.5
Missaukee.....	582	9,004	15.5	10,606	9,308	5,048	1,553	130			—15.1	13.9	84.4
Monroe.....	573	37,115	64.8	32,917	32,754	32,337	33,624	27,483	21,593	14,698	12.8	0.5	1.3
Montcalm.....	724	30,441	42.0	32,069	32,754	32,637	33,148	13,629	3,968	891	—5.1	—2.1	0.4
Montmorency.....	561	4,089	7.3	3,755	3,234	1,487		(1)			8.9	16.1	117.5
Muskegon.....	504	62,362	123.7	40,577	37,036	40,013	26,586	14,894	3,947		53.7	9.6	—7.4
Newaygo.....	851	17,378	20.4	19,220	17,673	20,476	14,688	7,294	2,760	510	—9.6	8.8	—13.7
Oakland.....	886	90,050	101.6	49,576	44,792	41,245	41,537	40,887	38,261	31,270	81.6	10.7	8.6
Oceana.....	543	15,601	28.7	18,379	16,644	15,608	11,699	7,222	1,816	300	—15.1	10.4	6.0
Ogemaw.....	580	7,788	13.4	8,907	7,765	5,583	1,914	12			—12.6	14.7	39.1
Ontonagon <sup>1</sup> .....	1,333	12,428	9.3	8,650	6,197	3,756	2,565	2,845	4,568	389	43.7	39.6	65.0
Osceola.....	577	15,221	26.4	17,889	17,859	14,630	10,777	2,093	27		—14.9	0.2	22.1
Oscoda.....	576	1,783	3.1	2,027	1,468	1,904	467	70			—12.0	38.1	—22.9
Otsego.....	628	6,043	11.4	6,552	6,175	4,272	1,974	(1)			—7.8	6.1	44.5
Ottawa.....	565	47,660	84.4	45,301	39,667	35,358	33,126	26,651	13,215	5,587	5.2	14.2	12.2
Presque Isle.....	678	12,131	17.9	11,249	8,821	4,687	3,113	355	26		7.8	27.5	88.2
Roscommon.....	538	2,032	3.8	2,274	1,787	2,038	1,459	(1)			—10.6	27.3	—12.1
Saginaw.....	828	100,286	121.1	89,290	81,222	82,273	59,095	39,097	12,603	2,609	12.3	9.9	—1.3
St. Clair.....	710	58,009	81.7	52,341	55,228	52,105	46,197	36,661	26,604	10,420	10.8	—5.2	6.0
St. Joseph.....	503	26,818	53.3	25,499	23,889	25,356	20,626	26,275	21,262	12,725	5.2	6.7	—5.8
Sanilac.....	976	31,237	32.0	33,030	35,055	32,589	26,341	14,562	7,599	2,112	—7.9	—3.2	7.6
Schoolcraft <sup>1</sup> .....	1,207	9,977	8.3	8,681	7,889	5,818	1,575	(1)	78	16	14.9	10.0	35.6
Shiawassee.....	827	35,924	64.5	33,246	33,866	30,952	27,059	20,858	12,349	5,230	8.1	—1.8	9.4
Tuscola.....	827	33,320	40.3	34,913	35,890	32,508	26,738	13,714	4,886	291	—4.6	—2.7	10.4
Van Buren.....	617	30,715	49.8	33,185	33,274	30,541	30,807	28,829	15,224	5,800	—7.4	—0.3	8.9
Washtenaw.....	704	49,520	70.3	44,714	47,761	42,210	41,848	41,434	35,686	28,667	10.7	—6.4	13.2
Wayne.....	620	1,177,645	1,899.4	531,591	348,793	257,114	166,444	119,038	75,547	42,756	121.5	52.4	35.7
Wexford <sup>2</sup> .....	577	18,207	31.6	20,769	16,845	11,278	6,815	650			—12.3	23.3	49.4

<sup>1</sup> Population for Montmorency, Otsego, Roscommon, and Schoolcraft Counties for 1870 included in that reported for Marquette County.

## \* CHANGES IN BOUNDARIES, ETC.

ONTONAGON.—Part taken to form Gogebic in 1887.  
SCHOOLCRAFT.—Part taken to form Alger in 1885.

WEXFORD.—Part of Manistee annexed in 1873; part annexed to Manistee between 1880 and 1890.

TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900.

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>Alcona County.....</b>	<b>5,912</b>	<b>5,703</b>	<b>5,691</b>	<b>Allegan County—Continued.</b>			
Alcona township.....	288	330	1,039	Cheshire township.....	995	1,348	1,325
Caledonia township.....	521	616	388	Clyde township, including part of Fennville village.....	1,106	1,124	968
Curtis township.....	678	599	487	Dorr township.....	1,644	1,652	1,730
Greenbush township.....	557	234	245	Fillmore township.....	1,947	1,889	2,019
Gustin township, including part of Lincoln village.....	551	555	602	Ganges township.....	1,222	1,492	1,751
Harrisville city.....	460	444	403	Gunplains township, including Plainwell village.....	2,910	2,474	2,263
Harrisville township.....	704	764	852	Heath township.....	890	1,010	898
Hawes township, including part of Lincoln village.....	513	304	261	Hopkins township.....	1,789	1,845	1,753
Haynes township.....	590	651	791	Laketown township.....	876	1,055	859
Mikado township, including Mikado village.....	583	652	410	Lee township.....	895	959	951
Millen township.....	270	232	117	Leighton township.....	1,134	1,153	1,187
Mitchell township.....	466	322	68	Manlius township, including part of Fennville village.....	984	1,100	1,153
<b>Alger County.....</b>	<b>9,983</b>	<b>7,675</b>	<b>5,868</b>	Martin township.....	1,265	1,185	1,140
An Train township.....	377	409	484	Monterey township.....	1,062	1,253	1,361
Burt township.....	568	1,373	1,627	Otsego city <sup>1</sup> .....	3,168	2,812	2,073
Grand Island township.....	134	62		Overisel township.....	873	1,016	1,173
Limestone township.....	471	413	275	Salem township.....	1,502	1,664	1,752
Mathias township.....	709	528	314	Saugatuck township, including Douglas and Saugatuck villages.....	1,345	1,577	1,595
Munising city <sup>1</sup> .....	5,087	2,952	2,014	Trowbridge township.....	1,489	2,040	2,123
Munising township <sup>1</sup> .....	1,011	1,595	1,283	Valley township.....	920	1,203	1,255
Onota township.....	526	147	226	Watson township.....	392	663	493
Rock River township.....	1,450	1,206	365	Wayland township, including Wayland village.....	1,069	1,042	1,117
<b>Allegan County.....</b>	<b>37,540</b>	<b>39,819</b>	<b>38,812</b>	<b>Alpena County.....</b>	<b>17,869</b>	<b>19,965</b>	<b>18,254</b>
Allegan city.....	3,637	3,419	2,667	Alpena city.....	11,101	12,706	11,802
Allegan township.....	1,069	1,141	1,140	Alpena township.....	701	928	1,173
Casco township.....	1,341	1,764	2,041	Green township.....	826	758	670

<sup>1</sup> ALGER.—Munising village incorporated as a city and made independent of Munising township since 1910.<sup>2</sup> ALLEGAN.—Otsego village incorporated as a city and made independent of Otsego township since 1910.



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[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904.  
For population of incorporated places, see Table 3.]

\* **ALPENA.**—Wellington township organized from part of Long Rapids township since 1910.

<sup>6</sup> BERRIEN.—Coloma township organized from part of Watervliet township since 1910.

TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900—Continued.

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>Calhoun County—Continued.</b>				<b>Chippewa County.....</b>			
Battle Creek township.....	2,070	1,064	1,008	Bay Mills township.....	251	233	.....
Bedford township, <sup>7</sup> including Washington Heights village.....	4,445	2,076	1,217	Bruce township.....	1,419	1,324	1,071
Burlington township, including Burlington village and part of Union City village.....	1,000	1,150	1,387	Chippewa township <sup>10</sup> .....	506	.....	.....
Clarence township.....	716	801	979	Dafter township.....	912	847	738
Clarendon township.....	872	914	1,082	Detour township, including Detour village.....	826	935	1,043
Convis township.....	678	749	876	Drummond township.....	711	624	499
Eckford township.....	826	915	975	Kimross township.....	421	244	144
Emmett township.....	1,495	1,033	918	Pickford township.....	1,431	1,420	1,425
Fredonia township.....	692	720	825	Raber township.....	662	582	644
Hornertownship, including Homer village.....	1,824	1,803	1,948	Rudyard township.....	1,676	1,353	678
Lee township.....	765	830	1,053	Sault Ste. Marie city.....	12,096	12,615	10,538
Le Roy township.....	978	1,046	1,084	Soo township <sup>10</sup> .....	1,179	837	878
Marengo township.....	948	1,029	1,023	Sugar Island township.....	639	625	540
Marshall city.....	4,270	4,236	4,370	Superior township, <sup>10</sup> including Brimley village.....	1,162	1,321	2,274
Marshall township.....	549	684	774	Trout Lake township.....	537	912	367
Newton township.....	669	856	873	Whitefish township.....	390	300	490
Pennfield township.....	1,340	1,124	1,040				
Sheridan township.....	933	826	980	<b>Clare County.....</b>			
Tekonsha township, including Tekonsha village.....	1,319	1,407	1,534	Arthur township.....	677	734	500
				Clare city.....	1,462	1,350	1,325
<b>Cass County.....</b>				Franklin township.....	178	131	78
Calvin township.....	907	1,064	1,271	Freeman township.....	131	129	.....
Dowagiac city.....	5,440	5,088	4,151	Frost township.....	200	228	194
Howard township.....	764	697	755	Garfield township.....	406	425	294
Jefferson township.....	752	695	790	Grant township.....	721	818	848
La Grange township, including Cassopolis village.....	2,124	2,094	2,256	Greenwood township.....	424	462	484
Marcellus township, including Marcellus village.....	1,650	1,803	1,883	Hamilton township.....	459	501	199
Mason township.....	529	587	668	Harrison city.....	399	543	647
Milton township.....	473	483	433	Hatton township.....	324	381	380
Newberg township.....	1,063	1,164	1,313	Hayes township.....	217	262	170
Ontwa township, including Edwardsburg village.....	801	820	848	Lincoln township.....	188	120	.....
Penn township, including Vandalia village.....	1,076	1,195	1,351	Redding township.....	240	659	585
Pokagon township.....	1,039	971	1,039	Sheridan township.....	907	934	809
Porter township.....	1,110	1,241	1,310	Summerfield township.....	163	228	282
Silver Creek township.....	913	973	951	Surrey township, including Farwell village.....	775	902	1,202
Vallonia township.....	834	945	1,033	Winterfield township.....	379	433	277
Wayne township.....	920	804	824				
				<b>Clinton County.....</b>			
<b>Charlevoix County.....</b>				Bath township.....	872	1,021	1,065
Bay township.....	378	466	503	Bengal township.....	874	980	1,045
Boysen City.....	4,284	5,218	912	Bingham township.....	994	994	1,064
Boysen Valley township, including Boysen Falls village.....	807	952	1,258	Dallas township, including Fowler village.....	1,494	1,523	1,847
Chandler township.....	259	397	273	De Witt township.....	1,627	1,305	1,236
Charlevoix city.....	2,218	2,420	2,079	Duplain township, including Elsie village.....	1,768	1,761	1,831
Charlevoix township.....	101	207	178	Eagle township, including Eagle village.....	981	1,095	1,158
East Jordan city.....	2,428	2,516	1,205	Essex township, including Maple Rapids village.....	1,229	1,355	1,482
Evangeline township.....	226	228	342	Greenbush township.....	1,138	1,180	1,400
Eveline township.....	594	768	847	Lebanon township, including part of Hubbardsville village.....	915	1,011	1,098
Hayes township.....	708	854	780	Olive township.....	958	963	1,122
Hudson township.....	209	673	255	Ovid township, including Ovid village.....	2,183	2,189	2,555
Marion township.....	694	636	681	Riley township.....	906	1,107	1,155
Melrose township.....	466	675	620	St. Johns city.....	3,925	3,154	3,388
Norwood township.....	292	366	652	Victor township.....	858	853	999
Peaine township.....	243	370	372	Watertown township.....	1,071	1,211	1,834
St. James township.....	536	695	420	Westphalia township, including Westphalia village.....	1,317	1,427	1,557
South Arm township.....	744	910	1,634				
Wilson township.....	601	806	945	<b>Crawford County.....</b>			
				Beaver Creek township.....	274	347	316
<b>Cheboygan County.....</b>				Frederic township.....	413	770	228
Aloha township.....	275	332	.....	Grayling township, including Grayling village.....	2,771	2,087	1,716
Beaumont township.....	360	445	506	Lovells township <sup>11</sup> .....	155	.....	.....
Benton township.....	803	1,011	1,093	Maple Forest township <sup>11</sup> .....	146	471	484
Burt township.....	197	557	404	South Branch township.....	290	259	199
Cheboygan city.....	5,642	6,859	6,489				
Ellis township.....	237	341	326	<b>Delta County.....</b>			
Forest township.....	526	1,084	822	Baldwin township.....	807	753	862
Grant township.....	312	462	542	Bark River township.....	1,511	1,289	1,075
Hebron township.....	311	394	379	Bay de Noc township.....	573	550	469
Inverness township.....	1,317	1,647	1,589	Brampton township.....	648	516	.....
Koehler township.....	283	433	.....	Cornell township.....	509	444	.....
Mackinaw township, including part of Mackinaw City village.....	641	706	606	Escanaba city.....	13,103	13,194	9,549
Maple Grove township.....	63	( <sup>9</sup> )	.....	Escanaba township.....	702	640	792
Mentor township.....	553	425	463	Fairbanks township.....	551	531	298
Mullet township.....	195	.....	.....	Ford River township.....	788	1,148	1,386
Munro township.....	485	543	418	Garden township, including Garden village.....	1,097	1,208	1,234
Nunda township, including part of Wolverine village.....	716	1,238	967	Gladstone city.....	4,953	4,211	3,380
Tuscarora township.....	376	650	711	Maple Ridge township.....	1,135	763	653
Walker township.....	206	153	.....	Masonville township.....	1,682	2,109	2,203
Waverly township.....	292	321	115	Nahma township.....	1,119	1,256	967
Wilnot township, including part of Wolverine village.....	202	290	316	Wells township.....	1,731	1,466	828
				<b>Dickinson County.....</b>			
				Breen township.....	923	868	532
				Bretting township.....	850	920	1,074
				Felch township.....	882	773	400

<sup>1</sup> CALHOUN.—Population (1,034) of Camp Custer in 1920 included in that of Bedford township. Camp located in Bedford and Battle Creek townships, Calhoun County, and Charleston and Ross townships, Kalamazoo County, but total population returned as in Bedford township.

<sup>9</sup> CHARLEVOIX.—East Jordan village incorporated as a city and made independent of South Arm township since 1910.

<sup>10</sup> CHEBOYGAN.—Mullet township organized from part of Burt since 1910. Maple Grove township organized from part of Forest prior to 1910, but not reported separately at that census.

<sup>10</sup> CHIPPEWA.—Chippewa township organized from parts of Soo and Superior townships since 1910.

<sup>11</sup> CRAWFORD.—Lovells township organized from part of Maple Forest township since 1910.

<sup>12</sup> DELTA.—Total for 1900 includes population (185) of Sac Bay township, annexed to Fairbanks township between 1900 and 1910.

# NUMBER AND DISTRIBUTION.

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TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900—Continued.

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>Dickinson County—Continued.</b>				<b>Gogebic County.....</b>			
Iron Mountain city.....	8,251	9,216	9,242	Bessemer city.....	33,225	23,333	16,738
Norway city.....	4,533	4,974	4,170	Bessemer township.....	5,482	4,583	3,911
Norway township.....	1,706	1,764	1,230	Carlson township.....	3,208	1,166	817
Sagola township.....	1,159	825	527	Erwin township.....	387	109	.....
Waucedah township.....	824	922	715	Ironwood city.....	15,739	12,821	9,705
West Branch township.....	328	262	.....	Ironwood township.....	1,474	632	459
				Marenisco township.....	920	493	111
				Wakefield city <sup>14</sup> .....	4,151	714	1,191
				Wakefield township <sup>14</sup> .....	533	14,760	14,247
				Watersmeet township.....	481	356	297
<b>Eaton County.....</b>							
Bellevue township, including Bellevue village.....	2,007	1,961	2,344	<b>Grand Traverse County.....</b>			
Benton township, including Potterville village.....	1,191	1,363	1,517		19,518	23,784	20,479
Brookfield township.....	978	1,113	1,243	Acme township.....	545	731	692
Carmel township.....	860	1,070	1,021	Blair township.....	689	891	797
Charlotte city.....	5,128	4,880	4,092	East Bay township.....	428	663	553
Chester township.....	1,010	1,080	1,243	Five Lake township, including Five Lake village.....	580	837	1,019
Delta township.....	1,255	1,224	1,383	Garfield township.....	726	932	986
Eaton township.....	807	912	959	Grant township.....	748	882	699
Eaton Rapids city.....	2,379	2,084	2,103	Green Lake township.....	427	793	787
Eaton Rapids township.....	896	1,000	1,172	Long Lake township.....	566	745	663
Grand Ledge city.....	3,043	2,893	2,101	Mayfield township.....	846	977	878
Hamlin township.....	855	944	1,428	Paradise township, including Kingsley village.....	1,163	1,747	1,693
Kalamo township.....	1,062	1,223	1,187	Peninsula township.....	1,017	1,262	1,134
Oneida township.....	1,064	1,136	1,598	Traverse City.....	10,425	12,115	9,407
Roxand township, including Mulliken village.....	1,311	1,460	1,979	Union township.....	167	219	208
Sunfield township, including Sunfield village.....	1,381	1,651	1,755	Whitewater township.....	691	990	993
Vermontville township, including Vermontville village.....	1,473	1,663	1,755				
Walton township, including Olivet village.....	1,345	1,570	1,900	<b>Gratiot County.....</b>			
Windsor township, including Dimondale village.....	1,334	1,347	1,497		33,914	28,820	29,889
				Alma city <sup>15</sup> .....	7,542	2,787	2,047
<b>Emmet County.....</b>				Arcada township <sup>16</sup> .....	942	1,087	1,442
Bear Creek township.....	1,284	1,630	1,387	Bethany township.....	1,801	1,477	1,091
Bliss township.....	446	694	704	Elba township, including Ashley village.....	1,857	1,703	1,895
Carp Lake township, including part of Mackinaw City village.....	738	847	561	Emerson township.....	1,240	1,348	1,461
Center township.....	501	441	636	Fulton township, including Perrinton village.....	1,967	1,706	1,797
Cross Village township.....	316	600	544	Hamilton township.....	804	855	904
Friendship township.....	404	487	399	Ithaca township, including Ithaca village.....	2,074	2,012	2,179
Little Traverse township, including Harbor Springs village.....	1,939	2,268	2,152	Lafayette township.....	1,357	1,357	1,497
Littlefield township, including Alanson village.....	698	1,055	877	New Haven township.....	1,009	1,112	1,251
McKinley township, including Pellston village.....	1,494	2,120	354	Newark township.....	1,000	1,112	1,251
Maple River township.....	621	759	516	North Shade township.....	1,122	1,240	1,331
Petoskey city.....	5,064	4,778	5,285	North Star township.....	1,481	1,624	1,683
Pleasant View township.....	310	429	341	Pine River township <sup>15</sup> .....	1,242	1,342	1,213
Readmond township.....	511	600	479	St. Louis city <sup>15</sup> .....	3,036	1,940	1,489
Resort township.....	608	780	762	Seville township.....	1,415	1,359	1,403
Springvale township.....	408	737	630	Summer township.....	1,133	1,384	1,544
West Traverse township.....	297	336	344	Washington township.....	1,251	1,322	1,404
				Wheeler township, including Breckenridge village.....	2,177	2,059	1,889
<b>Genesee County.....</b>							
Argentine township.....	723	821	927	<b>Hillsdale County.....</b>			
Atlas township.....	1,199	1,120	1,199		28,161	29,673	29,865
Burton township.....	2,154	987	1,145	Adams township, including North Adams village.....	1,370	1,493	1,522
Clayton township.....	1,141	1,059	1,227	Allen township.....	1,159	1,253	1,328
Davison township, including Davison village.....	1,608	1,547	1,768	Amboy township.....	930	1,018	1,137
Fenton township, including Fenton and Linden villages.....	3,997	3,667	3,843	Cambria township.....	1,233	1,275	1,355
Flint city.....	91,599	38,550	13,103	Camden township, including Camden and Montgomery villages.....	1,766	1,965	1,926
Flint township.....	2,059	1,051	1,172	Fayette township, including Jonesville village.....	1,731	1,947	1,941
Flushing township, including Flushing village.....	2,198	2,075	2,132	Hillsdale city.....	5,476	5,001	4,151
Forest township, including Otisville village.....	1,338	1,371	1,600	Hillsdale township.....	413	447	447
Gaines township, including Gaines village.....	1,593	1,469	1,619	Jefferson township.....	1,442	1,557	1,601
Genesee township, including part of Mount Morris village.....	4,096	1,476	1,556	Litchfield township, including Litchfield village.....	1,037	1,641	1,617
Grand Blanc township.....	1,386	1,184	1,370	Moscow township.....	887	956	1,090
Montrose township, including Montrose village.....	1,590	1,612	1,859	Pittsford township.....	1,380	1,503	1,537
Mount Morris township, including part of Mount Morris village.....	2,450	1,131	1,158	Ransom township.....	978	1,091	1,215
Mundy township.....	1,170	1,168	1,368	Reading township, including Reading village.....	1,991	2,104	2,163
Richfield township.....	1,167	1,161	1,338	Scipio township.....	694	895	967
Thetford township.....	945	1,024	1,297	Somersett township.....	1,018	1,131	1,216
Vienna township, including Clio village.....	2,655	2,082	2,123	Wheatland township.....	988	1,097	1,195
				Woodbridge township.....	1,030	1,157	1,318
				Wright township, including Waldron village.....	2,038	2,142	2,149
<b>Gladwin County.....</b>							
Beaverton city.....	540	418	.....	<b>Houghton County.....</b>			
Beaverton township.....	698	581	756		71,930	88,098	68,063
Bentley township.....	541	443	534	Adams township, including South Range village.....	8,518	8,419	3,253
Billings township.....	225	270	333	Calumet township, including Laurium and Red Jacket villages.....	22,369	32,845	25,991
Bourret township <sup>13</sup> .....	113	247	156	Chassell township.....	1,795	1,623	1,088
Buckeye township.....	487	808	254	Duncan township.....	855	865	1,316
Butman township.....	587	720	359	Elm River township.....	790	1,073	532
Clement township.....	92	170	101	Franklin township.....	4,494	5,679	5,418
Gladwin city.....	1,225	988	775	Hancock city <sup>14</sup> .....	7,527	8,981	4,050
Gladwin township <sup>13</sup> .....	833	1,011	732	Hancock township <sup>14</sup> .....	283	351	1,945
Grout township.....	867	872	713	Laird township.....	986	690	668
Hay township.....	231	176	.....	Osceola township.....	5,455	7,715	7,615
Sage township.....	889	800	568	Portage township, including Houghton village.....	8,312	8,599	5,019
Secord township <sup>13</sup> .....	141	.....	.....	Quincy township.....	1,197	1,507	1,667
Sheridan township <sup>13</sup> .....	50	.....	.....				
Sherman township.....	554	543	213	<b>Footnotes:</b>			
Tobacco township.....	745	866	1,070	<sup>14</sup> GOGEBIC.—Wakefield village incorporated as a city and made independent of Wakefield township since 1910.			
				<sup>15</sup> GRATIOT.—Parts of Arcada and Pine River townships annexed to Alma city, and part of Pine River township annexed to St. Louis city, since 1910.			
				<sup>16</sup> HOUGHTON.—Part of Hancock township annexed to Hancock city since 1910.			

<sup>13</sup> GLADWIN.—Secord township organized from part of Gladwin, and Sheridan township organized from part of Bourret, since 1910.



# NUMBER AND DISTRIBUTION.

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TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900—Continued.

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>Kalamazoo County—Continued.</b>				<b>Lapeer County</b> ..... 25,782 26,033 27,641			
Schoolcraft township, including Schoolcraft village and part of Vicksburg village.....	2,342	2,577	2,138	Almont township, including Almont village.....	1,737	1,676	1,836
Texas township.....	694	799	837	Arcadia township.....	1,107	1,233	1,179
Wakeshma township.....	1,043	1,145	1,430	Attica township.....	1,080	1,128	1,301
<b>Kalkaska County</b> ..... 5,577 8,097 7,133				Burlington township, including Clifford village.....	1,180	1,154	1,292
Boardman township, including Boardman village.....	726	1,240	857	Burnside township.....	1,357	1,504	1,781
Clearwater township.....	604	878	882	Deerfield township.....	868	1,018	1,106
Cold Springs township.....	212	545	270	Dryden township, including Dryden village.....	1,151	1,230	1,226
Excelsior township.....	307	773	438	Elba township.....	873	830	984
Garfield township.....	296	278	262	Goodland township.....	814	893	1,093
Kalkaska township, including Kalkaska village.....	1,149	1,829	1,727	Hadley township.....	941	1,074	1,201
Oliver township.....	279	222	152	Imlay township, including Imlay City village.....	2,170	2,222	2,373
Orange township.....	459	534	591	Lapeer city.....	4,723	3,946	3,297
Rapid River township.....	385	616	657	Lapeer township.....	687	787	870
Springfield township.....	502	535	602	Marathon township, including Columbiaville and Otter Lake villages.....	1,841	1,554	1,686
Wilson township.....	90	319	409	Mayfield township.....	870	1,018	1,148
Township 25 north, range 5 west.....	51	34	79	Metamora township, including Metamora village.....	943	1,045	1,170
Township 25 north, range 6 west.....	60	95	133	North Branch township, including North Branch village.....	1,550	1,704	1,779
Township 26 north, range 5 west.....	62	74	14	Oregon township.....	804	907	1,067
Township 27 north, range 5 west.....	343	(19)	28	Rich township.....	1,106	1,110	1,252
Township 28 north, range 5 west.....	52	125	38	<b>Leelanau County</b> ..... 9,061 10,608 10,556			
<b>Kent County</b> ..... 183,041 159,145 129,714				Bingham township.....	638	744	811
Ada township.....	1,048	1,231	1,308	Centerville township.....	985	1,051	1,285
Algoma township, including part of Rockford village.....	2,055	1,968	1,982	Cleveland township.....	527	586	508
Alpine township.....	1,363	1,436	1,471	Elmwood township.....	604	744	824
Bowne township.....	1,136	1,274	1,340	Empire township, including Empire village.....	798	1,212	1,155
Byron township.....	2,202	2,045	1,944	Glen Arbor township.....	364	550	593
Caledonia township, including Caledonia village.....	1,898	1,609	1,593	Kasson township.....	799	838	685
Cannon township.....	837	837	1,055	Leelanau township, including Northport village.....	1,625	1,668	1,620
Cascade township.....	1,035	1,219	1,200	Leland township.....	1,189	1,248	946
Courtland township.....	947	1,104	1,311	Solon township.....	659	766	888
Galnes township.....	1,343	1,811	1,342	Suttons Bay township, including Suttons Bay village.....	1,025	1,201	1,243
Grand Rapids city.....	137,634	112,571	87,565	<b>Lenawee County</b> ..... 47,767 47,907 48,406			
Grand Rapids township, including East Grand Rapids village.....	5,260	4,598	2,748	Adrian city.....	11,878	10,763	9,654
Grattan township.....	860	1,030	1,102	Adrian township.....	1,608	1,665	1,708
Lowell township, including Lowell village.....	2,826	3,179	3,097	Blissfield township, including Blissfield village.....	2,618	2,806	2,139
Nelson township, including Sand Lake village and part of Cedar Springs village.....	1,786	1,974	2,132	Cambridge township, including Onsted village.....	1,064	1,281	1,125
Oakfield township.....	739	838	924	Clinton township, including Clinton village.....	1,350	1,475	1,483
Paris township.....	2,036	2,572	2,058	Deerfield township, including Deerfield village.....	1,359	1,893	1,623
Plainfield township, including part of Rockford village.....	1,971	1,893	1,771	Dover township, including part of Clayton village.....	1,213	1,279	1,307
Solon township, including part of Cedar Springs village.....	1,399	1,556	1,631	Fairfield township.....	1,673	1,909	2,209
Sparta township, including Sparta village and part of Lisbon village.....	2,698	2,609	2,898	Franklin township.....	1,120	1,194	1,197
Spencer township.....	836	1,016	1,185	Hudson city.....	2,464	2,178	2,403
Tyrene township, including Kent City village and part of Casnovia village.....	1,490	1,766	1,613	Hudson township, including part of Clayton village.....	1,138	1,244	1,220
Vergennes township.....	807	889	982	Macon township.....	952	1,013	1,117
Walker township.....	2,833	2,558	2,166	Madison township.....	1,248	1,318	1,348
Wyoming township, including Grandville village.....	6,501	5,964	3,396	Medina township.....	1,357	1,419	1,447
<b>Keweenaw County</b> ..... 6,322 7,156 3,217				Ogden township.....	1,450	1,698	2,069
Allouez township, including Ahmeek village.....	5,338	5,672	1,610	Palmyra township.....	1,499	1,532	1,663
Eagle Harbor township.....	243	193	1,346	Raisin township.....	1,201	1,340	1,343
Houghton township.....	66	443	157	Ridgeway township, including Britton village.....	1,233	1,346	1,607
Grant township.....	76	258	104	Riga township.....	1,739	1,944	2,189
Sherman township.....	599	585	104	Rollin township, including part of Addison village.....	1,409	1,457	1,519
<b>Lake County</b> ..... 4,437 4,939 4,957				Rome township.....	1,033	1,057	1,204
Chase township.....	843	999	1,075	Seneca township, including Moranci village.....	2,953	2,893	2,638
Cherry Valley township <sup>19</sup> .....	124	239	211	Tecumseh township, including Tecumseh village.....	2,845	2,793	2,948
Dover township.....	279	373	396	Woodstock township, including part of Addison village.....	1,473	1,531	1,432
Eden township.....	173	103	21	<b>Livingston County</b> ..... 17,522 17,736 19,664			
Elk township <sup>20</sup> .....	334	221	245	Brighton township, including Brighton village.....	1,337	1,402	1,505
Ellsworth township, including part of Luther village.....	542	799	1,080	Cohoctah township.....	1,113	1,152	1,340
Lake township.....	212	201	177	Conway township.....	981	1,104	1,203
Newkirk township, including part of Luther village.....	458	624	811	Deerfield township.....	771	816	898
Peacock township <sup>20</sup> .....	91	336	373	Genoa township.....	682	762	843
Pinora township.....	313	336	373	Green Oak township.....	692	691	770
Pleasant Plains township, including Marlborough village and part of Baldwin village.....	583	690	416	Hamburg township.....	641	701	876
Sauble township <sup>20</sup> .....	195	149	.....	Handy township, including Fowlerville village.....	1,921	1,849	1,969
Sweet Water township.....	102	.....	.....	Hartland township.....	790	830	969
Webber township, <sup>20</sup> including part of Baldwin village.....	91	205	152	Howell city <sup>21</sup> .....	2,951	2,338	2,518
Yates township <sup>20</sup> .....	92	.....	.....	Howell township <sup>21</sup> .....	738	784	937
				Iscoco township <sup>21</sup> .....	603	753	908
				Marion township <sup>21</sup> .....	1,071	1,940	2,101
				Oceola township.....	752	758	865
				Putnam township, including Pinckney village.....	922	1,118	1,201
				Tyrone township.....	737	820	911
				Unadilla township.....	835	909	930

<sup>19</sup> KALKASKA.—No population reported in 1910 for township 27 north, range 5 west.  
<sup>20</sup> LAKE.—Townships organized since 1910: Peacock from part of Webber; Sauble from part of Elk; Yates from part of Cherry Valley.

<sup>21</sup> LIVINGSTON.—Howell village incorporated as a city and made independent of Howell and Marion townships since 1910.



TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900—Continued.

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>Luce County.</b>	<b>6,149</b>	<b>4,004</b>	<b>2,983</b>	<b>Mason County.</b>	<b>19,831</b>	<b>21,832</b>	<b>18,885</b>
Columbus township.	525	411	204	Amber township.	819	964	1,062
Lakefield township.	630	454	297	Branch township.	354	409	614
McMillan township, including Newberry village.	3,058	1,811	1,857	Custer township, including Custer village.	1,327	1,287	1,254
Pontland township.	1,936	1,328	625	Eden township.	704	815	782
				Freesoil township, including Freesoil village.	865	1,162	1,112
				Grant township.	512	673	569
				Hamlin township.	236	345	203
				Logan township.	240	282	.....
				Ludington city.	8,132	9,132	7,166
				Meadel township.	91	87	.....
				Pere Marquette township.	773	845	965
				Riverton township.	1,102	1,456	1,488
				Scottville city.	1,045	891	554
				Sheridan township.	540	587	461
				Sherman township, including Fountain village.	1,035	1,259	1,026
				Summit township.	504	558	486
				Victory township.	874	1,070	1,053
<b>Mackinac County.</b>	<b>8,026</b>	<b>9,249</b>	<b>22 7,703</b>	<b>Mecosta County.</b>	<b>17,765</b>	<b>19,466</b>	<b>20,693</b>
Bois Blanc township.	63	219	226	Aetna township, including part of Morley village.	784	902	946
Brevort township.	527	632	377	Austin township.	557	648	713
Clark township.	859	876	.....	Big Rapids city.	4,558	4,519	4,086
Garfield township.	1,193	1,186	601	Big Rapids township.	601	668	683
Hendricks township.	464	441	727	Chippewa township.	666	803	870
Hudson township.	525	490	.....	Colfax township.	720	841	911
Mackinac Island city.	493	714	665	Deerfield township, including part of Morley village.	997	1,061	1,114
Marquette township.	525	490	445	Fork township, including Barryton village.	1,117	1,216	1,435
Moran township.	433	475	329	Grant township.	408	564	636
Newton township.	557	838	1,040	Green township.	639	1,209	1,404
Portage township.	228	363	173	Hinton township.	945	1,055	1,310
St. Ignace city.	1,852	2,118	2,271	Martiny township.	656	720	745
St. Ignace township.	302	402	185	Mecosta township, including Stanwood village.	786	887	926
				Millbrook township.	1,149	1,321	1,210
				Morton township, including Mecosta village.	793	905	966
				Sheridan township.	711	788	864
				Wheatland township.	1,288	1,294	1,274
<b>Macomb County.</b>	<b>38,103</b>	<b>32,606</b>	<b>33,244</b>	<b>Menominee County.</b>	<b>23,778</b>	<b>25,648</b>	<b>27,046</b>
Armada township, including Armada village.	1,579	1,718	1,933	Cedarville township.	902	1,157	813
Bruce township, including part of Romeo village.	1,977	1,887	1,789	Harris township.	1,621	1,561	.....
Chesterfield township, including part of New Baltimore village.	1,880	1,881	2,093	Holmes township.	1,051	807	612
Clinton township, including part of Fraser village.	2,123	1,856	1,825	Ingallston township.	883	931	769
Erin township, including part of Fraser village.	2,791	2,225	2,440	Lake township.	613	1,062	1,022
Harrison township.	683	600	721	Mellen township.	808	1,063	1,022
Laketownship, including part of Grosse Pointe Shores village.	1,346	.....	.....	Menominee city.	8,907	10,507	12,818
Lenox township, including New Haven village and part of Richmond village.	2,371	2,251	2,351	Menominee township.	1,428	1,405	1,290
Macomb township.	1,640	1,580	1,677	Meyer township.	1,439	1,628	1,387
Mount Clemens city.	9,488	7,707	6,576	Nadeau township.	1,861	1,918	2,003
Ray township.	1,194	1,240	1,363	Spalding township, including Powers village.	1,377	1,759	3,326
Richmond township, including parts of Memphis and Richmond villages.	1,914	2,171	2,275	Stephenson township, including Daggett and Stephenson villages.	2,828	2,913	3,006
Shelby township, including part of Utica village.	1,544	1,497	1,726				
Sterling township, including part of Utica village.	1,729	1,675	1,915				
Warren township, including Warren village.	3,564	2,446	2,567				
Washington township, including part of Romeo village.	2,300	1,893	1,993				
<b>Manistee County.</b>	<b>20,899</b>	<b>26,688</b>	<b>27,856</b>	<b>Midland County.</b>	<b>17,237</b>	<b>14,005</b>	<b>14,439</b>
Arcadia township.	893	994	881	Coleman city.	769	909	1,014
Bear Lake township, including Bear Lake village.	1,217	1,584	1,428	Edenville township.	467	510	763
Brown township.	731	752	799	Geneva township.	721	699	584
Cleon township, including Copemish village.	906	1,857	1,237	Greendale township.	246	337	247
Dickson township.	429	425	.....	Homer township.	598	570	657
Eller township.	1,515	1,969	2,283	Hopetownship.	659	751	752
Manistee city.	9,694	12,381	14,280	Ingersoll township.	1,191	1,218	1,304
Manistee township, including East Lake village.	1,781	2,990	3,128	Jasper township.	800	886	1,019
Maple Grove township.	928	903	508	Jerome township.	524	515	533
Marilla township.	507	550	404	Larkin township.	808	777	702
Norman township.	399	.....	.....	Lee township.	434	444	558
Onkama township, including Onkama village.	683	784	920	Lincoln township.	357	392	343
Pleasanton township.	553	685	659	Midland city.	5,483	2,527	2,363
Springdale township.	340	581	558	Midland township.	1,630	1,023	1,057
Stromach township.	318	733	791	Millis township.	324	297	241
				Mount Haley township.	665	685	683
				Porter township.	711	657	779
				Warren township.	844	809	860
<b>Marquette County.</b>	<b>45,786</b>	<b>46,739</b>	<b>41,239</b>	<b>Missaukee County.</b>	<b>9,004</b>	<b>10,606</b>	<b>9,308</b>
Champion township.	620	1,069	1,707	Aetna township.	545	631	384
Chocoy township.	735	852	662	Bloomfield township.	263	390	284
Ely township.	1,024	922	303	Butterfield township.	283	323	221
Forsyth township.	2,945	2,402	595	Caldwell township.	561	687	708
Humboldt township.	627	604	341	Clam Union township.	882	1,381	987
Ishpeming city.	10,500	12,448	13,255	Enterprise township.	150	174	.....
Ishpeming township.	1,044	687	860	Forest township.	326	389	285
Marquette city.	12,718	11,503	10,058	Holland township.	328	.....	.....
Marquette township.	207	155	200	Lake township, including part of Lake City village.	1,207	1,405	1,099
Michigamme township.	449	846	1,143	McBain city.	547	546	709
Negaunee city.	7,419	8,460	6,935	Norwich township.	417	695	789
Negaunee township.	92	157	94	Pioneer township.	161	196	263
Powell township.	554	736	.....	Reeder township, including part of Lake City village.	1,196	1,335	1,439
Republic township.	2,074	2,420	2,293	Richland township.	971	1,187	1,052
Richmond township.	932	911	832	Riverside township.	837	841	773
Sands township.	171	159	192	West Branch township.	330	426	315
Skandia township.	313	546	333				
Tilden township.	1,097	1,150	1,448				
Turin township.	964	202	141				
Well township.	506	306	.....				
West Branch township.	290	304	282				

<sup>22</sup> MACKINAC.—Total for 1900 includes population (658) of Cedar and Sherwood townships, taken to form Clark township between 1900 and 1910.

<sup>23</sup> MACOMB.—Lake township organized from part of Erin township since 1910.

<sup>24</sup> MANISTEE.—Norman township organized from part of Stromach township since 1910.

<sup>25</sup> MENOMINEE.—Lake township organized from part of Stephenson township since 1910.

<sup>26</sup> MISSAUKEE.—Holland township organized from part of Clam Union township since 1910.

# NUMBER AND DISTRIBUTION.

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TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900—Continued.

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>Monroe County</b> .....	<b>37,115</b>	<b>32,917</b>	<b>32,754</b>	<b>Newaygo County—Continued.</b>			
Ash township, including Carleton village.....	1,735	1,840	1,913	Denver township, including part of Hesperia village.....	886	1,120	1,193
Bedford township.....	2,689	2,213	2,179	Ensley township.....	933	1,184	1,184
Berlin township.....	1,667	1,687	1,820	Everett township.....	409	438	390
Dundee township, including Dundee village.....	2,801	2,942	3,061	Fremont city <sup>29</sup> .....	2,180	2,009	1,331
Erie township.....	1,226	1,477	1,426	Garfield township, including part of Newaygo village.....	1,254	1,410	1,387
Exeter township, including Maybee village.....	1,558	1,550	1,096	Goodwell township.....	431	405	350
Frenchtown township.....	1,840	1,770	1,938	Grant township.....	647	730	612
Ida township.....	1,587	1,633	1,809	Home township <sup>29</sup> .....	245	466	310
La Salle township.....	1,269	1,293	1,320	Lilley township <sup>29</sup> .....	146	.....	.....
London township.....	1,032	1,128	1,271	Lincoln township.....	352	454	411
Milan township, including part of Milan village.....	1,672	1,943	2,111	Merrill township <sup>29</sup> .....	119	.....	.....
Monroe city.....	11,573	6,893	5,043	Monroe township <sup>29</sup> .....	232	327	439
Monroe township.....	1,232	1,141	1,137	Norwich township.....	336	453	402
Raisinville township.....	1,541	1,693	1,811	Sheridan township <sup>29</sup> .....	1,279	2,198	2,251
Summerfield township, including Petersburg village.....	1,902	2,008	2,169	Sherman township.....	651	730	734
Whiteford township.....	1,741	1,686	2,050	Troy township <sup>29</sup> .....	125	217	224
				Wilcox township, including White Cloud village.....	1,079	1,093	1,000
<b>Montcalm County</b> .....	<b>30,441</b>	<b>32,069</b>	<b>32,754</b>	<b>Oakland County</b> .....	<b>80,050</b>	<b>49,576</b>	<b>44,792</b>
Belvidere township.....	1,227	1,297	1,201	Addison township, including Leonard village.....	946	1,043	1,116
Bloomer township, including Carson City village.....	2,077	2,040	2,254	Avon township, including Rochester village.....	3,870	2,657	2,584
Bushnell township, including part of Sheridan village.....	1,050	1,178	1,216	Bloomfield township, including Birmingham village.....	6,092	2,833	2,296
Cato township, including Lakeview village.....	1,831	1,976	2,087	Brandon township, including Ortonville village.....	1,204	1,129	1,179
Crystal township.....	1,283	1,475	1,445	Commerce township.....	914	986	1,124
Day township, including McBride village.....	1,331	1,420	1,438	Farmington township, including Farmington village.....	2,170	1,788	1,753
Douglas township.....	1,042	1,132	1,104	Groveland township.....	662	772	828
Eureka township.....	714	746	816	Highland township.....	1,075	1,040	1,142
Evergreen township, including part of Sheridan village.....	2,208	1,398	1,367	Holly township, including Holly village.....	2,678	2,278	2,286
Fairplain township, including part of Sheridan village.....	961	1,171	1,183	Independence township, including Clarkston village.....	1,081	1,144	1,191
Ferris township.....	870	1,148	1,163	Lyon township, including South Lyon village.....	1,412	1,427	1,569
Greenville city.....	4,304	4,045	3,381	Milford township, including Milford village.....	1,739	1,660	1,866
Home township, including Edmore village.....	1,876	1,819	1,653	Novi township.....	1,227	1,226	1,245
Maple Valley township.....	1,472	1,698	1,842	Oakland township.....	706	702	870
Montcalm township.....	926	1,131	1,310	Orion township, including Orion village.....	1,586	1,393	1,507
Pierson township, including Pierson village.....	929	1,129	1,250	Oxford township, including Oxford village.....	2,415	1,934	1,990
Pine township.....	970	1,114	1,186	Pontiac city.....	34,273	14,532	9,769
Reynolds township, including Howard City village.....	1,295	1,544	2,015	Pontiac township.....	1,216	953	1,016
Richland township.....	1,104	1,200	1,136	Rose township.....	707	842	862
Sidney township, including part of Sheridan village.....	1,248	1,414	1,378	Royal Oak township, including Ferndale and Royal Oak villages.....	15,432	2,801	2,012
Stanton city.....	862	1,012	1,234	Southfield township.....	1,319	1,288	1,378
Winfield township.....	861	932	1,095	Springfield township.....	857	821	806
				Troy township.....	2,520	1,507	1,527
<b>Montmorency County</b> .....	<b>4,089</b>	<b>3,755</b>	<b>3,234</b>	Waterford township.....	1,354	1,065	1,079
Albert township.....	302	882	827	West Bloomfield township.....	1,903	1,113	999
Avery township.....	332	182	.....	White Lake township.....	632	642	718
Briley township.....	784	563	417				
Hillman township, including Hillman village.....	944	834	819	<b>Oceana County</b> .....	<b>15,601</b>	<b>18,379</b>	<b>16,644</b>
Loud township <sup>27</sup> .....	109	.....	.....	Benona township.....	878	1,140	1,173
Montmorency township.....	535	500	446	Claybanks township.....	621	732	712
Rust township <sup>27</sup> .....	615	470	371	Colfax township.....	318	465	314
Vienna township.....	488	324	355	Crystal township.....	648	789	665
				Elbridge township.....	1,234	1,487	1,414
<b>Muskegon County</b> .....	<b>62,362</b>	<b>40,577</b>	<b>37,036</b>	Ferry township.....	808	961	972
Blue Lake township.....	114	143	149	Golden township.....	738	975	958
Casnovia township, including part of Casnovia village.....	1,485	1,686	1,940	Grant township.....	831	924	840
Cedar Creek township.....	318	397	367	Greenwood township.....	499	594	482
Dalton township.....	652	822	815	Hart township, including Hart village.....	2,669	2,963	2,995
Eggleston township.....	324	377	319	Leavitt township, including Walkerville village.....	834	1,071	1,052
Fruitland township.....	612	783	844	Newfield township, including part of Hesperia village.....	749	935	874
Fruitport township, including part of Fruitport village.....	1,073	958	927	Otto township.....	218	255	171
Holton township.....	809	915	846	Pentwater township, including Pentwater village.....	1,018	1,237	1,138
Laketon township.....	333	343	419	Shelby township, including Shelby village.....	2,625	2,811	2,583
Montague township, including Montague village.....	1,160	1,315	1,384	Weare township.....	918	1,007	915
Moorland township.....	632	711	898				
Muskegon city <sup>28</sup> .....	36,570	24,062	20,818	<b>Ogemaw County</b> .....	<b>7,786</b>	<b>8,907</b>	<b>30 7,765</b>
Muskegon township <sup>28</sup> .....	3,427	1,248	840	Churchill township.....	648	573	594
Muskegon Heights city.....	9,514	1,690	1,012	Cumming township.....	473	556	673
North Muskegon city.....	630	352	513	Edwards township.....	618	651	691
Norton township.....	1,263	919	880	Foster township.....	92	127	115
Ravenna township.....	1,280	1,439	1,492	Goodar township.....	277	497	331
Sullivan township.....	479	413	447	Hill township.....	354	408	358
White River township.....	380	461	574	Horton township.....	279	358	287
Whitehall township, including Whitehall village.....	1,307	1,543	1,582	Klacking township.....	406	380	383
				Logan township.....	457	372	236
<b>Newaygo County</b> .....	<b>17,378</b>	<b>19,220</b>	<b>17,673</b>	Mills township <sup>30</sup> .....	224	.....	.....
Ashland township, including Grant village.....	1,430	1,570	1,523	Ogemaw township <sup>30</sup> .....	297	.....	.....
Barton township.....	592	611	743	Richland township <sup>30</sup> .....	737	903	111
Beaver township <sup>29</sup> .....	458	643	503	Rose City.....	331	542	.....
Big Prairie township.....	394	449	394	Rose township.....	538	900	1,000
Bridgeton township.....	439	516	585	West Branch city.....	1,105	1,276	1,412
Brooks township, including part of Newaygo village.....	1,099	1,038	1,009	West Branch township <sup>30</sup> .....	900	1,324	913
Croton township, including Croton village.....	394	491	509				
Dayton township <sup>29</sup> .....	1,263	29 1,368	29 1,209				

<sup>27</sup> MONTMORENCY.—Loud township organized from part of Rust township since 1910.

<sup>28</sup> MUSKEGON.—Part of Muskegon township annexed to Muskegon city since 1910.

<sup>29</sup> NEWAYGO.—Lilley township organized from parts of Home and Troy, and Merrill township organized from parts of Beaver and Monroe, since 1910. Fremont village incorporated as a city and made independent of Dayton and Sheridan townships since 1910.

<sup>30</sup> OGEAW.—Total for 1900 includes population (761) of old Mills township, annexed to Richland township between 1900 and 1910. Mills township organized from part of Richland, and Ogemaw township organized from part of West Branch, since 1910.

TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900—Continued.

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>Ontonagon County</b> .....	<b>12,428</b>	<b>8,650</b>	<b>6,197</b>	<b>Presque Isle County—Continued.</b>			
Bergland township <sup>21</sup> .....	671	.....	.....	Metz township.....	582	700	571
Bohemia township.....	331	207	263	Moltke township.....	541	508	511
Carp Lake township.....	907	139	69	North Allis township.....	245	455	.....
Greenland township.....	2,606	1,828	1,360	Oceueoc township.....	456	397	.....
Haight township.....	457	210	239	Onaway city.....	2,789	2,702	1,204
Interior township.....	1,136	479	274	Posen township, including Posen village.....	1,263	1,286	1,681
McMillan township.....	1,081	458	868	Presque Isle township.....	98	105	137
Matchwood township <sup>21</sup> .....	220	554	150	Fulawski township.....	400	459	.....
Ontonagon township, including Ontonagon village.....	2,429	2,437	1,618	Rogers township, including Rogers village.....	2,648	978	800
Rockland township.....	1,430	1,842	1,265				
Stannard township.....	1,160	498	.....	<b>Roscommon County</b> .....	<b>2,032</b>	<b>2,274</b>	<b>34 1,787</b>
<b>Osceola County</b> .....	<b>15,221</b>	<b>17,889</b>	<b>17,859</b>	Backus township.....	56	85	.....
Burdell township, including Tustin village.....	906	1,183	1,359	Denton township.....	71	76	84
Cedar township.....	228	219	314	Gerish township.....	323	337	129
Evart township, including part of Evart village.....	1,019	1,077	1,194	Higgins township, including Roscommon village.....	441	503	584
Hartwick township.....	519	652	540	Lake township <sup>24</sup> .....	206	.....	.....
Hersey township, including Hersey village.....	926	1,061	1,167	Markey township.....	144	197	76
Highland township.....	1,132	1,417	792	Nester township.....	118	239	269
Le Roy township, including Le Roy village.....	799	1,093	1,312	Richfield township.....	331	401	147
Lincoln township.....	842	1,020	1,250	Roscommon township <sup>24</sup> .....	342	436	396
Marion township, including Marion village.....	1,428	1,562	1,263				
Middle Branch township.....	425	520	518	<b>Saginaw County</b> .....	<b>100,286</b>	<b>89,290</b>	<b>81,222</b>
Orient township.....	654	673	758	Albee township.....	1,067	1,065	913
Osceola township, including part of Evart village.....	1,476	1,705	1,697	Birch Run township.....	1,432	1,422	1,430
Richmond township, including Reed City village.....	2,748	2,855	3,401	Blumfield township.....	1,404	1,481	1,458
Rose Lake township.....	469	704	659	Brady township, including Oakley village.....	1,224	1,453	1,504
Sherman township.....	1,091	1,451	1,002	Brant township.....	1,033	1,162	1,286
Sylvan township.....	559	724	653	Bridgeport township.....	1,335	1,704	1,873
<b>Oscoda County</b> .....	<b>1,783</b>	<b>2,027</b>	<b>1,488</b>	Buena Vista township <sup>25</sup> .....	5,149	3,737	3,585
Big Creek township.....	444	432	349	Carrollton township.....	2,498	2,128	1,952
Clinton township.....	198	207	.....	Chapin township.....	662	757	855
Comins township.....	680	745	681	Chesaning township, including Chesaning village.....	2,499	2,529	2,540
Elmer township <sup>22</sup> .....	242	396	319	Frankenmuth township, including Frankenmuth village.....	1,944	2,014	2,063
Greenwood township <sup>22</sup> .....	81	.....	.....	Fremont township.....	1,082	1,149	1,141
Mentor township.....	138	247	119	James township.....	550	607	610
<b>Otsego County</b> .....	<b>6,043</b>	<b>6,552</b>	<b>6,175</b>	Jonesfield township, including Merrill village.....	1,374	1,337	1,318
Bagley township, including part of Gaylord village.....	1,375	1,420	1,325	Kochville township.....	729	840	872
Charlton township.....	573	462	176	Lakefield township.....	715	788	710
Chester township.....	365	323	325	Maple Grove township.....	1,418	1,382	1,610
Corwith township, including Vanderbilt village.....	980	1,085	1,090	Marion township.....	610	641	810
Dover township.....	489	598	354	Richland township.....	1,568	1,676	1,680
Elmira township.....	607	604	658	Saginaw city <sup>23</sup> .....	61,903	50,510	42,345
Hayes township.....	181	296	254	Saginaw township.....	1,524	1,454	1,244
Livingston township, including part of Gaylord village.....	1,351	1,361	1,506	St. Charles township, including St. Charles village.....	2,706	3,064	2,925
Otsego Lake township.....	115	403	487	Spaulding township.....	500	532	555
<b>Ottawa County</b> .....	<b>47,660</b>	<b>45,301</b>	<b>39,667</b>	Swan Creek township.....	699	678	688
Allendale township.....	1,307	1,489	1,429	Taymouth township.....	1,438	1,616	1,722
Blendon township.....	1,790	1,700	1,680	Thomas township.....	973	1,162	1,185
Chester township, including part of Lisbon village.....	1,358	1,459	1,502	Tittabawassee township.....	1,510	1,736	1,576
Crocker township.....	1,239	1,387	1,518	Zilwaukee township.....	740	741	893
Georgetown township.....	2,335	2,330	1,878				
Grand Haven city.....	7,205	5,856	4,743	<b>St. Clair County</b> .....	<b>58,009</b>	<b>52,341</b>	<b>55,228</b>
Grand Haven township.....	866	813	823	Berlin township.....	1,089	1,214	1,267
Holland city.....	12,533	10,490	7,790	Brookway township.....	871	953	1,200
Holland township <sup>23</sup> .....	2,962	3,558	3,268	Burtchville township.....	386	455	532
Jamestown township.....	1,387	1,994	2,015	Casco township.....	1,272	1,413	1,722
Olive township.....	1,687	2,080	2,073	China township.....	1,103	1,189	1,318
Park township <sup>23</sup> .....	851	.....	.....	Clay township, including Algonac village.....	2,103	2,182	2,462
Polkton township, including Coopersville village.....	2,344	2,444	2,298	Clyde township.....	628	791	948
Robinson township.....	794	899	729	Columbus township.....	880	964	1,054
Spring Lake township, including Spring Lake village and part of Fruitport village.....	2,091	1,920	1,785	Cottrellville township.....	864	1,070	1,130
Tallmadge township.....	1,226	1,342	1,405	East China township.....	419	327	257
Wright township.....	1,474	1,659	1,609	Emmett township, including Emmett village.....	763	1,005	1,155
Zeeland city.....	2,275	1,982	1,326	Fort Gratiot township.....	628	597	774
Zeeland township.....	1,816	1,869	1,956	Grant township.....	705	810	923
<b>Presque Isle County</b> .....	<b>12,131</b>	<b>11,249</b>	<b>8,821</b>	Greenwood township.....	876	987	1,236
Allis township.....	593	546	554	Ira township, including part of New Baltimore village.....	952	1,040	1,304
Bearinger township.....	86	244	198	Kenockee township.....	976	1,071	1,264
Belknap township.....	822	1,255	1,108	Kimball township.....	938	1,151	1,437
Bismarck township.....	394	285	273	Lynn township.....	688	818	859
Case township, including Millersburg village.....	675	866	1,291	Marine City.....	3,731	3,770	3,829
Krakow township.....	479	455	496	Mussey township, including Capac village.....	1,603	1,743	1,617
				Port Huron city.....	25,944	18,863	19,158
				Port Huron township, including part of Marysville village.....	2,642	1,934	1,666
				Riley township, including part of Memphis village.....	1,168	1,324	1,462
				St. Clair city.....	3,204	2,633	2,543
				St. Clair township, including part of Marysville village.....	1,193	1,866	1,554
				Wales township.....	1,160	1,348	1,432
				Yale city.....	1,228	1,223	1,125

<sup>21</sup> ONTONAGON.—Bergland township organized from part of Matchwood township since 1910.

<sup>22</sup> OSCODA.—Greenwood township organized from part of Elmer township since 1910.

<sup>23</sup> OTTAWA.—Park township organized from part of Holland township since 1910.

<sup>24</sup> ROSCOMMON.—Total for 1900 includes population (102) of St. Helen township, annexed to Higgins and Richfield townships between 1900 and 1910. Lake township organized from part of Roscommon township since 1910.

<sup>25</sup> SAGINAW.—Part of Buena Vista township (population, 3,745) annexed to Saginaw city Apr. 6, 1920. Total population of city including annexation, 65,648.

# NUMBER AND DISTRIBUTION.

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**TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900—Continued.**

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>St. Joseph County</b> .....	<b>26,818</b>	<b>25,499</b>	<b>23,889</b>	<b>Tuscola County</b> .....	<b>33,320</b>	<b>34,913</b>	<b>35,890</b>
Burr Oak township, including Burr Oak village.....	1,330	1,559	1,608	Akron township, including Akron village.....	2,164	2,274	2,060
Colon township, including Colon village.....	1,513	1,712	1,842	Almer township.....	1,091	1,256	1,239
Constantine township, including Constantine village.....	1,926	1,910	1,919	Arbela township.....	942	1,053	1,238
Fabius township.....	716	783	838	Columbia township, including Unionville village.....	1,892	1,973	1,772
Fawn River township.....	490	521	526	Dayton township.....	1,023	1,201	1,309
Florence township.....	566	651	665	Denmark township, including Reese village.....	1,899	2,091	1,972
Flowerfield township.....	791	954	1,048	Elkland township, including Cass City village.....	2,126	2,042	2,133
Leonidas township.....	916	1,154	1,269	Elmwood township.....	748	879	867
Lockport township.....	647	680	731	Fairgrove township, including Fairgrove village.....	1,513	1,669	1,593
Mendon township, including Mendon village.....	1,305	1,600	1,776	Fronton township, including Fairgrove village.....	1,715	2,034	1,920
Mottville township.....	401	494	493	Gilford township.....	1,215	1,718	2,066
Nottawa township, including Centreville village.....	1,510	1,511	1,577	Indian Fields township, including Caro village.....	4,103	2,993	2,878
Park township.....	707	824	891	Juniata township.....	850	1,042	1,150
Sherman township.....	757	691	765	Kingston township, including part of Kingston village.....	1,181	1,235	1,385
Sturgis city.....	5,995	3,635	2,465	Koylton township, including part of Kingston village.....	843	935	1,047
Sturgis township.....	529	498	488	Millington township, including Millington village.....	1,539	1,575	1,772
Three Rivers city.....	5,209	5,072	3,550	Novesta township.....	1,101	1,021	1,073
White Pigeon township, including White Pigeon village.....	1,510	1,250	1,348	Tuscola township.....	1,169	1,178	1,328
<b>Sanilac County</b> .....	<b>31,237</b>	<b>33,930</b>	<b>35,055</b>	Vassar township, including Vassar village.....	2,133	2,560	2,884
Argyle township.....	1,028	1,203	1,107	Watertown township.....	1,046	1,179	1,217
Austin township.....	794	966	1,010	Wells township.....	780	881	1,035
Bridgehampton township, including part of Carsonville village.....	1,059	1,207	1,327	Wisner township.....	663	823	709
Brown City.....	828	690	603	<b>Van Buren County</b> .....	<b>30,715</b>	<b>33,185</b>	<b>33,274</b>
Buel township.....	984	1,112	985	Almena township.....	738	868	1,016
Croswell city.....	1,678	1,380	806	Antwerp township, including Lawton village.....	2,290	2,320	2,164
Custer township.....	943	1,052	1,051	Arlington township, including part of Bangor village.....	1,289	1,500	1,440
Delaware township, including Forestville village.....	1,260	1,516	2,042	Bangor township, including part of Bangor village.....	2,262	2,424	2,482
Elk township, including Peck village.....	1,335	1,320	1,539	Bloomington township, including Bloomington village and part of Gobleville village.....	1,685	2,011	1,753
Elmer township.....	925	833	1,002	Columbia township, including Breedsville village.....	1,313	1,473	1,591
Evergreen township.....	898	1,094	1,063	Covert township.....	1,215	1,522	1,728
Flynn township.....	802	955	1,049	Decatur township, including Decatur village.....	2,253	2,106	2,098
Forester township.....	557	687	909	Geneva township.....	1,304	1,426	1,659
Fremont township.....	937	1,043	1,062	Hamilton township.....	736	952	855
Greenleaf township.....	754	842	893	Hartford township, including Hartford village.....	2,576	2,597	2,403
Lamotte township.....	966	1,043	1,036	Keeler township.....	925	1,037	995
Lexington township, including Lexington village.....	1,412	1,641	2,047	Lawrence township, including Lawrence village.....	1,596	1,764	1,683
Maple Valley township.....	888	1,019	1,143	Paw Paw township, including Paw Paw village.....	2,611	2,779	2,457
Marion township, including Deckerville village.....	1,574	1,755	1,838	Pine Grove township, including part of Gobleville village.....	1,292	1,522	1,524
Marlette township, including Marlette village.....	2,190	2,438	2,669	Porter township.....	816	994	1,028
Minden township, including Minden City village.....	865	990	1,068	South Haven city.....	3,829	3,577	4,009
Moore township.....	1,132	1,093	1,019	South Haven township.....	1,067	1,218	1,559
Sandusky city.....	1,223	993	678	Waverly township.....	909	1,095	1,130
Sanilac township, including Port Sanilac village.....	1,069	1,385	1,682	<b>Washtenaw County</b> .....	<b>49,520</b>	<b>44,714</b>	<b>47,761</b>
Speaker township, including Melvin village.....	1,008	1,229	1,331	Ann Arbor city.....	19,513	14,817	14,500
Washington township, including Applegate village and part of Carsonville village.....	1,447	1,508	1,566	Ann Arbor township.....	1,051	989	1,036
Watertown township.....	958	985	1,106	Augusta township.....	1,395	1,485	1,739
Wheatland township.....	830	915	742	Bridgewater township.....	878	981	1,011
Worth township.....	910	1,036	1,182	Dexter township.....	506	543	606
<b>Schoolcraft County</b> .....	<b>9,977</b>	<b>8,681</b>	<b>7,889</b>	Freedom township.....	869	924	1,013
Doyle township.....	457	524	750	Lima township, including part of Chelsea village.....	964	875	961
Germfask township.....	448	504	319	Lodi township, including part of Saline village.....	966	1,053	1,121
Hiawatha township.....	531	568	284	Lyndon township.....	527	528	665
Inwood township.....	730	374	673	Manchester township, including Manchester village.....	1,746	1,848	2,146
Manistique city.....	6,380	4,722	4,126	Northfield township.....	953	1,156	1,266
Manistique township.....	553	490	302	Pittsfield township, including part of Saline village.....	1,017	970	1,050
Mueller township.....	371	318	848	Salem township.....	938	1,034	1,158
Seney township.....	112	126	254	Salinetownship, including part of Saline village.....	1,509	1,617	1,668
Thompson township.....	395	753	664	Selo township, including Dexter village.....	1,313	1,642	1,893
<b>Shiawassee County</b> .....	<b>35,924</b>	<b>33,246</b>	<b>33,866</b>	Sharon township.....	709	897	984
Antrim township.....	760	810	904	Superior township.....	778	917	1,039
Bennington township.....	1,033	1,031	1,287	Sylvan township, including part of Chelsea village.....	2,620	2,409	2,496
Burns township, including Byron village.....	1,157	1,332	1,403	Webster township.....	617	784	747
Caledonia township.....	1,264	1,404	1,383	York township, including parts of Milan and Saline villages.....	2,182	2,003	1,952
Corunna city.....	1,571	1,384	1,610	Ypsilanti city.....	7,413	6,230	7,378
Fairfield township.....	794	885	985	Ypsilanti township.....	1,083	1,082	1,233
Hazelton township.....	1,461	1,595	1,747	<b>Wayne County</b> .....	<b>1,177,645</b>	<b>531,591</b>	<b>348,793</b>
Middlebury township.....	740	794	848	Brownstown township.....	2,161	2,045	2,031
New Haven township.....	1,338	1,411	1,599	Canton township.....	1,219	1,113	1,218
Owosso city.....	12,575	9,639	8,096	Dearborn township, including Dearborn village.....	5,206	2,761	2,762
Owosso township.....	1,273	1,230	1,175	Detroit city.....	993,678	465,766	285,704
Perry township, including Morrice and Perry villages.....	1,864	1,977	1,967	Ecorse township, including Ecorse, Ford, Oakwood, and River Rouge villages.....	22,911	9,398	6,675
Rush township.....	1,063	1,131	1,238				
Selota township, including Laingsburg village.....	1,332	1,384	1,430				
Shiawassee township, including Bancroft village.....	1,447	1,517	1,610				
Venice township.....	1,192	1,201	1,341				
Vernon township, including Durand and Vernon villages.....	4,314	3,772	3,878				
Woodhull township.....	746	749	805				

<sup>22</sup> SCHOOLCRAFT.—Totals include population (293 in 1910) of Casino township, annexed to Hiawatha township since 1910 and population (517 in 1900) of Harrison township, annexed to Hiawatha and Thompson townships between 1900 and 1910.

<sup>23</sup> WAYNE.—For footnote, see following page.

TABLE 2.—POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: 1920, 1910, AND 1900—Continued.

[For changes in boundaries, etc., between 1910 and 1920, see footnotes; for those between 1900 and 1910, see Reports of the Thirteenth Census: 1910, Vol. II, Table 1, p. 904. For population of incorporated places, see Table 3.]

MINOR CIVIL DIVISION.	1920	1910	1900	MINOR CIVIL DIVISION.	1920	1910	1900
<b>Wayne County—Continued.</b>				<b>Wayne County—Continued.</b>			
Gratiot township <sup>17</sup>	975	1,900	1,333	Van Buren township, including Belleville vil-			
Greenfield township <sup>17</sup>	2,643	2,341	2,115	lage	2,020	1,700	1,789
Grosse Isle township <sup>17</sup>	802			Wyandotte city	13,851	8,287	5,183
Grosse Pointe township, <sup>17</sup> including Grosse				<b>Wexford County</b>			
Pointe, Grosse Pointe Farms, and Grosse					18,207	20,769	16,845
Pointe Park villages, and part of Grosse							
Pointe Shores village	6,068	3,579	2,933	Antioch township, including part of Sherman			
Hamtramck township, <sup>17</sup> including Hamtramck				village	632	640	657
village	49,287	5,656	2,896	Boon township, including part of Harrietta vil-			
Highland Park city <sup>17</sup>	46,490	4,120	427	lage	591	1,153	955
Huron township	1,814	1,690	1,978	Cadillac city	9,750	8,375	5,997
Livonia township	1,608	1,365	1,460	Cedar Creek township, including Manton village	1,406	2,129	1,937
Monguagon township, <sup>17</sup> including Trenton vil-				lage	403	481	417
lage	3,275	3,367	2,387	Cherry Grove township	825	954	1,009
Nankin township, including Wayne village	5,801	3,966	3,812	Clam Lake township	576	754	878
Northville township, including Northville vil-				Collax township	290	432	375
lage	2,240	2,274	2,371	Greenwood township			
Plymouth township, including Plymouth vil-				lage	509	812	477
lage	3,530	2,248	2,098	Hamover township, including Buckley village	405	418	322
Redford township, including Redford village	5,201	2,176	1,990	and part of Sherman village	130	253	208
Romulus township	1,932	1,538	1,816	Haring township	284	370	423
Springwells township <sup>17</sup>	2,466	1,835	13,034	Liberty township	533	823	446
Sumpter township	1,263	1,228	1,495	Selma township			
Taylor township	1,168	1,238	1,296	Slagle township, including part of Harrietta vil-			
<sup>17</sup> WAYNE.—St. Clair Heights village and parts of Gratiot, Greenfield, Grosse				lage	323	486	460
Pointe, Hamtramck, and Springwells townships annexed to Detroit city since 1910.				South Branch township	221	380	310
Grosse Isle township organized from part of Monguagon township since 1910.				Springville township, including Mesick village			
Highland Park village incorporated as a city and made independent of Greenfield and				and part of Sherman village	748	1,390	1,244
Hamtramck townships since 1910.				Wexford township, including part of Sherman	573	919	930
				village			

TABLE 3.—POPULATION OF INCORPORATED PLACES: 1920, 1910, AND 1900.

[The absence of population figures for 1910 or 1900 indicates that the place was incorporated at some date between the censuses, unless otherwise explained by footnote. Places which in 1910 were incorporated but, through surrender of charter or for other reasons, have no corporate existence in 1920 are not presented in this table.]

CITY OR VILLAGE.	County.	1920	1910	1900	CITY OR VILLAGE.	County.	1920	1910	1900
Addison village	Lenawee	416	474	470	Britton village	Lenawee	353	370	345
Adrian city	Lenawee	11,378	10,763	9,654	Bronson village	Branch	1,257	1,020	1,176
Albion city	Calhoun	8,354	5,833	4,519	Brooklyn village	Jackson	611	602	494
Algonac village	St. Clair	1,303	1,204	1,216	Brown City	Sanilac	828	690	603
Allegan city	Allegan	3,667	3,419	2,667	Buchanan village	Berrien	3,187	1,831	1,708
Alma city	Gratiot	7,542	2,757	2,047	Buckley village	Wexford	352	464	.....
Almont village	Lapeer	789	875	718	Burlington village	Calhoun	194	237	334
Alpena city	Alpena	11,101	12,706	11,802	Burr Oak village	St. Joseph	589	752	744
Alpha village	Iron	818	.....	.....	Byron village	Shiawassee	376	427	482
Ann Arbor city	Washtenaw	19,516	14,817	14,509	Cadillac city	Wexford	9,750	8,375	5,997
Applegate village	Sanilac	177	155	.....	Caledonia village	Kent	432	422	427
Armada village	Macomb	711	748	363	Camden village	Hillsdale	398	392	376
Ashley village	Gratiot	506	513	617	Capo village	St. Clair	791	761	547
Athens village	Calhoun	553	631	583	Carleton village	Monroe	498	.....	.....
Au Gres city	Arenac	199	252	.....	Caro village	Tuscola	2,704	2,272	2,006
Au Sable city	Iosco	171	648	1,116	Carson City village	Montcalm	973	808	906
Augusta village	Kalamazoo	661	494	541	Carsonville village	Sanilac	536	401	400
Bad Axe city	Huron	2,140	1,559	1,241	Caseville village	Huron	385	442	507
Badwin village	Lake	471	502	343	Casnovia village <sup>2</sup>	Kent	333	308	277
Bancroft village	Shiawassee	529	543	528	Casplan village	Iron	1,912	.....	.....
Bangor village	Van Buren	1,243	1,158	1,021	Cass City village	Tuscola	1,228	1,120	1,113
Baraga village	Baraga	942	1,071	1,185	Cassopolis village	Cass	1,355	1,358	1,380
Baroda village	Berrien	223	248	.....	Cedar Springs village	Kent	1,020	947	950
Barryton village	Macosta	304	411	.....	Central Lake village	Antrim	676	813	1,307
Battle Creek city	Calhoun	36,164	25,267	18,568	Centreville village	St. Joseph	701	613	645
Bay City	Bay	47,554	45,166	27,628	Charlevoix city	Charlevoix	2,218	2,420	2,079
Bear Lake village	Manistee	323	504	448	Charlotte city	Eaton	5,126	4,886	4,092
Beaverton city	Gladwin	549	418	.....	Cheboygan city	Cheboygan	5,642	6,859	6,489
Belding city	Ionia	3,911	4,119	3,282	Chelsea village	Washtenaw	2,070	1,764	1,635
Bellaire village	Antrim	624	1,050	1,157	Chesaning village	Saginaw	1,387	1,383	1,244
Belleville village	Wayne	626	486	.....	Clare city	Clare	1,462	1,350	1,326
Bellevue village	Eaton	1,035	930	1,074	Clarkston village	Oakland	419	345	360
Benton Harbor city	Berrien	12,233	9,185	6,562	Clayton village	Lenawee	306	372	370
Benzonla village	Benzie	543	503	484	Clifford village	Lapeer	327	308	339
Berrien Springs village	Berrien	918	880	808	Climax village	Kalamazoo	395	425	398
Bessemer city	Gogebic	5,482	4,583	3,911	Clinton village	Lenawee	961	1,011	1,038
Big Rapids city	Macosta	4,568	4,519	4,686	Clio village	Genesee	1,256	810	640
Birmingham village	Oakland	3,694	1,607	1,170	Coldwater city	Branch	6,114	5,945	6,216
Blissfield village	Lenawee	1,906	1,474	1,268	Coleman city	Midland	769	909	1,014
Bloomington village	Van Buren	486	501	379	Coloma village	Berrien	663	701	687
Boardman village	Kalamazoo	311	524	298	Colon village	St. Joseph	745	853	.....
Boyer City	Charlevoix	4,284	5,218	912	Columbiaville village	Lapeer	656	389	457
Boyer Falls village	Charlevoix	241	325	431	Concord village	Jackson	535	543	534
Breakenridge village	Gratiot	698	595	.....	Constantine village	St. Joseph	1,277	1,244	1,226
Breedsville village	Van Buren	140	219	236	Coopersville village	Ottawa	914	814	600
Brighton village	Livingston	800	767	781	Copemish village	Manistee	284	490	429
Brimley village	Chippewa	406	.....	.....	Corunna city	Shiawassee	1,571	1,384	1,510
					Croswell city	Sanilac	1,678	1,380	606
					Croton village	Newaygo	37	55	59
					Crystal Falls city	Iron	3,394	3,775	3,231

<sup>1</sup> See county footnote, Table 2.

<sup>2</sup> Part in Kent County: 109 in 1920; 125 in 1910; 100 in 1900. Part in Muskegon County: 224 in 1920; 183 in 1910; 177 in 1900.



TABLE 3.—POPULATION OF INCORPORATED PLACES: 1920, 1910, AND 1900—Continued.

[The absence of population figures for 1910 or 1900 indicates that the place was incorporated at some date between the censuses, unless otherwise explained by footnote. Places which in 1910 were incorporated but, through surrender of charter or for other reasons, have no corporate existence in 1920 are not presented in this table.]

CITY OR VILLAGE.	County.	1920	1910	1900	CITY OR VILLAGE.	County.	1920	1910	1900
Custer village.....	Mason.....	269	277	269	Grosse Pointe village.....	Wayne.....	2,084	830	343
Daggett village.....	Menominee.....	321	228	.....	Grosse Pointe Farms village.....	Wayne.....	1,649	822	817
Dansville village.....	Ingham.....	299	349	374	Grosse Pointe Park village.....	Wayne.....	1,365	290	.....
Davison village.....	Genesee.....	811	673	751	Grosse Pointe Shores village <sup>6</sup> .....	Macomb.....	519	.....	.....
Dearborn village.....	Wayne.....	2,470	911	844	Hamtramck village.....	Wayne.....	48,615	3,559	.....
Decatur village.....	Van Buren.....	1,270	1,286	1,356	Hancock city <sup>1</sup> .....	Houghton.....	7,527	8,981	4,050
Decker village.....	Sanilac.....	732	628	398	Hanover village.....	Jackson.....	350	364	378
Deerfield village.....	Lenawee.....	442	443	440	Harbor Beach city.....	Huron.....	1,927	1,558	1,149
Detour village.....	Chippewa.....	612	721	880	Harbor Springs village.....	Emmet.....	1,600	1,805	1,643
Detroit city <sup>1</sup> .....	Wayne.....	993,678	465,766	285,704	Harrietta village.....	Wexford.....	228	336	419
Dexter village.....	Washtenaw.....	587	726	900	Harrison city.....	Clare.....	399	543	647
Dimondale village.....	Eaton.....	360	341	.....	Harrisville city.....	Alcona.....	460	444	403
Douglas village.....	Allegan.....	305	485	444	Hart village.....	Oceana.....	1,500	1,555	1,134
Dowagiac city.....	Cass.....	5,440	5,088	4,151	Hartford village.....	Van Buren.....	1,361	1,268	1,077
Dryden village.....	Lapeer.....	359	371	328	Hastings city.....	Barry.....	5,132	4,383	3,172
Dundee village.....	Monroe.....	1,108	1,070	1,118	Hersey village.....	Osceola.....	284	310	327
Durand village.....	Shiawassee.....	2,072	2,315	2,134	Hesperia village <sup>6</sup> .....	Newaygo.....	439	462	474
Eagle village.....	Clinton.....	100	133	142	Highland Park city <sup>1</sup> .....	Oceana.....	46,409	4,120	427
East Grand Rapids village.....	Kent.....	1,310	800	466	Hillman village.....	Wayne.....	400	411	253
East Jordan city <sup>1</sup> .....	Charlevoix.....	2,428	2,516	1,205	Hillsdale city.....	Hillsdale.....	5,476	5,001	4,151
East Lake village.....	Manistee.....	675	.....	.....	Holland city.....	Ottawa.....	12,183	10,490	7,790
East Lansing city.....	Ingham.....	1,889	802	.....	Holly village.....	Oakland.....	1,888	1,637	1,419
East Tawas city.....	Iosco.....	1,398	1,452	1,736	Homer village.....	Calhoun.....	1,076	1,008	1,097
Eaton Rapids city.....	Eaton.....	2,379	2,064	2,103	Honor village.....	Benzie.....	239	.....	.....
Eau Claire village.....	Berrien.....	293	307	281	Houghton village.....	Houghton.....	4,466	5,113	3,359
Ecorse village.....	Wayne.....	4,394	1,063	.....	Howard City village.....	Montcalm.....	913	1,046	1,398
Edmore village.....	Montcalm.....	772	752	642	Howell city <sup>1</sup> .....	Livingston.....	2,951	2,338	2,518
Edwardsburg village.....	Cass.....	392	.....	639	Hubbardston village <sup>7</sup> .....	Clinton.....	368	450	450
Elberta village <sup>1</sup> .....	Benzie.....	588	681	.....	Hubbell village.....	Ionia.....	1,004	1,059	.....
Elk Rapids village.....	Antrim.....	684	1,673	.....	Hudson city.....	Houghton.....	2,464	2,178	2,403
Elkton village.....	Huron.....	500	553	471	Imley City village.....	Lenawee.....	1,211	1,174	1,122
Elsie village.....	Clinton.....	680	592	576	Ionia city.....	Ionia.....	6,935	5,030	5,209
Emmett village.....	St. Clair.....	175	202	265	Iron Mountain city.....	Dickinson.....	8,251	9,216	9,242
Empire village.....	Leelanau.....	298	578	609	Iron River village.....	Iron.....	4,295	2,450	1,482
Escanaba city.....	Delta.....	13,103	13,194	9,549	Ironwood city.....	Gogebic.....	15,739	12,521	9,705
Essexville village.....	Bay.....	1,538	1,477	1,639	Ishpeming city.....	Marquette.....	10,500	12,448	13,255
Ewart village.....	Osceola.....	1,326	1,385	1,360	Ithaca village.....	Gratiot.....	1,929	1,876	2,020
Fairgrove village.....	Tuscola.....	452	437	.....	Jackson city.....	Jackson.....	48,374	31,433	25,180
Farmington village.....	Oakland.....	853	564	530	Jonesville village.....	Hillsdale.....	1,274	1,396	1,367
Farwell village.....	Clare.....	449	522	535	Kalamazoo city.....	Kalamazoo.....	48,487	39,437	24,404
Fennville village.....	Allegan.....	547	533	454	Kalkaska village.....	Kalkaska.....	866	1,415	1,304
Fenton village.....	Genesee.....	2,507	2,331	2,408	Kent City village.....	Kent.....	428	467	.....
Ferndale village.....	Oakland.....	2,640	.....	456	Kinde village.....	Huron.....	420	380	.....
Fife Lake village.....	Grand Traverse.....	215	340	.....	Kingsley village.....	Grand Traverse.....	350	497	419
Flint city.....	Genesee.....	91,599	39,550	13,103	Kingsport village.....	Tuscola.....	321	302	286
Flushing village.....	Genesee.....	1,169	938	900	Kingsburg village.....	Shiawassee.....	693	703	690
Ford village <sup>1</sup> .....	Wayne.....	4,294	1,689	.....	Lake Ann village.....	Benzie.....	67	171	241
Forestville village.....	Sanilac.....	140	234	282	Lake City village.....	Missaukee.....	582	740	816
Fountain village.....	Mason.....	222	.....	426	Lake Linden village.....	Houghton.....	2,182	2,325	2,597
Fowler village.....	Clinton.....	472	476	.....	Lake Odessa village.....	Ionia.....	1,245	1,222	1,037
Fowlerville village.....	Livingston.....	1,057	905	946	Lakeview village.....	Montcalm.....	886	954	935
Frankenmuth village.....	Saginaw.....	733	693	.....	L'Anse village.....	Baraga.....	1,013	708	620
Frankfort village.....	Benzie.....	1,244	1,555	1,465	Lansing city <sup>1</sup> .....	Ingham.....	57,327	31,229	16,485
Fraser village.....	Macomb.....	247	220	252	Lapeer city.....	Lapeer.....	4,728	3,946	3,297
Freeport village.....	Barry.....	398	460	.....	Laurium village.....	Houghton.....	6,696	8,537	5,643
Fremont city <sup>1</sup> .....	Newaygo.....	2,180	2,009	1,331	Lawrence village.....	Van Buren.....	664	663	598
Freesoil village.....	Mason.....	210	.....	.....	Lawton village.....	Van Buren.....	1,073	1,042	942
Fruitport village <sup>4</sup> .....	Muskegon.....	321	330	311	Le Roy village.....	Osceola.....	642	331	375
Gastra village.....	Ottawa.....	911	.....	.....	Leonard village.....	Oakland.....	264	313	335
Gagetown village.....	Iron.....	440	358	329	Leslie village.....	Ingham.....	1,089	1,032	1,114
Gaines village.....	Tuscola.....	260	238	240	Lexington village.....	Sanilac.....	378	519	619
Galesburg village.....	Genesee.....	692	656	689	Lincoln village.....	Alcona.....	178	122	.....
Gallen village.....	Berrien.....	460	405	440	Linden village.....	Genesee.....	579	550	543
Garden village.....	Delta.....	395	497	405	Lisbon village <sup>8</sup> .....	Kent.....	60	96	187
Gaylord village.....	Otsego.....	1,701	1,538	1,561	Litchfield village.....	Ottawa.....	716	660	645
Gladstone city.....	Delta.....	4,593	4,211	3,380	Lowell village.....	Kent.....	1,730	1,761	1,736
Gladwin city.....	Gladwin.....	1,225	988	775	Ludington city.....	Mason.....	8,810	9,132	7,166
Gobleville village.....	Van Buren.....	491	537	505	Luther village.....	Lake.....	396	626	837
Grand Haven city.....	Ottawa.....	7,205	5,856	4,743	Lyons village.....	Ionia.....	574	611	656
Grand Ledge city.....	Eaton.....	3,043	2,893	2,161	McBain city.....	Missaukee.....	547	546	709
Grand Rapids city.....	Kent.....	137,634	112,571	87,565	McBride village.....	Montcalm.....	220	236	289
Grandville village.....	Kent.....	799	680	457	Mackinac Island city.....	Mackinac.....	493	714	665
Grant village.....	Newaygo.....	473	428	214	Mackinaw City village <sup>9</sup> .....	Cheboygan.....	679	697	564
Grass Lake village.....	Jackson.....	744	760	648	Manistee city.....	Emmet.....	1,214	1,200	1,226
Grayling village.....	Crawford.....	2,450	1,775	.....	Manistee city.....	Antrim.....	1,024	1,047	1,209
Greenfield city.....	Montcalm.....	4,304	4,045	3,381	Manistee city.....	Washtenaw.....	9,694	12,381	14,260

<sup>1</sup> See county footnote, Table 2.

<sup>2</sup> Name changed from South Frankfort since 1910.

<sup>3</sup> Returned as Ford City village in 1910.

<sup>4</sup> Part in Muskegon County: 312 in 1920; 314 in 1910; 311 in 1900. Part in Ottawa County: 9 in 1920; 16 in 1910; no population reported in 1900.

<sup>5</sup> Part in Macomb County: 16 in 1920; part in Wayne County, 503 in 1920.

<sup>6</sup> Part in Newaygo County: 191 in 1920; 241 in 1910; 243 in 1900. Part in Oceana County: 248 in 1920; 221 in 1910; 231 in 1900.

<sup>7</sup> Part in Clinton County: 40 in 1920; 55 in 1910; 60 in 1900. Part in Ionia County: 328 in 1920; 395 in 1910; 390 in 1900.

<sup>8</sup> Part in Kent County: 41 in 1920; 73 in 1910; 132 in 1900. Part in Ottawa County: 19 in 1920; 23 in 1910; 55 in 1900.

<sup>9</sup> Part in Cheboygan County: 550 in 1920; 571 in 1910; 466 in 1900. Part in Emmet County: 126 in 1920; 126 in 1910; 98 in 1900.

TABLE 3.—POPULATION OF INCORPORATED PLACES: 1920, 1910, AND 1900—Continued.

[The absence of population figures for 1910 or 1900 indicates that the place was incorporated at some date between the censuses, unless otherwise explained by footnote. Places which in 1910 were incorporated but, through surrender of charter or for other reasons, have no corporate existence in 1920 are not presented in this table.]

CITY OR VILLAGE.	County.	1920	1910	1900	CITY OR VILLAGE.	County.	1920	1910	1900
Manistique city.....	Schoolcraft.....	6,380	4,722	4,126	Pellston village.....	Emmet.....	915	1,089	.....
Manton village.....	Wexford.....	793	1,069	895	Pentwater village.....	Oceana.....	956	1,129	1,061
Maple Rapids village.....	Clinton.....	466	529	579	Perrinton village.....	Gratiot.....	419	288	330
Marcellus village.....	Cass.....	966	1,047	1,025	Perry village.....	Shiawassee.....	734	720	641
Marine City.....	St. Clair.....	3,731	3,770	3,829	Petersburg village.....	Monroe.....	514	490	468
Marion village.....	Osceola.....	708	767	741	Petoskey city.....	Emmet.....	5,064	4,778	5,285
Marlborough village.....	Lake.....	58	57	.....	Pewamo village.....	Ionia.....	316	289	446
Marlette village.....	Sanilac.....	969	1,062	996	Pierson village.....	Montcalm.....	164	183	215
Marquette city.....	Marquette.....	12,718	11,503	10,058	Pigeon village.....	Huron.....	780	687	.....
Marshall city.....	Calhoun.....	4,270	4,236	4,370	Pinckney village.....	Livingston.....	384	477	500
Marysville village.....	St. Clair.....	941	.....	.....	Pinconning village.....	Bay.....	769	677	729
Mason city.....	Ingham.....	1,879	1,742	1,828	Plainwell village.....	Allegan.....	2,049	1,493	1,318
Maybee village.....	Monroe.....	290	310	.....	Plymouth village.....	Wayne.....	2,867	1,671	1,474
Mayville village.....	Tuscola.....	652	687	825	Pontiac city.....	Oakland.....	34,273	14,532	9,769
Meosota village.....	Meosota.....	297	352	416	Port Austin village.....	Huron.....	410	533	507
Melvin village.....	Sanilac.....	169	242	.....	Port Hope village.....	Huron.....	353	344	319
Memphis village <sup>1</sup> .....	Macomb.....	452	557	586	Port Huron city.....	St. Clair.....	25,944	18,863	19,158
Mendon village.....	St. Joseph.....	625	768	777	Port Sanilac village.....	Sanilac.....	135	216	314
Menominee city.....	Menominee.....	8,907	10,507	12,818	Portland village.....	Ionia.....	1,899	1,832	1,874
Merrill village.....	Saginaw.....	696	605	459	Posen village.....	Presque Isle.....	190	263	.....
Mesick village.....	Wexford.....	318	510	.....	Pottersville village.....	Eaton.....	330	430	495
Metamora village.....	Lapeer.....	271	270	313	Powers village.....	Menominee.....	249	.....	.....
Middleville village.....	Barry.....	839	804	829	Quincy village.....	Branch.....	1,251	1,347	1,563
Midland city.....	Midland.....	5,483	2,527	2,393	Reading village.....	Hillsdale.....	1,036	1,102	1,096
Mikado village.....	Alcona.....	95	100	.....	Red Jacket village.....	Houghton.....	2,390	4,211	4,668
Milan village <sup>1</sup> .....	Monroe.....	1,557	1,355	1,141	Redford village.....	Wayne.....	1,389	828	.....
Millford village.....	Washtenaw.....	1,088	973	1,108	Reed City village.....	Osceola.....	1,803	1,690	2,051
Millersburg village.....	Oakland.....	243	519	.....	Reese village.....	Tuscola.....	459	465	416
Millington village.....	Presque Isle.....	639	623	638	Richland village.....	Kalamazoo.....	283	278	312
Minden City village.....	Tuscola.....	283	332	408	Richmond village.....	Macomb.....	1,308	1,277	1,133
Mineral Hills village.....	Sanilac.....	.....	.....	.....	River Rouge village.....	Wayne.....	9,822	4,163	1,748
Monroe city.....	Iron.....	384	.....	.....	Rochester village.....	Oakland.....	2,549	1,516	1,535
Montague village.....	Monroe.....	11,573	6,893	5,043	Rockford village.....	Kent.....	1,143	843	711
Montague village.....	Muskegon.....	845	942	998	Rogers village.....	Presque Isle.....	2,109	705	544
Montgomery village.....	Hillsdale.....	354	362	.....	Romeo village.....	Macomb.....	2,102	1,787	1,580
Montrose village.....	Genesee.....	522	443	348	Roscommon village.....	Roscommon.....	357	425	465
Morend village.....	Lenawee.....	1,697	1,515	1,334	Rose City.....	Ogemaw.....	331	542	.....
Morley village.....	Meosota.....	336	337	334	Royal Oak village.....	Oakland.....	6,007	1,071	468
Morrice village.....	Shiawassee.....	372	470	476	Saginaw city <sup>6</sup> .....	Saginaw.....	61,903	50,510	42,345
Mount Clemens city.....	Macomb.....	9,438	7,707	6,578	St. Charles village.....	Saginaw.....	1,469	1,451	1,317
Mount Morris village.....	Genesee.....	1,174	513	416	St. Clair city.....	St. Clair.....	3,204	2,633	2,543
Mount Pleasant city.....	Isabella.....	4,319	3,972	3,662	St. Ignace city.....	Mackinac.....	1,852	2,118	2,271
Muir village.....	Ionia.....	363	483	566	St. Johns city.....	Clinton.....	3,925	3,154	3,388
Mulliken village.....	Eaton.....	290	312	.....	St. Joseph city.....	Berrien.....	7,251	5,936	5,155
Munising city <sup>3</sup> .....	Alger.....	5,037	2,952	2,014	St. Louis city <sup>4</sup> .....	Gratiot.....	3,036	1,940	1,989
Muskegon city <sup>2</sup> .....	Muskegon.....	36,570	24,062	20,818	Saline village.....	Washtenaw.....	830	816	584
Muskegon Heights city.....	Muskegon.....	9,514	1,690	1,012	Sand Lake village.....	Kent.....	366	370	328
Nashville village.....	Barry.....	1,376	1,346	1,164	Sandusky city.....	Sanilac.....	1,228	993	578
Negaunee city.....	Marquette.....	7,419	8,460	6,935	Saranac village.....	Ionia.....	750	845	768
New Baltimore village <sup>4</sup> .....	Macomb.....	974	920	922	Saugatuck village.....	Allegan.....	525	621	707
New Buffalo village.....	St. Clair.....	496	528	629	Sault Ste. Marie city.....	Chippewa.....	12,096	12,615	10,538
New Haven village.....	Macomb.....	535	478	489	Schoolcraft village.....	Kalamazoo.....	731	816	859
Newaygo village.....	Newaygo.....	1,160	1,207	1,172	Scottville city.....	Mason.....	1,045	891	554
Newberry village.....	Lucas.....	2,172	1,182	1,015	Sebewaing village.....	Huron.....	1,446	1,347	1,243
Niles city.....	Berrien.....	7,311	5,156	4,287	Shelby village.....	Oceana.....	1,288	1,200	1,031
North Adams village.....	Hillsdale.....	414	440	422	Shepherd village.....	Isabella.....	823	835	635
North Branch village.....	Lapeer.....	645	717	654	Sheridan village.....	Montcalm.....	489	436	437
North Muskegon city.....	Muskegon.....	630	352	513	Sherman village.....	Wexford.....	108	260	427
Northport village.....	Leelanau.....	507	524	.....	Sherwood village.....	Branch.....	250	346	366
Northville village.....	Wayne.....	1,738	1,665	1,755	South Haven city.....	Van Buren.....	3,829	3,577	4,000
Norway city.....	Dickinson.....	4,533	4,974	4,170	South Lyon village.....	Oakland.....	615	615	657
Oakley village.....	Saginaw.....	201	237	231	South Range village.....	Houghton.....	1,435	1,097	.....
Oakwood village.....	Wayne.....	1,990	781	.....	Sparta village.....	Kent.....	1,502	1,203	1,126
Olivet village.....	Eaton.....	500	627	800	Spring Lake village.....	Ottawa.....	978	802	696
Omer city.....	Arenac.....	266	367	.....	Springport village.....	Jackson.....	535	584	559
Onaway city.....	Presque Isle.....	2,789	2,702	1,204	Stambaugh village.....	Iron.....	2,263	1,322	695
Onkama village.....	Manistee.....	252	324	274	Standish city.....	Arenac.....	795	828	829
Onsted village.....	Lenawee.....	323	398	.....	Stanton city.....	Montcalm.....	862	1,012	1,234
Ontonagon village.....	Ontonagon.....	1,406	1,964	1,267	Stanwood village.....	Meosota.....	273	185	.....
Orion village.....	Oakland.....	929	717	756	Stephenson village.....	Menominee.....	550	527	395
Ortonville village.....	Oakland.....	445	377	.....	Stevensville village.....	Berrien.....	206	243	250
Otsego city.....	Genesee.....	364	312	291	Stockbridge village.....	Ingham.....	749	663	677
Otsego city <sup>5</sup> .....	Allegan.....	3,168	2,812	2,073	Sturgis city.....	St. Joseph.....	5,995	3,635	2,465
Otter Lake village.....	Lapeer.....	325	273	212	Sunfield village.....	Raton.....	456	385	451
Ovid village.....	Clinton.....	1,067	1,078	1,293	Suttons Bay village.....	Leelanau.....	392	402	398
Owendale village.....	Huron.....	274	285	.....	Tawas City.....	Iosco.....	1,018	1,061	1,228
Owosso city.....	Shiawassee.....	12,575	9,639	8,696	Tecumseh village.....	Lenawee.....	2,432	2,332	2,400
Oxford village.....	Oakland.....	1,668	1,191	1,172	Tekosha village.....	Calhoun.....	569	573	573
Parma village.....	Jackson.....	564	509	420	Thompsonville village.....	Benzie.....	410	815	893
Paw Paw village.....	Van Buren.....	1,556	1,643	1,465	Three Oaks village.....	Berrien.....	1,362	1,175	994
Peck village.....	Sanilac.....	341	274	.....					

<sup>1</sup> Part in Macomb County: 252 in 1920; 337 in 1910; 350 in 1900. Part in St. Clair County: 200 in 1920; 220 in 1910; 236 in 1900.

<sup>2</sup> Part in Monroe County: 483 in 1920; 518 in 1910; 435 in 1900. Part in Washtenaw County: 1,074 in 1920; 837 in 1910; 706 in 1900.

<sup>3</sup> See county footnote, Table 2.

<sup>4</sup> Part in Macomb County: 963 in 1920; 899 in 1910; 895 in 1900. Part in St. Clair County: 11 in 1920; 21 in 1910; 27 in 1900.

<sup>5</sup> Part of Buena Vista township, Saginaw County (population, 3,745), annexed Apr. 6, 1920. Total population of city including annexation, 65,648.

# NUMBER AND DISTRIBUTION.

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TABLE 3.—POPULATION OF INCORPORATED PLACES: 1920, 1910, AND 1900—Continued.

[The absence of population figures for 1910 or 1900 indicates that the place was incorporated at some date between the censuses, unless otherwise explained by footnote. Places which in 1910 were incorporated but, through surrender of charter or for other reasons, have no corporate existence in 1920 are not presented in this table.]

CITY OR VILLAGE.	County.	1920	1910	1900	CITY OR VILLAGE.	County.	1920	1910	1900
Three Rivers city.....	St. Joseph.....	5,209	5,072	3,550	Warren village.....	Macomb.....	326	297	350
Traverse City.....	Grand Traverse.....	10,925	12,115	9,407	Washington Heights village.....	Calhoun.....	1,245	.....	.....
Trenton village.....	Wayne.....	1,682	1,224	1,167	Watervliet village.....	Berrien.....	1,073	728	717
Turner village.....	Arenac.....	236	.....	.....	Wayland village.....	Allegan.....	853	725	619
Tustin village.....	Oscoda.....	281	371	303	Wayne village.....	Wayne.....	1,899	1,263	1,361
Twining village.....	Arenac.....	221	267	.....	Webberville village.....	Ingham.....	465	349	346
Uby village.....	Huron.....	455	442	432	West Branch city.....	Ogemaw.....	1,105	1,276	1,412
Union City village <sup>1</sup> .....	Branch } Calhoun }	1,268	1,340	1,614	Westphalia village.....	Clinton.....	325	368	374
Unionville village.....	Tuscola.....	488	456	427	White Cloud village.....	Newaygo.....	618	648	695
Utica village.....	Macomb.....	588	496	562	White Pigeon village.....	St. Joseph.....	887	667	706
Vandalia village.....	Cass.....	331	371	407	Whitehall village.....	Muskegon.....	1,230	1,437	1,481
Vanderbilt village.....	Otsego.....	394	523	.....	Whittemore city.....	Iosco.....	232	218	.....
Vassar village.....	Tuscola.....	1,453	1,659	1,832	Williamston village.....	Ingham.....	1,060	1,042	1,113
Vermontville village.....	Eaton.....	585	650	684	Wolverine village.....	Choboygan.....	413	764	.....
Vernon village.....	Shiawassee.....	417	435	536	Woodland village.....	Barry.....	356	304	319
Vicksburg village.....	Kalamazoo.....	1,712	1,624	972	Wyandotte city.....	Wayne.....	13,851	8,257	5,183
Wakefield city.....	Gogebic.....	4,151	714	1,191	Yale city.....	St. Clair.....	1,223	1,223	1,125
Waldron village.....	Hillsdale.....	457	435	.....	Ypsilanti city.....	Washtenaw.....	7,413	6,230	7,378
Walkerville village.....	Oceana.....	252	371	.....	Zeeland city.....	Ottawa.....	2,275	1,982	1,320

<sup>1</sup> Part in Branch County, 1,256 in 1920; part in Calhoun County, 12 in 1920. Returned in 1910 and 1900 as located wholly in Branch County.  
<sup>2</sup> See county footnote, Table 2.

TABLE 4.—POPULATION OF WARDS OF CITIES AND VILLAGES HAVING 5,000 INHABITANTS OR MORE: 1920.

WARD.	1920	WARD.	1920	WARD.	1920	WARD.	1920
<b>Adrian city.....</b> (Not reported by wards.)	<b>11,878</b>	<b>Bessemer city.....</b>	<b>5,482</b>	<b>Dowagiac city.....</b>	<b>5,440</b>	<b>Hillsdale city.....</b>	<b>5,476</b>
		Ward 1.....	860	Ward 1.....	1,929	Ward 1.....	1,244
		Ward 2.....	1,411	Ward 2.....	1,290	Ward 2.....	1,203
		Ward 3.....	1,206	Ward 3.....	2,221	Ward 3.....	1,651
<b>Albion city.....</b>	<b>8,354</b>	Ward 4.....	704			Ward 4.....	1,378
Ward 1.....	2,496	Ward 5.....	1,211	<b>Escanaba city.....</b>	<b>13,103</b>		
Ward 2.....	2,220			Ward 1.....	640	<b>Holland city.....</b>	<b>12,183</b>
Ward 3.....	1,214	<b>Cadillac city.....</b>	<b>9,750</b>	Ward 2.....	964	Ward 1.....	2,606
Ward 4.....	2,424	Ward 1.....	3,130	Ward 3.....	1,276	Ward 2.....	926
		Ward 2.....	3,019	Ward 4.....	1,857	Ward 3.....	1,685
<b>Alma city.....</b>	<b>7,542</b>	Ward 3.....	2,160	Ward 5.....	2,896	Ward 4.....	2,419
Ward 1.....	3,008	Ward 4.....	1,441	Ward 6.....	2,977	Ward 5.....	2,622
Ward 2.....	2,352			Ward 7.....	2,463	Ward 6.....	1,925
Ward 3.....	948	<b>Charlotte city.....</b>	<b>5,126</b>				
Ward 4.....	1,174	Ward 1.....	719	<b>Flint city.....</b>	<b>91,599</b>	<b>Ionia city.....</b>	<b>6,935</b>
		Ward 2.....	1,170	Ward 1.....	29,213	Ward 1.....	1,692
<b>Alpena city.....</b>	<b>11,101</b>	Ward 3.....	1,472	Ward 2.....	17,300	Ward 2.....	1,814
Ward 1.....	1,412	Ward 4.....	1,765	Ward 3.....	8,301	Ward 3.....	1,467
Ward 2.....	1,560			Ward 4.....	5,082	Ward 4.....	1,962
Ward 3.....	3,027	<b>Cheboygan city.....</b>	<b>5,642</b>	Ward 5.....	22,938		
Ward 4.....	1,148	Ward 1.....	205	Ward 6.....	8,765	<b>Iron Mountain city.....</b>	<b>8,251</b>
Ward 5.....	1,370	Ward 2.....	1,911	<b>Grand Haven city.....</b>	<b>7,205</b>	Ward 1.....	2,150
Ward 6.....	2,584	Ward 3.....	988	Ward 1.....	1,485	Ward 2.....	1,506
		Ward 4.....	1,770	Ward 2.....	1,363	Ward 3.....	1,297
<b>Ann Arbor city.....</b>	<b>19,516</b>	Ward 5.....	762	Ward 3.....	1,329	Ward 4.....	1,609
Ward 1.....	2,288			Ward 4.....	1,612	Ward 5.....	1,689
Ward 2.....	3,497	<b>Coldwater city.....</b>	<b>6,114</b>	Ward 5.....	1,416		
Ward 3.....	2,952	Ward 1.....	1,662	<b>Grand Rapids city.....</b>	<b>137,634</b>	<b>Ironwood city.....</b>	<b>15,739</b>
Ward 4.....	2,716	Ward 2.....	1,944	Ward 1.....	40,444	Ward 1.....	2,411
Ward 5.....	836	Ward 3.....	1,387	Ward 2.....	47,977	Ward 2.....	1,890
Ward 6.....	2,416	Ward 4.....	1,121	Ward 3.....	49,213	Ward 3.....	905
Ward 7.....	4,811					Ward 4.....	1,177
		<b>Detroit city.....</b>	<b>983,678</b>	<b>Hamtramck village.....</b> (Not reported by wards.)	<b>48,615</b>	Ward 5.....	2,552
<b>Battle Creek city.....</b> (Not reported by wards.)	<b>38,184</b>	Ward 1.....	56,344			Ward 6.....	1,981
		Ward 2.....	32,534	<b>Hancock city.....</b>	<b>7,527</b>	Ward 7.....	1,351
<b>Bay City.....</b>	<b>47,554</b>	Ward 3.....	41,177	Ward 1.....	1,115	Ward 8.....	3,472
Ward 1.....	5,902	Ward 4.....	43,104	Ward 2.....	1,770		
Ward 2.....	3,299	Ward 5.....	54,667	Ward 3.....	1,572	<b>Ishpeming city.....</b>	<b>10,500</b>
Ward 3.....	5,737	Ward 6.....	47,302	Ward 4.....	3,070	Ward 1.....	618
Ward 4.....	4,918	Ward 7.....	29,157			Ward 2.....	1,078
Ward 5.....	7,077	Ward 8.....	42,517	<b>Hastings city.....</b>	<b>5,132</b>	Ward 3.....	1,653
Ward 6.....	5,044	Ward 9.....	61,587	Ward 1.....	1,134	Ward 4.....	1,880
Ward 7.....	4,744	Ward 10.....	39,560	Ward 2.....	1,346	Ward 5.....	1,114
Ward 8.....	4,938	Ward 11.....	32,453	Ward 3.....	913	Ward 6.....	1,388
Ward 9.....	5,895	Ward 12.....	46,890	Ward 4.....	1,739	Ward 7.....	577
		Ward 13.....	48,044			Ward 8.....	688
<b>Benton Harbor city.....</b>	<b>12,233</b>	Ward 14.....	52,775	<b>Highland Park city.....</b> (Not reported by wards.)	<b>46,499</b>	Ward 9.....	905
Ward 1.....	2,627	Ward 15.....	42,312			Ward 10.....	799
Ward 2.....	3,540	Ward 16.....	72,769				
Ward 3.....	3,283	Ward 17.....	51,626			<b>Jackson city.....</b>	<b>48,374</b>
Ward 4.....	2,783	Ward 18.....	43,134			Ward 1.....	3,351
		Ward 19.....	46,154			Ward 2.....	6,244
		Ward 20.....	37,784			Ward 3.....	5,247
		Ward 21.....	71,832				

TABLE 4.—POPULATION OF WARDS OF CITIES AND VILLAGES HAVING 5,000 INHABITANTS OR MORE: 1920—Contd.

WARD.	1920	WARD.	1920	WARD.	1920	WARD.	1920
<b>Jackson city—Contd.</b>		<b>Menominee city.....</b>	<b>8,907</b>	<b>Niles city.....</b>	<b>7,311</b>	<b>Saginaw city—Contd.</b>	
Ward 4.....	8,414	Ward 1.....	1,010	Ward 1.....	2,466	Ward 12.....	3,320
Ward 5.....	6,629	Ward 2.....	1,396	Ward 2.....	1,174	Ward 13.....	3,357
Ward 6.....	7,288	Ward 3.....	1,169	Ward 3.....	2,160	Ward 14.....	4,903
Ward 7.....	5,691	Ward 4.....	1,165	Ward 4.....	1,511	Ward 15.....	2,067
Ward 8.....	7,510	Ward 5.....	1,413			Ward 16.....	2,192
		Ward 6.....	1,745	<b>Owosso city.....</b>	<b>12,575</b>	Ward 17.....	1,733
		Ward 7.....	1,009	Ward 1.....	2,119	Ward 18.....	2,346
<b>Kalamazoo city.....</b>	<b>48,487</b>			Ward 2.....	2,538	Ward 19.....	6,176
Ward 1.....	8,591	<b>Midland city.....</b>	<b>5,483</b>	Ward 3.....	2,390	Ward 20.....	4,137
Ward 2.....	11,185	Ward 1.....	1,857	Ward 4.....	2,664		
Ward 3.....	8,400	Ward 2.....	1,645	Ward 5.....	2,864	<b>St. Joseph city.....</b>	<b>7,251</b>
Ward 4.....	8,915	Ward 3.....	1,678			Ward 1.....	1,105
Ward 5.....	11,396	Ward 4.....	403	<b>Petoskey city.....</b>	<b>5,084</b>	Ward 2.....	1,629
<b>Lansing city.....</b>	<b>57,227</b>			Ward 1.....	1,346	Ward 3.....	2,410
Ward 1.....	6,096	<b>Monroe city.....</b>	<b>11,573</b>	Ward 2.....	1,285	Ward 4.....	2,107
Ward 2.....	6,060	Ward 1.....	2,440	Ward 3.....	1,085		
Ward 3.....	6,753	Ward 2.....	2,995	Ward 4.....	1,348	<b>Sault Ste. Marie city.....</b>	<b>12,096</b>
Ward 4.....	9,226	Ward 3.....	3,314			(Not reported by wards.)	
Ward 5.....	8,060	Ward 4.....	2,824	<b>Pontiac city.....</b>	<b>34,273</b>	<b>Sturgis city.....</b>	<b>5,995</b>
Ward 6.....	10,224			Ward 1.....	4,786	Ward 1.....	986
Ward 7.....	6,464	<b>Mount Clemens city.....</b>	<b>9,488</b>	Ward 2.....	9,592	Ward 2.....	1,622
Ward 8.....	2,444	Ward 1.....	3,048	Ward 3.....	6,907	Ward 3.....	1,373
<b>Laurium village.....</b>	<b>6,696</b>	Ward 2.....	3,738	Ward 4.....	8,703	Ward 4.....	2,114
(Not reported by wards.)		Ward 3.....	2,702	Ward 5.....	4,285		
<b>Ludington city.....</b>	<b>2,810</b>			<b>Port Huron city.....</b>	<b>25,944</b>	<b>Three Rivers city.....</b>	<b>5,209</b>
Ward 1.....	1,715	<b>Munising city.....</b>	<b>5,037</b>	(Not reported by wards.)		Ward 1.....	1,618
Ward 2.....	2,031	(Not reported by wards.)		<b>River Rouge village.....</b>	<b>9,822</b>	Ward 2.....	1,890
Ward 3.....	1,513	<b>Muskegon city.....</b>	<b>36,570</b>	(Not reported by wards.)		Ward 3.....	1,101
Ward 4.....	1,704	(Not reported by wards.)		<b>Royal Oak village.....</b>	<b>6,007</b>	Ward 4.....	610
Ward 5.....	1,847	<b>Muskegon Heights city.....</b>	<b>9,514</b>	(Not reported by wards.)		<b>Traverse City.....</b>	<b>10,925</b>
<b>Manistee city.....</b>	<b>9,594</b>	Ward 1.....	2,815	<b>Saginaw city.....</b>	<b>61,908</b>	(Not reported by wards.)	
(Not reported by wards.)		Ward 2.....	2,607	Ward 1.....	3,512	<b>Wyandotte city.....</b>	<b>13,651</b>
<b>Manistique city.....</b>	<b>6,380</b>	Ward 3.....	4,092	Ward 2.....	3,538	Ward 1.....	3,174
Ward 1.....	897			Ward 3.....	1,941	Ward 2.....	4,627
Ward 2.....	1,986	<b>Negaunee city.....</b>	<b>7,419</b>	Ward 4.....	2,759	Ward 3.....	2,174
Ward 3.....	1,616	Ward 1.....	1,243	Ward 5.....	2,489	Ward 4.....	3,676
Ward 4.....	1,881	Ward 2.....	1,316	Ward 6.....	2,777		
<b>Marquette city.....</b>	<b>12,718</b>	Ward 3.....	786	Ward 7.....	2,106	<b>Ypsilanti city.....</b>	<b>7,413</b>
(Not reported by wards.)		Ward 4.....	2,241	Ward 8.....	3,635	Ward 1.....	1,705
		Ward 5.....	1,833	Ward 9.....	3,349	Ward 2.....	1,213
				Ward 10.....	3,201	Ward 3.....	2,025
				Ward 11.....	3,335	Ward 4.....	832
						Ward 5.....	1,638

# NUMBER AND DISTRIBUTION.

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TABLE 5.—URBAN AND RURAL POPULATION OF COUNTIES: 1920, 1910, AND 1900.

[A minus sign (—) denotes decrease.]

COUNTY.	POPULATION.						PER CENT URBAN IN TOTAL POPULATION.			PER CENT OF INCREASE IN—				Rural population per square mile: 1920.
	1920		1910		1900		1920	1910	1900	Urban population.		Rural population.		
	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.				1910 to 1920.	1900 to 1910.	1910 to 1920.	1900 to 1910.	
Michigan.....	2,241,560	1,426,852	1,327,044	1,483,129	952,323	1,468,659	61.1	47.2	39.3	68.9	39.3	-3.8	1.0	24.8
Alcona.....	5,037	4,946	2,952	4,723	.....	5,868	50.5	38.5	.....	70.6	.....	4.7	-19.5	5.4
Alcona.....	6,805	30,735	6,231	33,588	2,687	36,145	18.1	15.6	6.9	9.2	133.6	-8.5	-7.1	36.9
Alcona.....	11,101	6,768	12,706	7,269	11,802	6,452	62.1	63.6	64.7	-12.6	7.7	-6.8	12.5	11.6
Barry.....	5,132	16,251	4,383	18,250	3,172	19,342	24.0	19.4	14.1	17.1	38.2	-11.0	-5.6	29.2
Bay.....	47,554	21,994	45,166	23,072	40,747	21,631	68.4	66.2	65.3	5.3	10.8	-4.7	6.7	49.6
Berrien.....	29,982	32,671	20,277	33,345	16,004	33,161	47.9	37.8	32.6	47.9	26.7	-2.0	0.6	57.4
Branch.....	6,114	17,883	5,945	19,660	6,216	21,595	26.5	23.2	22.4	2.8	-4.4	-9.0	-9.0	36.0
Calhoun.....	48,788	24,130	35,336	21,302	27,452	21,863	66.9	62.4	55.7	38.1	28.7	13.3	-2.6	34.8
Cass.....	5,440	14,955	6,088	16,536	4,151	16,725	26.7	24.7	19.9	6.9	22.6	-3.7	-7.1	30.3
Charlevoix.....	4,284	11,504	7,734	11,423	.....	13,956	27.1	40.4	.....	-44.6	.....	0.7	-18.1	28.0
Cheboygan.....	5,642	8,349	6,859	11,013	6,489	9,027	40.3	38.4	41.8	-17.7	5.7	-24.2	22.0	11.5
Chippewa.....	12,096	12,722	12,615	11,857	10,538	10,800	48.7	51.5	49.4	-4.1	19.7	7.3	9.8	8.1
Clinnton.....	3,925	19,185	3,154	19,075	3,388	21,748	17.0	13.6	13.5	24.4	-6.9	-4.0	-8.2	33.6
Delta.....	18,066	12,858	17,405	12,703	12,929	10,952	58.4	57.8	54.1	3.7	34.6	1.2	16.0	11.0
Dickinson.....	12,784	6,672	14,190	6,334	13,412	4,478	65.7	69.1	75.0	-9.9	5.8	5.3	41.4	8.6
Eaton.....	8,169	21,208	7,779	22,720	4,092	27,576	27.8	25.5	12.9	5.0	90.1	-6.7	-17.6	37.1
Emmet.....	5,064	10,575	4,778	13,783	5,285	10,646	32.4	25.7	33.2	8.0	-9.6	-23.3	29.5	21.8
Genesee.....	94,106	31,562	38,560	26,005	13,103	28,701	74.9	59.7	31.3	144.1	194.2	21.4	-9.4	49.2
Gogebic.....	25,372	7,853	17,404	5,629	13,616	3,122	76.4	74.6	81.3	45.8	27.8	32.5	89.9	6.9
Grand Traverse.....	10,925	8,593	12,115	11,699	9,407	11,072	56.0	50.9	45.9	-9.8	28.8	-26.4	5.4	18.4
Gratiot.....	10,578	23,336	2,757	26,063	.....	29,889	31.2	9.6	.....	283.7	.....	-10.5	-12.8	40.3
Hillsdale.....	5,476	22,686	5,001	24,672	4,151	25,714	19.4	16.9	13.9	9.5	20.5	-8.1	-4.1	38.0
Houghton.....	18,689	53,241	26,842	61,256	20,317	45,746	26.0	30.5	30.8	-30.4	32.1	-13.1	33.9	52.2
Ingham.....	57,327	24,227	31,229	22,061	18,485	23,333	70.3	58.6	41.4	83.6	89.4	9.7	-5.4	43.8
Ionia.....	10,846	22,241	9,149	24,401	8,491	25,838	32.8	27.3	24.7	18.5	7.7	-8.9	-5.6	38.4
Iron.....	7,689	14,418	3,775	11,389	3,231	5,759	36.7	24.9	35.9	103.7	16.8	26.6	97.8	12.0
Isabella.....	4,819	17,791	3,972	19,057	3,602	19,122	21.3	17.2	16.1	21.3	8.5	-6.6	-0.3	31.1
Jackson.....	48,374	24,165	31,433	21,993	25,180	23,042	66.7	58.8	52.2	53.9	24.8	9.9	-4.6	34.2
Kalamazoo.....	48,487	22,738	39,437	20,690	24,404	19,905	68.1	65.3	55.1	32.9	61.6	8.3	5.4	40.5
Kent.....	137,634	45,407	112,571	46,574	87,565	42,149	75.2	70.7	67.5	22.3	28.6	-2.5	10.6	52.8
Lapeer.....	4,723	21,059	3,946	22,087	3,297	24,344	18.3	15.2	11.9	10.7	19.7	-4.7	-9.3	31.6
Lenawee.....	11,878	35,889	10,763	37,144	9,654	38,752	24.9	22.5	19.9	10.4	11.5	-3.4	-4.1	48.3
Livingston.....	2,951	14,571	.....	17,736	2,518	17,146	16.8	.....	12.8	.....	.....	-17.8	3.4	25.7
Macomb.....	9,488	28,616	7,707	24,899	6,576	26,668	24.9	23.6	19.8	23.1	17.2	14.9	-6.6	60.6
Manistee.....	9,494	11,205	12,381	14,307	14,260	13,596	46.4	46.4	51.2	-21.7	-13.2	-21.7	5.2	19.9
Marquette.....	30,637	15,149	32,411	14,328	30,248	10,991	66.9	69.3	73.3	-5.5	7.2	5.7	30.4	8.1
Mason.....	8,510	11,021	9,132	12,700	7,166	11,719	44.4	41.8	37.9	-3.5	27.4	-13.2	8.4	22.3
Mecosta.....	4,553	13,207	4,519	14,947	4,686	16,007	25.7	23.2	22.6	0.9	-3.6	-11.6	-6.6	23.1
Memominee.....	8,907	14,871	10,507	15,141	12,818	14,228	37.5	41.0	47.4	-15.2	-18.0	-1.8	6.4	14.1
Midland.....	5,483	11,764	2,527	11,478	.....	14,489	31.8	18.0	.....	117.0	.....	2.4	-20.5	22.2
Monroe.....	11,573	25,542	6,893	26,024	5,043	27,711	31.2	20.9	15.4	67.9	36.7	-1.9	-5.1	44.6
Montcalm.....	4,304	26,137	4,045	28,024	3,381	29,373	14.1	12.6	10.3	6.4	19.6	-6.7	-4.6	36.1
Muskegon.....	46,084	16,278	24,062	16,515	20,818	16,218	73.9	59.3	56.2	91.5	15.6	-1.4	1.8	32.3
Oakland.....	49,183	40,887	14,532	35,044	9,769	35,023	54.6	29.3	21.8	238.3	48.8	16.7	0.1	46.1
Ottawa.....	19,388	28,272	16,346	28,955	12,533	27,134	40.7	36.1	31.6	18.6	30.4	-2.4	5.7	50.0
Presque Isle.....	2,789	9,342	2,702	8,547	.....	8,821	23.0	24.0	.....	3.2	.....	9.3	-3.1	13.8
Saginaw.....	61,903	38,383	50,510	38,780	42,345	38,877	61.7	56.6	52.1	22.6	19.3	-1.0	-0.2	46.4
St. Clair.....	32,879	25,130	25,206	27,075	25,630	26,698	56.7	48.3	45.2	30.1	-1.0	-7.2	-8.8	35.4
St. Joseph.....	11,204	15,614	8,707	16,792	3,559	20,339	41.8	34.1	14.9	28.7	145.3	-7.0	-17.4	31.0
Schoolcraft.....	6,380	3,597	4,722	3,959	4,126	3,763	63.9	54.4	52.3	35.1	14.4	-9.1	5.2	3.0
Shiawassee.....	15,247	20,677	9,639	23,607	8,696	25,170	42.4	29.0	25.7	58.2	10.8	-12.4	-6.2	37.1
Tuscola.....	2,704	30,616	.....	34,913	.....	35,890	8.1	.....	.....	.....	.....	-12.3	-2.7	37.0
Van Buren.....	3,829	26,886	3,577	29,608	4,009	29,265	12.5	10.8	12.0	7.0	-10.8	-9.2	1.2	43.6
Washtenaw.....	26,929	22,591	21,047	23,667	21,887	25,874	54.4	47.1	45.8	27.9	-3.8	-4.5	-8.5	32.1
Wayne.....	1,124,010	53,635	485,895	45,696	295,480	53,333	95.4	91.4	84.7	131.3	64.5	17.4	-14.3	86.5
Wexford.....	9,750	8,457	8,375	12,394	5,997	10,848	53.6	40.3	35.6	16.4	39.7	-31.8	14.3	14.7
All other counties <sup>1</sup> .....	.....	265,809	.....	290,140	.....	268,074	.....	.....	.....	.....	.....	-8.4	8.2	15.2

<sup>1</sup> Comprises all counties in which there were no incorporated places having 2,500 inhabitants or more in 1920. These counties are Alcona, Antrim, Arenac, Baraga, Benzie, Clare, Crawford, Gladwin, Huron, Iosco, Kalkaska, Keweenaw, Lake, Leelanau, Luce, Mackinac, Missaukee, Montmorency, Newaygo, Oceana, Ogemaw, Ontonagon, Osceola, Oscoda, Otsego, Roscommon, and Sanilac.

## COMPOSITION AND CHARACTERISTICS OF THE POPULATION.

This section gives detailed statistics as to the composition and characteristics of the population on January 1, 1920. It contains detailed tables which present statistics of color or race, nativity, parentage, sex, age, school attendance, citizenship, illiteracy, dwellings and families, and country of birth, for the state, and for its counties and cities. There are, besides, eight summary tables which reproduce from the detailed tables the more important state and city totals, and, also, tables which cover the following subjects, not included in the second series of state bulletins: Marital condition, state of birth, year of immigration, inability to speak English, country of origin, mother tongue, and ownership of homes. The full presentation of all these subjects is contained in Volume II of the Fourteenth Census Reports.

The principal occupations, as reported for persons 10 years of age and over, are given by sex, color or race, nativity, parentage, and age periods, followed by a summary, by marital condition and age groups, of women gainfully occupied.

Because of the wide differences in characteristics among the various classes of the population, the statistics on each subject are shown according to color or race, and for the white population according to nativity and parentage. Classification according to nativity and parentage has not been deemed necessary for the other races, since nearly all Negroes and Indians are natives of native parentage, while nearly all Chinese and Japanese are either foreign born or of foreign parentage.

The white population is divided into four groups: (1) Native, native parentage—that is, having both parents born in the United States; (2) native, foreign parentage—having both parents born abroad; (3) native, mixed parentage—having one parent native and the other foreign born; (4) foreign born. As the second and third classes do not differ greatly in characteristics, they are combined in certain tables; and in some cases all three native classes are combined.

The presentation of statistics on country of birth of the foreign-born white population is made on the basis of the postwar map. Because of the many political changes which have resulted from the war, comparative figures for 1910 for this class of the population by individual European countries are not presented here.

Since marked differences often exist between urban and rural communities with respect to the composition and characteristics of their population, the two classes

are shown separately in connection with several of the subjects. Urban population, as defined by the Census Bureau, is that residing in cities and other incorporated places having 2,500 inhabitants or more, the remainder being classified as rural.

The census inquiry as to school attendance was merely as to whether the person enumerated had attended school, college, or any kind of educational institution at any time between September 1, 1919, and the census date, January 1, 1920.

The Census Bureau classifies as illiterate any person 10 years of age or over who is unable to write in any language, not necessarily English, regardless of ability to read.

The statistics of marital condition relate only to persons 15 years of age and over, as the number of persons under 15 who are married, widowed, or divorced is naturally insignificant. The terms refer only to the marital status of the population on the census date.

The returns as to state of birth are valuable mainly for the light they throw on the migration of the native population within the United States; they show, for each state, the population residing there on January 1, 1920, distributed as born in the state or elsewhere.

Since the foreign-born population consists mainly of foreign-born whites, the statistics for citizenship relate to this class only. The classification embraces four groups, namely, persons reported as naturalized, persons reported as having taken out first papers, persons reported as aliens, and persons for whom citizenship was not reported.

The inquiry as to year of immigration supplies a means for determining what proportion of the immigrants who arrived during a given year or period of years were still alive and residing in this country on the census date.

The foreign white stock comprises the total of three classes, the foreign-born whites, the native whites of foreign parentage (both parents born abroad), and the native whites of mixed parentage (one parent native and the other foreign born). The term "country of origin," as used in this report, signifies the country of birth of the father of a foreign-born person or the foreign-born parent or parents of a native. The term "mother tongue" means the language of customary speech in the homes of immigrants before immigration.



## POPULATION—MICHIGAN.

TABLE 1.—COLOR OR RACE, NATIVITY, PARENTAGE, AND SEX, FOR THE STATE AND URBAN AND RURAL POPULATION: 1920, 1910, AND 1900.

CLASS OF POPULATION.	NUMBER.			PER CENT OF TOTAL.			1920		1910		1900		MALES TO 100 FEMALES. <sup>1</sup>		
	1920	1910	1900	1920	1910	1900	Male.	Female.	Male.	Female.	Male.	Female.	1920	1910	1900
<b>THE STATE.</b>															
Total population.....	3,668,412	2,810,173	2,420,982	100.0	100.0	100.0	1,928,436	1,739,976	1,454,534	1,355,639	1,248,905	1,172,077	110.8	107.3	106.6
White.....	3,601,627	2,785,247	2,398,593	98.2	99.1	99.1	1,890,265	1,711,362	1,441,281	1,343,966	1,237,098	1,161,465	110.5	107.2	106.5
Negro.....	60,082	17,115	15,816	1.6	0.6	0.7	34,249	25,833	9,007	8,108	8,220	7,596	132.6	111.1	108.2
Indian.....	5,614	7,519	6,354	0.2	0.3	0.3	2,941	2,673	3,968	3,651	3,341	3,013	110.0	111.7	110.9
Chinese.....	792	241	240	(2)	(2)	(2)	717	75	239	2	240	3			
Japanese.....	184	49	9	(2)	(2)	(2)	162	22	38	11	6				
All other.....	113	2		(2)	(2)		102	11	1	1					
Native white, total.....	2,874,992	2,189,723	1,888,367	78.4	77.9	76.8	1,476,459	1,398,533	1,107,624	1,082,099	941,906	916,461	105.6	102.4	102.8
Native parentage.....	1,670,447	1,224,841	1,026,714	45.5	43.6	42.4	860,769	803,678	625,032	599,809	522,852	503,862	107.9	104.2	103.8
Foreign parentage.....	775,288	611,319	533,547	21.1	21.8	22.0	394,176	381,112	308,580	304,739	269,952	263,595	103.4	100.6	102.4
Mixed parentage.....	429,257	353,563	298,106	11.7	12.6	12.3	215,514	213,743	176,012	177,551	149,102	149,004	100.8	99.1	100.1
Foreign-born white.....	726,635	595,524	540,196	19.8	21.2	22.3	413,806	312,829	333,657	261,867	295,192	245,004	132.3	127.4	120.5
<b>URBAN POPULATION.</b>															
Total.....	2,241,560	1,327,044	952,323	100.0	100.0	100.0	1,180,219	1,061,341	674,198	652,846	472,144	480,179	111.2	103.3	98.3
White.....	2,184,678	1,314,183	941,626	97.5	99.0	98.9	1,147,425	1,037,253	667,477	646,799	466,682	474,904	110.6	103.2	98.3
Negro.....	55,006	12,156	10,009	2.5	0.9	1.1	31,427	23,579	6,255	5,901	5,024	4,985	133.3	106.0	100.8
Indian, Chinese, Japanese, and all other.....	1,876	702	688	0.1	0.1	0.1	1,367	509	466	236	458	230	268.6	197.5	199.1
Native white, total.....	1,663,124	967,108	673,587	74.2	72.9	70.7	848,301	814,823	476,578	490,530	327,502	346,037	104.1	97.2	94.7
Native parentage.....	902,177	470,803	303,323	40.2	35.5	31.9	499,908	432,299	236,239	234,664	148,542	154,781	108.7	100.7	96.0
Foreign parentage.....	509,868	333,180	370,264	22.7	25.1	38.9	254,538	254,830	181,456	171,724	179,008	191,256	99.9	94.0	93.6
Mixed parentage.....	251,579	163,125	208,039	11.2	12.3	28.1	123,855	127,724	78,883	84,242	139,112	128,927	97.0	93.6	107.0
Foreign-born white.....	521,554	347,078	268,039	23.3	26.2	28.1	299,124	222,430	190,899	166,179	139,112	128,927	134.5	122.2	107.0
<b>RURAL POPULATION.</b>															
Total.....	1,426,852	1,483,129	1,468,659	100.0	100.0	100.0	748,217	678,635	780,336	702,793	776,761	691,898	110.3	111.0	112.3
White.....	1,416,949	1,471,061	1,466,937	99.3	99.2	99.2	742,840	674,109	773,804	697,257	770,436	686,501	110.2	111.0	112.2
Negro.....	6,076	4,959	5,807	0.4	0.3	0.4	2,822	2,254	2,782	2,207	3,196	2,611	125.2	124.7	122.4
Indian, Chinese, Japanese, and all other.....	4,827	7,109	5,915	0.3	0.5	0.4	2,555	2,272	3,780	3,329	3,129	2,786	112.5	113.5	112.3
Native white, total.....	1,211,868	1,222,615	1,184,780	84.9	82.4	80.7	628,158	583,710	631,046	591,509	614,356	570,424	107.6	106.7	107.7
Native parentage.....	768,270	754,038	723,391	53.8	50.8	49.3	398,861	371,409	388,793	365,245	374,810	349,081	106.9	106.4	107.2
Foreign parentage.....	265,920	278,139	461,389	18.6	18.8	31.4	139,638	126,282	145,124	133,015	240,046	221,343	110.6	109.1	108.4
Mixed parentage.....	177,678	190,438	272,157	12.5	12.8	18.5	91,659	80,619	97,129	93,309	156,080	116,077	108.6	104.1	134.5
Foreign-born white.....	206,081	248,446	272,157	14.4	16.8	18.5	114,682	90,399	142,758	105,688	156,080	116,077	126.9	135.1	134.5

<sup>1</sup> Ratio not shown where number of females is less than 100. <sup>2</sup> Less than one-tenth of 1 per cent. <sup>3</sup> Comprises 38 Filipinos, 38 Hindus, 30 Koreans, and 7 Hawaiians.

TABLE 2.—SCHOOL ATTENDANCE, FOR THE STATE AND URBAN AND RURAL POPULATION: 1920 AND 1910.

AGE PERIOD.	ALL CLASSES.			NATIVE WHITE.						FOREIGN-BORN WHITE.			NEGRO.		
	Total number.	Attending school.		Total number.	Attending school.		Total number.	Attending school.		Total number.	Attending school.		Total number.	Attending school.	
		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.
THE STATE: 1920															
5 to 20 years, inclusive.	1,048,390	710,341	67.8	552,423	390,057	70.6	420,856	281,231	66.8	60,581	30,612	50.5	12,534	7,322	58.4
Male.....	531,150	357,005	67.2	280,586	195,987	69.8	212,650	141,181	66.4	30,551	15,703	51.4	6,332	3,564	56.3
Female.....	517,240	353,336	68.3	271,837	194,070	71.4	208,206	140,050	67.3	30,030	14,909	49.6	6,202	3,758	60.6
5 and 6 years.....	154,646	84,176	54.4	84,948	48,744	57.4	64,982	32,972	50.7	2,891	1,482	51.3	1,506	877	58.2
7 to 13 years.....	477,976	453,652	94.9	256,866	244,696	95.3	193,215	183,595	95.0	22,032	19,886	90.3	4,955	4,717	95.2
14 and 15 years.....	119,811	103,747	86.6	62,869	56,058	89.2	47,839	40,469	84.6	7,707	6,015	78.0	1,179	1,046	88.7
16 and 17 years.....	119,423	47,055	39.4	59,988	27,527	45.9	47,882	16,741	35.0	9,964	2,236	22.4	1,393	490	35.2
18 to 20 years.....	176,534	21,711	12.3	87,752	13,032	14.9	66,938	7,454	11.1	17,987	993	5.5	3,501	192	5.5
URBAN POPULATION.															
5 and 6 years.....	89,073	50,389	56.6	42,160	26,544	63.0	43,186	21,800	50.5	2,362	1,223	51.8	1,316	793	60.3
7 to 13 years.....	258,639	246,405	95.3	120,646	115,858	95.9	116,347	110,967	95.4	17,257	15,598	90.4	4,268	4,071	95.4
14 to 20 years.....	246,034	94,118	38.3	111,633	46,850	42.0	100,207	38,560	38.5	28,596	7,204	25.2	5,520	1,449	26.3
RURAL POPULATION.															
5 and 6 years.....	65,573	33,787	51.5	42,788	22,200	51.9	21,796	11,172	51.3	529	259	49.0	190	84	44.2
7 to 13 years.....	219,337	207,247	94.5	136,220	129,038	94.7	76,868	72,628	94.5	4,775	4,288	89.8	687	646	94.0
14 to 20 years.....	169,734	78,395	46.2	99,076	49,767	50.2	62,452	26,104	41.8	7,062	2,040	28.9	553	279	50.5
THE STATE: 1910															
5 to 20 years, inclusive.	854,710	558,126	65.3	402,911	278,701	69.2	390,765	251,390	64.3	54,137	23,884	44.1	4,246	2,638	62.1
Male.....	432,406	280,362	64.8	203,684	139,036	68.7	196,097	126,245	64.4	29,157	12,130	41.6	2,091	1,280	61.2
Female.....	422,304	277,764	65.8	199,227	138,765	69.7	194,668	125,145	64.3	24,980	11,754	47.1	2,155	1,358	63.0
5 and 6 years.....	115,018	57,821	50.3	60,081	30,650	51.0	50,186	25,146	50.1	3,859	1,067	43.2	532	263	49.4
7 to 13 years.....	368,556	345,005	94.1	178,488	168,498	94.4	167,334	157,772	94.3	17,802	16,141	90.7	1,729	1,620	93.7
14 and 15 years.....	101,488	85,713	84.5	46,597	41,671	89.4	49,016	39,807	81.2	5,047	3,593	71.0	540	422	78.1
16 and 17 years.....	108,173	47,279	43.7	47,719	25,300	53.0	52,716	20,064	38.1	6,898	1,553	22.5	536	232	43.3
18 to 20 years.....	163,475	22,308	13.6	70,026	12,582	18.0	71,513	8,601	12.0	20,631	940	4.6	909	101	11.1
URBAN POPULATION.															
5 and 6 years.....	49,576	25,643	51.7	20,892	11,440	54.8	25,623	12,863	50.2	2,714	1,183	43.6	331	152	45.9
7 to 13 years.....	155,368	145,545	93.7	80,267	78,780	94.2	82,645	77,464	93.7	11,291	10,211	90.4	1,097	1,022	93.2
14 to 20 years.....	177,191	63,240	35.7	62,732	27,716	44.2	90,813	31,399	34.6	22,184	3,618	16.3	1,375	471	34.3
RURAL POPULATION.															
5 and 6 years.....	65,442	32,178	49.2	39,189	19,210	49.0	24,563	12,283	50.0	1,145	484	42.3	201	111	55.2
7 to 13 years.....	211,188	199,460	94.4	118,221	111,718	94.5	84,689	80,308	94.8	6,511	5,930	91.1	632	598	94.6
14 to 20 years.....	195,945	92,060	47.0	101,610	51,837	51.0	82,432	37,073	45.0	10,292	2,458	23.9	610	284	46.6

## COMPOSITION AND CHARACTERISTICS.

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TABLE 3.—AGE, FOR THE STATE AND URBAN AND RURAL POPULATION: 1920 AND 1910.

AGE PERIOD.	ALL CLASSES.			NATIVE WHITE.									FOREIGN-BORN WHITE.			NEGRO.		
	Total.	Male.	Female.	Native parentage.			Foreign or mixed parentage.			Total.	Male.	Female.	Total.	Male.	Female.			
				Total.	Male.	Female.	Total.	Male.	Female.									
THE STATE.																		
All ages: 1920.....	3,668,412	1,928,436	1,739,976	1,670,447	866,769	803,678	1,204,545	609,690	594,855	726,635	413,806	312,829	60,092	34,249	25,833			
Under 5 years.....	404,586	205,128	199,458	234,389	118,991	115,348	162,467	82,295	80,172	2,894	1,447	1,447	4,141	2,030	2,111			
Under 1 year.....	77,286	38,885	38,401	46,291	23,304	22,987	29,622	14,945	14,677	291	140	151	923	413	510			
5 to 9 years.....	368,220	186,079	181,541	201,091	102,396	98,695	152,120	76,809	75,311	10,513	5,302	5,211	3,748	1,806	1,942			
10 to 14 years.....	326,453	165,513	160,940	173,544	88,091	85,453	130,742	66,175	64,567	18,233	9,278	9,955	3,336	1,671	1,665			
15 to 19 years.....	295,514	149,583	145,081	149,206	75,544	73,662	116,289	58,801	57,488	26,383	12,788	12,595	4,096	2,144	1,952			
20 to 44 years.....	1,474,769	794,307	680,462	599,228	316,394	282,834	459,445	230,277	229,168	377,568	224,744	152,824	36,016	21,259	14,757			
45 years and over.....	795,138	424,913	370,225	310,771	163,975	146,796	182,972	95,042	87,930	291,241	159,710	131,531	8,008	5,244	3,364			
Age unknown.....	3,732	2,313	1,419	2,268	1,378	890	510	291	219	808	537	266	137	95	42			
18 to 44 years.....	1,593,100	854,578	738,522	658,398	346,465	311,933	504,678	253,251	251,427	389,103	230,648	158,455	38,163	22,442	15,721			
21 years and over.....	2,215,436	1,192,158	1,023,278	883,685	467,192	416,493	621,222	314,745	306,477	663,160	381,808	281,362	43,407	25,887	17,520			
Per cent: 1920.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
Under 5 years.....	11.0	10.6	11.5	14.0	13.7	14.4	13.5	13.5	13.5	0.4	0.3	0.5	6.9	5.9	8.2			
Under 1 year.....	2.1	2.0	2.2	2.8	2.7	2.9	2.5	2.5	2.5	(1)	(1)	(1)	1.5	1.2	2.0			
5 to 9 years.....	10.0	9.7	10.4	12.0	11.8	12.3	12.6	12.6	12.7	1.4	1.3	1.7	6.2	5.3	7.5			
10 to 14 years.....	8.9	8.6	9.2	10.4	10.2	10.6	10.9	10.9	10.9	2.5	2.2	2.9	5.6	4.9	6.4			
15 to 19 years.....	8.1	7.8	8.4	8.9	8.7	9.2	9.7	9.6	9.7	3.5	3.1	4.0	6.8	6.3	7.6			
20 to 44 years.....	40.2	41.2	39.1	35.9	36.5	35.2	38.1	37.8	38.5	52.0	54.3	48.9	59.9	62.1	57.1			
45 years and over.....	21.7	22.0	21.3	18.6	18.9	18.3	15.2	15.6	14.8	40.1	38.6	42.0	14.3	15.3	13.0			
18 to 44 years.....	43.4	44.3	42.4	39.4	40.0	38.8	41.9	41.5	42.3	53.5	55.7	50.7	63.5	65.5	60.9			
21 years and over.....	60.4	61.8	58.8	52.9	53.9	51.8	51.6	51.6	51.5	91.3	92.3	89.9	72.2	76.6	67.8			
Per cent: 1910.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
Under 5 years.....	10.6	10.4	10.9	13.5	13.4	13.5	13.2	13.3	13.0	0.8	0.7	0.9	7.6	7.2	7.8			
Under 1 year.....	2.2	2.2	2.3	2.9	2.8	2.9	2.7	2.7	2.7	(1)	(1)	0.1	1.6	1.6	1.6			
5 to 9 years.....	9.8	9.6	10.0	11.5	11.4	11.5	12.0	12.8	12.5	1.9	1.7	2.1	7.4	7.0	7.9			
10 to 14 years.....	9.2	9.0	9.4	10.0	9.9	10.1	12.5	12.7	12.4	2.2	2.0	2.8	7.5	7.1	7.8			
15 to 19 years.....	9.5	9.3	9.7	9.6	9.5	9.7	13.0	13.0	13.0	3.6	3.6	3.6	8.1	7.6	8.6			
20 to 44 years.....	38.3	38.0	38.1	34.1	33.8	34.3	37.0	36.3	37.8	49.0	50.6	47.1	45.7	46.2	45.1			
45 years and over.....	22.4	23.0	21.8	21.3	21.7	20.8	11.0	12.0	11.2	42.4	41.3	43.7	23.6	24.5	22.6			
18 to 44 years.....	42.2	42.4	42.0	37.9	37.6	38.2	42.1	41.3	42.9	51.1	52.7	49.0	49.1	49.5	48.7			
21 years and over.....	59.0	59.9	58.0	53.7	54.0	53.3	46.3	46.1	46.6	90.1	90.6	89.6	67.7	69.6	65.6			
URBAN POPULATION.																		
All ages: 1920.....	2,241,560	1,180,219	1,061,341	902,177	469,908	432,269	760,947	378,393	382,554	521,554	299,124	222,430	55,006	31,427	23,579			
Under 5 years.....	243,978	123,254	120,724	122,594	61,953	60,641	115,116	58,198	56,915	2,477	1,228	1,249	3,632	1,804	1,848			
Under 1 year.....	47,482	23,727	23,755	24,912	12,473	12,439	21,468	10,749	10,714	254	117	127	3,821	1,869	1,952			
5 to 9 years.....	206,625	104,121	102,504	97,570	49,201	48,379	97,189	48,930	48,269	8,501	4,295	4,208	3,258	1,559	1,599			
10 to 14 years.....	173,395	86,679	86,716	80,140	39,836	40,304	76,352	38,305	38,047	13,977	7,059	6,918	2,847	1,437	1,410			
15 to 19 years.....	174,338	86,051	88,287	78,795	39,010	39,785	71,448	34,987	34,461	20,263	10,044	10,219	3,704	1,923	1,778			
20 to 44 years.....	1,014,018	555,704	458,314	375,710	203,374	172,336	302,688	149,586	153,102	300,379	181,730	118,649	34,183	20,177	14,011			
45 years and over.....	426,537	222,710	203,827	145,770	75,441	70,329	97,814	48,192	49,622	175,364	94,866	80,998	7,227	4,432	2,795			
Age unknown.....	2,669	1,700	969	1,598	1,003	595	340	195	145	593	402	191	130	92	38			
Per cent: 1920.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
Under 5 years.....	10.9	10.4	11.4	13.6	13.2	14.0	15.1	15.4	14.9	0.5	0.4	0.6	6.0	5.7	7.8			
Under 1 year.....	2.1	2.0	2.2	2.8	2.7	2.9	2.5	2.5	2.5	0.1	0.1	0.1	1.6	1.6	1.6			
5 to 9 years.....	9.2	8.8	9.7	10.8	10.5	11.2	12.8	12.9	12.6	1.6	1.4	1.9	5.9	5.0	7.2			
10 to 14 years.....	7.7	7.3	8.2	8.9	8.5	9.3	10.0	10.1	9.9	2.7	2.4	3.1	5.2	4.6	6.0			
15 to 19 years.....	7.8	7.3	8.3	8.7	8.3	9.2	9.4	9.2	9.5	3.0	3.4	4.6	6.7	6.1	7.5			
20 to 44 years.....	45.2	47.1	43.2	41.6	43.3	39.9	39.8	39.5	40.0	57.6	60.8	53.3	62.2	64.2	59.4			
45 years and over.....	19.0	18.9	19.2	16.2	16.1	16.3	12.9	12.7	13.0	33.6	31.5	36.4	13.1	14.1	11.9			
Per cent: 1910.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
Under 5 years.....	10.1	10.0	10.2	12.9	12.9	12.9	13.9	14.5	13.4	1.0	0.9	1.1	6.6	6.3	6.9			
Under 1 year.....	8.9	8.8	9.0	10.3	10.3	10.3	12.3	12.7	11.9	2.2	2.0	2.4	6.5	6.2	6.8			
5 to 9 years.....	8.2	8.1	8.4	8.7	8.5	8.8	12.0	12.4	11.6	2.3	2.1	2.6	6.8	6.4	7.1			
10 to 14 years.....	9.5	9.2	9.8	9.5	9.2	9.7	13.3	13.2	13.3	4.2	4.2	4.3	7.7	7.3	8.3			
15 to 19 years.....	43.1	43.9	42.3	39.7	40.4	39.1	38.7	37.4	39.9	53.9	53.2	51.0	50.4	51.3	49.5			
20 to 44 years.....	43.1	43.9	42.3	39.7	40.4	39.1	38.7	37.4	39.9	53.9	53.2	51.0	50.4	51.3	49.5			
45 years and over.....	20.0	19.9	20.1	18.6	18.2	18.0	9.8	9.7	9.9	36.4	34.6	38.5	21.6	22.0	21.1			
RURAL POPULATION.																		
All ages: 1920.....	1,426,852	748,217	678,635	768,270	396,881	371,409	443,598	231,297	212,301	205,081	114,682	90,399	5,076	2,822	2,254			
Under 5 years.....	160,608	81,874	78,734	111,745	57,038	54,707	47,351	24,097	23,254	417	219	198	489	226	263			
Under 1 year.....	29,804	15,158	14,646	21,379	10,831	10,548	8,169	4,198	3,963	37	23	14	102	44	58			
5 to 9 years.....	161,595	82,558	79,037	103,521	53,105	50,416	54,931	27,879	27,052	2,012	1,007	1,005	490	247	243			
10 to 14 years.....	153,058	78,334	74,724	93,404	48,255	45,149	54,390	27,870	26,520	4,255	2,219	2,037	489	234	255			
15 to 19 years.....	121,176	63,532	57,644	70,411	36,534	33,877	44,841	23,814	21,027	5,120	2,744	2,376	392	218	174			
20 to 44 years.....	460,751	238,003	222,748	223,518	113,020	110,498	156,757	80,691	76,066	77,189	43,014	34,175	1,828	1,082	746			
45 years and over.....	368,601	202,203	166,398	165,001	88,594	76,407	85,158	46,860	38,308	115,877	65,344	50,533	1,381	812	569			
Age unknown.....	1,063																	

TABLE 4.—ILLITERACY, FOR THE STATE AND URBAN AND RURAL POPULATION: 1920 AND 1910.

AGE PERIOD.	ALL CLASSES.			NATIVE WHITE.									FOREIGN-BORN WHITE.			NEGRO.		
				Native parentage.			Foreign or mixed parentage.											
	Total number.	Illiterate.		Total number.	Illiterate.		Total number.	Illiterate.		Total number.	Illiterate.		Total number.	Illiterate.				
		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.	Num-ber.	Per cent.	
THE STATE: 1920																		
10 years and over.....	2,885,606	88,046	3.0	1,235,017	7,580	0.6	889,958	6,592	0.7	713,228	70,535	9.9	52,192	2,203	4.2			
Male.....	1,536,629	48,173	3.1	645,382	4,795	0.7	490,586	4,038	0.9	407,057	37,461	9.2	30,413	1,293	4.3			
Female.....	1,358,977	39,873	2.9	589,635	2,785	0.5	439,372	2,559	0.6	306,171	33,074	10.8	21,780	910	4.2			
10 to 15 years.....	384,213	811	0.2	203,592	340	0.2	153,916	325	0.2	22,117	110	0.5	3,892	8	0.2			
Male.....	194,494	446	0.2	103,135	188	0.2	77,842	187	0.2	11,231	54	0.5	1,940	5	0.3			
Female.....	189,719	365	0.2	100,457	152	0.2	76,074	138	0.2	10,886	56	0.5	1,952	3	0.2			
16 to 20 years.....	295,957	1,622	0.5	147,740	442	0.3	114,820	392	0.3	27,951	666	2.4	4,894	84	1.7			
Male.....	149,975	917	0.6	75,055	283	0.4	57,999	253	0.4	14,018	304	2.2	2,588	53	2.0			
Female.....	145,980	705	0.5	72,685	159	0.2	56,821	139	0.2	13,933	362	2.6	2,308	31	1.3			
21 years and over.....	2,215,436	85,613	3.9	883,685	6,798	0.8	621,222	5,875	0.9	663,160	69,759	10.5	43,407	2,111	4.9			
Male.....	1,192,158	40,811	3.9	467,192	4,324	0.9	314,745	3,593	1.1	381,808	37,103	9.7	25,887	1,235	4.8			
Female.....	1,023,278	38,802	3.8	416,493	2,474	0.6	306,477	2,282	0.7	281,352	32,656	11.6	17,520	876	5.0			
URBAN POPULATION.																		
10 years and over.....	1,790,957	60,440	3.4	682,013	3,081	0.5	548,642	2,714	0.5	510,576	52,497	10.3	48,096	1,923	4.0			
Male.....	952,844	32,147	3.4	358,664	1,756	0.5	271,265	1,464	0.5	293,601	27,662	9.4	28,064	1,108	3.9			
Female.....	838,113	28,293	3.4	323,349	1,325	0.4	277,377	1,250	0.5	216,975	24,835	11.4	20,032	815	4.1			
10 to 15 years.....	203,779	373	0.2	94,085	127	0.1	80,360	160	0.2	16,906	74	0.4	3,821	6	0.2			
Male.....	133,342	1,092	0.6	82,684	243	0.3	73,182	183	0.3	22,808	578	2.5	4,525	73	1.6			
Female.....	1,403,836	58,975	4.2	505,244	2,711	0.5	386,091	2,366	0.6	470,802	51,845	11.0	40,250	1,844	4.6			
RURAL POPULATION.																		
10 years and over.....	1,104,640	27,608	2.5	553,004	4,499	0.8	341,316	3,878	1.1	202,652	18,038	8.9	4,997	280	6.8			
Male.....	583,785	16,028	2.7	286,718	3,039	1.1	179,321	2,569	1.4	123,456	9,799	8.6	2,489	185	7.9			
Female.....	520,854	11,580	2.2	266,286	1,460	0.5	161,995	1,309	0.8	89,196	8,239	9.2	1,748	95	5.4			
10 to 15 years.....	180,434	438	0.2	109,507	213	0.2	64,547	165	0.3	5,211	36	0.7	571	2	0.4			
Male.....	112,615	530	0.5	65,056	199	0.3	41,638	204	0.5	5,143	88	1.7	369	11	3.0			
Female.....	811,000	26,638	3.3	378,441	4,087	1.1	235,131	3,509	1.5	192,298	17,914	9.3	3,157	267	8.5			
THE STATE: 1910																		
10 years and over.....	2,236,252	74,800	3.3	919,837	9,561	1.0	716,066	8,285	1.2	579,803	54,113	9.3	14,557	826	5.7			
Male.....	1,163,835	41,617	3.6	470,154	5,802	1.2	360,916	4,928	1.4	325,735	29,515	9.1	7,727	411	5.3			
Female.....	1,072,417	33,183	3.1	449,683	3,759	0.8	359,150	3,357	0.9	254,068	24,598	9.7	6,830	415	6.1			
10 to 15 years.....	307,695	980	0.3	144,904	323	0.2	144,730	393	0.3	15,573	193	1.2	1,528	7	0.5			
Male.....	155,502	579	0.4	73,384	212	0.3	72,974	234	0.3	7,898	102	1.3	767	3	0.4			
Female.....	152,193	401	0.3	71,520	111	0.2	71,756	159	0.2	7,675	91	1.2	761	4	0.5			
16 to 20 years.....	271,648	3,698	1.4	117,745	536	0.5	124,229	844	0.7	27,429	2,199	8.0	1,445	15	1.0			
Male.....	137,487	2,335	1.7	59,119	336	0.6	61,548	550	0.9	15,660	1,379	8.8	694	11	1.6			
Female.....	134,161	1,363	1.0	58,626	200	0.3	62,681	294	0.5	11,769	820	7.0	751	4	0.5			
21 years and over.....	1,656,909	70,122	4.2	657,188	8,702	1.3	447,107	7,048	1.6	536,801	51,721	9.6	11,584	804	6.9			
Male.....	870,876	38,703	4.4	337,651	5,254	1.6	222,394	4,144	1.9	302,177	28,034	9.3	6,266	397	6.3			
Female.....	786,033	31,419	4.0	319,537	3,448	1.1	224,713	2,904	1.3	234,624	23,687	10.1	5,318	407	7.7			
URBAN POPULATION.																		
10 years and over.....	1,075,814	37,572	3.5	361,672	2,191	0.6	360,181	2,692	0.7	336,270	32,121	9.6	10,562	460	4.4			
Male.....	547,823	20,102	3.7	181,405	1,128	0.6	174,996	1,382	0.8	185,524	17,328	9.3	5,472	282	3.7			
Female.....	527,991	17,470	3.3	180,267	1,063	0.6	191,185	1,310	0.7	150,746	14,793	9.8	5,090	258	5.1			
10 to 15 years.....	130,757	872	0.3	48,602	115	0.2	71,453	145	0.2	9,638	108	1.1	991	4	0.4			
Male.....	133,586	2,250	1.7	46,967	174	0.4	66,491	336	0.5	19,045	1,730	9.1	1,021	8	0.8			
Female.....	810,971	34,950	4.3	266,103	1,902	0.7	228,232	2,211	1.0	307,587	30,283	9.8	8,550	448	5.2			
RURAL POPULATION.																		
10 years and over.....	1,160,938	37,228	3.2	558,165	7,370	1.3	349,885	5,593	1.6	243,533	21,992	9.0	3,995	366	9.2			
Male.....	616,012	21,515	3.5	288,749	4,674	1.6	181,920	3,546	1.9	140,211	12,187	8.7	2,255	209	9.3			
Female.....	544,926	15,713	2.9	269,416	2,696	1.0	167,965	2,047	1.2	103,322	9,805	9.5	1,740	167	9.0			
10 to 15 years.....	176,983	608	0.3	90,302	208	0.2	73,272	248	0.3	5,935	85	1.4	537	3	0.6			
Male.....	188,062	1,448	1.0	70,778	362	0.5	57,738	508	0.9	8,384	469	5.0	424	7	1.7			
Female.....	845,938	35,172	4.2	391,085	6,800	1.7	218,875	4,837	2.2	229,214	21,438	9.4	3,034	356	11.7			

TABLE 5.—POPULATION 21 YEARS OF AGE AND OVER, BY SEX, CLASS OF POPULATION, AND CITIZENSHIP, FOR THE STATE: 1920 AND 1910.

CLASS OF POPULATION AND CITIZENSHIP.	POPULATION 21 YEARS OF AGE AND OVER.			PER CENT DISTRIBUTION.			CLASS OF POPULATION AND CITIZENSHIP.	POPULATION 21 YEARS OF AGE AND OVER.			PER CENT DISTRIBUTION.		
	Male.		Female: 1920	Male.		Fe- male: 1920		Male.		Female: 1920	Male.		Fe- male: 1920
	1920	1910		1920	1910			1920	1910		1920		
Total.....	1,192,158	870,876	1,023,278	100.0	100.0	100.0	Native white.....	781,937	560,045	722,970	65.6	64.3	70.7
White.....	1,163,745	862,222	1,004,322	97.6	99.0	98.1	Native parentage.....	467,192	337,651	416,493	39.2	38.8	40.7
Negro.....	25,837	6,266	17,520	2.2	0.7	1.7	Foreign parentage.....	210,272	150,877	200,781	17.6	17.3	19.0
Indian.....	1,664	2,125	1,376	0.1	0.2	0.1	Mixed parentage.....	104,473	71,517	105,696	8.8	8.2	10.3
Chinese.....	632	229	44	0.1	(1)	(1)	Foreign-born white.....	351,808	302,177	281,352	32.0	34.7	27.5
Japanese.....	145	33	14	(1)	(1)	(1)	Naturalized.....	175,031	167,304	155,327	14.7	19.2	15.2
All other.....	85	1	2	(1)	(1)	(1)	Having first papers....	86,400	26,235	4,553	7.3	3.0	0.4
							Alien.....	101,206	76,550	103,343	8.5	8.8	10.1
							Unknown.....	18,511	32,088	18,129	1.6	3.7	1.8

<sup>1</sup> Less than one-tenth of 1 per cent.

## COMPOSITION AND CHARACTERISTICS.

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TABLE 6.—COUNTRY OF BIRTH OF THE FOREIGN-BORN WHITE, FOR THE STATE AND PRINCIPAL CITIES: 1920.

COUNTRY OF BIRTH.	THE STATE.		DETROIT.		GRAND RAPIDS.		COUNTRY OF BIRTH.	THE STATE.		DETROIT.		GRAND RAPIDS.	
	Num-ber.	Per cent distribution.	Num-ber.	Per cent distribution.	Num-ber.	Per cent distribution.		Num-ber.	Per cent distribution.	Num-ber.	Per cent distribution.	Num-ber.	Per cent distribution.
All countries.....	728,635	100.0	289,297	100.0	28,355	100.0	Ireland.....	16,531	2.3	7,004	2.4	628	2.2
Armenia.....	2,498	0.3	1,361	0.5	50	0.2	Italy.....	30,216	4.2	16,205	5.0	525	1.9
Austria.....	22,004	3.0	10,674	3.7	534	1.9	Jugo-Slavia.....	9,426	1.3	3,702	1.3	6	( <sup>1</sup> )
Belgium.....	10,501	1.4	6,219	2.1	47	0.2	Lithuania.....	5,475	0.8	2,653	0.9	1,120	3.9
Bulgaria.....	1,692	0.2	883	0.3	7	( <sup>1</sup> )	Mexico.....	1,268	0.2	712	0.2	19	0.1
Canada—French.....	18,635	2.6	3,678	1.3	91	0.3	Netherlands.....	33,499	4.6	1,861	0.6	11,422	40.3
Canada—Other.....	145,867	20.1	55,216	19.1	2,746	9.7	Norway.....	6,888	0.9	861	0.3	165	0.6
Czechoslovakia.....	11,161	1.5	3,351	1.2	110	0.4	Poland.....	103,926	14.3	56,624	19.6	4,269	15.1
Denmark.....	7,178	1.0	1,505	0.5	201	0.7	Rumania.....	6,331	0.9	4,668	1.6	66	0.3
England.....	47,149	6.5	17,169	5.9	868	3.1	Russia.....	45,313	6.2	27,278	9.4	1,046	3.7
Finland.....	30,096	4.1	1,785	0.6	102	0.4	Scotland.....	13,175	1.8	6,933	2.4	214	0.8
France.....	4,174	0.6	1,740	0.6	87	0.3	Sweden.....	24,707	3.4	2,659	0.9	883	3.1
Germany.....	86,047	11.8	30,238	10.5	2,433	8.6	Switzerland.....	2,755	0.4	889	0.3	53	0.2
Greece.....	7,115	1.0	4,628	1.6	60	0.2	Syria.....	3,648	0.5	1,877	0.6	301	1.1
Hungary.....	22,607	3.1	13,564	4.7	155	0.5	Wales.....	1,154	0.2	548	0.2	20	0.1
							All other countries.....	5,599	0.8	2,812	1.0	127	0.4

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 7.—INDIANS, CHINESE, AND JAPANESE, FOR COUNTIES AND FOR CITIES OF 25,000 OR MORE: 1920, 1910, AND 1900.

COUNTY OR CITY.	INDIAN.			CHINESE.			JAPANESE.			COUNTY OR CITY.	INDIAN.			CHINESE.			JAPANESE.		
	1920	1910	1900	1920	1910	1900	1920	1910	1900		1920	1910	1900	1920	1910	1900	1920	1910	1900
COUNTIES.										COUNTIES—CON.									
The state.....	5,614	7,519	6,354	792	241	240	184	49	9	Luce.....	103	7	—	1	—	1	—	—	—
Alcona.....	45	50	38	—	—	—	—	—	—	Mackinac.....	122	990	275	—	—	—	—	—	—
Alger.....	12	28	62	2	2	2	—	—	—	Macomb.....	2	16	—	1	3	—	8	—	—
Allegan.....	106	156	106	—	—	1	—	—	—	Manistee.....	87	24	2	—	—	—	—	—	—
Alpena.....	5	8	—	—	—	1	—	—	—	Marquette.....	28	37	61	9	14	23	—	1	—
Antrim.....	126	96	173	—	—	—	—	—	—	Mason.....	139	308	319	—	2	2	—	—	—
Arenac.....	80	99	118	—	—	1	—	—	—	Meosta.....	11	39	38	—	—	—	—	—	—
Baraga.....	420	592	488	—	—	1	—	—	—	Menominee.....	70	101	101	1	3	2	—	—	—
Barry.....	1	—	—	—	—	—	—	—	—	Midland.....	28	—	—	—	—	—	—	—	—
Bay.....	115	119	162	1	1	—	1	6	—	Missaukee.....	26	35	50	—	—	—	—	—	—
Benzie.....	32	140	50	—	—	2	—	—	—	Monroe.....	1	—	—	—	—	—	—	—	—
Berrien.....	17	26	6	12	4	10	—	—	—	Montmorency.....	9	—	—	—	—	—	—	—	—
Branch.....	7	3	4	—	—	—	—	—	—	Muskegon.....	76	1	1	7	1	1	—	—	—
Calhoun.....	58	68	83	21	8	10	5	1	1	Oakland.....	4	—	—	8	6	2	3	—	—
Cass.....	102	132	68	—	—	—	—	—	—	Oceana.....	209	281	280	—	—	—	—	—	—
Charlevoix.....	294	334	321	—	—	1	—	—	—	Ontonagon.....	6	2	27	1	2	1	—	—	—
Cheboygan.....	98	199	182	—	—	2	—	—	—	Osceola.....	6	21	16	—	—	—	—	—	—
Chippewa.....	436	690	449	5	8	8	—	—	—	Otsego.....	18	—	18	—	—	—	—	—	—
Clare.....	5	25	10	—	—	—	—	—	—	Presque Isle.....	5	4	—	—	—	—	—	—	—
Clinton.....	1	—	—	3	—	—	—	—	1	Saginaw.....	154	141	130	20	6	3	—	1	—
Crawford.....	14	19	4	—	—	—	—	—	—	St. Clair.....	19	15	1	2	—	—	—	—	—
Delta.....	135	245	247	4	8	10	2	—	—	St. Joseph.....	3	1	—	—	—	—	—	—	—
Dickinson.....	3	15	54	2	6	7	—	—	—	Schoolcraft.....	54	35	32	—	—	—	—	—	—
Emmet.....	888	890	793	1	2	3	—	—	—	Tuscola.....	48	38	50	—	—	—	—	—	—
Genesee.....	49	1	—	33	9	6	4	—	—	Van Buren.....	105	112	67	2	2	—	1	—	—
Gogebie.....	11	35	58	5	—	2	—	—	—	Washtenaw.....	5	4	—	16	20	15	13	1	3
Grand Traverse.....	50	36	37	—	2	4	1	—	—	Wayne.....	196	41	16	484	28	2	132	30	2
Gratiot.....	5	2	—	2	—	—	4	—	—	Wexford.....	10	34	—	1	3	—	—	—	—
Hillsdale.....	3	—	5	—	4	5	—	—	—	All other counties.....	—	105	58	—	2	8	—	1	—
Houghton.....	—	8	18	29	39	63	—	—	—	CITIES.									
Ingham.....	16	—	—	26	5	3	1	2	3	Battle Creek.....	10	—	3	21	7	7	5	1	—
Ionia.....	18	2	—	—	1	1	—	1	—	Bay City.....	10	—	—	1	—	—	5	—	—
Iosco.....	20	47	56	—	—	—	2	—	—	Detroit.....	155	41	14	438	28	2	100	30	2
Iron.....	11	1	—	2	4	4	—	—	—	Flint.....	25	—	—	33	9	6	4	—	—
Isabella.....	437	502	665	—	—	—	—	—	—	Grand Rapids.....	25	2	2	40	21	7	4	—	—
Jackson.....	6	2	—	27	12	6	1	—	—	Hamtramck village.....	—	—	—	—	—	—	—	—	—
Kalamazoo.....	20	4	—	20	9	2	1	—	—	Highland Park.....	24	—	—	38	—	—	20	—	—
Kalkaska.....	73	74	46	—	—	—	—	—	—	Jackson.....	6	1	—	27	12	6	1	—	—
Kent.....	29	4	2	41	21	7	5	4	—	Kalamazoo.....	8	4	—	19	9	2	1	—	—
Lake.....	28	4	12	—	—	—	—	—	—	Lansing.....	2	—	—	24	5	3	—	2	3
Leelanau.....	236	454	515	—	—	—	—	—	—	Muskegon.....	23	1	—	7	1	1	—	—	—
Lenawee.....	2	17	—	4	3	5	—	—	—	Pontiac.....	—	—	1	8	6	2	1	—	—
Livingston.....	6	1	—	—	—	—	—	—	—	Port Huron.....	3	—	—	2	—	—	—	—	—
										Saginaw.....	26	7	—	20	6	3	—	1	—

TABLE 8.—AGE, FOR CITIES OF 10,000 OR MORE: 1920.

AGE PERIOD.	ALL CLASSES.		NATIVE WHITE.		FOREIGN-BORN WHITE.		NEGRO.		AGE PERIOD.	ALL CLASSES.		NATIVE WHITE.		FOREIGN-BORN WHITE.		NEGRO.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Adrian.....	5,624	6,254	5,183	5,798	377	380	60	75	Escanaba.....	6,631	6,472	4,958	5,173	1,660	1,288	8	10
Under 5 years.....	486	484	481	477	.....	.....	5	7	Under 5 years.....	770	753	767	752	2	.....	1	1
Under 1 year.....	87	70	86	69	.....	.....	1	1	Under 1 year.....	142	148	141	147	1	.....	.....	1
5 to 9 years.....	463	494	460	489	.....	.....	3	5	5 to 9 years.....	737	678	731	672	6	6	.....	.....
10 to 14 years.....	445	469	442	459	2	4	1	6	10 to 14 years.....	655	700	641	688	14	11	.....	1
15 to 19 years.....	448	521	438	513	5	6	4	2	15 to 19 years.....	606	652	581	623	25	28	.....	1
20 to 44 years.....	2,017	2,201	1,879	2,071	114	104	23	26	20 to 44 years.....	2,416	2,492	1,744	1,944	666	541	4	6
45 years and over.....	1,761	2,080	1,481	1,784	254	266	24	29	45 years and over.....	1,428	1,193	478	490	944	702	3	1
Age unknown.....	4	6	2	5	2	.....	.....	.....	Age unknown.....	19	4	16	4	3	.....	.....	.....
18 to 44 years.....	2,220	2,416	2,078	2,281	116	108	24	27	18 to 44 years.....	2,636	2,757	1,949	2,197	681	553	4	6
21 years and over.....	3,688	4,179	3,269	3,755	369	370	47	53	21 years and over.....	3,762	3,562	2,145	2,320	1,606	1,234	6	7
Alpena.....	5,506	5,595	4,229	4,363	1,275	1,231	.....	.....	Flint.....	51,655	39,944	40,987	33,720	9,497	5,630	1,121	580
Under 5 years.....	647	626	640	624	1	2	.....	.....	Under 5 years.....	4,775	4,773	4,600	4,658	59	70	52	43
Under 1 year.....	136	107	136	106	.....	.....	1	.....	Under 1 year.....	916	947	900	928	7	8	8	11
5 to 9 years.....	663	602	662	600	1	2	.....	.....	5 to 9 years.....	3,778	3,754	3,575	3,578	154	135	45	39
10 to 14 years.....	614	614	600	608	14	6	.....	.....	10 to 14 years.....	3,011	2,998	2,747	2,748	230	213	84	81
15 to 19 years.....	487	578	469	558	18	20	.....	.....	15 to 19 years.....	3,931	3,682	3,558	3,301	324	345	48	36
20 to 44 years.....	1,699	1,910	1,404	1,660	294	350	.....	.....	20 to 44 years.....	27,188	18,262	20,281	14,824	6,082	3,060	793	371
45 years and over.....	1,396	1,265	448	413	947	851	.....	.....	45 years and over.....	8,753	6,426	5,900	4,560	2,638	1,804	146	60
Age unknown.....	.....	.....	.....	.....	.....	.....	.....	.....	Age unknown.....	219	54	206	51	10	3	.....	.....
18 to 44 years.....	1,857	2,127	1,558	1,766	298	361	.....	.....	18 to 44 years.....	29,368	20,940	22,246	16,418	6,259	3,227	831	388
21 years and over.....	3,028	3,102	1,789	1,903	1,237	1,198	.....	.....	21 years and over.....	34,943	23,825	25,369	18,631	8,025	4,775	909	411
Ann Arbor.....	9,190	10,326	7,635	8,799	1,254	1,219	276	304	Grand Rapids.....	67,516	70,118	51,909	56,208	14,999	13,356	555	535
Under 5 years.....	783	765	748	731	6	6	29	28	Under 5 years.....	6,863	6,833	6,792	6,758	26	24	45	50
Under 1 year.....	159	153	152	150	2	.....	5	3	Under 1 year.....	1,210	1,313	1,201	1,301	5	.....	4	10
5 to 9 years.....	704	683	669	655	14	12	21	16	5 to 9 years.....	6,317	6,409	6,149	6,316	131	109	36	41
10 to 14 years.....	680	688	636	645	22	14	22	29	10 to 14 years.....	5,679	5,659	5,342	5,571	309	342	28	41
15 to 19 years.....	730	868	689	807	25	30	16	20	15 to 19 years.....	5,368	5,988	4,829	5,438	600	516	84	81
20 to 44 years.....	3,947	4,213	3,155	3,646	551	435	117	129	20 to 44 years.....	27,227	28,798	19,930	22,581	6,987	5,957	274	254
45 years and over.....	2,435	3,110	1,730	2,308	633	721	71	81	45 years and over.....	15,976	15,993	8,803	9,482	7,024	6,393	138	117
Age unknown.....	11	9	8	7	3	1	.....	1	Age unknown.....	86	78	64	62	22	15	.....	.....
18 to 44 years.....	4,172	4,593	3,455	4,002	570	449	123	138	18 to 44 years.....	29,413	31,318	21,861	24,857	7,224	6,190	291	263
21 years and over.....	6,144	7,124	4,760	5,773	1,178	1,144	183	204	21 years and over.....	42,319	43,579	27,922	30,975	13,948	12,233	403	365
Battle Creek.....	17,855	18,309	15,384	16,311	1,883	1,495	560	495	Hamtramck village.....	27,378	21,237	11,988	11,543	14,282	8,780	1,108	914
Under 5 years.....	1,443	1,463	1,404	1,421	6	5	32	36	Under 5 years.....	5,149	4,980	5,004	4,825	52	52	93	103
Under 1 year.....	277	293	267	286	.....	.....	9	7	Under 1 year.....	902	920	884	886	1	7	17	27
5 to 9 years.....	1,389	1,358	1,334	1,302	16	20	38	34	5 to 9 years.....	3,589	3,524	3,234	3,189	249	238	106	97
10 to 14 years.....	1,235	1,302	1,175	1,228	29	39	30	34	10 to 14 years.....	1,351	1,760	1,359	1,333	406	360	86	67
15 to 19 years.....	1,334	1,469	1,254	1,369	51	64	27	35	15 to 19 years.....	1,182	1,264	718	749	366	443	98	72
20 to 44 years.....	7,870	8,125	6,501	7,151	1,036	714	318	287	20 to 44 years.....	13,721	8,744	1,508	1,335	11,622	6,012	591	497
45 years and over.....	4,562	4,562	3,696	3,811	745	653	113	98	45 years and over.....	1,873	963	161	112	1,580	773	132	78
Age unknown.....	22	30	20	29	.....	.....	2	1	Age unknown.....	13	2	4	.....	7	2	.....	.....
18 to 44 years.....	8,424	8,808	7,019	7,785	1,064	745	326	275	18 to 44 years.....	14,186	9,250	1,778	1,618	11,766	7,099	642	533
21 years and over.....	12,183	12,384	9,967	10,637	1,766	1,346	427	348	21 years and over.....	16,384	9,455	1,555	1,328	13,130	7,576	699	551
Bay City.....	23,890	23,664	19,200	19,262	4,611	4,343	72	55	Highland Park.....	25,656	20,643	17,707	15,687	7,681	4,980	193	165
Under 5 years.....	2,612	2,494	2,605	2,483	1	6	6	5	Under 5 years.....	2,421	2,322	2,358	2,259	46	52	14	8
Under 1 year.....	524	464	523	460	.....	.....	2	1	Under 1 year.....	476	474	467	467	4	4	3	1
5 to 9 years.....	2,447	2,436	2,424	2,400	18	34	5	7	5 to 9 years.....	1,845	1,795	1,695	1,621	134	163	13	9
10 to 14 years.....	2,466	2,381	2,418	2,260	70	64	7	7	10 to 14 years.....	1,378	1,433	1,187	1,252	179	169	10	12
15 to 19 years.....	2,177	2,334	2,057	2,199	116	131	3	4	15 to 19 years.....	1,562	1,437	1,276	1,168	269	252	13	17
20 to 44 years.....	8,660	8,926	7,153	7,529	1,468	1,869	34	25	20 to 44 years.....	14,615	10,425	9,033	7,274	5,414	3,042	113	103
45 years and over.....	5,484	6,140	2,633	2,389	2,934	2,738	17	12	45 years and over.....	3,821	3,413	2,148	2,102	1,635	1,297	30	14
Age unknown.....	14	3	10	2	4	1	.....	.....	Age unknown.....	14	18	10	11	4	5	.....	.....
18 to 44 years.....	9,484	9,885	7,910	8,423	1,526	1,432	34	27	18 to 44 years.....	15,388	11,057	9,664	7,701	5,542	3,150	124	110
21 years and over.....	13,736	13,657	9,302	9,543	4,379	4,073	50	37	21 years and over.....	17,971	13,494	10,801	9,100	6,975	4,277	133	111
Benton Harbor.....	6,139	6,094	4,986	5,157	942	744	205	189	Holland.....	6,038	6,145	4,925	5,102	1,109	1,040	4	3
Under 5 years.....	597	498	580	486	1	.....	15	10	Under 5 years.....	711	672	708	669	1	3	2	.....
Under 1 year.....	99	112	96	109	.....	.....	4	3	Under 1 year.....	140	127	140	127	.....	.....	.....	.....
5 to 9 years.....	537	507	498	533	17	18	22	16	5 to 9 years.....	713	640	704	632	9	7	.....	1
10 to 14 years.....	472	524	430	485	27	19	15	20	10 to 14 years.....	627	612	611	589	16	22	.....	1
15 to 19 years.....	454	523	467	470	35	31	12	16	15 to 19 years.....	556	618	517	576	39	42	.....	.....
20 to 44 years.....	2,459	2,422	1,903	1,982	494	862	89	77	20 to 44 years.....	2,145	2,330	1,697	1,961	447	369	1	.....
45 years and over.....	1,539	1,541	1,125	1,180	362	312	50	48	45 years and over.....	1,283	1,265	686	668	596	596	1	1
Age unknown.....	21	19	1														

## COMPOSITION AND CHARACTERISTICS.

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TABLE 8.—AGE, FOR CITIES OF 10,000 OR MORE: 1920—Continued.

AGE PERIOD.	ALL CLASSES.		NATIVE WHITE.		FOREIGN-BORN WHITE.		NEGRO.		AGE PERIOD.	ALL CLASSES.		NATIVE WHITE.		FOREIGN-BORN WHITE.		NEGRO.	
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.		Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.
Ishpeming.....	5,320	5,180	3,601	3,689	1,716	1,491			Owosso.....	6,286	6,289	5,355	5,530	930	757	1	2
Under 5 years.....	560	512	559	508	1	4			Under 5 years.....	680	630	679	630	1			
Under 1 year.....	109	84	100	84					Under 1 year.....	131	118	131	116				
5 to 9 years.....	591	568	579	563	12	5			5 to 9 years.....	625	613	612	605	13	8		
10 to 14 years.....	555	528	527	502	28	26			10 to 14 years.....	552	567	533	547	19	20		
15 to 19 years.....	498	557	459	515	39	42			15 to 19 years.....	496	551	471	512	25	39		
20 to 44 years.....	1,973	1,878	1,275	1,344	696	534			20 to 44 years.....	2,249	2,325	1,841	2,020	407	303	1	2
45 years and over.....	1,134	1,132	195	252	938	880			45 years and over.....	1,078	1,596	1,215	1,209	493	387		
Age unknown.....	9	5	7	5	2				Age unknown.....	6	7	4	7	2			
18 to 44 years.....	2,161	2,092	1,446	1,537	713	555			18 to 44 years.....	2,438	2,542	2,015	2,225	422	315	1	2
21 years and over.....	3,030	2,986	1,402	1,532	1,625	1,404			21 years and over.....	3,859	3,834	2,980	3,148	869	684		2
Jackson.....	25,227	23,147	21,795	20,419	2,897	2,419	505	305	Pontiac.....	18,872	15,401	15,346	13,114	3,155	2,030	362	257
Under 5 years.....	2,300	2,233	2,271	2,198	7	6	21	29	Under 5 years.....	1,575	1,585	1,532	1,539	24	20	19	26
Under 1 year.....	411	438	404	433	1	1	6	4	Under 1 year.....	309	315	304	307	2	1	3	7
5 to 9 years.....	2,050	1,950	2,007	1,903	21	26	22	20	5 to 9 years.....	1,391	1,325	1,332	1,259	45	44	14	22
10 to 14 years.....	1,681	1,755	1,615	1,675	50	62	16	18	10 to 14 years.....	1,142	1,110	1,064	1,013	73	82	15	15
15 to 19 years.....	1,839	1,870	1,749	1,759	63	85	26	26	15 to 19 years.....	1,373	1,327	1,257	1,224	100	85	15	18
20 to 44 years.....	11,764	9,833	9,662	8,526	1,712	1,151	328	153	20 to 44 years.....	9,457	6,737	7,354	5,672	1,856	928	243	137
45 years and over.....	5,589	5,498	4,447	4,352	1,044	1,087	92	59	45 years and over.....	3,889	3,298	2,778	2,393	1,053	867	54	38
Age unknown.....	14	8	14	6		2			Age unknown.....	45	19	39	14	4	2	1	
18 to 44 years.....	12,592	10,059	10,480	9,295	1,746	1,190	343	162	18 to 44 years.....	10,178	7,361	8,010	6,250	1,911	970	252	141
21 years and over.....	10,911	14,923	13,740	12,492	2,733	2,221	413	207	21 years and over.....	12,997	9,080	9,826	7,745	2,875	1,769	288	166
Kalamazoo.....	23,965	24,522	19,678	20,822	3,877	3,330	385	367	Port Huron.....	13,039	12,905	9,587	9,506	3,178	3,168	270	230
Under 5 years.....	2,245	2,252	2,195	2,197	7	9	42	45	Under 5 years.....	1,305	1,304	1,261	1,253	23	26	18	25
Under 1 year.....	423	480	419	474		2	4	13	Under 1 year.....	264	241	201	233	2	3	1	5
5 to 9 years.....	1,965	2,010	1,892	1,938	36	37	36	35	5 to 9 years.....	1,234	1,204	1,154	1,101	62	69	17	34
10 to 14 years.....	1,868	1,869	1,742	1,761	97	93	29	25	10 to 14 years.....	1,119	1,129	1,005	1,025	94	94	19	10
15 to 19 years.....	1,812	2,025	1,638	1,833	156	170	14	22	15 to 19 years.....	1,121	1,142	960	991	137	126	18	24
20 to 44 years.....	9,982	10,105	7,866	8,448	1,943	1,513	160	142	20 to 44 years.....	4,989	4,875	3,593	3,562	1,251	1,206	143	107
45 years and over.....	6,040	6,223	4,305	4,622	1,027	1,503	102	98	45 years and over.....	3,264	3,215	1,598	1,508	1,611	1,617	55	30
Age unknown.....	53	38	40	33	11	5	2		Age unknown.....	7	36	7	6		30		
18 to 44 years.....	10,742	11,041	8,552	9,288	2,008	1,600	167	151	18 to 44 years.....	5,464	5,349	3,998	3,968	1,312	1,290	152	120
21 years and over.....	15,706	15,901	11,870	12,681	3,554	2,981	263	237	21 years and over.....	8,054	7,924	5,024	4,961	2,385	2,330	193	133
Lansing.....	30,098	27,229	26,258	24,359	3,437	2,548	377	321	Saginaw.....	31,024	30,879	24,724	25,200	6,092	5,513	179	149
Under 5 years.....	2,816	2,876	2,762	2,834	17	9	37	33	Under 5 years.....	3,175	2,981	3,136	2,962	22	10	14	15
Under 1 year.....	575	539	564	532	2	3	9	4	Under 1 year.....	612	586	609	580	3		4	8
5 to 9 years.....	2,201	2,180	2,137	2,089	41	48	23	23	5 to 9 years.....	3,067	2,932	2,982	2,858	70	62	9	3
10 to 14 years.....	2,249	2,030	2,120	1,932	97	81	30	17	10 to 14 years.....	2,709	2,782	2,546	2,610	153	160	9	11
15 to 19 years.....	2,622	2,334	2,433	2,201	141	104	46	29	15 to 19 years.....	2,556	2,781	2,322	2,537	218	232	14	12
20 to 44 years.....	13,698	12,018	11,574	10,603	1,949	1,270	159	145	20 to 44 years.....	12,380	12,303	9,894	10,341	2,382	1,890	85	64
45 years and over.....	6,403	6,750	5,132	4,644	1,186	1,031	79	74	45 years and over.....	7,094	7,074	3,806	3,881	3,236	3,154	48	39
Age unknown.....	109	61	100	56	6	5	3		Age unknown.....	43	26	38	21	5	5		
18 to 44 years.....	14,800	13,073	12,606	11,595	1,997	1,317	180	161	18 to 44 years.....	13,411	13,463	10,817	11,391	2,484	1,994	89	70
21 years and over.....	19,620	17,291	16,255	14,794	3,109	2,284	235	212	21 years and over.....	18,990	18,831	13,266	13,722	5,671	5,001	130	100
Marquette.....	6,583	6,135	4,793	4,760	1,705	1,346	66	18	Sault Ste. Marie.....	6,148	5,948	4,136	4,070	1,964	1,816	25	24
Under 5 years.....	644	638	640	635	2	3			Under 5 years.....	644	638	623	618	15	13	2	2
Under 1 year.....	127	134	127	134					Under 1 year.....	122	126	119	120	1	3		2
5 to 9 years.....	643	625	632	618	9	6			5 to 9 years.....	689	631	646	586	41	39	2	3
10 to 14 years.....	639	604	622	583	16	16	1	3	10 to 14 years.....	584	645	532	593	48	47	3	1
15 to 19 years.....	551	623	506	575	36	42	7	3	15 to 19 years.....	595	612	545	532	45	75	2	3
20 to 44 years.....	2,549	2,331	1,754	1,756	744	565	43	8	20 to 44 years.....	2,201	2,266	1,336	1,394	845	850	12	11
45 years and over.....	1,537	1,295	623	679	894	709	15	4	45 years and over.....	1,413	1,139	437	336	965	786	4	4
Age unknown.....	20	19	16	14	4	5			Age unknown.....	22	17	17	11	5	6		
18 to 44 years.....	2,776	2,504	1,960	1,992	758	589	49	9	18 to 44 years.....	2,451	2,512	1,558	1,604	870	884	14	12
21 years and over.....	3,989	3,639	2,289	2,250	1,631	1,272	56	12	21 years and over.....	3,549	3,304	1,725	1,640	1,793	1,627	16	15
Monroe.....	5,909	5,664	5,234	5,137	654	522	21	5	Traverse City.....	5,328	5,597	4,435	4,813	870	757	12	16
Under 5 years.....	654	626	650	623	2	2	2	1	Under 5 years.....	365	377	364	373		1		1
Under 1 year.....	137	116	136	116			1		Under 1 year.....	83	77	53	75		1		1
5 to 9 years.....	516	547	507	541	8	6	1		5 to 9 years.....	427	405	423	403	1	2		
10 to 14 years.....	474	464	453	447	21	17			10 to 14 years.....	405	385	399	382	2	2		
15 to 19 years.....	509	527	473	507	36	20			15 to 19 years.....	351	459	348	450	3	7		1
20 to 44 years.....	2,480	2,191	2,107	1,854	358	234	15	3	20 to 44 years.....	1,877	2,111	1,641	1,900	225	204	6	4
45 years and over.....	1,270	1,306	1,041	1,062	226	243	3	1	45 years and over.....	1,874	1,840	1,242	1,290	628	536	4	10
Age unknown.....	6	3	3	3	3				Age unknown.....	29	20	18	15	11	5		
18 to 44 years.....	2,733	2,415	2,343	2,164	375	248	15	3	18 to 44 years.....	2,013	2,320	1,775	2,1				



TABLE 9.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR COUNTIES: 1920.

[Per cent not shown where base is less than 100.]

SUBJECT.	THE STATE.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.	Bay.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>										
Total population.....	3,668,412	5,912	9,983	37,540	17,869	11,543	9,460	7,662	21,383	69,548
Male.....	1,928,436	3,111	5,644	19,187	9,200	5,991	4,986	4,246	10,804	35,418
Female.....	1,739,976	2,801	4,339	18,353	8,669	5,552	4,474	3,416	10,579	34,130
Native white.....	2,874,992	4,732	7,974	33,907	13,764	9,913	7,248	5,002	20,381	56,692
Male.....	1,476,459	2,465	4,383	17,226	7,018	5,090	3,789	2,605	10,274	28,654
Female.....	1,398,533	2,267	3,591	16,681	6,746	4,823	3,459	2,397	10,107	28,038
Native white—Native parentage.....	1,670,447	2,305	4,261	24,456	5,287	6,589	3,289	1,123	16,803	27,082
Native white—Foreign parentage.....	775,288	1,283	3,044	5,160	5,209	1,688	2,539	3,108	1,020	18,198
Native white—Mixed parentage.....	429,257	1,144	669	4,291	3,268	1,036	1,420	773	1,940	11,412
Foreign-born white.....	726,685	1,134	1,982	3,323	4,096	1,478	2,132	2,235	992	12,603
Male.....	413,806	621	1,247	1,783	2,176	821	1,162	1,418	526	6,625
Female.....	312,879	513	735	1,540	1,920	657	970	817	466	5,978
Negro.....	60,082	1	13	204	4	26	-----	5	9	136
Male.....	34,249	-----	5	113	3	13	-----	2	3	77
Female.....	25,833	1	8	91	1	13	-----	3	6	59
Indian, Chinese, Japanese, and all other (see Tables 1 and 7).....	6,703	45	14	106	5	126	80	420	1	117
Per cent native white.....	78.4	80.0	79.9	90.3	77.0	85.9	76.6	65.3	95.3	81.5
Per cent foreign-born white.....	19.8	19.2	19.9	8.9	22.9	12.8	22.5	29.2	4.6	18.1
Per cent Negro.....	1.6	(1)	0.1	0.5	(1)	0.2	-----	0.1	(1)	0.2
<b>1910: Total population.....</b>										
Native white.....	2,810,173	5,703	7,675	39,819	19,965	15,692	9,640	6,127	22,633	68,238
Male.....	1,389,723	2,760	4,499	35,217	14,253	12,996	7,342	3,307	21,294	51,645
Female.....	595,524	1,384	3,134	4,205	5,701	2,555	2,193	2,228	1,316	15,978
Negro.....	17,115	9	12	241	3	35	6	2	28	188
Per cent native white.....	77.9	74.7	58.6	88.4	71.4	82.8	76.2	54.0	94.1	76.1
Per cent foreign-born white.....	21.2	24.3	40.8	10.6	28.6	16.3	22.7	36.3	5.8	23.4
Per cent Negro.....	0.6	0.2	0.2	0.6	(1)	0.2	0.1	(1)	0.1	0.3
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>										
Total under 7 years of age.....	559,232	1,040	1,810	5,550	3,130	1,856	1,790	1,441	2,668	11,198
Total 7 to 13 years, inclusive.....	477,976	1,027	1,661	5,358	2,991	1,867	1,665	1,504	2,837	11,024
Number attending school.....	463,652	972	1,543	5,067	2,880	1,731	1,600	1,368	2,767	10,672
Per cent attending school.....	94.9	94.6	92.9	94.6	95.6	92.7	96.6	91.0	97.5	96.8
Total 14 and 15 years.....	119,811	267	406	1,487	796	488	442	356	834	2,812
Number attending school.....	103,747	214	344	1,251	645	423	380	214	759	2,812
Per cent attending school.....	86.6	80.1	84.7	84.1	81.0	86.7	86.0	60.1	91.0	82.2
Total 16 and 17 years.....	119,423	225	358	1,239	743	456	349	272	723	2,751
Number attending school.....	47,055	76	143	524	274	203	131	81	417	860
Per cent attending school.....	39.4	33.8	40.8	42.3	36.9	44.5	37.5	29.8	57.7	31.3
Total 18 to 20 years, inclusive.....	176,534	256	552	1,531	789	502	421	339	866	3,693
Number attending school.....	21,711	25	33	236	122	85	38	44	172	399
Per cent attending school.....	12.3	9.8	6.0	15.4	15.5	16.9	9.0	13.0	19.0	11.1
Males 21 years of age and over.....	1,192,158	1,695	3,223	11,409	4,882	3,356	2,546	2,259	6,819	19,563
Native white—Native parentage.....	467,192	473	1,168	6,343	790	1,637	669	210	4,823	5,264
Native white—Foreign or mixed parentage.....	314,745	611	861	3,263	2,004	874	791	587	1,478	7,923
Foreign-born white.....	381,808	599	1,183	1,709	2,082	796	1,053	1,339	514	6,280
Naturalized.....	175,631	438	696	1,081	1,589	553	640	793	348	4,397
First papers.....	86,460	89	150	322	249	101	168	139	37	1,069
Alien.....	101,206	69	275	177	186	136	220	346	48	709
Unknown.....	18,511	3	62	129	58	6	25	61	81	105
Negro.....	25,887	-----	4	59	3	6	-----	2	3	54
Indian, Chinese, Japanese, and all other.....	2,526	12	7	35	3	43	33	121	1	42
Females 21 years of age and over.....	1,023,278	1,402	1,973	10,966	4,538	3,018	2,247	1,491	6,636	18,607
Native white—Native parentage.....	416,493	332	701	6,360	737	1,466	580	155	4,780	4,946
Native white—Foreign or mixed parentage.....	306,477	518	587	3,051	1,955	887	730	461	1,403	7,982
Foreign-born white.....	281,352	492	681	1,486	1,843	632	915	768	449	5,607
Naturalized.....	155,327	370	457	1,042	1,453	478	565	561	334	4,030
First papers.....	4,553	8	5	15	28	4	9	9	2	130
Alien.....	103,343	112	169	305	297	143	319	152	57	1,268
Unknown.....	18,129	2	50	124	65	7	22	46	56	179
Negro.....	17,520	-----	2	48	1	5	-----	2	4	38
Indian, Chinese, Japanese, and all other.....	1,436	10	2	21	2	28	22	105	-----	34
Males 18 to 44 years, inclusive.....	854,578	1,030	2,332	6,400	3,018	1,883	1,574	1,544	3,669	13,214
Females 18 to 44 years, inclusive.....	738,522	941	1,678	6,510	3,083	1,970	1,506	1,143	3,822	13,273
<b>ILLITERACY.</b>										
Total 10 years of age and over.....	2,895,608	4,380	7,394	29,630	13,463	8,908	6,934	5,572	17,471	53,548
Number illiterate.....	88,046	174	215	509	653	196	399	204	165	2,345
Per cent illiterate.....	3.0	4.0	2.9	1.7	4.9	2.2	5.8	3.3	0.9	4.4
Per cent illiterate in 1910.....	3.3	5.0	7.8	2.0	5.8	3.1	5.9	8.8	1.1	4.4
Native white.....	2,124,975	3,241	5,411	26,109	9,380	7,316	4,763	3,039	18,474	40,836
Number illiterate.....	14,172	52	18	170	161	98	82	42	123	576
Per cent illiterate.....	0.7	1.6	0.3	0.7	1.7	1.3	1.7	1.4	0.7	1.4
Foreign-born white.....	713,228	1,117	1,904	3,300	4,074	1,474	2,103	2,219	989	12,603
Number illiterate.....	70,535	115	191	310	491	60	306	191	41	1,755
Per cent illiterate.....	9.9	10.3	9.7	9.4	12.1	4.1	14.6	8.6	4.1	14.0
Negro.....	52,193	-----	8	147	4	21	-----	4	7	114
Number illiterate.....	2,203	1	7	-----	-----	1	-----	2	1	1
Per cent illiterate.....	4.2	-----	4.8	-----	-----	-----	-----	-----	-----	0.9
Total 16 to 20 years, inclusive.....	205,957	481	910	2,770	1,532	958	770	611	1,589	6,344
Number illiterate.....	1,622	3	3	13	13	6	4	7	6	23
Per cent illiterate.....	0.5	0.6	0.3	0.5	0.8	0.6	0.5	1.1	0.4	0.4
Illiterate males 21 years of age and over.....	40,811	104	152	258	320	109	196	176	91	1,185
Per cent of all males 21 years of age and over.....	3.9	6.1	4.7	2.3	6.6	3.2	7.7	7.8	1.3	6.1
Native white.....	7,917	37	10	108	80	56	49	14	72	336
Foreign-born white.....	37,103	65	137	184	240	36	140	131	19	842
Negro.....	1,235	-----	1	3	-----	1	-----	1	-----	-----
Illiterate females 21 years of age and over.....	38,802	66	57	233	315	73	193	101	63	1,121
Per cent of all females 21 years of age and over.....	3.8	4.7	2.9	2.1	6.9	2.4	8.6	6.8	0.9	6.0
Native white.....	4,766	11	4	43	65	20	25	11	40	211
Foreign-born white.....	32,656	50	52	174	249	24	165	60	22	903
Negro.....	876	-----	3	-----	-----	-----	-----	1	-----	1
<b>DWELLINGS AND FAMILIES.</b>										
Dwellings, number.....	755,931	1,338	1,505	9,063	3,890	2,808	2,087	1,405	5,897	14,980
Families, number.....	862,745	1,348	1,014	9,890	4,018	2,881	2,121	1,423	6,054	15,588

1 Less than one-tenth of 1 per cent.

## COMPOSITION AND CHARACTERISTICS.

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TABLE 9.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR COUNTIES: 1920—Continued.

[Per cent not shown where base is less than 100.]

SUBJECT.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.	Chippewa.	Clare.	Clinton.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>										
Total population.....	6,947	62,653	23,997	72,918	20,395	15,788	13,991	24,818	8,250	23,110
Male.....	3,638	31,674	11,951	37,110	10,426	8,062	7,368	13,225	4,347	11,817
Female.....	3,309	30,979	12,046	35,808	9,969	7,696	6,623	11,593	3,903	11,293
Native white.....	0,112	53,047	22,938	64,715	17,835	13,453	11,452	16,951	7,251	21,618
Male.....	3,174	28,590	11,384	32,501	9,021	6,852	5,963	8,912	3,818	11,026
Female.....	2,938	26,457	11,554	32,214	8,814	6,601	5,489	8,039	3,433	10,592
Native white—Native parentage.....	4,276	36,190	19,619	51,938	16,069	8,631	6,075	5,354	5,111	16,924
Native white—Foreign parentage.....	913	10,997	1,634	6,576	1,434	2,449	2,787	7,818	982	2,405
Native white—Mixed parentage.....	923	5,860	1,685	6,201	1,332	2,373	2,590	4,079	1,168	2,289
Foreign-born white.....	702	8,769	1,012	6,180	1,105	1,990	2,416	7,314	988	1,480
Male.....	419	4,639	537	3,516	637	1,080	1,349	4,034	526	784
Female.....	343	4,130	475	2,664	468	910	1,067	3,280	462	696
Negro.....	41	808	40	1,939	1,353	51	26	62	6	7
Male.....	26	428	26	1,037	716	22	10	36	2	3
Female.....	15	380	14	902	637	29	15	26	4	4
Indian, Chinese, Japanese, and all other (see Tables 1 and 7).....	32	29	7	84	102	204	98	491	5	5
Per cent native white.....	88.0	84.7	95.6	88.8	87.4	85.2	81.9	68.3	87.9	93.5
Per cent foreign-born white.....	11.0	14.0	4.2	8.5	5.4	12.6	17.3	29.5	12.0	6.4
Per cent Negro.....	0.6	1.3	0.2	2.7	6.6	0.3	0.2	0.2	0.1	(1)
1910: Total population.....	10,638	53,622	25,605	56,638	20,624	19,157	17,872	24,472	9,240	23,129
Native white.....	9,166	44,924	24,274	50,708	18,020	15,803	13,664	14,834	7,980	21,439
Foreign-born white.....	1,242	7,955	1,277	5,163	1,025	2,981	3,975	9,396	1,282	1,651
Negro.....	89	713	50	690	1,444	89	34	43	3	38
Per cent native white.....	86.2	83.8	94.8	89.5	87.4	82.5	76.5	58.6	86.4	92.7
Per cent foreign-born white.....	11.7	14.8	5.0	9.1	5.0	15.3	22.2	38.4	13.8	7.1
Per cent Negro.....	0.8	1.3	0.2	1.2	7.0	0.5	0.2	0.2	(1)	0.2
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>										
Total under 7 years of age.....	943	8,660	2,799	8,993	2,647	2,787	2,299	4,177	1,353	3,208
Total 7 to 13 years, inclusive.....	1,052	8,408	3,154	8,173	2,673	2,605	2,247	4,002	1,275	3,200
Number attending school.....	1,019	7,990	3,033	7,741	2,569	2,418	2,118	3,663	1,215	3,060
Per cent attending school.....	96.9	95.1	96.2	94.7	96.1	96.5	94.3	91.5	95.3	95.6
Total 14 and 15 years.....	295	2,204	876	2,187	686	657	622	1,058	342	885
Number attending school.....	202	1,955	805	1,939	617	610	529	878	270	826
Per cent attending school.....	88.8	88.4	91.9	88.7	89.9	92.8	85.0	83.1	78.9	93.3
Total 16 and 17 years.....	274	2,218	782	2,255	711	568	557	1,016	272	864
Number attending school.....	140	912	423	1,138	362	305	220	436	108	400
Per cent attending school.....	51.1	41.1	54.1	50.2	50.9	53.7	39.5	42.9	37.9	53.9
Total 18 to 20 years, inclusive.....	320	2,871	967	3,596	843	654	681	1,626	352	905
Number attending school.....	83	425	190	604	150	147	93	185	30	162
Per cent attending school.....	25.9	14.8	19.6	16.8	17.8	22.5	13.7	14.0	11.1	17.9
Males 21 years of age and over.....	2,163	19,354	7,646	24,419	6,578	4,496	4,135	7,351	2,484	7,153
Native white—Native parentage.....	1,134	10,331	5,876	16,054	4,583	1,999	1,295	1,304	1,840	4,662
Native white—Foreign or mixed parentage.....	601	4,497	1,262	4,307	929	1,359	1,485	2,161	625	1,764
Foreign-born white.....	408	4,229	490	3,297	504	1,054	1,319	3,711	518	732
Naturalized.....	307	2,465	298	1,002	277	761	964	2,240	387	372
First papers.....	39	799	66	435	95	116	146	400	74	124
Alien.....	25	677	50	905	155	156	179	675	50	140
Unknown.....	37	288	82	355	67	21	30	300	7	96
Negro.....	12	283	11	727	446	14	8	23	1	3
Indian, Chinese, Japanese, and all other.....	8	14	1	34	26	70	28	152	.....	2
Females 21 years of age and over.....	1,900	18,858	7,773	23,292	6,257	4,121	3,450	5,990	2,172	6,815
Native white—Native parentage.....	1,001	10,267	6,085	15,627	4,505	1,856	1,080	966	1,172	4,532
Native white—Foreign or mixed parentage.....	549	4,621	1,233	4,645	937	1,307	1,300	1,831	543	1,626
Foreign-born white.....	354	3,733	444	2,424	416	871	1,034	2,954	453	658
Naturalized.....	257	2,392	317	1,434	249	670	832	1,901	361	383
First papers.....	1	53	3	24	2	12	6	16	4	4
Alien.....	50	1,011	58	662	130	177	150	622	77	176
Unknown.....	26	277	66	304	35	12	87	415	11	90
Negro.....	9	242	1	683	381	13	11	17	3	3
Indian, Chinese, Japanese, and all other.....	7	5	1	13	18	74	25	122	1	1
Males 18 to 44 years, inclusive.....	1,182	12,105	3,990	16,185	3,640	2,687	2,536	4,976	1,397	4,059
Females 18 to 44 years, inclusive.....	1,162	12,193	4,266	15,520	3,674	2,880	2,310	4,424	1,333	3,989
<b>ILLITERACY.</b>										
Total 10 years of age and over.....	5,589	50,363	19,859	60,325	16,633	11,878	10,704	18,863	6,372	18,399
Number illiterate.....	89	1,143	248	607	261	324	531	889	126	156
Per cent illiterate.....	1.6	2.3	1.2	1.0	1.6	2.7	5.0	4.7	2.0	0.8
Per cent illiterate in 1910.....	2.2	2.3	2.0	0.8	2.9	4.2	7.5	6.6	2.6	1.4
Native white.....	4,774	41,041	18,830	52,545	14,369	9,660	8,204	11,310	5,384	16,921
Number illiterate.....	57	209	115	170	95	134	207	137	57	84
Per cent illiterate.....	1.2	0.5	0.6	0.3	0.7	1.4	2.5	1.2	1.1	0.5
Foreign-born white.....	760	8,637	990	6,094	1,089	1,982	2,403	7,123	982	1,468
Number illiterate.....	25	907	129	360	100	123	313	636	68	72
Per cent illiterate.....	3.3	10.5	13.0	5.9	9.2	6.2	13.0	8.9	6.9	4.9
Negro.....	84	665	33	1,624	1,109	40	23	52	4	6
Number illiterate.....	22	2	2	61	57	2	.....	1	.....	.....
Per cent illiterate.....	.....	3.3	.....	3.8	5.1	.....	.....	.....	.....	.....
Total 16 to 20 years, inclusive.....	504	5,080	1,749	5,851	1,554	1,222	1,238	2,342	624	1,759
Number illiterate.....	5	37	2	26	5	6	8	30	.....	2
Per cent illiterate.....	0.8	0.7	0.1	0.4	0.3	0.5	0.6	1.3	.....	0.1
Illiterate males 21 years of age and over.....	48	544	135	334	144	186	329	515	84	76
Per cent of all males 21 years of age and over.....	2.2	2.8	1.8	1.4	2.2	4.1	8.0	7.0	3.4	1.1
Native white.....	35	104	63	84	57	88	128	71	43	45
Foreign-born white.....	10	426	69	206	49	70	197	392	40	31
Negro.....	.....	11	2	31	83	2	.....	1	.....	.....
Illiterate females 21 years of age and over.....	34	546	109	235	110	128	185	325	39	72
Per cent of all females 21 years of age and over.....	1.8	2.9	1.4	1.0	1.8	3.1	5.4	5.5	1.8	1.1
Native white.....	15	64	49	62	33	38	63	39	11	33
Foreign-born white.....	15	471	59	143	49	53	116	235	28	39
Negro.....	.....	9	.....	27	24	.....	.....	.....	.....	.....
<b>DWELLINGS AND FAMILIES.</b>										
Dwellings, number.....	1,731	15,312	6,786	17,562	5,572	3,692	3,142	5,078	2,034	6,091
Families, number.....	1,755	16,570	6,948	19,099	5,676	3,789	3,199	5,289	2,083	6,208

1 Less than one-tenth of 1 per cent.

TABLE 9.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR COUNTIES: 1920—Continued.

[Per cent not shown where base is less than 100.]

SUBJECT.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Grand Traverse.	Gratiot.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>										
Total population.....	4,049	30,909	19,456	29,377	15,639	125,668	8,827	33,225	19,518	33,914
Male.....	2,195	16,405	10,248	14,848	7,956	69,839	4,617	18,698	9,558	17,350
Female.....	1,854	14,504	9,208	14,529	7,683	55,829	4,210	14,527	9,960	16,564
Native white.....	3,364	23,420	13,487	23,134	12,905	105,237	7,413	20,904	16,910	31,374
Male.....	1,770	12,010	6,858	14,159	6,542	56,791	3,840	10,945	8,455	15,953
Female.....	1,594	11,410	6,629	13,975	6,363	48,446	3,573	9,959	8,455	15,421
Native white—Native parentage.....	2,039	8,868	2,696	24,390	8,656	72,654	4,638	3,631	11,404	25,478
Native white—Foreign parentage.....	722	9,787	8,747	1,534	2,167	17,507	1,512	14,465	2,822	2,710
Native white—Mixed parentage.....	603	4,765	2,044	2,210	2,082	15,076	1,263	2,808	2,684	3,186
Foreign-born white.....	671	7,310	5,960	1,198	1,819	18,586	1,383	12,298	2,521	2,439
Male.....	416	4,302	3,384	662	952	11,336	756	7,735	1,362	1,334
Female.....	255	3,008	2,576	536	867	7,250	627	4,563	1,159	1,105
Negro.....	38	4	4	45	26	1,787	31	2	36	90
Male.....	16	2	2	27	16	1,149	21	1	15	54
Female.....	22	2	2	18	10	638	10	1	21	36
Indian, Chinese, Japanese, and all other (see Tables 1 and 7).....	14	141	5	.....	889	88	.....	21	51	11
Per cent native white.....	83.1	75.6	69.3	95.8	82.5	83.7	84.0	62.9	86.6	92.5
Per cent foreign-born white.....	16.6	23.7	30.6	4.1	11.6	14.8	15.7	37.0	12.9	7.2
Per cent Negro.....	.....	0.1	( <sup>1</sup> )	0.2	0.2	1.4	0.4	( <sup>1</sup> )	0.2	0.3
1910: Total population.....	3,934	30,108	20,524	30,499	18,561	64,555	8,413	23,333	23,784	28,820
Native white.....	3,063	20,146	12,235	29,094	15,172	54,821	6,888	12,118	20,371	26,754
Foreign-born white.....	850	9,975	8,250	1,330	2,453	9,308	1,479	11,174	3,343	1,972
Negro.....	2	34	9	74	44	416	37	6	32	92
Per cent native white.....	77.9	66.9	59.6	95.4	81.7	84.9	81.9	51.9	85.7	92.8
Per cent foreign-born white.....	21.6	32.1	40.2	4.4	13.2	14.4	17.6	47.9	14.1	6.8
Per cent Negro.....	0.1	0.1	( <sup>1</sup> )	0.2	0.2	0.6	0.4	( <sup>1</sup> )	0.1	0.3
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>										
Total under 7 years of age.....	638	5,419	3,420	3,740	2,337	18,523	1,683	6,507	2,373	5,475
Total 7 to 13 years, inclusive.....	616	5,052	3,514	3,777	2,518	14,134	1,480	5,418	2,538	4,982
Number attending school.....	597	4,720	3,333	3,594	2,427	13,415	1,259	5,095	2,426	4,818
Per cent attending school.....	96.9	93.4	94.8	95.2	96.4	94.9	85.1	94.0	95.6	96.7
Total 14 and 15 years.....	161	1,336	904	1,064	623	3,337	400	1,194	608	1,250
Number attending school.....	149	1,061	767	980	571	2,888	287	926	589	1,154
Per cent attending school.....	92.5	79.4	79.6	92.1	91.7	86.5	71.8	77.6	88.2	92.3
Total 16 and 17 years.....	143	1,267	821	982	609	3,682	331	1,190	641	1,235
Number attending school.....	64	428	326	526	317	1,251	119	422	295	552
Per cent attending school.....	44.8	33.8	39.7	53.6	52.1	34.0	36.0	35.5	46.0	44.7
Total 18 to 20 years, inclusive.....	222	1,644	1,009	1,165	745	7,432	378	1,650	897	1,582
Number attending school.....	21	190	188	233	156	493	48	172	175	224
Per cent attending school.....	9.5	11.6	18.6	20.0	20.9	6.6	12.7	10.4	19.5	14.2
Males 21 years of age and over.....	1,296	8,901	5,311	9,427	4,477	45,281	2,430	10,564	6,291	9,947
Native white—Native parentage.....	505	1,778	439	7,348	2,177	23,325	1,130	708	3,038	6,905
Native white—Foreign or mixed parentage.....	388	2,946	1,680	1,440	1,163	10,719	692	2,483	1,896	1,813
Foreign-born white.....	397	4,119	3,188	617	902	10,260	696	7,273	1,332	1,197
Naturalized.....	260	2,578	2,528	385	614	3,936	481	3,336	756	594
First papers.....	58	628	314	76	115	2,180	99	1,656	102	222
Alien.....	73	546	251	79	160	3,501	98	2,094	154	194
Unknown.....	6	367	95	77	13	637	18	187	320	187
Negro.....	.....	12	.....	22	15	929	12	1	12	24
Indian, Chinese, Japanese, and all other.....	6	46	4	.....	220	48	.....	9	13	8
Females 21 years of age and over.....	973	7,290	4,408	9,222	4,330	33,279	2,125	6,702	6,110	9,443
Native white—Native parentage.....	410	1,426	374	7,308	2,169	17,606	1,000	576	3,086	6,544
Native white—Foreign or mixed parentage.....	313	2,979	1,615	1,405	1,099	9,049	530	2,063	1,860	1,903
Foreign-born white.....	246	2,844	2,417	494	825	6,187	539	4,059	1,129	975
Naturalized.....	196	1,968	1,991	357	609	3,293	404	2,890	655	565
First papers.....	38	23	4	5	5	92	7	60	12	4
Alien.....	46	568	291	81	192	2,348	167	1,477	149	286
Unknown.....	4	270	112	52	19	454	11	132	313	120
Negro.....	.....	8	1	15	7	425	6	1	18	20
Indian, Chinese, Japanese, and all other.....	4	33	1	.....	230	12	.....	3	17	1
Males 18 to 44 years, inclusive.....	856	6,230	3,728	5,049	2,626	35,812	1,515	8,686	3,478	6,201
Females 18 to 44 years, inclusive.....	746	5,680	3,344	5,268	2,835	26,184	1,432	5,777	3,790	6,266
<b>ILLITERACY.</b>										
Total 10 years of age and over.....	3,144	23,274	14,460	24,045	12,183	100,591	6,495	24,156	16,060	26,251
Number illiterate.....	106	1,015	1,131	112	347	1,865	180	1,356	458	358
Per cent illiterate.....	3.4	4.4	7.8	0.5	2.8	1.9	2.8	5.6	2.9	1.4
Per cent illiterate in 1910.....	3.8	5.6	5.7	1.1	3.8	1.3	3.9	5.6	2.5	1.8
Native white.....	2,469	15,873	8,551	22,831	9,687	80,933	5,091	12,052	13,483	23,785
Number illiterate.....	34	232	96	67	71	371	52	39	224	170
Per cent illiterate.....	1.4	1.5	1.1	0.3	0.7	0.5	1.0	0.3	1.7	0.7
Foreign-born white.....	663	7,262	5,901	1,176	1,801	18,027	1,376	12,086	2,504	2,893
Number illiterate.....	70	735	1,034	43	102	1,377	124	1,315	224	186
Per cent illiterate.....	10.6	10.1	17.5	3.7	5.7	7.6	9.0	10.9	8.9	7.8
Negro.....	.....	30	3	.....	24	1,563	28	2	34	64
Number illiterate.....	.....	.....	.....	2	2	105	4	1	5	2
Per cent illiterate.....	.....	.....	.....	.....	.....	6.7	.....	.....	.....	.....
Total 16 to 20 years, inclusive.....	365	2,911	1,830	2,147	1,354	11,114	709	2,840	1,588	2,817
Number illiterate.....	.....	30	11	7	3	46	3	21	3	10
Per cent illiterate.....	.....	1.0	0.6	0.3	0.2	0.4	0.4	0.7	0.2	0.4
Illiterate males 21 years of age and over.....	81	602	571	56	165	1,173	88	803	299	203
Per cent of all males 21 years of age and over.....	6.3	6.8	10.8	0.6	3.7	2.6	3.6	7.6	4.8	2.0
Native white.....	22	125	30	35	44	235	27	18	149	104
Foreign-born white.....	58	457	540	20	40	852	59	785	148	95
Negro.....	.....	.....	.....	1	2	79	2	.....	1	.....
Illiterate females 21 years of age and over.....	23	368	537	44	176	615	81	527	148	143
Per cent of all females 21 years of age and over.....	2.4	5.0	12.2	0.5	4.1	1.8	3.8	7.9	2.4	1.5
Native white.....	10	76	50	24	22	87	15	7	65	87
Foreign-born white.....	12	271	487	19	53	500	64	517	76	85
Negro.....	.....	.....	.....	1	.....	24	2	1	4	1
<b>DWELLINGS AND FAMILIES.</b>										
Dwellings, number.....	930	5,870	3,802	8,177	3,651	24,785	1,997	5,568	4,383	8,200
Families, number.....	960	6,342	3,967	8,392	3,800	28,378	2,011	6,130	4,635	8,587

<sup>1</sup> Less than one-tenth of 1 per cent.

## COMPOSITION AND CHARACTERISTICS.

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TABLE 9.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR COUNTIES: 1920—Continued.

[Per cent not shown where base is less than 100.]

SUBJECT.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>										
Total population.....	28,161	71,930	32,786	81,554	33,087	8,199	22,107	22,610	72,539	71,225
Male.....	14,153	37,293	17,043	42,397	16,965	4,207	12,050	11,092	37,735	35,426
Female.....	14,008	34,637	15,743	39,157	16,121	3,992	10,057	10,918	34,801	35,799
Native white.....	27,441	50,760	25,557	73,344	30,451	6,005	15,041	19,798	64,854	61,027
Male.....	13,701	25,122	13,287	37,742	15,460	3,382	7,723	10,171	33,474	29,945
Female.....	13,080	25,638	12,270	35,602	14,995	2,623	7,318	9,627	31,380	31,082
Native white—Native parentage.....	24,598	11,045	9,939	56,903	23,513	3,222	3,558	14,353	49,174	48,551
Native white—Foreign parentage.....	1,170	30,463	9,334	8,422	3,252	1,707	9,159	2,493	8,643	10,386
Native white—Mixed parentage.....	1,664	9,252	6,284	8,110	3,680	1,016	2,324	2,952	7,037	7,090
Foreign-born white.....	698	21,113	7,212	7,413	2,506	1,561	7,045	2,213	6,811	9,351
Male.....	377	12,129	3,742	4,207	1,407	863	4,310	1,220	3,706	5,036
Female.....	321	8,984	3,470	3,206	1,099	698	2,735	993	3,105	4,315
Negro.....	19	28	17	753	112	11	8	154	840	808
Male.....	12	15	14	413	87	6	6	76	528	414
Female.....	7	13	3	340	25	5	2	78	312	392
Indian, Chinese, Japanese, and all other (see Tables 1 and 7).....	3	29	.....	44	18	22	18	445	34	41
Per cent native white.....	97.4	70.6	78.0	89.9	92.0	80.6	68.0	87.6	89.4	85.7
Per cent foreign-born white.....	2.5	29.4	22.0	9.1	7.6	19.0	31.0	9.8	9.4	13.1
Per cent Negro.....	0.1	(1)	0.1	0.9	0.3	0.1	(1)	0.7	1.2	1.1
1910: Total population.....	29,673	88,098	34,758	53,310	33,550	9,753	15,164	23,029	53,426	60,427
Native white.....	28,061	54,059	24,933	47,459	30,521	7,314	8,279	10,701	47,049	50,783
Foreign-born white.....	986	33,833	9,817	5,440	2,935	2,387	6,873	2,691	5,964	8,536
Negro.....	22	61	3	404	90	5	8	135	399	700
Per cent native white.....	96.6	62.0	71.7	89.0	91.0	75.0	54.6	85.6	88.1	84.0
Per cent foreign-born white.....	3.3	37.8	28.2	10.2	8.7	24.5	45.3	11.7	11.2	14.6
Per cent Negro.....	0.1	0.1	(1)	0.8	0.3	0.1	0.1	0.6	0.7	1.3
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>										
Total under 7 years of age.....	3,442	12,637	5,837	10,943	4,117	1,356	4,477	3,735	9,493	9,130
Total 7 to 13 years, inclusive.....	3,007	13,083	5,610	9,000	3,935	1,368	4,028	3,521	8,165	8,450
Number attending school.....	3,455	12,628	5,346	8,665	3,711	1,318	3,805	3,303	7,718	7,973
Per cent attending school.....	94.2	96.5	95.3	95.6	93.1	93.3	94.5	96.5	94.5	94.3
Total 14 and 15 years.....	1,081	3,321	1,494	2,608	1,085	378	856	965	2,093	2,192
Number attending school.....	1,002	2,660	1,334	2,412	955	347	706	831	1,833	1,898
Per cent attending school.....	92.7	80.1	89.3	92.5	88.0	91.8	82.5	86.1	90.0	86.6
Total 16 and 17 years.....	939	2,990	1,263	2,668	1,157	300	855	900	2,144	2,230
Number attending school.....	669	1,169	434	1,265	518	138	382	377	943	955
Per cent attending school.....	60.6	39.0	38.3	47.4	44.8	46.0	44.7	41.9	44.0	42.8
Total 18 to 20 years, inclusive.....	1,181	3,378	1,472	4,231	1,504	375	906	1,010	3,633	3,440
Number attending school.....	295	531	189	613	269	54	149	182	455	544
Per cent attending school.....	25.0	15.7	12.8	14.5	16.9	14.4	15.0	18.0	12.5	15.8
Males 21 years of age and over.....	8,875	19,399	8,955	27,330	10,986	2,367	6,419	6,486	24,821	22,801
Native white—Native parentage.....	7,287	14,939	1,242	17,652	6,950	700	698	3,533	15,537	12,924
Native white—Foreign or mixed parentage.....	1,214	6,254	4,103	5,552	2,589	316	1,660	1,641	5,279	4,950
Foreign-born white.....	864	11,618	3,536	3,834	1,331	841	4,042	1,155	3,506	4,620
Naturalized.....	220	7,085	2,447	1,766	689	640	1,985	828	1,635	2,155
First papers.....	25	1,639	553	939	191	119	741	143	675	705
Alien.....	47	2,563	487	700	165	72	1,065	158	971	1,156
Unknown.....	72	331	49	429	286	10	249	28	225	604
Negro.....	7	12	10	265	71	4	2	40	424	283
Indian, Chinese, Japanese, and all other.....	3	26	.....	27	9	6	11	117	25	24
Females 21 years of age and over.....	8,976	17,116	8,104	24,714	10,163	2,055	4,476	5,993	22,190	22,976
Native white—Native parentage.....	7,465	14,428	1,167	15,932	6,627	563	516	3,348	13,987	13,270
Native white—Foreign or mixed parentage.....	1,197	7,207	3,689	5,602	2,470	813	1,494	1,555	5,117	5,576
Foreign-born white.....	810	8,471	3,247	2,902	1,050	671	2,463	933	2,871	3,870
Naturalized.....	209	5,817	2,329	1,735	721	529	1,370	999	1,625	2,072
First papers.....	1	118	66	30	6	6	24	9	53	34
Alien.....	40	2,207	809	785	174	112	922	197	903	1,215
Unknown.....	60	329	43	352	149	24	147	28	285	540
Negro.....	4	9	1	224	16	1	1	34	212	254
Indian, Chinese, Japanese, and all other.....	4	1	.....	4	.....	7	2	123	3	6
Males 18 to 44 years, inclusive.....	4,702	13,724	5,719	19,165	6,554	1,384	5,106	4,002	17,034	14,663
Females 18 to 44 years, inclusive.....	5,011	12,915	5,550	17,539	6,097	1,351	3,794	3,930	15,033	15,324
<b>ILLITERACY.</b>										
Total 10 years of age and over.....	23,175	53,636	24,422	66,729	27,248	6,257	15,745	17,358	59,411	58,354
Number illiterate.....	127	2,243	827	727	353	191	822	206	970	1,280
Per cent illiterate.....	0.5	4.2	3.4	1.1	1.3	3.1	5.2	1.7	1.6	2.2
Per cent illiterate in 1910.....	1.0	5.7	4.8	1.4	1.2	3.8	9.7	3.2	1.6	1.7
Native white.....	22,465	32,635	17,258	58,773	24,646	4,675	8,782	14,742	51,899	48,430
Number illiterate.....	102	179	267	185	186	55	37	125	213	385
Per cent illiterate.....	0.5	0.5	1.5	0.3	0.8	1.2	0.4	0.8	0.4	0.8
Foreign-born white.....	890	20,949	7,149	7,289	2,485	1,553	6,955	2,189	6,737	9,244
Number illiterate.....	21	2,062	559	521	154	134	779	107	714	861
Per cent illiterate.....	3.0	9.8	7.8	7.1	6.2	8.6	11.2	4.9	10.6	9.3
Negro.....	17	25	15	630	99	10	5	107	743	644
Number illiterate.....	4	1	1	21	10	.....	1	3	32	29
Per cent illiterate.....	.....	.....	.....	3.3	.....	.....	.....	2.8	4.3	4.5
Total 16 to 20 years, inclusive.....	2,120	6,374	2,735	6,899	2,751	675	1,851	1,910	5,777	5,670
Number illiterate.....	5	19	17	16	9	4	8	8	16	14
Per cent illiterate.....	0.2	0.3	0.6	0.2	0.3	0.6	0.4	0.4	0.3	0.2
Illiterate males 21 years of age and over.....	72	1,202	433	410	245	104	448	187	512	678
Per cent of all males 21 years of age and over.....	0.8	6.2	4.8	1.5	2.2	4.4	7.0	2.6	2.1	3.0
Native white.....	57	76	161	104	126	38	21	81	133	205
Foreign-born white.....	13	1,124	271	292	107	65	423	62	354	450
Negro.....	2	1	1	14	9	.....	1	2	18	12
Illiterate females 21 years of age and over.....	43	1,004	368	289	90	81	361	119	437	580
Per cent of all females 21 years of age and over.....	0.5	5.9	4.6	1.2	0.9	3.9	8.1	2.0	2.0	2.5
Native white.....	34	72	87	61	42	11	10	37	67	159
Foreign-born white.....	8	932	281	222	47	69	349	44	355	404
Negro.....	1	.....	.....	6	1	.....	.....	1	14	16
<b>DWELLINGS AND FAMILIES.</b>										
Dwellings, number.....	7,824	13,237	7,240	18,528	8,381	1,911	3,989	5,347	17,013	16,810
Families, number.....	8,030	14,463	7,880	20,414	8,777	1,938	4,285	5,452	18,420	17,700

1 Less than one-tenth of 1 per cent.

TABLE 9.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR COUNTIES: 1920—Continued.

[Per cent not shown where base is less than 100.]

SUBJECT.	Kal-kaska.	Kent.	Keweenaw.	Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.	Macomb.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>											
Total population.....	5,577	183,041	6,322	4,437	25,782	9,061	47,767	17,522	6,149	8,026	38,103
Male.....	2,996	91,177	3,346	2,313	13,194	4,683	23,566	9,014	3,504	4,372	19,646
Female.....	2,581	91,864	2,976	2,124	12,588	4,378	24,201	8,508	2,645	3,654	18,457
Native white.....	5,105	147,276	4,357	3,620	22,553	7,532	44,876	16,196	4,160	6,375	31,024
Male.....	2,709	72,116	2,187	1,904	11,506	3,876	22,102	8,314	2,264	3,390	16,439
Female.....	2,396	75,160	2,170	1,716	11,047	3,656	22,774	7,882	1,896	2,985	15,485
Native white—Native parentage.....	4,021	81,226	767	2,305	14,614	3,988	36,085	12,469	1,988	2,237	18,885
Native white—Foreign parentage.....	403	43,025	2,590	871	3,760	2,069	4,748	1,974	1,426	1,737	7,858
Native white—Mixed parentage.....	681	23,025	730	444	4,179	1,485	4,043	1,753	746	1,351	5,181
Foreign-born white.....	392	34,501	1,965	778	3,191	1,285	2,664	1,287	1,876	1,519	5,923
Male.....	242	18,393	1,159	427	1,655	679	1,369	680	1,180	908	3,078
Female.....	150	16,108	806	349	1,526	606	1,295	607	696	611	2,850
Negro.....	7	1,187	.....	13	38	8	221	33	9	10	240
Male.....	4	612	.....	9	23	6	90	17	6	6	121
Female.....	3	575	.....	4	15	2	131	16	3	4	119
Indian, Chinese, Japanese, and all other (see Tables 1 and 7).....	73	77	.....	28	.....	236	6	6	104	122	11
Per cent native white.....	91.5	80.5	68.9	81.6	87.5	83.1	93.9	92.4	67.7	79.4	83.8
Per cent foreign-born white.....	7.0	18.8	31.1	17.5	12.4	14.2	5.6	7.3	30.5	18.9	15.6
Per cent Negro.....	0.1	0.6	.....	0.3	0.1	0.1	0.5	0.2	0.1	0.1	0.6
1910: Total population.....	8,097	159,145	7,156	4,889	26,033	10,608	47,907	17,736	4,004	9,249	32,606
Native white.....	7,050	122,783	3,957	4,053	22,090	8,306	44,145	16,193	2,340	5,899	27,105
Foreign-born white.....	950	35,604	3,196	877	3,914	1,828	3,497	1,507	1,654	2,348	5,380
Negro.....	23	77.2	55.8	6	28	22	35	35	3	11	102
Per cent native white.....	87.1	77.2	55.8	82.1	84.9	78.3	92.1	91.3	58.4	63.8	83.1
Per cent foreign-born white.....	11.7	22.4	44.7	17.8	15.0	17.2	7.3	8.5	41.3	25.4	16.5
Per cent Negro.....	0.3	0.5	(?)	0.1	0.1	0.2	0.5	0.2	0.1	0.1	0.3
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>											
Total under 7 years of age.....	920	25,544	1,368	745	3,664	1,540	6,300	2,395	867	1,448	5,976
Total 7 to 13 years, inclusive.....	944	23,321	1,264	772	3,687	1,578	6,002	2,226	777	1,324	5,516
Number attending school.....	871	22,259	1,208	731	3,430	1,522	5,672	2,088	720	1,176	5,347
Per cent attending school.....	92.3	95.4	95.6	94.7	93.0	96.5	94.5	93.8	92.7	88.8	96.9
Total 14 and 15 years.....	226	6,049	303	178	1,077	429	1,578	624	186	298	1,380
Number attending school.....	185	5,324	246	148	907	376	1,435	550	160	252	1,229
Per cent attending school.....	81.9	88.0	81.2	83.1	84.2	87.6	90.9	88.1	86.0	84.6	89.1
Total 16 and 17 years.....	214	6,045	243	167	970	363	1,707	584	206	310	1,296
Number attending school.....	90	2,464	48	63	444	152	986	313	85	115	489
Per cent attending school.....	42.1	40.7	19.8	37.7	45.8	41.9	57.8	53.6	41.3	37.1	37.7
Total 18 to 20 years, inclusive.....	239	8,936	283	158	1,121	417	2,293	678	290	353	1,511
Number attending school.....	36	1,206	20	16	189	58	576	142	38	43	184
Per cent attending school.....	15.1	13.5	7.1	10.1	16.9	13.9	25.1	20.9	13.1	12.2	12.2
Males 21 years of age and over.....	1,675	56,650	1,647	1,277	7,725	2,523	14,767	5,655	2,326	2,451	11,524
Native white—Native parentage.....	1,020	22,251	87	589	3,467	664	10,143	3,565	570	781	4,325
Native white—Foreign or mixed parentage.....	397	10,769	487	275	2,698	1,113	3,229	1,427	561	749	4,280
Foreign-born white.....	232	17,136	1,103	400	1,551	668	1,323	652	1,151	876	2,840
Naturalized.....	173	9,459	666	224	1,011	479	839	384	363	578	1,589
First papers.....	21	3,546	195	77	202	72	153	117	105	84	696
Alien.....	30	2,790	220	51	300	56	174	81	252	126	511
Unknown.....	8	1,341	22	48	88	61	157	70	431	88	44
Negro.....	3	446	.....	5	9	3	68	10	1	6	73
Indian, Chinese, Japanese, and all other.....	23	48	.....	8	.....	75	4	1	37	39	6
Females 21 years of age and over.....	1,353	56,493	1,214	1,140	7,538	2,211	15,120	5,360	1,497	1,842	10,900
Native white—Native parentage.....	899	22,232	54	539	3,467	555	10,356	3,410	570	585	4,185
Native white—Foreign or mixed parentage.....	292	10,078	427	268	2,638	988	3,464	1,371	435	641	4,002
Foreign-born white.....	144	14,790	733	326	1,424	599	1,229	599	672	883	2,645
Naturalized.....	122	8,705	504	191	1,012	442	876	420	207	438	1,656
First papers.....	1	212	8	4	23	6	15	8	6	3	76
Alien.....	19	4,429	211	100	343	70	209	87	116	95	868
Unknown.....	2	1,444	10	31	46	81	129	54	343	47	45
Negro.....	3	386	.....	2	9	2	70	8	1	1	66
Indian, Chinese, Japanese, and all other.....	15	7	.....	5	.....	67	1	2	19	32	2
Males 18 to 44 years, inclusive.....	960	37,572	1,248	738	4,500	1,512	8,417	3,095	1,519	1,499	7,195
Females 18 to 44 years, inclusive.....	874	39,402	1,003	739	4,621	1,433	8,895	3,053	1,055	1,309	6,889
<b>ILLITERACY.</b>											
Total 10 years of age and over.....	4,231	147,241	4,338	3,385	20,529	6,874	38,849	14,184	4,940	5,986	29,683
Number illiterate.....	95	4,255	183	113	1,050	307	406	116	393	383	762
Per cent illiterate.....	2.2	2.9	4.2	3.3	5.1	4.5	1.0	0.8	8.0	6.4	2.6
Per cent illiterate in 1910.....	5.1	2.3	4.3	3.4	4.4	5.6	1.1	1.0	7.6	9.2	3.3
Native white.....	3,781	112,084	2,397	2,590	17,847	5,398	36,017	12,889	2,991	4,375	23,669
Number illiterate.....	58	277	11	20	801	137	271	122	122	181	330
Per cent illiterate.....	1.6	0.2	0.5	0.8	4.6	2.5	0.8	0.6	4.1	4.1	1.4
Foreign-born white.....	389	34,141	1,941	769	3,151	1,283	2,645	1,268	1,808	1,509	5,819
Number illiterate.....	21	3,957	172	90	243	131	120	43	250	164	421
Per cent illiterate.....	5.4	11.6	8.9	11.7	7.7	10.2	4.5	3.4	13.4	10.2	7.2
Negro.....	7	995	.....	9	31	7	181	23	5	7	187
Number illiterate.....	.....	19	.....	.....	6	1	14	1	.....	1	10
Per cent illiterate.....	.....	1.9	.....	.....	.....	.....	7.7	.....	.....	.....	5.3
Total 16 to 20 years, inclusive.....	453	14,984	526	325	2,091	780	4,000	1,262	496	663	2,807
Number illiterate.....	1	45	2	.....	156	5	10	1	3	11	10
Per cent illiterate.....	0.2	0.3	0.4	.....	7.5	0.6	0.3	0.1	0.6	1.7	0.4
Illiterate males 21 years of age and over.....	58	1,990	100	38	450	169	218	74	248	227	384
Per cent of all males 21 years of age and over.....	3.5	3.5	6.1	3.0	5.8	6.7	1.5	1.3	10.7	9.3	3.9
Native white.....	37	130	3	14	333	82	146	50	72	102	183
Foreign-born white.....	15	1,851	92	23	112	70	64	23	165	102	193
Negro.....	8	.....	.....	.....	5	.....	7	.....	.....	.....	7
Illiterate females 21 years of age and over.....	32	2,201	81	74	421	129	169	38	140	128	357
Per cent of all females 21 years of age and over.....	2.4	3.9	6.7	6.5	5.6	5.8	1.1	0.7	9.4	6.9	3.3
Native white.....	17	109	2	5	304	47	107	13	47	61	129
Foreign-born white.....	6	2,080	79	67	116	61	56	20	84	50	227
Negro.....	.....	11	.....	.....	1	.....	6	.....	.....	.....	1
<b>DWELLINGS AND FAMILIES.</b>											
Dwellings, number.....	1,339	40,109	1,039	1,101	6,229	1,953	12,847	4,616	982	1,777	9,252
Families, number.....	1,360	44,896	1,198	1,104	6,360	2,004	13,288	4,760	1,012	1,813	9,547

¹ Less than one-tenth of 1 per cent.

## COMPOSITION AND CHARACTERISTICS.

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TABLE 9.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR COUNTIES: 1920—Continued.

[Per cent not shown where base is less than 100.]

SUBJECT.	Mani- tee.	Mar- quette.	Mason.	Mecosta.	Menom- inee.	Mid- land.	Missau- kee.	Monroe.	Mont- calm.	Mont- morency.	Mus- kegon.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>											
Total population.....	20,899	45,788	19,831	17,765	23,778	17,237	9,004	37,115	30,441	4,089	62,362
Male.....	10,642	24,409	10,168	9,161	12,419	9,053	4,783	19,302	15,597	2,284	32,776
Female.....	10,257	21,377	9,663	8,604	11,359	8,184	4,221	17,813	14,844	1,805	29,586
Native white.....	16,218	31,772	15,900	15,688	18,329	15,151	7,747	33,879	27,443	3,485	50,595
Male.....	8,198	16,201	8,079	8,062	9,401	7,928	4,071	17,518	13,989	1,895	26,285
Female.....	8,020	15,571	7,821	7,606	8,928	7,223	3,676	16,361	13,454	1,590	24,310
Native white—Native parentage.....	6,927	8,744	8,333	11,135	6,792	10,398	4,569	24,577	20,375	2,056	27,362
Native white—Foreign parentage.....	6,553	17,102	4,857	2,183	8,160	2,289	1,720	5,442	3,692	740	15,209
Native white—Mixed parentage.....	2,738	5,926	2,710	2,350	3,377	2,404	1,458	3,860	3,476	689	8,024
Foreign-born white.....	4,577	13,887	3,767	1,873	5,374	1,949	1,215	3,117	2,909	591	11,429
Male.....	2,384	8,112	2,009	989	2,978	1,053	692	1,717	1,663	381	6,301
Female.....	2,193	5,775	1,758	884	2,396	896	523	1,400	1,246	210	5,128
Negro.....	17	90	25	213	4	108	16	118	89	4	254
Male.....	10	71	13	103	1	56	4	66	45	3	141
Female.....	7	19	12	110	3	52	12	52	44	1	113
Indian, Chinese, Japanese, and all other (see Tables 1 and 7).....	87	37	139	11	71	29	26	1	.....	9	84
Per cent native white.....	77.6	69.4	80.2	88.2	77.1	87.9	86.0	91.3	90.2	85.2	81.1
Per cent foreign-born white.....	21.9	30.3	19.0	10.5	22.6	11.3	13.5	8.4	9.6	14.5	18.3
Per cent Negro.....	0.1	0.2	0.1	1.2	(1)	0.6	0.2	0.3	0.3	0.1	0.4
1910: Total population.....	26,688	46,739	21,832	19,466	25,648	14,005	10,606	32,917	32,069	3,755	40,577
Native white.....	19,916	28,670	17,031	16,658	18,705	11,825	8,858	29,668	25,194	2,993	30,505
Foreign-born white.....	6,728	17,934	4,485	2,532	6,832	2,061	1,698	3,161	3,765	761	9,991
Negro.....	20	88	6	237	7	119	15	88	105	1	79
Per cent native white.....	74.6	61.3	78.0	85.6	72.9	84.4	83.5	90.1	87.9	79.7	75.2
Per cent foreign-born white.....	25.2	38.4	20.5	13.0	26.6	14.7	16.0	9.6	11.7	20.3	24.6
Per cent Negro.....	0.1	0.2	(1)	1.2	(1)	0.8	0.1	0.3	0.3	(1)	0.2
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>											
Total under 7 years of age.....	2,763	7,329	2,964	2,735	3,981	3,113	1,595	5,580	4,278	714	9,706
Total 7 to 13 years, inclusive.....	3,299	7,262	2,916	2,603	4,074	2,758	1,571	5,246	4,801	663	7,995
Number attending school.....	3,080	6,926	2,841	2,521	3,782	2,639	1,524	4,914	4,151	613	7,642
Per cent attending school.....	93.4	95.4	97.4	96.8	92.8	95.7	97.0	93.7	85.2	92.5	95.6
Total 14 and 15 years.....	931	1,831	821	741	1,140	734	441	1,406	1,131	173	1,890
Number attending school.....	810	1,430	747	682	920	626	363	1,227	1,012	142	1,664
Per cent attending school.....	87.0	78.1	91.0	92.0	80.7	85.3	82.3	87.3	89.5	82.1	88.0
Total 16 and 17 years.....	886	1,762	780	641	1,096	662	372	1,325	1,092	174	2,161
Number attending school.....	307	693	368	305	852	196	119	496	544	68	555
Per cent attending school.....	34.7	39.3	47.2	47.6	32.1	29.6	32.0	37.4	51.2	39.1	30.3
Total 18 to 20 years, inclusive.....	1,095	2,351	984	760	1,320	804	412	1,852	1,205	210	3,299
Number attending school.....	159	380	198	134	145	85	61	186	189	9	270
Per cent attending school.....	14.5	16.2	20.1	17.6	11.0	10.6	14.8	10.0	15.7	4.3	8.2
Males 21 years of age and over.....	6,074	13,993	5,887	5,406	6,458	4,899	2,408	11,426	9,452	1,286	19,968
Native white—Native parentage.....	1,327	1,580	1,923	2,844	1,107	2,481	1,032	6,334	5,490	496	6,956
Native white—Foreign or mixed parentage.....	2,383	4,667	1,993	1,527	2,501	1,384	744	3,453	2,887	410	6,875
Foreign-born white.....	2,331	7,666	1,930	970	2,825	996	681	1,589	1,542	379	5,908
Naturalized.....	1,664	4,660	1,263	723	1,782	662	480	718	1,046	258	3,383
First papers.....	355	965	372	123	184	80	316	316	257	34	1,328
Alien.....	170	1,000	222	93	405	120	90	398	84	77	631
Unknown.....	142	441	73	31	163	30	31	157	155	1	356
Negro.....	6	61	8	59	1	31	2	44	33	1	106
Indian, Chinese, Japanese, and all other.....	27	19	33	6	24	7	9	1	.....	3	33
Females 21 years of age and over.....	5,851	11,258	5,479	4,879	5,709	4,267	2,145	10,280	8,952	899	17,253
Native white—Native parentage.....	1,273	1,239	1,838	2,588	996	2,108	909	5,689	5,280	342	6,017
Native white—Foreign or mixed parentage.....	2,407	4,654	1,910	1,366	2,450	1,282	721	3,265	2,343	322	6,326
Foreign-born white.....	2,149	5,346	1,695	866	2,247	843	503	1,303	1,326	201	4,820
Naturalized.....	1,557	3,808	1,144	680	1,466	581	370	733	947	163	3,103
First papers.....	61	42	24	13	40	13	4	23	25	2	89
Alien.....	383	1,003	428	147	571	222	101	413	219	30	1,238
Unknown.....	148	493	99	26	170	27	28	134	135	6	390
Negro.....	4	13	6	55	.....	28	6	23	23	1	72
Indian, Chinese, Japanese, and all other.....	18	6	30	4	16	6	6	.....	.....	3	19
Males 18 to 44 years, inclusive.....	3,729	10,202	3,701	2,989	4,307	3,157	1,542	7,388	5,174	857	14,264
Females 18 to 44 years, inclusive.....	3,768	8,343	3,655	2,978	4,203	2,974	1,523	6,702	5,330	684	12,625
<b>ILLITERACY.</b>											
Total 10 years of age and over.....	16,761	35,195	15,620	13,895	18,025	12,912	6,710	29,254	24,299	3,079	48,988
Number illiterate.....	705	1,494	350	213	738	329	115	726	370	135	934
Per cent illiterate.....	4.2	4.2	2.2	1.5	4.1	2.5	1.7	2.5	1.5	4.4	1.9
Per cent illiterate in 1910.....	4.5	4.7	4.7	2.3	5.7	3.2	2.6	4.9	2.0	5.1	2.6
Native white.....	12,117	21,325	11,757	11,865	12,651	10,888	5,465	26,084	21,327	2,483	37,359
Number illiterate.....	102	177	55	116	214	163	62	469	191	66	162
Per cent illiterate.....	0.8	0.8	0.5	1.0	1.7	1.5	1.1	1.8	0.9	2.3	0.4
Foreign-born white.....	4,563	13,748	3,748	1,862	5,312	1,923	1,211	3,079	2,903	588	11,351
Number illiterate.....	599	1,309	279	79	507	158	46	249	188	76	755
Per cent illiterate.....	13.1	9.5	7.4	4.2	9.5	8.2	3.8	8.1	6.5	12.9	6.7
Negro.....	14	90	21	157	1	83	12	90	60	2	213
Number illiterate.....	1	3	.....	12	.....	3	.....	8	11	.....	1
Per cent illiterate.....	.....	.....	.....	7.6	.....	.....	.....	.....	.....	.....	0.5
Total 16 to 20 years, inclusive.....	1,961	4,113	1,764	1,401	2,416	1,466	784	3,177	2,267	384	5,460
Number illiterate.....	6	16	6	8	20	10	5	10	9	5	11
Per cent illiterate.....	0.3	0.4	0.3	0.6	0.8	0.7	0.6	0.3	0.4	1.3	0.2
Illiterate males 21 years of age and over.....	280	823	159	128	401	207	71	371	220	100	502
Per cent of all males 21 years of age and over.....	4.8	5.9	2.7	2.4	6.2	4.2	2.9	3.2	2.3	7.8	2.5
Native white.....	48	79	29	75	113	115	40	262	130	35	112
Foreign-born white.....	240	739	123	43	282	88	30	103	84	64	382
Negro.....	1	3	.....	7	.....	2	.....	6	6	.....	416
Illiterate females 21 years of age and over.....	404	688	184	74	305	107	35	340	138	28	2.4
Per cent of all females 21 years of age and over.....	6.9	5.7	3.4	1.5	5.3	2.5	1.6	3.3	1.5	3.2	39
Native white.....	44	72	21	30	72	34	14	197	49	14	399
Foreign-born white.....	358	563	155	36	225	69	16	141	84	12	369
Negro.....	.....	.....	.....	6	.....	1	.....	2	5	.....	1
<b>DWELLINGS AND FAMILIES.</b>											
Dwellings, number.....	4,814	8,556	4,632	4,466	4,436	3,982	2,048	8,639	8,191	881	13,524
Families, number.....	5,037	9,633	4,812	4,615	4,743	4,047	2,069	8,996	8,351	895	15,000

1 Less than one-tenth of 1 per cent.



TABLE 9.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR COUNTIES: 1920—Continued.

[Per cent not shown where base is less than 100.]

SUBJECT.	Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscom- mon.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>											
Total population	17,378	90,050	15,601	7,786	12,428	15,221	1,783	6,043	47,660	12,131	2,032
Male	9,060	47,851	7,974	4,036	7,086	7,943	924	3,301	24,370	6,404	1,135
Female	8,318	42,199	7,627	3,750	5,342	7,278	859	2,742	23,290	5,727	897
Native white	15,452	76,311	13,065	6,598	8,777	13,206	1,669	5,082	39,491	10,819	1,712
Male	7,990	40,040	6,942	3,377	4,719	6,834	859	2,746	20,068	5,386	951
Female	7,462	36,271	6,123	3,221	4,058	6,372	810	2,336	19,423	4,933	761
Native white—Native parentage	10,749	52,860	9,564	4,011	2,545	8,580	1,330	2,861	19,214	5,191	1,159
Native white—Foreign parentage	2,515	11,892	2,174	1,295	4,867	2,423	143	1,251	12,994	2,967	302
Native white—Mixed parentage	2,188	11,559	1,297	1,292	1,365	2,203	196	970	7,283	2,161	251
Foreign-born white	1,895	12,576	1,705	1,188	3,641	2,000	114	936	8,129	1,805	300
Male	1,057	7,088	905	659	2,362	1,101	65	539	4,280	1,014	176
Female	838	5,488	800	529	1,279	899	49	397	3,849	791	124
Negro	31	1,148	22	—	3	9	—	6	40	2	20
Male	13	710	14	—	2	5	—	4	22	—	8
Female	18	438	8	—	1	4	—	2	18	—	12
Indian, Chinese, Japanese, and all other (see Tables 1 and 7)	—	15	209	—	7	6	—	19	—	5	—
Per cent native white	88.9	84.7	87.6	84.7	70.6	86.8	93.6	84.1	82.9	85.1	84.3
Per cent foreign-born white	10.9	14.0	10.9	15.3	29.3	13.1	6.4	15.5	17.1	14.9	14.8
Per cent Negro	0.2	1.3	0.1	—	( <sup>1</sup> )	0.1	—	0.1	0.1	( <sup>1</sup> )	1.0
1910: Total population	19,220	49,576	18,379	8,907	8,650	17,889	2,027	6,552	45,301	11,249	2,274
Native white	16,835	42,279	15,906	7,214	5,709	15,079	1,832	5,197	35,568	9,003	1,876
Foreign-born white	2,345	7,040	2,187	1,649	2,935	2,750	191	1,354	9,672	2,239	390
Negro	19	251	25	2	2	39	4	1	42	3	2
Per cent native white	87.6	85.3	86.5	81.0	66.0	84.3	90.4	79.3	78.5	80.0	82.5
Per cent foreign-born white	12.2	14.2	11.8	18.5	33.9	15.4	9.4	20.7	21.4	19.9	17.2
Per cent Negro	0.1	0.5	0.1	( <sup>1</sup> )	( <sup>1</sup> )	0.2	0.2	( <sup>1</sup> )	0.1	( <sup>1</sup> )	0.1
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>											
Total under 7 years of age	2,586	13,319	2,467	1,322	2,291	2,378	349	1,076	7,483	2,483	302
Total 7 to 13 years, inclusive	2,583	10,635	2,390	1,352	2,278	2,359	330	951	7,325	2,250	345
Number attending school	2,521	10,011	2,296	1,282	2,190	2,300	323	832	7,058	2,088	313
Per cent attending school	97.6	94.1	96.1	94.8	96.1	97.5	97.9	87.5	96.4	92.8	90.7
Total 14 and 15 years	733	2,563	621	383	534	601	83	260	1,916	535	77
Number attending school	673	2,271	578	341	398	582	81	211	1,487	444	61
Per cent attending school	91.8	88.6	93.1	89.0	74.5	88.0	—	81.2	77.6	83.0	—
Total 16 and 17 years	650	2,541	610	290	469	594	65	245	1,817	507	85
Number attending school	301	1,132	329	136	192	266	31	79	690	186	26
Per cent attending school	45.7	44.5	53.2	46.9	40.9	44.8	—	32.2	32.5	36.7	—
Total 18 to 20 years, inclusive	737	4,102	876	318	601	695	95	301	2,387	564	86
Number attending school	143	467	144	38	68	113	6	31	307	55	13
Per cent attending school	19.4	11.1	21.3	11.9	11.3	16.3	—	10.3	13.0	9.8	—
Males 21 years of age and over	5,327	30,803	4,595	2,168	3,927	4,513	405	1,829	13,666	3,191	654
Native white—Native parentage	2,704	16,232	2,460	887	575	2,084	317	759	3,567	818	310
Native white—Foreign or mixed parentage	1,588	7,580	1,194	645	1,117	1,354	56	543	6,075	1,385	172
Foreign-born white	1,023	6,417	872	636	2,230	1,070	62	516	4,010	985	166
Naturalized	727	2,633	628	435	1,227	829	50	326	2,654	680	135
First papers	105	1,323	110	108	376	100	4	89	578	119	15
Alien	96	1,566	84	68	573	112	5	90	482	160	13
Unknown	95	895	50	25	54	20	3	11	296	26	3
Negro	12	563	12	—	2	4	—	4	14	—	6
Indian, Chinese, Japanese, and all other	—	11	57	—	3	1	—	8	—	2	—
Females 21 years of age and over	4,753	25,997	4,233	1,953	2,328	4,021	396	1,381	13,086	2,601	483
Native white—Native parentage	2,593	13,610	2,203	816	378	1,885	255	506	3,466	604	222
Native white—Foreign or mixed parentage	1,357	7,269	1,109	627	769	1,245	96	433	6,019	1,286	136
Foreign-born white	701	4,842	774	510	1,188	886	45	378	3,501	769	119
Naturalized	583	2,769	594	367	843	721	36	271	2,393	558	96
First papers	5	32	19	3	30	10	—	9	23	10	2
Alien	130	1,316	112	124	281	123	7	94	807	183	19
Unknown	73	725	49	16	34	32	2	4	368	28	2
Negro	12	284	7	—	1	4	—	2	10	—	6
Indian, Chinese, Japanese, and all other	—	2	50	—	2	1	—	2	—	2	—
Males 18 to 44 years, inclusive	3,047	21,793	2,602	1,248	2,789	2,629	313	1,148	8,046	2,254	378
Females 18 to 44 years, inclusive	2,968	18,226	2,638	1,274	1,845	2,514	298	963	9,024	1,960	325
<b>ILLITERACY.</b>											
Total 10 years of age and over	13,677	71,908	12,084	5,883	9,125	11,881	1,279	4,533	37,018	8,633	1,577
Number illiterate	194	994	290	52	341	262	15	215	742	603	34
Per cent illiterate	1.4	1.4	2.4	0.9	3.7	2.2	1.2	4.7	2.0	7.0	2.2
Per cent illiterate in 1910	1.6	1.5	2.3	2.7	3.2	1.6	2.0	6.1	2.0	9.4	4.9
Native white	11,764	58,720	10,219	4,701	5,498	9,872	1,166	3,578	28,929	6,832	1,266
Number illiterate	104	223	72	15	51	110	11	82	141	231	12
Per cent illiterate	0.9	0.4	0.7	0.3	0.9	1.1	0.9	2.3	0.5	3.4	0.9
Foreign-born white	1,887	12,168	1,698	1,182	3,617	1,994	113	934	8,056	1,794	297
Number illiterate	89	674	151	37	288	149	4	131	600	370	21
Per cent illiterate	4.7	5.5	8.9	3.1	8.0	7.5	3.5	14.0	7.4	20.6	7.1
Negro	26	1,006	21	—	8	9	—	6	31	2	14
Number illiterate	1	94	—	—	—	1	—	1	1	—	1
Per cent illiterate	—	9.3	—	—	—	—	—	—	—	—	—
Total 16 to 20 years, inclusive	1,396	6,733	1,295	608	1,070	1,289	160	546	4,184	1,071	171
Number illiterate	6	39	7	2	7	5	1	2	19	14	—
Per cent illiterate	0.4	0.6	0.5	0.3	0.7	0.4	0.6	0.4	0.5	1.3	—
Illiterate males 21 years of age and over	114	660	154	29	241	142	10	121	333	320	19
Per cent of all males 21 years of age and over	2.1	2.1	3.4	1.3	6.1	3.1	2.2	6.6	2.4	10.0	2.9
Native white	74	135	44	8	37	75	7	45	72	121	8
Foreign-born white	39	468	74	21	203	65	3	71	261	198	10
Negro	1	64	—	—	—	—	—	—	—	—	—
Illiterate females 21 years of age and over	71	280	125	21	89	112	2	83	382	256	14
Per cent of all females 21 years of age and over	1.5	1.1	3.0	1.1	3.8	2.8	0.5	6.0	2.9	9.8	2.9
Native white	22	69	21	6	6	27	1	24	47	88	3
Foreign-born white	49	199	77	15	82	84	1	59	334	169	11
Negro	—	22	—	—	—	—	—	—	—	—	—
<b>DWELLINGS AND FAMILIES.</b>											
Dwellings, number	4,334	20,063	3,821	1,871	2,285	3,732	375	1,322	10,943	2,394	525
Families, number	4,428	21,450	3,948	1,893	2,330	3,771	381	1,334	11,369	2,462	532

<sup>1</sup> Less than one-tenth of 1 per cent.

## COMPOSITION AND CHARACTERISTICS.

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TABLE 9.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR COUNTIES: 1920—Continued.

[Per cent not shown where base is less than 100.]

SUBJECT.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>											
Total population.....	100,288	58,009	26,818	31,237	9,977	35,924	33,320	30,715	49,520	1,177,645	18,207
Male.....	51,117	29,731	13,539	16,234	5,428	18,292	17,108	15,548	24,452	640,305	9,419
Female.....	49,169	28,278	13,279	15,003	4,549	17,632	16,212	15,167	25,068	537,340	8,788
Native white.....	81,578	45,820	25,370	24,661	7,727	31,851	28,140	27,445	42,922	788,297	15,718
Male.....	41,210	23,542	12,762	12,760	4,097	16,098	14,434	13,831	21,086	412,179	8,033
Female.....	40,368	22,278	12,608	11,911	3,630	15,753	13,706	13,614	21,836	376,118	7,685
Native white—Native parentage.....	42,517	23,463	20,888	10,401	3,734	23,073	16,899	21,014	28,881	374,056	10,722
Native white—Foreign parentage.....	24,162	11,873	2,411	7,900	2,585	4,549	5,902	3,316	8,047	293,704	2,716
Native white—Mixed parentage.....	14,899	10,503	2,071	6,360	1,408	4,229	5,339	2,515	5,994	119,877	2,280
Foreign-born white.....	18,146	11,599	1,366	6,570	2,187	4,059	5,131	2,784	5,184	344,725	2,444
Male.....	9,596	5,870	734	3,479	1,305	2,184	2,645	1,457	2,659	202,178	1,363
Female.....	8,550	5,729	632	3,091	882	1,875	2,486	1,327	2,505	142,547	1,081
Negro.....	388	560	79	6	9	1	1	378	1,400	43,720	35
Male.....	213	309	41	5	5	10	1	202	678	25,187	18
Female.....	175	251	38	1	4	4	1	176	722	18,533	17
Indian, Chinese, Japanese, and all other (see Tables 1 and 7).....	174	21	3	.....	54	.....	48	108	34	903	10
Per cent native white.....	81.3	79.0	94.6	78.9	77.4	88.7	84.5	89.4	86.7	66.9	86.3
Per cent foreign-born white.....	18.1	20.0	5.1	21.0	21.9	11.3	15.4	9.1	10.4	29.3	13.4
Per cent Negro.....	0.4	1.0	0.3	(1)	0.1	(1)	(1)	1.2	2.8	8.7	0.2
<b>1910: Total population.....</b>											
Native white.....	89,290	52,341	25,499	33,930	8,681	33,246	34,913	33,185	44,714	531,591	20,769
Foreign-born white.....	39,379	23,492	2,661	25,024	5,905	29,340	28,664	30,004	38,102	353,758	17,503
Negro.....	10,420	12,769	1,749	8,898	2,736	3,863	6,190	2,532	5,457	171,649	3,171
Per cent native white.....	77.7	75.5	92.8	73.8	68.0	88.3	82.1	90.4	85.2	66.5	84.3
Per cent foreign-born white.....	21.7	24.4	6.9	26.2	31.5	11.6	17.7	7.6	12.2	32.3	15.3
Per cent Negro.....	0.4	0.1	0.3	(1)	0.1	0.1	0.1	1.6	2.5	1.1	0.3
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>											
Total under 7 years of age.....	15,185	8,148	3,366	5,254	1,537	5,289	5,412	3,961	5,801	187,181	2,658
Total 7 to 13 years, inclusive.....	14,359	7,881	3,183	5,044	1,566	4,955	5,291	4,072	5,671	128,689	2,713
Number attending school.....	13,523	7,465	3,095	4,691	1,397	4,735	5,076	3,768	5,467	121,819	2,030
Per cent attending school.....	94.2	94.7	97.2	93.0	89.2	95.6	95.9	92.4	96.4	94.7	90.9
Total 14 and 15 years.....	3,674	2,166	873	1,329	409	1,251	1,294	1,095	1,625	28,550	694
Number attending school.....	3,202	1,888	786	1,104	330	1,112	1,064	988	1,460	24,996	622
Per cent attending school.....	87.2	87.2	90.0	83.1	80.7	88.9	82.2	90.2	89.8	87.6	89.6
Total 16 and 17 years.....	3,650	2,132	838	1,182	429	1,255	1,193	1,026	1,632	31,456	734
Number attending school.....	1,228	837	423	515	171	637	486	565	882	10,080	305
Per cent attending school.....	33.6	39.3	50.5	43.6	39.9	50.8	40.7	55.1	54.0	32.0	41.6
Total 18 to 20 years, inclusive.....	4,998	2,867	1,146	1,336	548	1,503	1,204	1,221	2,447	57,705	898
Number attending school.....	537	377	190	192	65	257	178	247	708	4,714	124
Per cent attending school.....	10.7	13.1	16.6	14.4	11.9	17.1	14.1	20.2	28.9	8.2	13.8
Males 21 years of age and over.....	29,930	17,909	8,852	8,903	3,113	11,014	9,728	9,691	15,753	421,150	5,544
Native white—Native parentage.....	9,614	5,244	6,297	1,493	930	6,395	3,895	6,347	7,701	121,228	2,802
Native white—Foreign or mixed parentage.....	11,333	7,111	1,822	4,108	911	2,618	3,403	1,810	5,054	96,621	1,410
Foreign-born white.....	8,775	5,322	703	3,300	1,257	1,992	2,416	1,377	2,519	183,267	1,316
Naturalized.....	4,949	3,510	407	2,308	819	979	1,498	874	1,535	59,904	920
First papers.....	1,467	728	150	385	173	396	325	192	347	53,540	179
Alien.....	1,653	1,024	98	572	237	431	539	228	415	64,141	125
Unknown.....	706	51	48	35	28	186	54	83	222	5,622	92
Negro.....	148	225	29	2	2	9	.....	128	452	10,480	14
Indian, Chinese, Japanese, and all other.....	60	7	1	.....	13	.....	14	29	27	654	2
Females 21 years of age and over.....	28,490	16,906	8,500	8,189	2,325	10,657	9,138	9,649	16,591	322,914	4,963
Native white—Native parentage.....	8,970	4,703	6,158	1,509	606	6,261	3,618	6,446	8,372	93,449	2,582
Native white—Foreign or mixed parentage.....	11,642	6,754	1,768	3,734	793	2,707	3,209	1,815	5,382	92,716	1,330
Foreign-born white.....	7,726	5,205	609	2,946	818	1,686	2,298	1,251	2,371	128,702	1,042
Naturalized.....	4,646	3,762	406	2,082	623	990	1,546	830	1,578	52,090	809
First papers.....	113	64	17	48	5	10	30	12	35	2,440	11
Alien.....	2,085	1,315	137	773	159	524	672	292	458	63,382	130
Unknown.....	882	64	49	43	31	162	50	108	300	5,850	92
Negro.....	117	151	25	.....	3	3	1	114	462	12,901	9
Indian, Chinese, Japanese, and all other.....	35	3	.....	.....	15	.....	12	23	4	86	3
Males 18 to 44 years, inclusive.....	20,372	11,327	5,025	5,509	2,104	6,487	5,663	5,100	9,681	353,542	3,358
Females 18 to 44 years, inclusive.....	19,916	10,789	5,038	5,320	1,760	6,617	5,633	5,299	10,141	267,134	3,309
<b>ILLITERACY.</b>											
Total 10 years of age and over.....	78,731	46,499	22,043	23,675	7,699	28,473	25,678	25,075	41,296	930,303	14,375
Number illiterate.....	2,424	995	193	431	231	199	562	251	451	39,984	317
Per cent illiterate.....	3.1	2.1	0.9	1.8	3.0	0.7	2.2	1.0	1.1	4.8	2.2
Per cent illiterate in 1910.....	3.4	2.8	1.4	2.7	8.4	1.2	2.9	1.9	1.1	4.9	2.9
Native white.....	60,398	34,706	20,617	17,169	5,486	24,461	20,468	21,919	34,994	554,838	11,009
Number illiterate.....	385	335	108	142	61	91	154	135	102	1,739	144
Per cent illiterate.....	0.6	1.0	0.5	0.8	1.1	0.4	0.8	0.6	0.3	0.3	1.2
Foreign-born white.....	17,883	11,315	1,854	6,504	2,170	3,998	5,071	2,763	5,103	336,117	2,430
Number illiterate.....	2,003	610	84	289	164	108	398	97	307	36,648	171
Per cent illiterate.....	11.2	5.4	6.2	4.4	7.6	2.7	7.8	3.5	6.0	10.9	7.0
Negro.....	323	461	70	2	1	14	1	318	1,165	38,507	29
Number illiterate.....	10	45	1	.....	1	.....	.....	12	42	1,518	1
Per cent illiterate.....	3.1	9.8	.....	.....	.....	.....	.....	3.8	3.6	8.9	.....
Total 16 to 20 years, inclusive.....	8,648	4,999	1,984	2,518	977	2,758	2,457	2,247	4,079	80,161	1,632
Number illiterate.....	34	18	2	16	12	3	16	2	16	599	3
Per cent illiterate.....	0.4	0.4	0.1	0.6	1.2	0.1	0.7	0.1	0.4	0.7	0.2
Illiterate males 21 years of age and over.....	1,173	530	108	230	123	106	286	135	244	21,013	193
Per cent of all males 21 years of age and over.....	3.9	3.0	1.2	2.6	4.0	1.0	2.9	1.4	1.5	5.0	3.5
Native white.....	232	198	65	80	30	58	91	83	58	823	99
Foreign-born white.....	927	30	40	150	48	48	189	44	165	19,305	92
Negro.....	5	.....	.....	.....	.....	.....	.....	4	21	813	1
Illiterate females 21 years of age and over.....	1,189	438	80	173	90	80	246	109	182	18,185	117
Per cent of all females 21 years of age and over.....	4.2	2.6	0.9	2.1	3.9	0.8	2.7	1.1	1.1	5.6	2.4
Native white.....	121	120	36	36	19	22	40	45	29	871	38
Foreign-born white.....	1,047	304	44	137	70	58	202	63	133	16,873	79
Negro.....	5	.....	.....	.....	.....	.....	.....	8	20	635	.....
<b>DWELLINGS AND FAMILIES.</b>											
Dwellings, number.....	22,684	13,752	7,305	7,524	1,957	9,188	8,003	8,427	12,471	185,488	4,338
Families, number.....	23,098	14,370	7,685	7,597	2,061	9,491	8,249	8,687	13,327	258,245	4,553

1 Less than one-tenth of 1 per cent.

TABLE 10.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR CITIES OF 10,000 OR MORE: 1920.

[Per cent not shown where base is less than 100.]

SUBJECT.	CITIES OF 25,000 OR MORE.													
	Battle Creek.	Bay City.	Detroit.	Flint.	Grand Rapids.	Hamtramck village.	Highland Park.	Jackson.	Kalamazoo.	Lansing.	Muskegon.	Pontiac.	Port Huron.	Saginaw.
COLOR OR RACE, NATIVITY, AND SEX.														
Total population.....	36,184	47,554	993,678	91,599	137,634	48,615	46,499	48,374	48,487	57,327	36,570	34,273	25,944	61,903
Male.....	17,855	23,890	540,248	51,655	67,516	27,378	25,656	25,227	23,965	30,098	19,154	18,872	13,039	31,024
Female.....	18,309	23,664	453,430	39,944	70,118	21,237	20,843	23,147	24,522	27,229	17,416	15,401	12,905	30,879
Native white.....	31,695	38,462	662,768	74,707	108,117	23,531	33,394	42,214	40,500	50,617	29,578	28,460	19,093	49,924
Male.....	15,984	19,200	346,894	40,987	61,909	11,988	17,707	21,795	19,678	26,258	15,356	15,346	9,587	24,724
Female.....	16,311	19,262	315,874	33,720	56,208	11,543	15,687	20,419	20,822	24,359	14,222	13,114	9,506	25,200
Native white—Native parentage.....	25,411	17,950	313,997	50,186	56,079	2,073	19,005	30,658	27,873	38,373	15,198	20,031	9,100	25,805
Native white—Foreign parentage.....	3,072	12,480	247,035	13,729	34,779	19,423	8,480	6,604	7,686	6,489	9,608	4,271	5,363	14,593
Native white—Mixed parentage.....	3,212	8,032	101,736	10,792	17,259	2,035	5,309	4,952	4,941	5,755	4,772	4,158	4,630	9,526
Foreign-born white.....	3,378	8,954	289,297	15,127	28,355	23,082	12,661	5,316	7,207	5,985	6,780	5,185	6,346	11,605
Male.....	1,883	4,611	169,095	9,497	14,999	14,282	7,681	2,897	3,877	3,437	3,672	3,178	6,092	11,605
Female.....	1,495	4,343	120,202	5,630	13,356	8,780	4,980	2,419	3,330	2,548	3,108	2,030	3,168	5,513
Negro.....	1,055	127	40,838	1,701	1,090	2,022	358	810	752	698	182	619	500	328
Male.....	560	72	23,605	1,121	555	1,103	193	505	385	377	105	362	270	179
Female.....	495	55	17,233	580	535	914	165	305	367	321	77	257	230	149
Indian, Chinese, Japanese, and all other (see Table 7).....	36	11	775	64	72	.....	86	34	28	27	30	9	5	46
Per cent native white.....	87.6	80.9	66.7	81.6	78.6	48.4	71.8	87.3	83.5	88.3	80.9	83.0	73.6	80.6
Per cent foreign-born white.....	9.3	18.8	29.1	16.5	20.6	47.4	27.2	11.0	14.9	10.4	18.5	15.1	24.5	18.7
Per cent Negro.....	2.9	0.3	4.1	1.9	0.8	4.2	0.8	1.7	1.6	1.2	0.5	1.8	1.9	0.5
1910: Total population.....	25,267	45,166	465,768	38,550	112,571	3,559	4,120	31,433	39,437	31,229	24,062	14,532	18,863	50,510
Native white.....	22,068	33,973	303,361	31,482	83,544	2,213	3,190	26,759	31,882	26,895	17,758	11,661	12,822	38,482
Foreign-born white.....	2,616	11,027	155,565	6,062	28,335	1,261	915	4,307	6,857	3,973	6,252	2,683	5,079	11,701
Negro.....	575	160	5,741	397	865	85	15	354	685	354	50	192	62	313
Per cent native white.....	87.3	75.2	65.1	81.7	74.2	62.2	77.4	85.1	80.8	86.1	73.8	80.2	68.0	76.2
Per cent foreign-born white.....	10.4	24.4	33.6	17.3	25.2	35.4	22.2	13.7	17.4	12.7	26.0	18.5	31.7	23.2
Per cent Negro.....	2.3	0.4	1.2	1.0	0.6	2.4	0.4	1.1	1.7	1.1	0.2	1.3	0.3	0.6
AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.														
Total under 7 years of age.....	4,069	7,044	151,387	12,822	19,030	13,697	6,356	6,248	6,106	7,543	5,114	4,344	3,670	8,594
Total 7 to 13 years, inclusive.....	3,607	6,872	105,320	9,137	16,853	6,648	4,326	5,090	5,378	5,904	4,222	3,367	3,179	7,997
Number attending school.....	3,412	6,664	99,755	8,699	16,132	6,229	4,177	4,898	5,048	5,614	4,042	3,208	3,022	7,607
Per cent attending school.....	94.6	97.0	94.7	95.2	95.7	93.7	96.6	96.2	93.9	95.1	95.7	95.3	95.1	96.2
Total 14 and 15 years.....	997	1,793	23,781	2,152	4,358	944	999	1,254	1,386	1,774	1,080	807	836	2,019
Number attending school.....	887	1,481	20,983	1,848	3,909	763	933	1,124	1,208	1,633	915	680	732	1,806
Per cent attending school.....	89.0	82.6	88.2	85.9	89.7	80.8	93.4	89.6	87.2	92.1	84.7	84.3	87.6	89.5
Total 16 and 17 years.....	1,083	1,835	26,597	2,628	4,520	1,039	1,107	1,422	1,480	1,910	1,303	965	924	2,182
Number attending school.....	519	659	8,485	809	1,869	553	562	605	605	873	381	380	363	760
Per cent attending school.....	47.9	35.9	31.9	30.8	41.3	18.6	50.0	39.5	40.9	45.7	29.2	39.4	39.3	34.8
Total 18 to 20 years, inclusive.....	1,891	2,617	50,078	6,092	6,966	1,448	2,240	2,526	2,530	3,285	2,182	2,113	1,357	3,290
Number attending school.....	311	330	4,400	363	964	70	284	269	390	421	179	164	190	305
Per cent attending school.....	16.4	12.6	8.1	6.0	13.8	4.8	12.6	10.6	15.4	12.8	8.2	7.8	14.0	9.3
Males 21 years of age and over.....	12,183	13,736	360,040	34,943	42,319	15,384	17,971	16,911	15,706	19,620	12,123	12,997	8,054	18,900
Native white—Native parentage.....	8,035	3,649	103,896	17,337	15,298	369	6,888	10,037	8,349	12,299	4,039	6,901	2,215	6,243
Native white—Foreign or mixed parentage.....	1,932	5,663	83,962	8,032	12,624	1,186	3,913	3,073	3,521	3,956	4,498	2,925	2,809	7,023
Foreign-born white.....	1,766	4,379	153,144	8,625	13,948	13,130	6,975	2,733	3,554	3,109	3,485	2,875	2,835	5,571
Naturalized.....	847	3,161	52,557	3,159	7,637	1,449	2,498	1,201	1,608	1,355	2,072	963	1,794	3,291
First papers.....	233	659	44,494	1,912	3,225	4,591	2,177	581	532	812	763	453	426	886
Alien.....	540	470	51,490	3,087	6,980	4,980	2,033	834	942	618	443	941	595	1,024
Unknown.....	146	89	4,633	467	859	110	267	117	472	324	207	518	20	370
Negro.....	427	50	18,472	909	403	699	133	413	263	235	83	288	193	130
Females 21 years of age and over.....	12,334	13,657	276,475	23,825	43,579	9,455	13,494	14,923	15,901	17,291	10,546	9,680	7,924	18,831
Native white—Native parentage.....	8,241	3,519	78,870	12,031	15,852	223	5,331	8,832	8,625	10,752	3,365	5,102	2,041	5,335
Native white—Foreign or mixed parentage.....	2,396	6,024	81,057	6,000	15,123	1,105	3,769	3,660	4,056	4,042	4,194	2,643	2,920	7,887
Foreign-born white.....	1,346	4,073	104,366	4,775	12,233	7,570	4,277	2,221	2,981	2,284	2,926	1,769	2,830	5,001
Naturalized.....	806	2,994	45,864	2,464	7,111	962	1,952	1,194	1,572	1,315	1,975	924	1,982	3,129
First papers.....	12	82	2,121	84	207	156	73	50	25	26	59	9	43	73
Alien.....	387	837	51,699	1,921	3,830	6,396	1,969	772	965	673	636	453	738	1,233
Unknown.....	141	100	4,812	306	1,085	62	283	205	419	270	256	383	22	566
Negro.....	348	37	12,107	411	365	551	111	207	237	212	54	166	133	100
Males 18 to 44 years, inclusive.....	8,424	9,494	303,767	29,368	29,413	14,186	15,388	12,592	10,742	14,800	9,031	10,178	5,464	13,411
Females 18 to 44 years, inclusive.....	8,808	9,885	229,514	20,040	31,818	9,250	11,057	10,659	11,041	13,073	7,869	7,361	5,349	13,483
ILLITERACY.														
Total 10 years of age and over.....	30,511	37,585	793,316	74,519	111,152	31,373	38,116	39,841	40,015	47,274	29,563	26,397	20,897	49,748
Number illiterate.....	345	1,367	29,954	1,466	3,683	6,231	567	809	1,092	599	533	497	390	1,282
Per cent illiterate.....	1.1	3.6	3.8	2.0	3.3	19.9	1.5	2.0	2.7	1.3	1.8	1.8	1.9	2.6
Per cent illiterate in 1910.....	0.6	3.6	5.0	1.2	2.5	2.4	0.2	2.1	1.8	1.5	2.6	1.1	1.9	3.1
Native white.....	26,234	28,550	474,161	58,236	82,102	7,279	25,461	33,835	32,278	40,795	22,633	22,798	14,321	37,996
Number illiterate.....	65	320	1,074	196	174	60	35	130	253	102	73	69	84	199
Per cent illiterate.....	0.2	1.1	0.2	0.3	0.2	0.8	0.1	0.4	0.8	0.3	0.3	0.3	0.6	0.5
Foreign-born white.....	3,331	8,895	282,257	14,709	28,065	22,471	12,266	5,256	7,118	5,870	6,742	5,052	6,166	11,435
Number illiterate.....	255	1,039	27,389	1,161	3,491	6,100	516	639	804	478	452	397	263	1,069
Per cent illiterate.....	7.7	11.7	7.9	7.9	12.4	27.1	4.2	12.2	11.3	8.1	6.7	7.9	4.3	9.3
Negro.....	915	109	36,169	1,522	918	1,623	314	718	594	582	161	538	406	282
Number illiterate="														

## COMPOSITION AND CHARACTERISTICS.

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TABLE 10.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR CITIES OF 10,000 OR MORE: 1920—Continued.

[Per cent not shown where base is less than 100.]

SUBJECT.	CITIES OF 10,000 TO 25,000.													
	Adrian.	Alpena.	Ann Arbor.	Benton Harbor.	Escanaba.	Holland.	Ironwood.	Ishpeming.	Marquette.	Monroe.	Owosso.	Sault Ste. Marie.	Traverse City.	Wyandotte.
COLOR OR RACE, NATIVITY, AND SEX.														
Total population.....	11,878	11,101	19,516	12,233	13,103	12,183	15,739	10,500	12,718	11,573	12,575	12,096	10,925	13,851
Male.....	5,624	5,506	9,190	6,139	6,631	6,038	8,647	5,320	6,583	5,909	6,286	6,148	5,328	7,437
Female.....	6,254	5,595	10,326	6,094	6,472	6,145	7,092	5,180	6,135	5,664	6,289	5,948	5,597	6,414
Native white.....	10,981	8,592	16,434	10,143	10,131	10,027	9,859	7,290	9,553	10,371	10,885	8,206	9,248	9,824
Male.....	5,183	4,229	7,635	4,986	4,958	4,925	5,033	3,601	4,793	5,234	5,355	4,136	4,435	5,002
Female.....	5,798	4,363	8,799	5,157	5,173	5,102	4,826	3,689	4,760	5,137	5,530	4,070	4,813	4,822
Native white—Native parentage.....	8,492	3,289	10,504	7,323	7,779	4,537	1,567	1,634	3,708	7,466	7,522	2,729	6,128	4,574
Native white—Foreign parentage.....	1,888	3,254	3,511	1,737	4,253	3,513	6,918	4,330	3,848	1,824	1,760	3,431	1,679	3,822
Native white—Mixed parentage.....	1,101	2,049	2,419	1,083	2,099	1,977	1,384	1,826	1,997	1,081	1,603	2,046	1,441	1,428
Foreign-born white.....	757	2,506	2,473	1,686	2,048	2,149	5,871	3,207	3,051	1,176	1,687	3,780	1,627	4,010
Male.....	377	1,275	1,254	942	1,660	1,109	3,608	1,710	1,705	654	930	1,964	870	2,424
Female.....	380	1,231	1,219	744	1,288	1,040	2,263	1,491	1,346	522	757	1,816	757	1,586
Negro.....	135	.....	580	394	18	7	1	.....	84	26	3	49	28	10
Male.....	60	.....	276	205	8	4	.....	.....	66	21	1	25	12	6
Female.....	75	.....	304	189	10	3	.....	.....	18	5	2	24	16	4
Indian, Chinese, Japanese, and all other.....	5	3	29	10	6	.....	8	3	30	.....	.....	61	22	7
Per cent native white.....	92.4	77.4	84.2	82.9	77.3	82.3	62.6	69.4	75.1	89.6	86.6	67.8	84.6	70.9
Per cent foreign-born white.....	6.4	22.6	12.7	13.8	22.5	17.6	37.3	30.5	24.0	10.2	13.4	31.3	14.9	29.0
Per cent Negro.....	1.1	.....	3.0	3.2	0.1	0.1	(1)	.....	0.7	0.2	(1)	0.4	0.3	0.1
1910: Total population.....	10,763	12,706	14,817	9,185	13,194	10,490	12,821	12,448	11,503	6,893	9,639	12,615	12,115	8,287
Native white.....	9,632	9,118	12,029	7,689	9,070	8,005	6,582	7,712	7,828	6,062	8,280	7,264	10,075	5,597
Foreign-born white.....	962	3,586	2,256	1,187	4,095	2,465	6,234	4,732	3,674	828	1,352	5,180	2,009	2,683
Negro.....	164	2	515	302	22	5	.....	.....	66	3	.....	58	12	2
Per cent native white.....	89.5	71.8	81.2	83.7	68.7	76.3	51.3	62.0	68.1	87.9	85.9	57.6	83.2	67.5
Per cent foreign-born white.....	8.9	28.2	15.2	12.9	31.0	23.5	48.6	38.0	31.1	12.0	14.0	41.1	16.6	32.4
Per cent Negro.....	1.5	(1)	3.5	3.3	0.2	(1)	(1)	.....	0.6	(1)	0.1	0.3	0.1	(1)
AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.														
Total under 7 years of age.....	1,377	1,796	2,118	1,562	2,097	1,934	3,010	1,514	1,789	1,754	1,829	1,835	1,061	2,604
Total 7 to 13 years, inclusive.....	1,284	1,723	1,913	1,439	1,933	1,816	2,447	1,590	1,765	1,740	1,625	1,739	1,168	1,850
Number attending school.....	1,231	1,683	1,838	1,359	1,854	1,786	2,360	1,546	1,627	1,324	1,568	1,620	1,069	1,724
Per cent attending school.....	95.9	97.7	96.1	94.4	95.9	98.3	96.4	97.2	92.2	91.3	96.5	93.2	92.3	93.2
Total 14 and 15 years.....	381	473	547	405	517	442	553	419	472	341	401	473	302	425
Number attending school.....	334	391	513	348	414	352	452	360	386	306	374	414	262	333
Per cent attending school.....	92.5	82.7	93.8	85.9	80.1	79.6	81.7	85.9	81.8	89.7	93.3	87.5	86.8	78.4
Total 16 and 17 years.....	370	464	608	415	519	481	568	444	451	405	453	495	308	449
Number attending school.....	191	177	368	154	205	190	217	199	199	155	234	263	162	107
Per cent attending school.....	51.6	38.1	60.5	37.1	39.5	39.5	38.2	50.5	44.1	38.3	51.7	53.1	52.6	23.8
Total 18 to 20 years, inclusive.....	619	515	1,062	670	713	692	821	567	713	708	574	701	511	639
Number attending school.....	124	82	422	92	101	145	91	120	146	67	105	123	114	42
Per cent attending school.....	20.0	15.9	39.7	16.1	14.2	21.0	11.1	21.2	20.5	9.5	18.3	17.5	22.3	6.6
Males 21 years of age and over.....	3,688	3,028	6,144	3,958	3,762	3,336	4,868	3,030	3,989	3,632	3,859	3,549	3,715	4,436
Native white—Native parentage.....	2,435	491	2,833	2,193	2,776	2,783	294	195	840	2,059	2,060	741	1,767	1,108
Native white—Foreign or mixed parentage.....	834	1,268	1,927	768	1,369	1,514	1,202	1,207	1,449	976	930	984	1,070	1,124
Foreign-born white.....	369	1,237	1,178	853	1,606	1,037	3,368	1,625	1,631	579	869	1,793	863	2,199
Naturalized.....	242	1,000	675	422	1,164	751	1,540	1,273	929	186	474	1,068	439	677
First papers.....	41	158	180	142	163	138	748	160	262	146	156	186	39	395
Alien.....	47	47	245	226	151	111	951	142	224	220	182	319	115	1,165
Unknown.....	39	32	78	63	128	37	129	50	216	27	58	220	270	62
Negro.....	47	.....	183	139	6	2	.....	.....	56	18	.....	16	10	1
Females 21 years of age and over.....	4,179	3,102	7,124	3,884	3,562	3,482	3,472	2,936	3,539	3,393	3,834	3,304	3,870	3,448
Native white—Native parentage.....	2,661	487	3,378	2,251	2,671	2,887	281	239	622	1,808	2,090	566	1,902	1,026
Native white—Foreign or mixed parentage.....	1,094	1,416	2,395	838	1,649	1,636	1,171	1,203	1,628	1,112	1,049	1,074	1,202	1,062
Foreign-born white.....	370	1,198	1,144	668	1,234	958	2,018	1,404	1,272	469	684	1,627	745	1,359
Naturalized.....	269	989	747	403	944	703	1,142	1,121	796	219	454	984	385	517
First papers.....	8	20	23	5	29	1	32	12	13	9	6	8	7	15
Alien.....	58	146	264	204	142	196	745	203	188	207	179	296	78	795
Unknown.....	35	43	110	56	119	58	99	68	275	34	45	339	275	32
Negro.....	53	.....	204	125	7	1	.....	.....	12	4	2	15	14	1
Males 18 to 44 years, inclusive.....	2,220	1,857	4,172	2,674	2,636	2,358	3,994	2,161	2,776	2,733	2,438	2,451	2,013	3,481
Females 18 to 44 years, inclusive.....	2,416	2,127	4,593	2,618	2,757	2,593	2,946	2,092	2,594	2,415	2,542	2,512	2,320	2,736
ILLITERACY.														
Total 10 years of age and over.....	9,951	8,563	16,581	10,034	10,165	9,447	11,597	8,269	10,168	9,230	10,027	9,494	9,351	10,382
Number illiterate.....	85	413	250	307	250	131	470	309	392	242	69	363	355	1,179
Per cent illiterate.....	0.9	4.8	1.5	3.1	2.5	1.4	4.1	3.7	3.9	2.6	0.7	3.8	3.8	11.4
Per cent illiterate in 1910.....	0.7	4.5	1.1	2.3	3.3	1.2	4.4	5.1	3.6	6.2	0.6	5.0	3.3	9.0
Native white.....	9,074	6,060	13,631	8,046	7,209	7,314	5,827	5,081	7,028	8,050	8,359	5,733	7,685	6,464
Number illiterate.....	46	94	21	44	48	25	8	38	57	144	23	41	166	77
Per cent illiterate.....	0.5	1.6	0.2	0.5	0.7	0.3	0.1	0.7	0.8	1.8	0.3	0.7	2.1	1.2
Foreign-born white.....	757	2,500	2,435	1,650	2,934	2,129	5,763	3,185	3,031	1,168	1,665	3,672	1,623	3,908
Number illiterate.....	30	318	216	259	202	105	461	271	330	95	46	304	180	1,102
Per cent illiterate.....	4.0	12.7	8.9	15.7	6.9	4.9	8.0	8.5	10.9	8.2	2.8	8.3	11.1	28.2
Negro.....	115	.....	486	331	16	4	1	.....	84	22	3	40	27	5
Number illiterate.....	8	.....	13	1	.....	1	.....	.....	1	3	.....	.....	5	.....
Per cent illiterate.....	7.0	.....	2.7	0.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total 16 to 20 years, inclusive.....	989	979	1,670	985	1,232	1,173	1,389	1,011	1,164	1,113	1,027	1,196	819	1,088
Number illiterate.....	4	9	8	18	7	2	5	2	7	5	2	13	2	18
Per cent illiterate.....	0.4	0.9	0.5	1.8	0.6	0.2	0.4	0.2	0.6	0.4	0.2	1.1	0.2	

TABLE 11.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR PLACES OF 2,500 TO 10,000: 1920.

SUBJECT.	Albion.	Allegan.	Alma.	Belding.	Bessemer.	Big Rapids.	Birmingham.	Bozeman.	Buchanan.	Cadillac.	Caro.	Charlottesville.	Cheboygan.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>													
Total population.....	3,354	3,637	7,542	3,911	5,482	4,558	3,694	4,284	3,187	9,750	2,704	5,126	5,442
Male.....	4,282	1,735	3,795	1,714	3,081	2,168	1,846	2,180	1,578	4,918	1,345	2,455	2,812
Female.....	4,072	1,902	3,747	2,197	2,401	2,390	1,848	2,094	1,609	4,832	1,359	2,671	2,830
Native white—Native parentage.....	4,917	2,710	5,729	2,812	562	2,604	2,338	2,703	2,487	5,212	1,541	4,266	2,126
Native white—Foreign or mixed parentage.....	1,708	654	1,290	845	2,835	1,294	904	1,115	512	3,053	823	662	2,417
Foreign-born white.....	1,035	221	499	248	2,084	600	443	411	179	1,472	327	187	1,059
Negro.....	696	52	13	6	1	8	47	8	4	1	11	10	10
Indian, Chinese, Japanese, and all other.....	11	11	11	1	1	1	1	1	1	1	1	1	1
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>													
Total under 7 years of age.....	1,130	388	1,203	450	1,016	511	559	826	436	1,436	324	513	800
Total 7 to 13 years, inclusive.....	802	398	1,013	439	801	377	415	656	373	1,438	353	552	880
Number attending school.....	843	393	990	433	702	507	399	642	286	1,305	346	493	851
Total 14 and 15 years.....	244	145	262	130	208	148	110	133	94	346	88	169	248
Number attending school.....	207	134	246	119	173	142	105	177	84	310	75	157	206
Total 16 to 20 years, inclusive.....	709	267	680	357	450	383	240	327	214	836	236	410	519
Number attending school.....	249	122	201	87	109	153	107	115	46	214	73	170	151
Males 21 years of age and over.....	2,783	1,129	2,237	1,117	1,806	1,421	1,161	1,189	1,025	2,953	847	1,660	1,581
Native white—Native parentage.....	1,459	792	1,504	756	99	714	674	616	753	1,298	419	1,300	416
Native white—Foreign or mixed parentage.....	494	216	391	253	415	391	283	323	170	873	268	258	607
Foreign-born white.....	587	110	209	107	1,201	316	202	235	90	777	157	95	556
Naturalized.....	195	91	186	84	571	245	113	171	42	544	117	71	469
Negro.....	243	11	5	1	1	1	1	1	1	3	1	7	2
Females 21 years of age and over.....	2,596	1,310	2,147	1,412	1,141	1,518	1,209	1,103	1,045	2,791	856	1,822	1,554
Native white—Native parentage.....	1,518	892	1,475	837	100	733	697	603	705	1,246	389	1,456	388
Native white—Foreign or mixed parentage.....	520	292	478	390	355	451	317	325	182	800	308	277	658
Foreign-born white.....	368	109	186	133	636	334	188	161	66	652	153	86	503
Naturalized.....	177	95	141	102	428	261	96	127	39	501	120	70	430
Negro.....	190	17	6	2	1	1	1	1	1	1	1	3	5
<b>ILLITERACY.</b>													
Total 10 years of age and over.....	6,795	3,071	5,868	3,265	4,066	3,604	2,945	3,164	2,580	7,728	2,227	4,389	4,388
Number illiterate.....	76	39	30	12	261	73	1	99	23	167	20	21	172
Native whites 10 years of age and over.....	5,203	2,813	5,359	3,016	2,003	3,144	2,508	2,714	2,399	6,254	1,889	4,192	3,298
Number illiterate.....	11	19	8	4	4	34	1	57	13	57	11	18	64
Foreign-born whites 10 years of age and over.....	1,013	221	488	246	2,062	660	428	409	176	1,404	327	186	1,082
Number illiterate.....	22	19	11	4	257	39	39	39	8	109	7	3	108
Illiterate males 21 years of age and over.....	35	19	17	7	154	37	37	60	12	102	13	10	98
Illiterate females 21 years of age and over.....	35	17	12	4	101	34	34	38	10	65	6	9	71
<b>DWELLINGS AND FAMILIES.</b>													
Dwellings, number.....	2,001	1,051	1,649	986	960	1,224	857	1,003	823	2,262	692	1,500	1,295
Families, number.....	2,231	1,114	1,707	1,030	1,039	1,316	926	1,028	927	2,428	753	1,573	1,328

SUBJECT.	Coldwater.	Crystal Falls.	Dowagiac.	Durand.	Ecorse.	Fenton.	Fernandale.	Ford.	Gladstone.	Grand Haven.	Grand Ledge.	Greenville.	Hancock.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>													
Total population.....	6,114	3,394	5,440	2,672	4,394	2,507	2,640	4,294	4,953	7,205	3,043	4,304	7,527
Male.....	2,573	1,730	2,675	1,363	2,331	1,222	1,350	2,320	2,530	3,609	1,544	2,008	3,770
Female.....	3,241	1,664	2,765	1,309	2,063	1,284	1,294	1,974	2,423	3,596	1,499	2,296	3,757
Native white—Native parentage.....	4,881	522	3,733	1,889	2,330	1,845	1,192	1,362	1,441	3,063	2,309	2,861	1,449
Native white—Foreign or mixed parentage.....	920	1,889	941	542	1,222	452	874	1,600	2,315	2,856	460	1,014	3,954
Foreign-born white.....	294	981	507	233	835	209	556	1,325	1,186	1,257	182	413	2,119
Negro.....	10	2	23	8	7	1	18	7	11	29	2	16	6
Indian, Chinese, Japanese, and all other.....	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>													
Total under 7 years of age.....	685	558	783	397	945	321	587	953	855	1,051	388	520	1,148
Total 7 to 13 years, inclusive.....	604	701	696	352	657	348	376	648	876	932	357	552	1,197
Number attending school.....	675	668	665	343	635	325	368	619	851	903	349	531	1,174
Total 14 and 15 years.....	101	166	152	79	121	78	64	120	226	253	95	127	338
Number attending school.....	181	150	141	72	109	65	58	95	193	237	90	119	290
Total 16 to 20 years, inclusive.....	416	329	443	192	317	157	141	307	501	605	249	338	694
Number attending school.....	167	114	165	57	54	58	25	36	129	157	72	118	228
Males 21 years of age and over.....	1,934	849	1,682	856	1,279	776	759	1,309	1,350	2,204	991	1,323	2,050
Native white—Native parentage.....	1,471	98	1,080	551	634	538	311	380	292	637	732	781	204
Native white—Foreign or mixed parentage.....	314	206	251	184	233	148	211	233	430	928	160	332	729
Foreign-born white.....	145	483	273	113	411	89	232	695	625	629	98	206	1,112
Naturalized.....	93	202	96	45	121	58	96	140	337	389	76	156	693
Negro.....	4	63	8	1	1	1	6	1	3	10	1	4	1
Females 21 years of age and over.....	2,245	791	1,694	796	1,075	827	713	957	1,145	2,160	963	1,438	2,100
Native white—Native parentage.....	1,087	96	1,146	510	525	568	248	306	225	609	715	848	199
Native white—Foreign or mixed parentage.....	425	262	308	188	221	154	224	205	410	995	173	382	999
Foreign-born white.....	129	433	166	98	328	105	235	446	509	547	75	202	902
Naturalized.....	98	260	73	60	147	88	120	133	291	323	58	165	590
Negro.....	4	60	1	1	1	1	6	1	1	9	1	6	1
<b>ILLITERACY.</b>													
Total 10 years of age and over.....	5,173	2,539	4,357	2,123	3,133	2,032	1,860	3,025	3,705	5,711	2,502	3,542	5,873
Number illiterate.....	31	210	100	3	159	1	14	355	111	120	12	84	102
Native whites 10 years of age and over.....	4,876	1,568	3,664	1,886	2,818	1,829	1,328	1,748	2,521	4,446	2,319	3,114	3,768
Number illiterate.....	18	9	12	3	39	1	1	51	22	33	9	19	12
Foreign-born whites 10 years of age and over.....	288	969	495	229	813	202	519	1,276	1,177	1,242	182	413	2,100
Number illiterate.....	13	201	80	119	119	10	10	304	89	87	3	13	90
Illiterate males 21 years of age and over.....	13	95	51	84	84	8	8	201	50	51	5	19	46
Illiterate females 21 years of age and over.....	18	113	46	69	69	6	6	145	58	61	6	15	52
<b>DWELLINGS AND FAMILIES.</b>													
Dwellings, number.....	1,862	632	1,419	694	928	717	635	847	965	1,648	829	1,169	1,390
Families, number.....	1,929	679	1,463	697	994	743	644	905	1,041	1,775	869	1,219	1,622

## COMPOSITION AND CHARACTERISTICS.

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TABLE 11.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR PLACES OF 2,500 TO 10,000: 1920—  
Continued.

SUBJECT.	Hast- ings.	Hills- dale.	Hough- ton.	Howell.	Ionia.	Iron Moun- tain.	Iron River.	Lape- ar.	Lan- rum.	Luding- ton.	Manis- tee.	Manis- tique.	Marine City.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>													
Total population	5,132	5,476	4,466	2,951	6,935	8,251	4,295	4,723	6,696	8,810	9,694	6,380	3,731
Male	2,453	2,593	2,124	1,412	3,442	4,166	2,249	2,290	3,200	4,319	4,779	3,354	1,877
Female	2,679	2,883	2,342	1,539	3,493	4,085	2,046	2,433	3,496	4,491	4,915	3,026	1,854
Native white—Native parentage	4,006	4,532	1,543	2,129	4,408	1,022	978	2,927	1,348	3,278	2,376	2,195	2,152
Native white—Foreign or mixed parentage	826	723	2,105	571	1,743	4,709	2,149	1,338	3,655	3,743	4,906	2,698	1,117
Foreign-born white	300	206	808	223	776	2,618	1,167	431	1,091	1,765	2,411	1,448	456
Negro	15	15	1	19	7	1	1	27	2	24	1	32	6
Indian, Chinese, Japanese, and all other			9	4	1	2							
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>													
Total under 7 years of age	569	605	595	344	873	1,355	867	367	968	1,228	1,129	947	515
Total 7 to 13 years, inclusive	588	605	608	306	774	1,421	715	617	1,003	1,228	1,367	974	618
Number attending school	576	584	593	260	736	1,390	682	527	1,038	1,205	1,302	913	603
Total 14 and 15 years	180	167	174	92	219	406	150	271	285	311	373	268	179
Number attending school	182	155	159	76	198	353	127	205	238	275	327	225	167
Total 16 to 20 years, inclusive	410	418	462	205	616	809	406	697	600	802	939	673	335
Number attending school	164	202	175	79	170	322	126	192	223	254	250	194	104
Males 21 years of age and over	1,627	1,727	1,255	938	2,248	2,181	1,198	1,318	1,786	2,590	2,877	1,935	1,049
Native white—Native parentage	1,159	1,343	284	618	1,319	146	187	701	152	719	376	537	477
Native white—Foreign or mixed parentage	288	276	552	200	531	745	372	408	795	986	1,286	563	355
Foreign-born white	150	103	412	113	395	1,288	639	203	837	881	1,214	807	215
Naturalized	107	70	301	77	232	1,074	305	132	643	628	948	561	132
Negro	5	1	6	2				6				1	
Females 21 years of age and over	1,748	1,954	1,372	1,066	2,205	2,079	959	1,553	1,994	2,651	3,009	1,583	1,035
Native white—Native parentage	1,255	1,532	291	702	1,267	160	147	857	189	721	422	451	454
Native white—Foreign or mixed parentage	355	328	715	248	605	818	399	495	1,004	1,096	1,433	563	384
Foreign-born white	138	91	365	108	329	1,106	412	194	801	829	1,154	556	196
Naturalized	112	67	255	97	237	922	206	135	600	620	905	437	125
Negro	3			7	4		1	7				3	
<b>ILLITERACY.</b>													
Total 10 years of age and over	4,317	4,608	3,626	2,483	5,730	6,275	3,086	4,146	5,292	7,048	8,001	4,995	2,933
Number illiterate	94	23	17	10	62	582	96	766	146	78	291	101	103
Native whites 10 years of age and over	4,018	4,395	2,814	2,242	4,956	5,770	1,943	3,693	5,074	5,274	5,599	3,538	2,499
Number illiterate	21	8	5	5	50	1	1	699	15	19	55	24	58
Foreign-born whites 10 years of age and over	299	200	804	225	706	2,497	1,152	429	1,053	1,700	2,401	1,434	429
Number illiterate	13	12	17	4	57	81	95	62	130	59	236	75	42
Illiterate males 21 years of age and over	18	11	7	6	36	276	44	286	67	31	109	42	51
Illiterate females 21 years of age and over	10	9	9	4	26	293	50	310	75	45	175	56	50
<b>DWELLINGS AND FAMILIES.</b>													
Dwellings, number	1,401	1,506	922	814	1,621	1,618	735	852	1,330	2,031	2,249	1,196	858
Families, number	1,513	1,616	988	878	1,892	1,724	842	890	1,554	2,174	2,417	1,276	872

SUBJECT.	Mar- shall.	Me- nomi- nee.	Mid- land.	Mount Clem- ens.	Mount Pleas- ant.	Munis- ing.	Mus- kogan Heights.	Negaun- ee.	Niles.	Nor- way.	Ona- way.	Otsego.	Petos- key.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>													
Total population	4,270	8,907	5,483	9,488	4,819	5,087	9,514	7,419	7,311	4,533	2,789	3,168	5,064
Male	2,042	4,435	2,780	4,760	2,332	2,895	5,073	3,780	3,692	2,393	1,429	1,580	2,373
Female	2,228	4,472	2,703	4,728	2,487	2,232	4,441	3,639	3,619	2,140	1,360	1,588	2,691
Native white—Native parentage	3,011	2,568	3,456	5,111	3,139	2,704	4,560	1,054	4,920	332	1,440	2,560	2,984
Native white—Foreign or mixed parentage	954	4,486	1,453	2,816	1,114	1,713	3,086	3,911	1,645	2,571	995	436	1,330
Foreign-born white	293	1,834	511	1,482	491	607	1,783	2,453	1,580	1,629	354	158	616
Negro	12	1	12	73	3	10	32		155	1		13	14
Indian, Chinese, Japanese, and all other		18	21	6	72	3	53	1	2			1	120
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>													
Total under 7 years of age	451	1,231	970	1,244	612	800	1,977	1,345	926	786	500	457	586
Total 7 to 13 years, inclusive	459	1,291	789	1,244	611	713	1,255	1,303	861	914	448	393	605
Number attending school	447	1,248	769	1,210	605	696	1,213	1,279	831	883	434	382	649
Total 14 and 15 years	123	412	176	315	191	210	274	296	231	232	115	117	174
Number attending school	114	353	152	287	187	195	239	248	201	175	107	107	163
Total 16 to 20 years, inclusive	315	990	470	741	437	544	750	601	614	391	301	253	440
Number attending school	144	260	104	196	236	118	112	173	158	109	95	79	139
Males 21 years of age and over	1,360	2,442	1,600	2,948	1,416	1,695	2,925	2,050	2,388	1,180	774	985	1,484
Native white—Native parentage	844	412	878	1,830	803	638	1,136	146	1,438	32	345	732	755
Native white—Foreign or mixed parentage	374	1,059	468	815	352	658	730	618	602	313	231	165	331
Foreign-born white	138	965	243	671	242	395	1,034	1,294	254	844	195	88	300
Naturalized	101	714	169	421	224	274	334	581	127	695	128	46	240
Negro	4	1	6	27	1	1	11		62			4	6
Females 21 years of age and over	1,562	2,541	1,475	2,996	1,552	1,075	2,330	1,815	2,201	1,021	651	963	1,715
Native white—Native parentage	960	418	738	1,333	903	449	938	143	1,374	84	262	724	914
Native white—Foreign or mixed parentage	454	1,278	488	952	392	420	698	694	617	333	249	174	463
Foreign-born white	134	840	240	689	226	204	623	978	258	649	140	62	260
Naturalized	90	630	184	457	202	160	260	676	151	538	95	45	235
Negro	4		4	21	1	2	9		42			3	5
<b>ILLITERACY.</b>													
Total 10 years of age and over	3,635	7,129	4,181	7,712	3,952	3,917	6,882	5,481	6,018	3,338	2,088	2,527	4,209
Number illiterate	14	150	82	233	8	74	108	123	67	328	46	41	77
Native whites 10 years of age and over	3,334	6,287	3,653	6,209	3,410	3,302	5,064	3,068	5,312	1,733	1,736	2,364	3,485
Number illiterate	9	21	57	112	2	5	26	17	23	8	16	26	20
Foreign-born whites 10 years of age and over	291	1,825	502	1,439	488	607	1,757	2,412	570	1,602	352	153	611
Number illiterate	5	129	22	118	5	68	163	111	22	320	80	15	26
Illiterate males 21 years of age and over	5	76	54	111	4	62	111	63	35	170	30	23	42
Illiterate females 21 years of age and over	7	71	22	117	4	11	83	64	18	151	14	15	34
<b>DWELLINGS AND FAMILIES.</b>													
Dwellings, number	1,263	1,759	1,293	2,236	1,220	719	2,083	1,376	1,849	924	571	823	1,233
Families, number	1,318	1,990	1,342	2,393	1,269	816	2,177	1,587	1,962	951	689	803	1,335



TABLE 11.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR PLACES OF 2,500 TO 10,000: 1920—  
Continued.

SUBJECT.	Plym-outh.	River Rouge.	Roches-ter.	Royal Oak.	St. Clair.	St. Johns.	St. Joseph.	St. Louis.	South Haven.	Sturgis.	Three Rivers.	Wake-field.	Ypsil-anti.
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>													
Total population.....	2,857	9,822	2,549	6,007	3,204	3,925	7,251	3,036	3,829	5,995	5,209	4,151	7,413
Male.....	1,426	5,418	1,219	3,038	1,590	1,896	3,492	1,520	1,831	2,980	2,634	2,264	3,505
Female.....	1,431	4,404	1,330	2,969	1,614	2,029	3,759	1,516	1,998	3,015	2,575	1,887	3,908
Native white—Native parentage.....	1,823	4,091	1,619	3,403	1,473	2,953	3,148	2,289	2,412	4,594	4,052	519	4,504
Native white—Foreign or mixed parentage.....	715	3,233	662	1,727	1,205	694	2,527	519	973	1,089	793	2,159	1,647
Foreign-born white.....	317	2,348	265	872	517	271	1,467	217	406	300	333	1,472	635
Negro.....	2	150	3	2	4	4	109	11	38	9	31	1	627
Indian, Chinese, Japanese, and all other.....				3	5	3				3		1	
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>													
Total under 7 years of age.....	329	1,805	350	1,105	460	420	982	465	502	822	657	946	852
Total 7 to 13 years, inclusive.....	336	1,390	275	722	396	422	953	363	475	700	568	714	810
Number attending school.....	315	1,332	265	709	389	415	953	358	468	684	542	690	781
Total 14 and 15 years.....	84	302	77	168	116	132	236	85	121	194	140	141	249
Number attending school.....	77	236	70	160	98	129	193	79	114	161	129	115	226
Total 16 to 20 years, inclusive.....	194	901	212	402	299	294	632	262	322	514	363	349	647
Number attending school.....	59	130	37	117	96	119	165	84	125	132	115	70	269
Males 21 years of age and over.....	952	3,169	795	1,802	957	1,286	2,094	918	1,146	1,928	1,767	1,194	2,239
Native white—Native parentage.....	521	1,253	467	889	337	923	824	645	635	1,339	1,279	101	1,241
Native white—Foreign or mixed parentage.....	262	703	205	505	389	232	581	150	304	421	289	260	522
Foreign-born white.....	167	1,172	122	406	229	128	655	120	193	162	188	832	274
Naturalized.....	40	448	78	214	157	76	391	65	131	98	100	421	174
Negro.....	2	41	1	1	1	2	34	3	14	5	11		202
Females 21 years of age and over.....	962	2,255	840	1,808	976	1,371	2,324	943	1,263	1,837	1,714	807	2,616
Native white—Native parentage.....	583	818	481	896	313	953	973	644	738	1,260	1,266	67	1,444
Native white—Foreign or mixed parentage.....	246	531	231	540	419	292	679	210	320	447	316	230	655
Foreign-born white.....	128	822	127	364	239	123	640	87	195	128	122	510	315
Naturalized.....	61	420	84	226	185	80	415	61	140	89	80	311	227
Negro.....		34	1	1	3	2	32	2	10	2	10		202
<b>ILLITERACY.</b>													
Total 10 years of age and over.....	2,379	7,382	2,079	4,552	2,570	3,326	5,855	2,408	3,147	4,877	4,277	2,854	6,227
Number illiterate.....	65	235	4	23	70	47	120	84	33	48	26	73	41
Native whites 10 years of age and over.....	2,072	5,034	1,814	3,724	2,053	3,049	4,324	2,187	2,710	4,567	3,921	1,404	5,070
Number illiterate.....	18	75	4	13	34	28	15	27	14	31	7	2	8
Foreign-born whites 10 years of age and over.....	305	2,235	263	824	509	271	1,446	215	402	299	323	1,449	632
Number illiterate.....	46	160		10	36	19	102	7	17	17	18	71	20
Illiterate males 21 years of age and over.....	37	139	1	14	35	23	45	20	13	19	17	43	19
Illiterate females 21 years of age and over.....	27	95	2	9	35	22	72	13	19	25	9	28	19
<b>DWELLINGS AND FAMILIES.</b>													
Dwellings, number.....	776	1,780	631	1,350	808	1,108	1,601	774	993	1,473	1,427	706	1,817
Families, number.....	795	1,993	685	1,463	831	1,172	1,824	887	1,067	1,566	1,525	794	2,003

## COMPOSITION AND CHARACTERISTICS.

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TABLE 12.—COUNTRY OF BIRTH OF THE FOREIGN-BORN WHITE, FOR COUNTIES AND FOR CITIES OF 10,000 OR MORE: 1920.

COUNTY OR CITY.	Total foreign-born white.	COUNTRY OF BIRTH.													
		Armenia.	Austria.	Belgium.	Bulgaria.	Canada—French.	Canada—Other.	Czechoslovakia.	Denmark.	England.	Finland.	France.	Germany.	Greece.	Hungary.
<b>COUNTIES.</b>															
The state.....	728,635	2,498	22,004	10,501	1,692	18,635	145,867	11,161	7,178	47,149	30,098	4,174	86,047	7,115	22,607
Alcona.....	1,134	—	20	2	—	154	606	8	4	52	1	2	66	2	8
Alger.....	1,982	1	57	15	—	219	221	—	10	20	953	7	32	4	2
Allegan.....	3,323	1	66	2	—	11	389	81	97	286	3	15	875	8	15
Alpena.....	4,096	—	24	2	—	611	1,317	4	8	112	1	22	654	4	8
Antrim.....	1,478	—	12	—	—	12	482	69	11	65	7	14	118	1	12
Arenac.....	2,132	—	154	4	—	175	680	34	7	72	1	14	218	—	110
Baraga.....	2,235	1	18	1	—	205	79	7	3	35	1,317	2	51	—	1
Barry.....	992	1	8	7	—	5	301	11	7	165	5	5	205	2	2
Bay.....	12,603	3	145	132	—	1,306	3,051	80	15	689	12	123	2,079	31	88
Benzie.....	762	—	5	11	—	11	258	5	24	48	12	3	66	1	2
Berrien.....	8,769	1	146	40	5	25	629	224	77	383	4	63	2,900	37	117
Branch.....	1,012	2	10	1	—	3	123	10	5	151	2	15	253	6	14
Calhoun.....	6,180	14	156	46	74	13	1,479	15	67	997	6	65	990	231	40
Cass.....	1,105	—	24	1	—	2	157	11	10	99	—	9	250	1	37
Charlevoix.....	1,990	—	45	6	—	63	802	101	47	106	9	3	199	6	5
Cheboygan.....	2,416	—	6	28	2	397	979	3	8	113	11	19	300	2	4
Chippewa.....	7,314	2	76	3	—	555	4,171	12	34	308	764	16	131	82	11
Clare.....	988	—	1	2	—	16	568	16	2	52	—	3	156	1	3
Clinton.....	1,480	1	84	7	2	5	386	118	5	174	—	23	445	4	81
Crawford.....	671	—	—	6	—	56	165	18	139	29	51	8	58	—	3
Delta.....	7,310	—	142	289	—	1,646	489	73	150	93	779	34	427	12	1
Dickinson.....	5,960	1	243	399	23	445	182	23	24	543	442	38	213	4	14
Eaton.....	1,198	—	23	67	—	3	368	24	9	196	12	11	183	2	67
Emmet.....	1,819	3	40	1	—	15	745	13	27	78	2	8	327	5	12
Genesee.....	18,586	11	423	109	143	337	6,100	774	124	1,972	86	109	907	253	1,191
Gladwin.....	1,383	—	88	4	—	9	566	23	2	43	—	9	155	—	138
Gogebio.....	12,208	32	547	100	51	162	225	524	39	941	4,024	42	234	49	129
Grand Traverse.....	2,521	1	43	4	—	52	781	346	44	120	33	21	399	4	29
Gratiot.....	2,439	7	162	86	2	21	831	518	12	169	4	16	212	12	70
Hillsdale.....	698	—	6	3	—	1	133	1	2	224	—	10	144	2	3
Houghton.....	21,113	53	460	16	11	1,461	867	81	44	2,319	7,961	74	754	45	196
Huron.....	7,212	—	137	20	—	137	3,404	48	21	208	1	21	1,580	4	367
Ingham.....	7,413	5	156	104	29	59	1,869	119	53	764	42	43	1,381	137	132
Ionia.....	2,506	2	53	17	—	24	756	70	66	312	22	27	560	10	36
Iosco.....	1,561	—	18	—	—	86	725	8	4	56	103	1	338	—	18
Iron.....	7,045	3	126	29	31	240	203	193	83	413	1,822	13	215	9	14
Isabella.....	2,213	4	54	35	—	9	1,300	59	18	91	—	15	241	3	60
Jackson.....	6,811	1	48	119	55	22	1,315	23	40	1,132	5	65	1,115	128	42
Kalamazoo.....	9,351	2	133	32	4	47	842	59	41	642	6	36	822	97	336
Kalkaska.....	392	—	5	1	—	7	159	2	12	38	—	3	46	—	1
Kent.....	34,501	51	585	65	7	107	3,682	135	348	1,127	134	110	2,912	66	178
Keweenaw.....	1,965	—	61	—	—	81	23	7	6	274	814	6	35	—	85
Lake.....	776	—	27	4	—	6	168	50	4	28	1	3	88	—	15
Lapeer.....	3,191	—	72	30	4	7	1,685	22	28	215	3	16	502	12	116
Leelanau.....	1,285	—	40	13	—	64	169	119	12	34	—	5	279	—	3
Lenawee.....	2,664	—	35	89	4	12	368	85	14	339	—	39	1,009	12	7
Livingston.....	1,287	—	18	9	—	4	327	9	35	206	1	10	382	1	45
Luce.....	1,876	—	59	5	1	106	415	8	15	67	557	7	73	—	2
Mackinac.....	1,519	—	19	3	—	133	590	6	19	63	177	10	103	—	1
Macomb.....	5,928	1	114	410	1	85	1,203	41	82	354	6	69	2,420	16	105
Manistee.....	4,577	1	47	6	—	110	328	95	332	103	341	15	905	1	20
Marquette.....	13,887	—	142	123	3	1,038	837	36	137	1,907	4,620	50	439	55	26
Mason.....	3,767	1	78	21	—	176	453	80	403	104	73	18	630	8	18
Mecosta.....	1,873	1	9	—	—	38	777	7	89	66	3	11	483	11	6
Menominee.....	5,374	4	363	116	—	735	215	277	197	53	247	29	839	3	127
Midland.....	1,949	—	39	10	—	48	861	78	13	88	12	4	413	7	73
Missaukee.....	1,215	—	1	—	—	10	233	2	20	24	—	88	3	109	—
Monroe.....	3,117	5	72	167	11	68	284	122	16	157	1	67	1,193	40	68
Montcalm.....	2,909	—	11	6	—	37	769	9	1,086	196	—	9	487	4	4
Montmorency.....	591	—	2	—	—	37	328	—	3	13	34	—	51	—	—
Muskegon.....	11,429	22	356	28	4	426	961	263	400	500	134	51	1,325	111	406
Newaygo.....	1,895	—	19	11	—	28	323	9	118	89	07	17	348	—	12
Oakland.....	12,576	146	165	51	200	159	4,886	89	90	2,104	86	60	1,405	222	175
Oceana.....	1,705	—	30	110	—	27	344	37	62	91	—	24	339	4	9
Ogemaw.....	1,188	—	13	2	—	35	800	4	5	56	1	—	122	1	42
Ontonagon.....	3,641	3	82	3	1	193	257	18	21	95	1,952	7	114	3	11
Oscoda.....	2,000	—	16	2	—	19	753	—	10	102	4	11	384	—	15
Oscoda.....	114	—	4	—	—	1	61	—	1	7	—	4	21	—	—
Otsego.....	936	—	2	4	—	17	304	1	28	38	—	2	47	—	5
Ottawa.....	8,129	—	167	7	1	8	319	50	34	145	5	27	846	7	103
Presque Isle.....	1,805	—	5	1	1	87	587	4	3	39	—	4	485	—	16
Roscommon.....	300	—	4	—	—	1	96	12	8	19	—	15	39	—	13
Saginaw.....	18,146	37	694	114	—	693	3,943	582	72	837	11	53	5,300	56	437
St. Clair.....	11,599	8	154	145	10	222	6,528	68	27	772	5	24	1,601	27	227
St. Joseph.....	1,366	—	9	4	1	135	4	4	3	177	—	—	694	7	10
Sanilac.....	6,570	—	140	35	—	27	4,262	27	105	299	3	12	663	1	300
Schoolcraft.....	2,187	—	98	22	3	262	459	34	45	55	113	6	122	23	50
Shiawassee.....	4,059	6	235	10	1	13	1,945	689	22	319	1	73	672	31	182
Tuscola.....	5,131	14	259	58	3	71	2,443	55	11	224	3	19	625	2	400
Van Buren.....	2,784	—	50	10	1	11	407	87	84	332	2	17	569	1	88
Washtenaw.....	5,164	12	104	10	13	23	1,131	42	32	605	8	63	1,946	146	64
Wayne.....	344,725	2,034	13,660	6,951	990	4,766	62,439	4,113	1,704	20,451	2,000	2,012	34,745	5,026	15,703
Wexford.....	2,444	—	80	—	—	92	639	27	89	75	71	7	184	4	31

TABLE 12.—COUNTRY OF BIRTH OF THE FOREIGN-BORN WHITE, FOR COUNTIES AND FOR CITIES OF 10,000 OR MORE: 1920—Continued.

COUNTY OR CITY.	COUNTRY OF BIRTH—continued.															
	Ireland.	Italy.	Jugo-Slavia.	Lithuania.	Mexico.	Netherlands.	Norway.	Poland.	Rumania.	Russia.	Scotland.	Sweden.	Switzerland.	Syria.	Wales.	All other countries.
<b>COUNTIES.</b>																
<b>The state</b> .....	16,531	30,218	9,426	5,475	1,268	33,489	6,888	103,926	6,331	45,313	13,175	24,707	2,755	3,648	1,154	5,599
Alcona.....	12	1	2	1	—	2	70	51	2	9	17	31	9	1	1	—
Alger.....	20	3	29	5	1	—	15	142	—	28	12	167	3	4	1	7
Allegan.....	80	39	32	6	—	770	55	142	7	66	30	192	35	—	3	17
Alpena.....	65	4	—	2	—	2	185	634	17	202	49	21	20	7	—	25
Antrim.....	20	—	3	—	—	292	50	83	1	15	19	106	74	2	—	4
Arenac.....	23	1	12	2	—	—	7	349	18	162	54	28	4	—	1	2
Baraga.....	29	7	40	1	—	2	107	30	2	47	4	240	4	—	1	1
Barry.....	54	6	—	2	—	95	14	9	1	3	23	35	13	2	—	11
Bay.....	286	50	19	34	4	142	47	2,773	61	679	278	307	58	44	35	32
Benzie.....	13	—	1	—	—	9	193	25	1	4	6	57	3	—	—	4
Berrien.....	141	372	38	56	2	102	95	475	19	2,098	64	407	61	3	21	164
Branch.....	66	38	4	1	—	39	8	212	1	18	12	7	7	1	—	3
Calhoun.....	276	204	147	11	26	91	35	342	13	292	256	150	46	8	14	77
Cass.....	88	9	1	5	—	23	2	135	1	157	21	37	5	6	9	5
Charlevoix.....	84	4	5	6	—	44	82	215	3	36	32	59	4	2	1	21
Cheboygan.....	72	10	3	3	—	12	30	212	1	36	26	118	10	1	2	8
Chippewa.....	119	244	6	3	7	52	23	268	16	100	133	107	3	43	6	19
Clare.....	26	3	3	2	—	10	13	71	1	2	6	14	16	—	—	1
Clinton.....	33	8	10	—	—	8	—	32	6	20	22	8	3	3	—	12
Crawford.....	11	1	14	1	—	1	4	30	1	20	2	46	2	—	2	3
Delta.....	167	16	168	11	1	27	420	163	2	110	27	1,860	11	18	4	170
Dickinson.....	22	1,384	97	—	1	21	140	230	1	75	9	1,341	16	8	7	14
Eaton.....	32	18	4	—	—	33	2	7	6	15	15	22	18	11	5	15
Emmet.....	38	1	12	—	—	21	12	302	2	42	18	59	28	1	1	6
Genesee.....	470	503	506	24	82	100	135	1,629	210	842	572	423	38	183	40	290
Gladwin.....	17	2	16	—	—	2	—	223	1	64	9	5	5	—	—	2
Gogebic.....	83	1,549	753	23	5	17	204	1,078	10	136	25	1,128	12	44	9	119
Grand Traverse.....	74	11	12	9	—	48	51	110	4	43	37	196	33	2	7	7
Gratiot.....	33	23	42	3	6	12	10	54	2	51	34	22	13	1	6	5
Hillsdale.....	89	28	3	—	1	5	2	2	—	1	12	9	12	1	2	5
Houghton.....	431	2,101	1,446	145	4	8	594	307	33	287	185	1,021	68	58	80	63
Huron.....	128	9	59	3	53	7	8	537	17	230	141	1	33	—	8	30
Ingham.....	179	225	11	6	2	86	75	719	30	491	165	129	40	209	13	50
Ionia.....	113	89	12	—	2	73	13	76	7	23	39	55	31	3	1	8
Iosco.....	15	7	4	6	—	2	55	10	22	22	16	60	3	—	1	3
Iron.....	40	1,194	162	64	—	9	93	827	8	204	31	969	11	6	3	30
Isabella.....	64	9	62	—	—	5	3	70	7	24	24	13	33	—	2	8
Jackson.....	391	121	10	66	6	60	32	1,514	22	111	180	70	37	10	34	31
Kalamazoo.....	297	113	85	7	8	4,589	17	408	25	324	145	149	37	1	10	33
Kalkaska.....	8	—	1	12	—	21	3	12	—	6	4	40	8	1	1	1
Kent.....	787	552	10	1,149	20	14,498	197	4,429	66	1,103	254	1,288	171	312	24	136
Keweenaw.....	8	127	253	—	5	—	66	16	4	23	3	64	3	—	—	1
Lake.....	9	20	11	166	—	9	7	1	1	17	6	55	1	—	2	2
Lapeer.....	97	15	30	—	—	4	1	49	11	137	79	11	16	—	1	23
Leelanau.....	25	—	—	1	—	7	226	155	2	5	9	99	12	2	3	1
Lenawee.....	293	38	18	—	5	16	5	57	6	58	35	42	43	15	5	17
Livingston.....	66	20	1	—	1	3	—	27	14	9	34	87	14	6	1	7
Luce.....	51	22	17	8	1	7	36	90	3	54	19	236	9	1	1	6
Mackinac.....	48	19	10	6	—	1	29	38	1	140	20	89	20	—	—	4
Macomb.....	104	69	45	7	4	42	5	394	29	230	57	25	16	4	2	38
Manistee.....	29	14	10	7	1	8	251	1,150	2	10	16	747	8	1	3	10
Marquette.....	311	1,027	21	5	—	49	514	167	8	226	62	2,000	11	22	16	35
Mason.....	60	25	8	202	1	30	134	442	1	80	35	668	18	—	1	8
Mecosta.....	41	3	1	—	—	26	53	40	1	12	21	182	24	—	4	5
Monominee.....	37	115	103	22	1	17	262	418	7	95	10	1,045	20	—	1	16
Midland.....	46	15	10	—	12	10	2	85	3	45	31	29	7	—	3	5
Missaukee.....	15	5	—	—	—	581	13	6	2	6	7	83	2	—	—	—
Monroe.....	50	274	37	—	—	15	3	204	89	72	20	8	34	7	3	30
Montcalm.....	55	7	1	—	—	35	50	19	1	8	30	84	13	—	3	9
Montmorency.....	10	—	1	—	—	1	5	52	2	29	8	10	3	—	—	1
Muskegon.....	160	259	30	41	18	2,270	576	860	23	269	78	1,752	30	2	5	69
Newaygo.....	30	14	2	—	—	452	17	47	—	15	25	238	11	—	1	2
Oakland.....	453	213	92	4	60	129	38	415	56	309	424	167	58	19	37	230
Oceana.....	18	5	18	8	—	260	76	19	—	13	19	167	9	2	1	8
Ogemaw.....	23	2	—	—	—	6	—	13	—	11	23	20	5	—	1	1
Ontonagon.....	41	51	167	12	—	2	80	126	9	118	6	244	10	6	1	8
Osceola.....	26	2	—	—	7	154	10	8	—	12	11	458	34	—	4	8
Oscoda.....	1	1	—	—	—	—	—	—	—	4	1	2	3	—	—	—
Otsego.....	16	—	—	2	—	3	3	395	—	24	14	20	3	—	—	6
Ottawa.....	64	48	11	12	—	5,642	45	193	12	43	36	233	20	14	4	22
Presque Isle.....	17	10	3	—	—	3	4	511	3	29	9	10	7	2	—	15
Roscommon.....	8	—	—	—	—	1	7	—	—	6	4	58	2	—	—	2
Saginaw.....	296	492	102	152	108	33	45	1,896	31	1,333	422	98	77	33	53	73
St. Clair.....	339	88	44	1	41	29	22	277	27	423	251	35	30	49	12	87
St. Joseph.....	36	86	4	—	—	22	10	38	—	21	9	24	30	1	2	6
Sanilac.....	158	9	81	3	8	6	6	119	12	120	138	12	15	5	3	6
Schoolcraft.....	35	15	126	1	—	14	97	28	7	31	26	502	3	2	—	8
Shiawassee.....	84	85	7	2	8	7	7	66	16	143	53	18	33	6	—	20
Tuscola.....	103	19	47	7	1	7	5	285	25	211	59	19	19	11	10	16
Van Buren.....	98	103	19	5	1	158	58	137	9	181	56	261	17	4	11	7
Washtenaw.....	189	126	16	8	9	16	10	209	19	134	86	24	30	7	11	83
Wayne.....	7,952	17,805	4,206	3,121	750	2,010	1,013	75,738	5,253	32,282	7,900	2,961	994	2,425	631	3,252
Wexford.....	40	—	32	—	—	72	45	15	1	22	14	877	11	—	2	5

## COMPOSITION AND CHARACTERISTICS.

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TABLE 12.—COUNTRY OF BIRTH OF THE FOREIGN-BORN WHITE, FOR COUNTIES AND FOR CITIES OF 10,000 OR MORE: 1920—Continued.

COUNTY OR CITY.	Total foreign-born white.	COUNTRY OF BIRTH.													
		Armenia.	Austria.	Belgium.	Bulgaria.	Canada—French.	Canada—Other.	Czechoslovakia.	Denmark.	England.	Finland.	France.	Germany.	Greece.	Hungary.
CITIES.															
Adrian.....	757		3		1	3	136	2	6	100		10	300	7	3
Alpena.....	2,506		5	2		396	793	3		74	1	11	413		4
Ann Arbor.....	2,473	11	55	2		9	561	11	21	238	6	21	374	130	21
Battle Creek.....	3,378	13	90	6	54	11	1,050	8	45	501	3	34	290	171	31
Bay City.....	8,954	3	62	32		890	2,477	26	11	570	11	83	1,256	30	30
Benton Harbor.....	1,686		1	20	8	11	188	12	21	83		12	292	22	3
Detroit.....	289,297	1,361	10,674	6,219	883	3,678	55,216	3,351	1,505	17,109	1,785	1,740	30,238	4,028	13,564
Escanaba.....	2,948		25	33		705	187	16	76	35	125	14	241	6	
Flint.....	15,127	8	328	85	142	301	4,658	450	99	1,573	77	80	701	241	897
Grand Rapids.....	28,355	50	534	47	7	91	2,746	110	201	868	102	87	2,433	60	155
Hamtramck village.....	23,662	18	1,134	16	18	36	334	483	11	82	13	17	664	38	283
Highland Park.....	12,661	606	537	8	37	119	3,609	113	97	1,445	102	87	558	253	559
Holland.....	2,149		41	4	1	8	41	5	2	25		6	84	6	5
Ironwood.....	5,871	32	281	92	12	70	128	303	24	695	1,502	19	121	18	62
Ishpeming.....	3,207		6			164	110	2	17	842	799	11	32	15	
Jackson.....	5,316	1	38	109	49	18	976	15	35	710	5	48	763	120	36
Kalamazoo.....	7,207	2	129	21	4	37	626	38	31	422	6	19	613	95	310
Lansing.....	5,985	5	146	140	27	50	1,442	84	33	562	41	20	1,105	134	110
Marquette.....	3,051		50	72	3	883	492	8	40	200	458	15	243	34	18
Monroe.....	1,176	3	28	109	10	30	115		5	40		15	277	35	20
Muskegon.....	6,780	3	86	19	1	328	540	23	202	231	92	18	713	89	25
Owosso.....	1,687		32	2		11	567	243	14	107	1	13	346	27	55
Pontiac.....	5,185	102	108	20	192	85	2,039	27	20	719	56	15	363	213	45
Port Huron.....	6,346	8	98	54	7	66	3,865	22	19	477	4	15	618	10	91
Saginaw.....	11,605		298	52		510	2,840	140	61	600	6	119	3,195	53	206
Sault Ste. Marie.....	3,780	1	57	2		212	2,183	5	18	214	238	12	71	32	4
Traverse City.....	1,627		24	4		43	472	186	30	92	30	6	275	4	13
Wyandotte.....	4,010	9	368	2	12	67	365	16	1	204	5	8	576	29	361

COUNTY OR CITY.	COUNTRY OF BIRTH—continued.															
	Ireland.	Italy.	Jugo-Slavia.	Lithuania.	Mexico.	Netherlands.	Norway.	Poland.	Rumania.	Russia.	Scotland.	Sweden.	Switzerland.	Syria.	Wales.	All other countries.
CITIES.																
Adrian.....	65	16				3	1	32		28	16	15	5		3	2
Alpena.....	52	4		2		2	119	404	3	63	30	18	17	6		20
Ann Arbor.....	68	110	4	1	7	11	1	77	6	79	40	14	18		2	66
Battle Creek.....	148	78	142	1	25	37	22	144	5	87	188	96	26	5	11	50
Bay City.....	231	39	7	29	3	32	34	1,936	45	492	253	249	19	44	84	21
Benton Harbor.....	21	90	1	3	1	3	18	55	9	658	10	98	11	3	7	19
Detroit.....	7,004	16,205	3,702	2,653	712	1,891	891	56,624	4,668	27,278	6,933	2,659	889	1,877	548	2,812
Escanaba.....	120	3	92		1	11	230	19	1	35	17	777	6	18	4	150
Flint.....	355	482	480	23	82	87	116	1,474	204	769	500	383	31	182	83	281
Grand Rapids.....	628	525	6	1,120	19	11,422	165	4,269	66	1,046	214	883	53	301	20	127
Hamtramck village.....	16	98	105	405		5	6	15,496	74	3,628	11	15	3	6		42
Highland Park.....	417	970	282	40	7	45	79	230	473	580	411	180	33	500	50	234
Holland.....	6	9				1,846	9	12	1	7	6	20	3			7
Ironwood.....	57	400	447	8	5	6	98	615	14	58	10	670	4	42	4	74
Ishpeming.....	96	190				3	226	3		15	8	644	1	8	2	13
Jackson.....	318	116	10	66	6	53	17	1,371	22	102	156	58	28	16	27	27
Kalamazoo.....	216	104	83	7	7	3,483	11	364	8	300	107	100	26	1	7	30
Lansing.....	130	210	9	3		65	65	632	24	438	120	98	28	297	10	38
Marquette.....	120	64		4		37	97	88		59	35	511	2	1	7	10
Monroe.....	10	257	25			6	2	25	85	37	9	5	4	5	2	11
Muskegon.....	115	221	7	38	14	1,752	387	578	13	117	44	1,055	17	1	3	48
Owosso.....	33	54	1			4	5	30	1	82	16	15	10	6	3	7
Pontiac.....	190	119	25	2	46	27	16	177	25	171	125	62	18	15	8	146
Port Huron.....	166	49	9	1	39	10	7	100	15	322	102	26	7	47	7	16
Saginaw.....	195	395	48	144	98	20	32	917	18	1,082	339	88	49	30	28	42
Sault Ste. Marie.....	74	237	5		7	8	12	67	7	54	84	60	2	43	6	15
Traverse City.....	57	11	5	1		33	44	92	4	37	24	115	14	2	4	15
Wyandotte.....	51	22	10	1	1	2	1	1,453	9	316	61	8	2	29	6	15

TABLE 13.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR WARDS OF CITIES OF 50,000 OR MORE: 1920.

SUBJECT.	THE CITY.	DETROIT.									
		WARD.									
		1	2	3	4	5	6	7	8	9	10
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>											
Total population	993,878	56,344	32,534	41,177	43,104	54,667	47,302	29,157	42,517	61,587	39,560
Male	540,248	31,977	18,577	23,881	23,970	31,326	25,089	16,842	22,012	34,374	20,348
Female	453,430	24,367	13,957	17,296	19,134	23,341	22,213	12,315	20,505	27,213	19,212
Native white	662,768	40,472	25,318	18,541	33,397	20,956	35,585	11,593	32,863	32,266	30,114
Male	340,894	22,945	14,127	10,115	18,104	10,865	18,501	6,102	16,899	16,652	15,420
Female	315,874	18,127	11,191	8,426	15,293	10,091	16,994	5,491	15,964	15,614	14,694
Native white—Native parentage	313,697	24,444	16,019	7,744	21,949	4,550	21,659	2,741	19,311	7,377	16,273
Native white—Foreign parentage	247,035	10,408	5,059	8,601	6,443	14,449	8,394	7,806	7,965	21,097	8,208
Native white—Mixed parentage	101,736	5,620	3,340	2,196	4,805	1,957	5,532	1,046	5,587	8,792	5,633
Foreign-born white	289,297	13,784	6,775	13,448	9,297	23,223	10,871	11,008	9,371	25,472	9,239
Male	169,095	8,331	4,152	8,197	5,599	14,289	6,042	7,022	4,936	15,604	4,817
Female	120,202	5,453	2,623	5,251	3,698	8,934	4,829	3,986	4,435	9,868	4,422
Negro	40,538	1,985	225	9,140	346	10,449	708	6,546	267	3,836	162
Male	23,605	1,203	102	5,530	210	6,145	423	3,712	168	2,106	104
Female	17,233	782	123	3,610	136	4,304	285	2,834	99	1,730	58
Indian, Chinese, Japanese, and all other	775	103	216	48	64	39	48	10	16	13	15
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>											
Total under 7 years of age	151,887	4,500	1,420	4,828	3,192	9,346	5,485	5,015	5,266	13,153	5,215
Total 7 to 13 years, inclusive	105,320	3,465	1,283	3,909	2,680	6,707	3,737	3,422	3,650	7,931	3,947
Number attending school	99,755	3,163	1,202	3,845	2,537	6,441	3,484	3,223	3,425	7,388	3,749
Total 14 and 15 years	23,781	871	415	930	785	1,334	954	664	941	1,438	1,047
Number attending school	20,983	750	373	838	701	1,138	845	548	826	1,226	940
Total 16 and 17 years	26,597	1,202	572	1,054	966	1,431	1,123	745	1,052	1,769	1,177
Number attending school	8,485	535	259	454	467	375	423	188	439	321	404
Total 18 to 20 years, inclusive	50,078	3,401	1,981	2,340	2,246	2,622	2,380	1,396	2,262	2,724	2,114
Number attending school	4,040	416	270	200	307	146	197	56	230	107	224
Males 21 years of age and over	360,040	24,027	15,592	17,144	18,844	20,551	18,284	11,171	15,343	20,905	13,811
Native white—Native parentage	103,896	10,300	7,738	3,078	9,007	1,512	7,900	906	6,319	2,007	5,144
Native white—Foreign or mixed parentage	83,962	5,026	3,723	2,250	4,425	1,724	4,578	1,062	4,408	3,217	4,203
Foreign-born white	153,144	7,648	3,869	7,256	5,177	12,416	5,463	6,313	4,479	14,150	4,381
Naturalized	52,557	3,296	1,502	2,487	2,219	2,869	2,590	1,344	2,217	2,783	2,205
Negro	18,472	970	82	4,527	183	4,877	314	2,886	131	1,519	76
Females 21 years of age and over	276,475	17,978	11,271	10,882	14,382	12,676	15,339	6,744	14,003	13,667	12,249
Native white—Native parentage	78,870	7,481	5,027	1,946	6,847	1,045	6,377	528	5,382	1,333	4,110
Native white—Foreign or mixed parentage	81,057	5,061	3,134	1,910	4,060	1,494	4,501	967	4,566	2,845	4,179
Foreign-born white	104,366	4,830	2,402	4,314	3,368	7,126	4,197	3,333	3,977	8,391	3,890
Naturalized	45,864	2,426	1,186	1,863	1,824	2,052	2,321	974	2,274	2,072	2,301
Negro	12,107	602	86	2,706	103	3,003	255	1,914	74	1,098	65
Male 18 to 44 years, inclusive	303,767	21,548	13,398	15,005	15,367	18,132	15,040	9,438	12,337	18,049	10,971
Females 18 to 44 years, inclusive	229,514	14,725	9,182	9,491	11,209	11,467	12,310	5,894	11,088	12,129	9,457
<b>ILLITERACY.</b>											
Total 10 years of age and over	793,316	50,300	30,588	34,591	38,770	42,138	40,134	22,610	35,621	44,520	32,609
Number illiterate	29,954	657	128	1,297	218	3,270	291	4,366	270	5,023	395
Native white	474,161	34,885	23,480	13,044	29,252	10,356	28,845	6,077	26,228	16,496	23,417
Number illiterate	1,074	79	9	15	67	48	50	52	93	89	51
Foreign-born white	282,257	13,494	6,688	13,124	9,132	22,453	10,571	10,677	9,139	24,780	9,010
Number illiterate	27,389	529	105	1,150	154	2,544	235	4,040	166	4,817	337
Negro	36,169	1,818	212	8,380	324	9,293	678	5,749	241	3,232	170
Number illiterate	1,417	34	2	122	5	674	3	274	8	110	6
Total 16 to 20 years, inclusive	76,675	4,603	2,553	3,394	3,212	4,053	3,503	2,141	3,314	4,493	3,291
Number illiterate	479	18	6	26	9	80	20	61	18	65	6
Illiterate males 21 years of age and over	15,623	352	77	767	106	1,629	132	2,572	126	2,491	182
Native white	463	36	7	6	24	12	23	28	47	26	19
Foreign-born white	14,324	285	64	695	78	1,217	105	2,400	73	2,406	160
Negro	772	17	—	57	2	396	1	144	4	52	2
Illiterate females 21 years of age and over	13,703	274	44	503	100	1,571	131	1,727	118	2,448	200
Native white	426	29	2	7	24	28	17	21	24	42	24
Foreign-born white	12,685	229	37	440	73	1,288	112	1,585	89	2,351	173
Negro	586	15	2	55	3	255	2	121	4	55	3
<b>DWELLINGS AND FAMILIES.</b>											
Dwellings, number	153,206	6,744	2,976	4,892	5,910	5,993	7,618	3,406	9,476	7,820	7,015
Families, number	218,973	11,460	6,808	8,326	9,887	10,238	11,666	5,466	14,245	12,388	9,115
<b>COUNTRY OF BIRTH OF FOREIGN-BORN WHITE.</b>											
Armenia	1,361	130	81	54	114	16	158	14	30	19	58
Austria	10,674	428	138	681	146	1,207	153	857	88	1,570	211
Belgium	6,219	63	33	26	33	18	51	33	95	276	57
Canada—French	3,678	181	86	74	158	63	109	93	175	148	294
Canada—Other	55,216	4,360	2,798	1,585	3,926	1,111	4,672	435	4,355	1,076	3,812
Czechoslovakia	3,351	63	25	105	21	89	37	38	22	153	98
Denmark	1,505	116	68	32	141	16	158	10	160	20	91
England	17,169	1,520	738	506	1,090	442	1,388	140	1,197	283	929
Finland	1,785	180	186	33	179	15	179	26	180	91	54
France	1,740	111	80	59	74	55	108	49	63	47	64
Germany	30,238	747	373	447	522	586	545	552	592	1,992	1,070
Greece	4,628	771	284	1,019	195	536	167	152	80	110	221
Hungary	13,564	232	61	416	72	855	177	457	75	1,397	180
Ireland	7,004	464	312	197	438	100	640	112	621	101	523
Italy	16,205	306	118	269	132	3,405	288	2,998	125	3,428	165
Jugo-Slavia	3,702	67	28	52	22	840	55	494	23	690	77
Lithuania	2,053	26	6	36	11	624	18	312	8	116	24
Netherlands	1,861	77	40	28	78	11	76	8	62	44	61
Poland	56,624	472	199	924	186	2,807	182	1,943	64	9,980	154
Rumania	4,668	151	44	327	50	1,066	70	350	45	1,062	47
Russia	27,278	1,908	251	5,901	340	8,465	408	1,006	231	2,080	213
Scotland	6,933	494	222	148	464	129	566	55	631	104	519
Sweden	2,659	210	168	65	239	37	194	15	192	60	130
Syria	1,877	101	61	95	98	87	96	396	21	401	30
All other countries	6,705	606	407	369	518	673	426	463	266	219	157

## COMPOSITION AND CHARACTERISTICS.

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TABLE 13.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR WARDS OF CITIES OF 50,000 OR MORE: 1920—Continued.

SUBJECT.	DETROIT—Continued.										
	WARD.										
	11	12	13	14	15	16	17	18	19	20	21
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>											
Total population.....	32,453	46,866	48,044	52,775	42,312	72,769	51,626	43,134	46,154	37,764	71,832
Male.....	17,566	24,867	26,326	27,607	22,688	39,188	26,213	23,379	23,837	21,011	38,670
Female.....	14,887	21,999	21,718	25,168	19,624	33,581	25,413	19,755	22,317	16,753	33,162
Native white.....	18,932	33,379	31,542	37,667	31,957	48,929	40,011	26,928	34,251	23,720	54,347
Male.....	9,536	17,258	16,478	19,288	16,876	25,154	20,163	14,062	17,480	12,490	28,589
Female.....	9,396	16,121	15,064	18,379	15,081	23,775	19,848	12,866	16,771	11,230	25,758
Native white—Native parentage.....	5,203	10,266	10,652	12,725	10,770	18,007	19,646	8,978	16,740	9,079	30,904
Native white—Foreign parentage.....	10,899	11,699	15,913	12,381	9,846	23,635	12,005	14,518	11,158	11,381	14,410
Native white—Mixed parentage.....	2,830	5,614	4,977	6,561	5,341	7,287	7,700	3,432	6,353	3,260	8,973
Foreign-born white.....	12,512	12,856	16,043	12,769	10,056	23,351	11,176	15,769	11,561	13,757	16,959
Male.....	7,448	7,247	9,589	7,074	5,642	13,749	5,790	9,643	6,188	8,370	9,466
Female.....	5,064	5,609	6,454	5,695	4,414	9,602	5,386	6,226	5,373	5,387	7,493
Negro.....	985	617	449	2,318	273	470	418	432	332	286	474
Male.....	558	348	250	1,231	150	270	243	269	161	150	272
Female.....	427	269	199	1,087	123	200	175	163	171	136	202
Indian, Chinese, Japanese, and all other.....	24	14	10	21	28	19	21	5	10	1	52
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>											
Total under 7 years of age.....	5,718	7,361	8,063	7,469	6,132	14,293	7,680	9,385	7,861	7,669	11,436
Total 7 to 13 years, inclusive.....	4,053	5,409	6,109	5,759	4,514	8,060	6,167	5,468	5,811	5,031	7,209
Number attending school.....	3,849	4,989	5,800	5,531	4,365	8,435	5,951	5,144	5,493	4,886	6,857
Total 14 and 15 years.....	866	1,230	1,343	1,383	1,119	1,949	1,445	1,099	1,330	962	1,076
Number attending school.....	727	1,107	1,184	1,268	1,002	1,718	1,317	954	1,173	867	1,481
Total 16 and 17 years.....	1,014	1,270	1,479	1,625	1,173	2,092	1,562	1,165	1,295	1,064	1,867
Number attending school.....	203	388	336	570	375	545	530	334	375	296	610
Total 18 to 20 years, inclusive.....	1,659	2,346	2,426	2,615	2,268	3,375	2,671	1,921	2,181	1,589	3,561
Number attending school.....	98	184	118	244	202	212	204	166	134	73	252
Males 21 years of age and over.....	11,056	15,880	16,208	13,276	14,887	23,724	16,433	14,284	14,568	12,598	25,554
Native white—Native parentage.....	1,204	4,996	2,855	5,778	5,269	5,256	5,055	2,439	4,463	2,571	9,988
Native white—Foreign or mixed parentage.....	2,528	4,141	4,332	5,072	4,445	5,515	5,885	2,772	4,531	2,250	6,965
Foreign-born white.....	6,586	6,471	8,840	6,498	5,038	12,743	5,820	5,445	7,562	3,562	8,357
Naturalized.....	2,067	2,631	2,843	3,048	2,391	3,938	2,878	1,937	2,455	1,359	3,513
Negro.....	406	280	173	916	119	198	186	198	122	114	208
Females 21 years of age and over.....	8,087	13,370	11,816	15,748	12,219	18,376	15,668	9,812	13,108	8,551	20,520
Native white—Native parentage.....	943	4,042	1,930	4,589	3,853	4,010	4,451	1,753	3,605	1,787	7,225
Native white—Foreign or mixed parentage.....	2,481	4,234	4,078	5,319	4,393	5,692	6,220	2,501	4,726	2,072	6,724
Foreign-born white.....	4,669	4,308	5,679	5,081	3,877	8,624	4,849	5,453	4,050	4,000	6,430
Naturalized.....	1,697	2,597	2,324	2,926	2,212	3,373	2,781	1,654	2,402	1,301	3,354
Negro.....	274	188	129	754	92	147	144	100	123	92	145
Male 18 to 44 years, inclusive.....	9,292	13,071	13,594	14,792	12,364	20,181	13,363	12,444	12,213	10,683	22,220
Females 18 to 44 years, inclusive.....	6,669	10,800	9,935	12,540	9,809	15,550	12,618	8,717	10,848	7,548	17,522
<b>ILLITERACY.</b>											
Total 10 years of age and over.....	24,338	36,994	36,465	42,690	34,131	54,255	41,115	30,981	35,658	27,358	57,050
Number illiterate.....	1,983	1,100	1,088	1,403	398	3,060	713	1,655	744	1,211	684
Native white.....	11,737	23,944	20,348	28,203	24,060	30,964	20,764	15,161	24,148	13,663	40,189
Number illiterate.....	49	31	40	36	45	56	54	36	40	29	115
Foreign-born white.....	12,250	12,497	15,738	12,480	9,808	22,965	10,934	15,444	11,219	13,448	16,406
Number illiterate.....	1,918	1,037	1,029	1,346	348	2,988	632	1,602	702	1,149	561
Negro.....	827	539	371	1,987	238	407	397	371	283	246	406
Number illiterate.....	12	30	18	19	2	15	25	17	2	33	6
Total 16 to 20 years, inclusive.....	2,673	3,616	3,905	4,140	3,441	5,467	4,233	3,036	3,476	2,653	5,423
Number illiterate.....	21	20	10	23	9	23	18	19	16	9	22
Illiterate males 21 years of age and over.....	1,007	585	515	773	185	1,596	346	320	343	661	358
Native white.....	19	21	9	16	25	21	25	13	15	14	57
Foreign-born white.....	980	547	493	749	157	1,566	299	796	327	631	296
Negro.....	4	15	12	6	.....	8	21	11	1	16	3
Illiterate females 21 years of age and over.....	950	494	558	598	200	1,434	340	307	381	538	287
Native white.....	21	7	23	15	18	25	19	12	21	10	37
Foreign-born white.....	923	474	529	570	180	1,402	321	791	359	512	247
Negro.....	6	13	6	13	2	7	.....	4	1	16	3
<b>DWELLINGS AND FAMILIES.</b>											
Dwellings, number.....	4,505	8,177	7,053	9,562	7,080	11,122	9,388	6,396	8,647	5,891	13,535
Families, number.....	6,877	10,434	9,301	12,031	9,440	15,339	11,507	8,720	10,438	7,916	16,871
<b>COUNTRY OF BIRTH OF FOREIGN-BORN WHITE.</b>											
Armenia.....	6	40	25	40	32	32	14	454	5	10	29
Austria.....	711	304	523	332	532	345	335	842	307	456	418
Belgium.....	89	45	323	25	744	25	493	28	1,514	14	2,234
Canada—French.....	158	271	116	177	212	271	182	94	102	162	462
Canada—Other.....	648	3,294	1,357	3,617	2,424	3,124	2,826	1,338	2,736	1,180	4,542
Czechoslovakia.....	56	417	202	242	155	164	103	126	63	1,106	81
Denmark.....	15	73	24	66	51	97	89	43	62	24	149
England.....	194	1,137	410	1,082	866	1,068	883	410	898	423	1,565
Finland.....	36	68	62	62	57	29	145	10	101	37	84
France.....	54	58	71	79	114	55	125	55	164	26	229
Germany.....	2,151	1,714	2,957	2,098	1,923	2,168	2,846	1,644	2,033	1,374	1,904
Greece.....	63	144	81	143	106	68	52	87	39	14	206
Hungary.....	748	319	658	198	285	428	330	2,969	482	2,764	461
Ireland.....	74	363	160	411	275	576	311	214	286	167	600
Italy.....	1,441	277	586	168	225	103	245	236	1,018	173	519
Jugo-Slavia.....	76	62	197	52	28	42	51	40	32	178	598
Lithuania.....	78	298	64	357	31	160	13	112	53	285	21
Netherlands.....	111	64	150	60	203	68	191	16	175	14	324
Poland.....	5,010	2,235	6,402	1,924	689	12,695	741	5,859	225	3,716	274
Rumania.....	85	45	673	31	59	90	48	16	45	345	129
Russia.....	358	705	584	583	398	999	344	783	360	916	445
Scotland.....	63	452	131	530	264	394	363	153	361	220	670
Sweden.....	21	107	74	126	121	117	181	26	122	49	405
Syria.....	72	24	146	18	33	23	26	6	39	14	90
All other countries.....	194	250	167	348	229	207	238	208	249	90	421



TABLE 13.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR WARDS OF CITIES OF 50,000 OR MORE: 1920—Continued.

SUBJECT.	FLINT.							GRAND RAPIDS.			
	THE CITY.	WARD.						THE CITY.	WARD.		
		1	2	3	4	5	6		1	2	3
COLOR OR RACE, NATIVITY, AND SEX.											
Total population.....	91,599	29,213	17,300	8,301	5,082	22,938	8,765	137,634	40,444	47,977	49,213
Male.....	51,655	17,989	9,295	4,354	3,016	12,383	4,818	67,616	20,461	23,045	24,010
Female.....	39,944	11,224	8,005	3,947	2,066	10,555	4,147	70,118	19,983	24,932	25,203
Native white.....	74,707	21,018	15,056	7,295	4,364	19,830	7,144	108,117	28,887	38,925	40,305
Male.....	40,987	12,393	7,981	3,778	2,563	10,605	3,669	51,909	14,178	18,347	19,384
Female.....	33,720	8,625	7,075	3,519	1,801	9,225	3,475	56,208	14,709	20,578	20,921
Native white—Native parentage.....	50,186	12,289	10,431	5,330	3,285	13,793	5,058	56,079	11,219	21,834	23,026
Native white—Foreign parentage.....	13,729	5,875	2,320	903	574	3,111	946	34,779	13,111	11,164	10,514
Native white—Mixed parentage.....	10,792	2,854	2,305	1,062	505	2,926	1,140	17,259	4,557	5,937	6,765
Foreign-born white.....	15,127	7,223	2,208	959	711	3,092	984	28,355	11,513	8,548	8,294
Male.....	9,497	4,934	1,283	552	449	1,770	509	14,999	6,260	4,424	4,315
Female.....	5,630	2,289	925	407	262	1,322	475	13,356	5,253	4,124	3,979
Negro.....	1,701	951	12	37	3	11	687	1,090	42	447	601
Male.....	1,121	648	7	20	1	5	440	555	21	230	304
Female.....	580	303	5	17	2	6	247	535	21	217	297
Indian, Chinese, Japanese, and all other.....	64	21	24	10	4	5	.....	72	2	57	13
AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.											
Total under 7 years of age.....	12,822	4,039	2,560	966	628	3,301	1,328	19,030	6,457	5,662	6,911
Total 7 to 13 years, inclusive.....	9,137	2,726	1,896	775	480	2,345	915	16,853	5,496	5,373	6,044
Number attending school.....	8,699	2,531	1,789	756	463	2,260	900	16,132	5,169	5,192	5,771
Total 14 and 15 years.....	2,152	583	472	206	128	550	213	4,358	1,311	1,477	1,570
Number attending school.....	1,848	475	408	177	106	499	183	3,909	1,151	1,354	1,404
Total 16 and 17 years.....	2,628	838	522	228	129	661	250	4,529	1,340	1,540	1,649
Number attending school.....	809	199	157	98	41	227	87	1,869	419	697	753
Total 18 to 20 years, inclusive.....	6,092	2,123	1,101	538	396	1,433	501	6,966	2,050	2,510	2,406
Number attending school.....	363	91	70	57	24	75	46	904	181	428	355
Males 21 years of age and over.....	34,943	12,653	6,001	3,006	2,070	8,216	2,997	42,319	12,420	14,998	14,901
Native white—Native parentage.....	17,337	4,979	3,206	1,782	1,285	4,564	1,521	16,298	2,976	6,201	6,121
Native white—Foreign or mixed parentage.....	8,032	2,596	1,597	709	375	2,085	670	12,624	3,609	4,436	4,579
Foreign-born white.....	8,625	4,531	1,168	501	407	1,560	458	13,948	5,816	4,143	3,989
Naturalized.....	3,159	1,144	502	267	215	683	258	7,037	2,738	2,490	2,409
Negro.....	909	538	6	12	1	4	348	403	17	179	207
Females 21 years of age and over.....	23,825	6,251	4,748	2,532	1,251	6,432	2,561	43,579	11,430	16,417	15,732
Native white—Native parentage.....	12,031	2,491	2,510	1,525	707	3,468	1,330	15,852	2,635	6,866	6,351
Native white—Foreign or mixed parentage.....	6,000	1,641	1,432	686	315	1,851	675	15,123	4,037	5,572	5,514
Foreign-born white.....	4,775	1,897	802	360	226	1,106	384	12,233	4,747	3,820	3,666
Naturalized.....	2,464	700	502	241	153	614	254	7,111	2,368	2,378	2,365
Negro.....	411	218	4	9	2	6	172	365	11	155	199
Males 18 to 44 years, inclusive.....	29,368	11,046	4,791	2,376	1,745	6,981	2,429	29,413	8,952	10,127	10,334
Females 18 to 44 years, inclusive.....	20,040	5,601	3,912	2,007	1,015	5,402	2,103	31,318	8,626	11,472	11,220
ILLITERACY.											
Total 10 years of age and over.....	74,519	23,885	13,870	6,996	4,254	18,532	7,002	111,152	31,557	39,974	39,621
Number illiterate.....	1,466	1,015	181	49	36	105	80	3,683	1,954	1,003	726
Native white.....	58,236	15,932	11,690	6,021	3,553	15,540	5,500	82,102	20,129	31,052	30,921
Number illiterate.....	196	41	59	21	21	38	16	174	44	84	46
Foreign-born white.....	14,709	7,047	2,145	943	695	2,976	903	28,065	11,389	8,471	8,205
Number illiterate.....	1,161	888	122	24	15	66	46	3,491	1,910	911	670
Negro.....	1,522	871	11	27	3	11	599	918	37	396	485
Number illiterate.....	103	82	.....	2	.....	1	18	17	.....	7	10
Total 16 to 20 years, inclusive.....	8,720	2,961	1,623	766	525	2,094	751	11,495	3,390	4,050	4,055
Number illiterate.....	29	18	3	1	1	4	2	38	18	12	8
Illiterate males 21 years of age and over.....	934	657	124	32	22	55	44	1,697	880	465	352
Native white.....	120	26	35	15	11	25	8	80	17	41	22
Foreign-born white.....	734	568	89	15	11	30	21	1,609	863	420	326
Negro.....	78	62	.....	1	.....	15	7	108	.....	3	4
Illiterate females 21 years of age and over.....	485	334	50	16	9	45	32	1,936	1,051	524	361
Native white.....	50	8	18	4	5	10	5	69	18	35	16
Foreign-born white.....	409	306	32	9	4	34	24	1,857	1,033	485	339
Negro.....	23	18	.....	1	.....	1	3	10	.....	4	6
DWELLINGS AND FAMILIES.											
Dwellings, number.....	16,228	4,055	3,355	1,665	855	4,489	1,809	29,157	7,917	9,954	11,286
Families, number.....	19,570	5,335	4,029	1,910	963	5,261	2,072	33,703	9,559	11,616	12,528
COUNTRY OF BIRTH OF FOREIGN-BORN WHITE.											
Austria.....	328	255	26	8	10	24	5	534	312	165	57
Canada—French.....	301	140	53	9	7	86	6	91	21	33	37
Canada—Other.....	4,658	1,180	910	492	267	1,354	455	2,746	545	1,146	1,055
Czechoslovakia.....	450	374	50	6	1	13	6	110	81	23	6
Denmark.....	99	22	16	14	8	32	7	201	60	98	43
England.....	1,573	268	460	136	99	478	132	888	193	375	300
Germany.....	701	239	102	47	39	170	45	2,433	1,267	669	507
Greece.....	241	116	41	22	18	30	14	60	12	42	6
Hungary.....	897	767	81	17	5	22	5	155	86	22	47
Ireland.....	355	108	49	30	32	91	45	628	117	263	248
Italy.....	482	351	34	6	6	31	54	525	85	40	391
Jugo-Slavia.....	480	433	28	16	2	1	.....	6	1	3	2
Lithuania.....	23	13	.....	.....	.....	.....	.....	1,120	1,077	35	8
Netherlands.....	87	28	22	9	6	18	4	11,422	2,878	3,518	5,026
Norway.....	116	61	12	6	6	24	7	165	58	72	35
Poland.....	1,474	1,373	18	17	15	21	30	4,269	3,216	1,005	48
Rumania.....	204	176	5	1	6	15	1	66	19	30	17
Russia.....	769	418	40	20	24	241	26	1,046	754	232	60
Scotland.....	500	115	81	39	51	163	51	214	44	122	48
Sweden.....	383	166	38	17	16	132	14	883	446	313	124
Syria.....	182	138	14	9	6	14	1	301	23	163	115
All other countries.....	824	482	128	38	33	123	20	512	228	170	114

## COMPOSITION AND CHARACTERISTICS.

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TABLE 13.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR WARDS OF CITIES OF 50,000 OR MORE: 1920—Continued.

SUBJECT.	LANSING.								
	THE CITY.	WARD.							
		1	2	3	4	5	6	7	8
COLOR OR RACE, NATIVITY, AND SEX.									
Total population.....	57,327	6,096	6,060	8,763	9,226	8,060	10,224	6,484	2,444
Male.....	30,098	3,258	3,043	4,570	4,447	4,201	5,576	3,744	1,259
Female.....	27,229	2,838	3,017	4,183	4,779	3,859	4,648	2,720	1,185
Native white.....	50,617	5,288	5,437	7,573	8,231	7,112	9,065	5,609	2,302
Male.....	26,258	2,764	2,686	3,924	3,933	3,665	4,904	3,201	1,181
Female.....	24,359	2,524	2,751	3,649	4,298	3,447	4,161	2,408	1,121
Native white—Native parentage.....	38,373	3,970	4,204	5,867	6,015	5,258	7,002	4,111	1,946
Native white—Foreign parentage.....	6,489	717	642	841	1,286	962	1,053	813	145
Native white—Mixed parentage.....	6,755	601	591	865	930	892	1,010	685	211
Foreign-born white.....	5,985	792	495	801	914	931	1,113	813	126
Male.....	3,437	485	277	442	477	530	648	507	71
Female.....	2,548	307	218	359	437	401	465	306	55
Negro.....	698	16	105	378	81	17	46	39	16
Male.....	377	9	57	203	37	6	24	34	7
Female.....	321	7	48	175	44	11	22	5	9
Indian, Chinese, and Japanese.....	27		23	1				3	
AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.									
Total under 7 years of age.....	7,543	994	509	1,095	1,184	1,133	1,488	732	458
Total 7 to 13 years, inclusive.....	5,604	710	451	833	998	876	929	747	390
Number attending school.....	5,614	694	404	782	977	824	868	722	343
Total 14 and 15 years.....	1,774	185	138	225	274	222	214	448	68
Number attending school.....	1,638	163	127	204	250	207	190	430	62
Total 16 and 17 years.....	1,010	212	180	245	305	256	300	339	73
Number attending school.....	873	60	110	108	170	96	104	193	32
Total 18 to 20 years, inclusive.....	3,285	354	359	506	487	502	593	356	128
Number attending school.....	421	17	89	70	93	50	42	40	20
Males 21 years of age and over.....	19,620	2,035	2,257	3,090	2,906	2,708	3,808	2,096	720
Native white—Native parentage.....	12,299	1,192	1,451	1,971	1,756	1,611	2,530	1,262	536
Native white—Foreign or mixed parentage.....	3,956	389	483	572	689	611	666	483	113
Foreign-born white.....	3,109	449	204	400	438	433	504	406	66
Naturalized.....	1,355	117	141	192	254	222	241	152	36
Negro.....	235	5	39	137	23	3	18	5	5
Females 21 years of age and over.....	17,291	1,906	2,166	2,750	3,072	2,363	2,942	1,746	637
Native white—Native parentage.....	10,752	979	1,406	1,756	1,805	1,434	1,876	1,029	467
Native white—Foreign or mixed parentage.....	4,042	352	517	573	844	581	632	444	119
Foreign-born white.....	2,284	269	210	320	390	360	419	269	47
Naturalized.....	1,315	121	154	196	250	204	224	139	27
Negro.....	212	6	33	110	33	8	15	3	4
Males 18 to 44 years, inclusive.....	14,800	1,555	1,586	2,310	2,065	2,086	3,044	1,613	541
Females 18 to 44 years, inclusive.....	13,073	1,276	1,558	2,019	2,205	1,803	2,314	1,304	534
ILLITERACY.									
Total 10 years of age and over.....	47,274	4,799	5,370	7,302	7,587	6,551	8,370	5,466	1,829
Number illiterate.....	509	83	31	47	63	77	107	169	22
Native white.....	40,795	4,009	4,767	6,199	6,623	5,627	7,244	4,634	1,662
Number illiterate.....	102	18	5	3	9	15	33	4	17
Foreign-born white.....	5,870	778	493	786	899	910	1,086	793	125
Number illiterate.....	478	37	22	33	48	62	71	165	6
Negro.....	582	12	87	316	65	14	40	36	12
Number illiterate.....	19		4	6	6		3		
Total 16 to 20 years, inclusive.....	5,195	566	539	751	792	758	893	605	201
Number illiterate.....	13	3	1			2	2	3	2
Illiterate males 21 years of age and over.....	337	42	24	23	32	44	62	100	10
Native white.....	55	8	3		3	12	19	1	9
Foreign-born white.....	270	34	18	20	25	32	41	99	1
Negro.....	12		3	3	4		2		
Illiterate females 21 years of age and over.....	241	36	5	24	27	30	43	66	10
Native white.....	34	5	1	3	2	3	12	2	6
Foreign-born white.....	201	31	4	18	23	27	30	64	4
Negro.....	6			3	2		1		
DWELLINGS AND FAMILIES.									
Dwellings, number.....	12,089	1,275	1,189	1,860	2,109	1,771	2,116	1,192	577
Families, number.....	13,811	1,455	1,430	2,173	2,320	2,014	2,459	1,365	595
COUNTRY OF BIRTH OF FOREIGN-BORN WHITE.									
Austria.....	146	53	2	22	4	13	26	24	2
Belgium.....	140	27		6	76		5	25	1
Canada—French.....	50	5	2	15	4	6	6	10	2
Canada—Other.....	1,442	134	185	250	234	206	276	123	34
Czechoslovakia.....	84	6		17	12	12	15	22	
England.....	562	39	40	96	68	92	145	56	26
Germany.....	1,105	169	62	82	272	219	111	177	13
Greece.....	134	13	58	8	12	14	16	13	
Hungary.....	110	18	2	4	13	27	41	3	2
Ireland.....	130	6	10	30	21	17	20	26	
Italy.....	210	30	18	21	42	20	30	47	2
Netherlands.....	65	12	5	1	18	3	9	16	1
Norway.....	65	5	5	10	7	10	7	19	2
Poland.....	632	112	40	39	15	146	194	75	11
Russia.....	438	91	15	41	33	71	65	108	14
Scotland.....	120	4	13	27	11	25	26	8	6
Sweden.....	98	6	12	11	12	15	26	14	2
Syria.....	207	5	1	88	27	4	61	19	2
All other countries.....	247	57	25	33	33	31	34	28	4

TABLE 13.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR WARDS OF CITIES OF 50,000 OR MORE: 1920—Continued.

SUBJECT.	SAGINAW.									
	THE CITY.	WARD.								
		1	2	3	4	5	6	7	8	9
COLOR OR RACE, NATIVITY, AND SEX.										
Total population.....	61,903	3,512	2,568	1,941	2,759	2,489	2,777	2,106	3,635	3,349
Male.....	31,024	1,780	1,372	1,086	1,328	1,223	1,351	969	1,710	1,657
Female.....	30,879	1,732	1,196	855	1,431	1,266	1,426	1,137	1,925	1,692
Native white.....	49,924	2,796	2,110	1,560	2,258	1,970	2,294	1,776	3,108	2,860
Male.....	24,724	1,406	1,102	838	1,072	956	1,117	787	1,452	1,405
Female.....	25,200	1,390	1,008	722	1,186	1,014	1,177	989	1,656	1,455
Native white—Native parentage.....	25,805	1,525	1,340	835	1,112	943	1,125	1,110	1,906	1,617
Native white—Foreign parentage.....	14,693	774	435	447	619	640	739	347	691	657
Native white—Mixed parentage.....	9,526	497	335	278	527	387	430	319	511	586
Foreign-born white.....	11,605	708	438	361	484	488	465	265	519	471
Male.....	6,092	371	260	229	244	250	225	142	253	242
Female.....	5,513	337	178	132	240	238	240	123	266	229
Negro.....	328	8	18	6	17	31	18	04	8	14
Male.....	179	3	10	5	12	17	9	39	5	9
Female.....	149	5	8	1	5	14	9	25	3	5
Indian and Chinese.....	46		2	14				1		4
AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.										
Total under 7 years of age.....	8,594	615	240	112	305	330	361	167	455	454
Total 7 to 13 years, inclusive.....	7,997	499	204	117	298	280	356	161	514	423
Number attending school.....	7,697	484	200	104	281	262	351	153	503	405
Total 14 and 15 years.....	2,019	114	60	37	86	77	89	57	127	108
Number attending school.....	1,806	101	57	31	76	68	83	55	121	99
Total 16 and 17 years.....	2,182	116	66	56	90	85	92	56	132	113
Number attending school.....	760	83	26	14	38	35	35	34	76	39
Total 18 to 20 years, inclusive.....	3,290	178	185	140	121	121	137	113	181	169
Number attending school.....	305	10	18	9	13	16	22	30	36	16
Males 21 years of age and over.....	18,990	1,013	975	850	898	779	825	737	1,019	1,010
Native white—Native parentage.....	6,243	321	501	332	292	189	211	345	425	359
Native white—Foreign or mixed parentage.....	7,023	380	228	289	365	342	385	219	340	419
Foreign-born white.....	5,711	331	236	214	232	239	222	138	241	225
Naturalized.....	3,291	172	134	113	172	156	144	93	167	149
Negro.....	130	1	10	4	9	9	7	34	4	6
Females 21 years of age and over.....	18,831	977	838	629	961	817	917	815	1,207	1,072
Native white—Native parentage.....	5,835	304	341	243	276	182	214	377	490	389
Native white—Foreign or mixed parentage.....	7,887	375	330	261	467	396	461	301	463	462
Foreign-born white.....	5,001	294	158	124	215	230	236	120	252	216
Naturalized.....	3,129	190	97	72	155	153	160	91	167	146
Negro.....	100	4	8	1	3	9	6	17	2	4
Males 18 to 44 years, inclusive.....	13,411	762	755	608	603	532	569	444	696	709
Females 18 to 44 years, inclusive.....	13,463	728	611	468	653	557	645	547	831	746
ILLITERACY.										
Total 10 years of age and over.....	49,748	2,673	2,229	1,791	2,336	2,025	2,251	1,875	2,958	2,702
Number illiterate.....	1,282	71	70	27	37	3	26	5	11	37
Native white.....	37,996	1,982	1,790	1,412	1,842	1,515	1,771	1,554	2,440	2,222
Number illiterate.....	199	8	7	1	8		2	1	2	11
Foreign-born white.....	11,435	685	420	359	479	487	465	262	510	466
Number illiterate.....	1,069	63	63	26	29	3	23	3	9	25
Negro.....	282	6	18	6	15	23	15	58	8	12
Number illiterate.....	7						1	1		1
Total 16 to 20 years, inclusive.....	5,472	204	251	196	211	206	229	169	313	282
Number illiterate.....	21	1	5		1		2			
Illiterate males 21 years of age and over.....	618	36	36	21	14		7		2	19
Native white.....	112	4	2		4					5
Foreign-born white.....	498	32	34	21	10		7		2	13
Negro.....	8									1
Illiterate females 21 years of age and over.....	625	31	28	6	22	3	17	5	9	18
Native white.....	66	4	4	1	3			1	2	6
Foreign-born white.....	552	27	24	5	19	3	16	3	7	12
Negro.....	4						1	1		
DWELLINGS AND FAMILIES.										
Dwellings, number.....	14,035	774	517	380	692	645	687	450	782	817
Families, number.....	14,906	817	644	493	745	658	713	520	821	858
COUNTRY OF BIRTH OF FOREIGN-BORN WHITE.										
Austria.....	298	11	7	9	6	3	12	6	6	4
Belgium.....	52		1					2		1
Canada—French.....	510	18	8	16	8	4	6	8	42	28
Canada—Other.....	2,840	239	180	119	152	75	73	111	258	221
Czechoslovakia.....	140	3	1	1	10	85	2	3	5	1
Denmark.....	61	2	3	1	12	1	1	5	4	3
England.....	600	40	31	17	21	13	21	13	35	46
France.....	119		3	5	7	1	2	4	3	9
Germany.....	3,195	99	34	74	180	254	303	42	83	81
Greece.....	53		6	22			1	4	7	1
Hungary.....	206	28	1	11	9	2	1	4	2	
Ireland.....	195	33	8	7	10	6	1	3	18	15
Italy.....	395	51	58	17	25	3	2	9	6	7
Lithuania.....	144									
Mexico.....	98	43	36	2				17		
Poland.....	917	41	5	16	2	18	17	5	7	8
Russia.....	1,082	55	3	7	14	8	8	11	11	9
Scotland.....	339		29	10	12	7	10	7	16	28
Sweden.....	88	4	8	5	5	3	1	2	2	1
All other countries.....	273	41	16	22	11	5	4	9	14	8

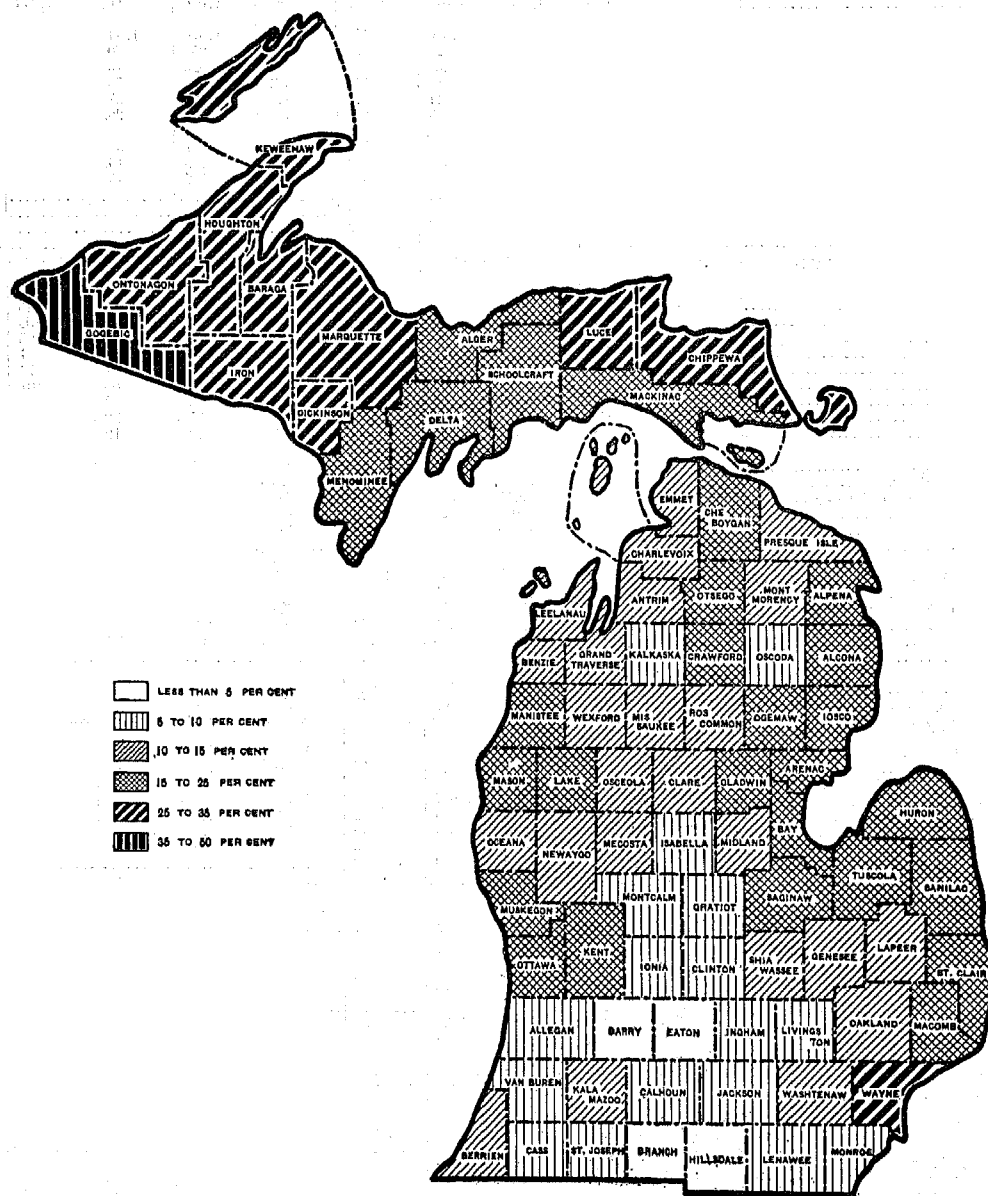
## COMPOSITION AND CHARACTERISTICS.

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TABLE 13.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, FOR WARDS OF CITIES OF 50,000 OR MORE: 1920—Continued.

SUBJECT.	SAGINAW—Continued.										
	WARD.										
	10	11	12	13	14	15	16	17	18	19	20
<b>COLOR OR RACE, NATIVITY, AND SEX.</b>											
Total population.....	3,201	3,335	3,320	3,357	4,903	2,067	2,192	1,733	2,348	6,176	4,137
Male.....	1,607	1,690	1,747	1,679	2,361	1,002	1,116	898	1,175	3,220	2,083
Female.....	1,594	1,645	1,573	1,678	2,542	1,065	1,076	835	1,171	2,956	2,054
Native white.....	2,561	2,574	2,573	2,676	4,119	1,750	1,870	1,414	1,883	4,560	3,212
Male.....	1,272	1,278	1,327	1,320	1,003	858	950	708	936	2,365	1,614
Female.....	1,289	1,296	1,246	1,356	2,116	892	920	708	947	2,195	1,598
Native white—Native parentage.....	1,235	1,112	1,252	1,282	2,142	942	1,092	754	946	2,184	1,401
Native white—Foreign parentage.....	834	960	875	911	1,128	426	423	378	605	1,587	1,147
Native white—Mixed parentage.....	492	512	446	483	849	382	355	282	332	859	664
Foreign-born white.....	563	761	732	647	753	317	321	319	463	1,607	923
Male.....	301	412	412	343	379	144	165	162	239	851	488
Female.....	262	349	320	304	374	173	156	157	224	756	455
Negro.....	77	13	13	12	31	.....	.....	.....	.....	9	2
Male.....	34	7	7	5	19	.....	.....	.....	.....	4	1
Female.....	43	6	6	7	12	.....	.....	.....	.....	5	1
Indian and Chinese.....	.....	.....	2	22	.....	.....	1	.....	.....	.....	.....
<b>AGE, SCHOOL ATTENDANCE, AND CITIZENSHIP.</b>											
Total under 7 years of age.....	454	614	552	550	685	252	190	207	345	1,103	603
Total 7 to 13 years, inclusive.....	426	523	536	491	585	281	214	178	303	1,010	598
Number attending school.....	415	508	517	442	568	278	203	171	285	977	562
Total 14 and 15 years.....	104	131	128	110	145	68	71	53	81	214	150
Number attending school.....	88	119	102	90	128	61	66	51	74	198	138
Total 16 and 17 years.....	126	128	135	112	165	72	40	33	101	240	150
Number attending school.....	30	49	19	26	72	24	40	32	41	55	41
Total 18 to 20 years, inclusive.....	185	166	173	147	252	96	137	92	114	391	202
Number attending school.....	14	8	10	6	19	13	20	12	10	11	12
Males 21 years of age and over.....	935	925	963	1,001	1,494	620	783	586	681	1,719	1,197
Native white—Native parentage.....	280	253	285	285	503	220	337	209	200	461	235
Native white—Foreign or mixed parentage.....	354	293	292	363	614	261	293	222	274	582	529
Foreign-born white.....	282	379	380	322	361	139	182	155	207	674	432
Naturalized.....	184	187	156	105	279	108	109	102	113	306	282
Negro.....	19	.....	5	3	16	.....	.....	.....	.....	2	1
Females 21 years of age and over.....	972	858	833	946	1,577	685	745	552	721	1,490	1,219
Native white—Native parentage.....	269	239	258	245	507	231	303	166	199	369	243
Native white—Foreign or mixed parentage.....	439	298	274	422	706	289	293	244	324	530	552
Foreign-born white.....	251	321	296	271	353	135	149	142	198	587	423
Naturalized.....	184	180	129	145	265	131	94	99	110	279	282
Negro.....	23	.....	5	2	11	.....	.....	.....	.....	4	1
Males 18 to 44 years, inclusive.....	679	670	702	722	1,025	433	515	385	441	1,300	861
Females 18 to 44 years, inclusive.....	713	644	604	709	1,175	476	486	354	500	1,145	871
<b>ILLITERACY.</b>											
Total 10 years of age and over.....	2,554	2,490	2,529	2,569	3,953	1,695	1,902	1,443	1,874	4,624	3,275
Number illiterate.....	36	303	205	64	57	38	1	18	8	230	35
Native white.....	1,937	1,732	1,796	1,907	3,174	1,380	1,580	1,125	1,418	3,058	2,361
Number illiterate.....	9	24	38	9	12	19	.....	6	1	34	7
Foreign-born white.....	558	758	720	638	749	315	321	318	456	1,567	912
Number illiterate.....	25	279	106	48	45	19	1	12	7	195	28
Negro.....	59	.....	12	9	30	.....	.....	.....	.....	9	2
Number illiterate.....	2	.....	1	.....	.....	.....	.....	.....	.....	1	.....
Total 16 to 20 years, inclusive.....	310	234	308	259	417	161	209	157	215	640	361
Number illiterate.....	.....	4	1	1	1	.....	.....	1	.....	4	.....
Illiterate males 21 years of age and over.....	16	161	99	27	27	16	1	7	2	112	13
Native white.....	7	15	26	5	8	10	.....	1	.....	22	3
Foreign-born white.....	7	146	73	19	19	6	1	6	2	90	10
Negro.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Illiterate females 21 years of age and over.....	19	138	102	33	28	20	.....	9	5	111	21
Native white.....	1	6	9	4	2	7	.....	3	.....	10	3
Foreign-born white.....	18	132	92	26	26	13	.....	6	5	100	18
Negro.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....
<b>DWELLINGS AND FAMILIES.</b>											
Dwellings, number.....	747	720	701	773	1,190	493	487	406	542	1,274	953
Families, number.....	782	741	735	809	1,214	521	546	429	550	1,331	973
<b>COUNTRY OF BIRTH OF FOREIGN-BORN WHITE.</b>											
Austria.....	41	9	8	42	5	3	8	2	8	78	30
Belgium.....	.....	.....	1	.....	5	.....	2	1	1	8	30
Canada—French.....	6	61	49	26	66	26	9	14	4	93	18
Canada—Other.....	95	136	121	96	239	114	126	95	111	170	100
Czechoslovakia.....	1	2	.....	7	6	7	1	.....	.....	1	2
Denmark.....	1	.....	.....	.....	9	.....	2	5	2	1	9
England.....	57	41	13	16	55	12	29	5	29	97	9
France.....	2	5	8	1	.....	2	3	.....	.....	15	49
Germany.....	193	88	60	258	220	83	99	114	132	293	496
Greece.....	2	1	.....	.....	7	.....	.....	.....	.....	1	1
Hungary.....	1	.....	11	19	6	2	1	.....	5	98	5
Ireland.....	2	5	10	8	17	10	9	9	11	11	6
Italy.....	4	19	39	86	9	.....	7	9	22	18	4
Lithuania.....	.....	26	118	.....	.....	.....	.....	.....	.....	.....	.....
Mexico.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Poland.....	120	311	224	.....	22	12	5	11	2	31	60
Russia.....	5	35	28	66	21	8	6	48	103	572	61
Scotland.....	13	18	22	7	34	25	9	2	15	60	18
Sweden.....	2	.....	3	6	15	4	2	1	7	14	3
All other countries.....	18	4	8	9	17	9	3	5	11	46	13

PER CENT OF FOREIGN-BORN WHITE IN TOTAL POPULATION, BY COUNTIES: 1920.



## COMPOSITION AND CHARACTERISTICS.

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TABLE 14.—AGE, BY QUINQUENNIAL PERIODS, WITH SINGLE YEARS FOR PERSONS UNDER 25, FOR THE STATE: 1920.

AGE.	ALL CLASSES: 1920		NATIVE WHITE: 1920						FOREIGN-BORN WHITE: 1920		NEGRO: 1920		INDIAN, CHINESE, JAPANESE, AND ALL OTHER: 1920	
			Native parentage.		Foreign parentage.		Mixed parentage.							
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
All ages, number.....	1,928,436	1,739,976	866,769	803,678	394,176	381,112	215,514	213,743	413,806	312,829	34,249	25,833	3,922	2,781
Under 5 years.....	205,128	199,458	118,991	115,348	54,633	52,953	27,662	27,219	1,447	1,447	2,030	2,111	365	380
Under 1 year.....	38,885	38,401	23,304	22,087	9,629	9,455	5,316	5,222	140	151	413	510	83	76
5 to 9 years.....	186,679	181,541	102,396	98,695	49,183	48,474	27,626	26,837	5,302	5,211	1,806	1,942	366	382
10 to 14 years.....	165,513	160,940	88,091	85,453	39,121	38,330	27,054	26,237	9,278	8,955	1,671	1,685	298	300
15 to 19 years.....	149,583	145,931	75,544	73,662	34,362	33,962	24,439	23,526	12,788	12,595	2,144	1,952	306	234
20 to 24 years.....	164,145	152,148	77,105	70,870	35,993	34,828	20,686	20,484	25,142	21,980	4,831	3,777	388	200
25 to 29 years.....	186,520	160,044	75,920	67,149	37,363	36,543	18,708	19,460	48,737	32,554	5,413	4,127	379	211
30 to 34 years.....	169,090	141,050	63,225	56,535	31,260	30,682	15,228	16,431	54,825	34,342	4,237	2,899	315	161
35 to 39 years.....	155,004	124,442	55,796	48,781	25,990	24,923	13,554	14,193	55,038	33,932	4,307	2,450	319	163
40 to 44 years.....	119,548	102,778	44,348	39,499	20,782	20,429	10,713	11,195	41,002	30,016	2,471	1,504	232	135
45 to 49 years.....	107,785	88,507	39,678	33,766	19,914	18,191	9,173	8,745	36,537	26,579	2,251	1,095	232	131
50 to 54 years.....	88,188	76,470	32,543	28,753	15,490	14,312	6,942	6,575	31,816	25,926	1,221	797	176	107
55 to 59 years.....	70,459	62,207	25,836	23,075	11,796	10,787	4,847	4,556	27,134	23,185	663	512	183	92
60 to 64 years.....	59,297	51,253	23,218	20,314	9,305	8,506	3,711	3,514	22,514	18,483	427	352	122	84
65 to 69 years.....	42,291	36,955	17,731	15,627	4,909	4,392	2,419	2,119	16,849	14,499	297	252	86	66
70 to 74 years.....	28,026	25,700	12,222	11,532	2,216	1,989	1,425	1,364	11,926	10,593	177	174	60	48
75 to 79 years.....	17,430	16,826	7,760	7,881	1,099	1,075	796	769	7,615	6,980	123	96	37	25
80 to 84 years.....	7,757	8,185	3,425	3,929	410	428	312	317	3,528	3,446	50	47	32	18
85 to 89 years.....	2,912	3,203	1,249	1,523	114	132	109	109	1,408	1,397	22	24	10	18
90 to 94 years.....	609	741	258	329	17	21	19	21	306	353	8	7	1	10
95 to 99 years.....	131	150	49	60	10	5	7	1	63	78	1	4	1	2
100 years and over.....	28	28	6	7	1	1	1	2	14	12	4	4	2	3
Age unknown.....	2,313	1,419	1,378	890	208	150	83	69	537	266	95	42	12	2
All ages, per cent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 5 years.....	10.6	11.5	13.7	14.4	13.9	13.9	12.8	12.7	0.3	0.5	5.9	8.2	9.3	13.7
Under 1 year.....	2.0	2.2	2.7	2.9	2.4	2.5	2.5	2.4	(1)	(1)	1.2	2.0	2.1	2.7
5 to 9 years.....	9.7	10.4	11.8	12.3	12.5	12.7	12.8	12.6	1.3	1.7	5.3	7.5	9.8	13.7
10 to 14 years.....	8.6	9.2	10.2	10.6	9.9	10.1	12.6	12.3	2.2	2.9	4.9	6.4	7.6	10.8
15 to 19 years.....	7.8	8.4	8.7	9.2	8.7	8.9	11.3	11.0	3.1	4.0	6.3	7.6	7.8	8.4
20 to 24 years.....	8.5	8.7	8.9	8.8	9.1	9.1	9.6	9.6	6.1	7.0	14.1	14.6	9.9	7.5
25 to 29 years.....	9.7	9.2	8.8	8.4	9.5	9.6	8.7	9.1	11.8	10.4	15.8	16.0	9.7	7.6
30 to 34 years.....	8.8	8.1	7.3	7.0	7.9	8.1	7.1	7.7	13.2	11.0	12.4	11.2	8.0	5.8
35 to 39 years.....	8.0	7.2	6.4	6.1	6.6	6.5	6.3	6.6	13.3	10.8	12.6	9.5	8.1	5.9
40 to 44 years.....	6.2	5.9	5.1	4.9	5.3	5.4	5.0	5.2	9.9	8.6	7.2	5.8	5.9	4.9
45 to 49 years.....	5.6	5.1	4.6	4.2	5.1	4.8	4.3	4.1	8.8	8.5	6.6	4.2	5.9	4.7
50 to 54 years.....	4.6	4.4	3.8	3.6	3.9	3.8	3.2	3.1	7.7	8.3	3.6	3.1	4.5	3.8
55 to 59 years.....	3.7	3.6	3.0	2.9	3.0	2.8	2.2	2.1	6.6	7.4	1.9	2.0	4.7	3.3
60 to 64 years.....	3.1	2.9	2.7	2.5	2.4	2.2	1.7	1.6	5.4	5.9	1.2	1.4	3.1	3.0
65 to 74 years.....	3.6	3.6	3.5	3.4	1.8	1.7	1.8	1.6	7.0	8.0	1.4	1.6	3.7	4.1
75 to 84 years.....	1.3	1.4	1.3	1.5	0.4	0.4	0.5	0.5	2.7	3.3	0.5	0.6	1.8	1.5
85 to 94 years.....	0.2	0.2	0.2	0.2	(1)	(1)	0.1	0.1	0.4	0.6	0.1	0.1	0.3	1.0
95 years and over.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	0.1	0.2
Age unknown.....	0.1	0.1	0.2	0.1	0.1	(1)	(1)	(1)	0.1	0.1	0.3	0.2	0.3	0.1
Year of age (1-24).....														
1 year.....	42,534	41,004	25,464	24,389	10,586	10,279	5,715	5,603	237	239	457	423	75	71
2 years.....	41,976	40,655	24,151	23,343	11,558	10,996	5,568	5,560	259	269	370	406	70	75
3 years.....	41,899	40,698	23,692	22,880	11,776	11,353	5,606	5,559	351	344	402	383	72	79
4 years.....	39,534	38,800	22,380	21,749	11,084	10,870	5,457	5,269	460	444	388	389	65	79
5 years.....	39,928	38,222	22,022	20,901	11,318	11,079	5,489	5,221	682	580	352	367	85	74
6 years.....	38,687	37,809	21,326	20,999	10,452	10,348	5,640	5,435	829	820	368	419	72	88
7 years.....	37,637	36,270	20,593	19,773	9,799	9,419	5,539	5,465	1,111	1,130	370	404	75	79
8 years.....	35,984	35,477	19,688	19,163	9,083	9,064	5,497	5,450	1,282	1,334	382	372	72	64
9 years.....	34,543	33,763	18,767	18,169	8,531	8,534	5,411	5,266	1,438	1,347	384	380	62	77
10 years.....	34,390	33,734	18,361	18,018	8,446	8,304	5,431	5,337	1,730	1,651	352	355	70	69
11 years.....	33,188	32,742	17,976	17,498	7,726	7,581	5,390	5,299	1,716	1,681	319	354	56	49
12 years.....	34,671	33,211	18,309	17,510	8,415	8,111	5,632	5,321	1,889	1,875	371	331	55	63
13 years.....	31,694	30,877	16,693	16,358	7,250	7,102	5,288	5,146	1,983	1,905	326	305	56	61
14 years.....	31,675	30,376	16,752	16,069	7,284	6,932	5,315	5,134	1,960	1,863	303	320	61	68
15 years.....	28,981	28,779	15,044	15,004	6,648	6,580	5,019	4,927	1,953	1,931	269	287	48	50
16 years.....	30,585	30,314	15,471	15,215	7,216	7,159	5,172	4,998	2,354	2,571	310	341	62	30
17 years.....	29,746	28,778	14,958	14,344	6,750	6,901	5,022	4,664	2,577	2,462	332	360	57	47
18 years.....	30,209	29,534	14,958	14,895	6,992	6,785	4,713	4,562	2,981	2,785	495	461	70	46
19 years.....	30,662	28,526	15,113	14,204	6,756	6,537	4,513	4,375	2,923	2,846	688	503	69	61
20 years.....	29,375	28,828	14,555	14,027	6,605	6,612	4,260	4,228	3,183	3,269	711	643	61	49
21 years.....	32,295	28,630	16,037	13,920	7,218	6,548	4,274	4,053	3,748	3,443	951	628	67	40
22 years.....	32,673	30,497	16,646	14,167	7,257	7,027	4,087	4,115	4,887	4,402	1,001	748	95	38
23 years.....	33,779	32,066	15,294	14,615	7,433	7,245	4,011	4,119	5,892	5,172	1,082	877	87	38
24 years.....	35,723	32,127	16,573	14,141	7,480	7,396	4,064	3,969	7,432	5,694	1,106	883	78	44

1 Less than one-tenth of 1 per cent.



# POPULATION—MICHIGAN.

TABLE 15.—MARITAL CONDITION OF THE POPULATION 15 YEARS OF AGE AND OVER, FOR THE STATE: 1920, 1910,  
AND 1900.

[Per cent not shown where base is less than 100.]

CENSUS YEAR, CLASS OF POPULATION, AND AGE PERIOD.	MALES 15 YEARS OF AGE AND OVER.							FEMALES 15 YEARS OF AGE AND OVER.									
	Total.	Single.		Married.		Widowed.		Divorced.	Total.	Single.		Married.		Widowed.		Divorced.	
		Num-ber.	Per- cent.	Num-ber.	Per- cent.	Num-ber.	Per- cent.			Num-ber.	Per- cent.	Num-ber.	Per- cent.	Num-ber.	Per- cent.		
1920																	
All classes—15 years and over.	1,371,116	474,065	34.6	820,071	59.8	62,418	4.6	12,358	1,198,037	285,297	23.8	782,648	65.3	118,412	9.9	10,768	
15 to 19 years.	149,533	147,179	98.4	2,216	1.5	29	2	16	145,931	129,180	88.5	16,358	11.2	154	0.1	148	
20 to 24 years.	164,145	120,580	73.4	42,393	25.8	452	0.3	451	152,148	64,818	42.6	85,187	56.0	1,055	0.7	937	
25 to 34 years.	355,610	121,399	34.1	227,087	63.9	4,066	1.1	2,680	301,094	48,485	16.1	243,480	80.9	5,937	2.0	3,042	
35 to 44 years.	274,552	44,857	16.3	218,641	79.6	7,331	2.7	3,449	227,220	20,493	9.0	182,706	84.8	10,980	4.8	2,934	
45 to 54 years.	195,973	22,306	11.4	159,944	81.6	10,559	5.4	2,940	164,977	11,806	7.2	131,716	79.8	19,294	11.7	2,072	
55 to 64 years.	129,756	11,146	8.6	103,318	79.6	13,349	10.3	1,799	113,460	6,205	5.5	76,944	67.8	29,090	25.6	1,145	
65 years and over.	99,184	5,817	5.9	65,700	66.2	26,502	26.7	994	91,788	3,885	4.2	35,603	38.8	51,736	56.4	464	
Age unknown.	2,313	831	35.9	772	33.4	130	5.6	29	1,419	445	31.4	853	46.1	166	11.7	26	
Native white—Native parentage:																	
15 years and over.	557,291	190,421	35.2	327,860	58.8	25,320	4.5	6,630	504,182	130,517	25.9	319,367	63.3	48,105	9.5	5,789	
15 to 19 years.	75,544	73,991	97.9	1,467	1.9	19	0.0	8	73,062	64,343	87.3	9,094	12.3	84	0.1	97	
20 to 24 years.	77,105	53,433	69.3	22,909	29.8	247	0.3	288	70,870	29,301	41.3	40,423	57.0	519	0.7	580	
25 to 34 years.	139,145	40,529	29.1	95,267	68.5	1,744	1.3	1,482	123,684	20,054	16.2	99,425	80.4	2,457	2.0	1,694	
35 to 44 years.	100,144	14,057	14.0	81,314	81.2	2,852	2.8	1,844	88,280	7,225	8.9	74,728	84.6	4,185	4.7	1,516	
45 to 54 years.	72,221	7,569	10.5	59,871	81.8	3,983	5.5	1,512	62,519	4,872	6.8	50,309	80.5	6,836	10.9	1,069	
55 to 64 years.	49,054	3,905	8.1	38,956	79.4	5,119	10.4	931	43,389	2,473	5.7	29,547	68.1	10,770	24.8	568	
65 years and over.	42,700	2,437	5.7	28,346	66.4	11,289	26.5	545	40,888	1,981	4.8	15,440	37.8	23,152	56.6	262	
Native white—For. or mixed par-:																	
15 years and over.	384,411	164,553	42.8	204,809	53.3	11,664	3.0	2,979	374,805	120,550	32.2	226,386	60.4	24,725	6.6	2,894	
15 to 19 years.	58,801	58,224	99.0	515	0.9	3	0.0	5	57,488	52,980	92.2	4,394	7.6	43	0.1	36	
20 to 24 years.	56,679	44,536	78.6	11,813	20.8	122	0.2	105	55,312	28,764	52.0	25,908	46.8	329	0.6	237	
25 to 34 years.	102,550	37,337	36.4	63,331	61.8	1,033	1.1	708	103,116	22,008	21.3	78,310	75.9	1,856	1.8	883	
35 to 44 years.	71,039	13,017	18.3	55,402	78.0	1,722	2.4	847	70,740	8,675	12.3	57,872	81.8	3,316	4.7	846	
45 to 54 years.	51,519	7,093	13.8	41,081	79.7	2,549	4.9	748	47,823	4,935	10.3	36,888	77.1	5,421	11.3	566	
55 to 64 years.	26,659	3,137	10.6	23,195	78.2	2,894	9.8	412	27,363	2,298	8.4	17,799	65.0	6,999	25.6	255	
65 years and over.	13,894	1,055	7.6	9,379	67.7	3,262	23.5	151	12,744	794	6.2	5,126	40.2	6,744	52.9	74	
Native white—Foreign parentage:																	
15 years and over.	251,239	105,885	42.1	135,410	53.9	7,816	3.1	1,852	241,355	75,532	31.3	147,447	61.1	10,497	6.8	1,709	
15 to 19 years.	34,362	34,061	99.1	256	0.7	3	0.0	2	33,962	31,376	92.4	2,536	7.5	15	0.0	12	
20 to 24 years.	35,923	23,708	79.8	7,091	19.7	71	0.2	56	34,848	18,072	51.9	16,385	47.0	188	0.5	129	
25 to 34 years.	68,623	25,771	37.6	41,683	60.7	689	1.0	517	67,225	14,309	21.3	51,131	76.1	1,173	1.7	528	
35 to 44 years.	46,772	8,983	19.2	39,093	77.2	1,153	2.5	508	45,352	5,896	12.9	36,869	81.3	2,122	4.7	476	
45 to 54 years.	35,404	5,123	14.5	27,978	79.0	1,780	5.0	492	32,503	3,520	10.8	24,878	76.5	3,739	11.5	347	
55 to 64 years.	21,101	2,386	11.3	16,362	77.5	2,056	9.7	282	19,203	1,768	9.1	12,324	63.9	5,035	26.1	169	
65 years and over.	8,776	740	8.4	5,831	67.0	2,053	23.4	92	8,042	562	7.0	3,218	40.0	4,214	52.4	42	
Native white—Mixed parentage:																	
15 years and over.	133,172	58,668	44.1	69,399	52.1	3,848	2.9	1,127	133,450	45,018	33.7	78,939	59.2	8,228	6.2	1,185	
15 to 19 years.	24,439	24,193	98.9	259	1.1	1	0.0	3	23,526	21,605	91.8	1,858	7.9	28	0.1	24	
20 to 24 years.	20,630	15,822	76.5	4,722	22.8	51	0.2	49	20,484	10,692	52.2	9,522	46.5	141	0.7	108	
25 to 34 years.	33,936	11,536	34.1	21,648	63.8	404	1.2	291	35,891	7,699	21.5	27,139	75.6	683	1.9	355	
35 to 44 years.	24,267	4,034	16.6	19,300	61.3	569	2.3	339	25,388	2,801	11.1	21,003	82.7	1,194	4.7	370	
45 to 54 years.	16,115	1,970	12.2	13,103	61.3	768	4.8	256	15,320	1,415	9.2	12,011	78.4	1,682	11.0	209	
55 to 64 years.	8,558	751	8.8	6,833	79.8	838	9.8	130	8,070	540	6.7	5,475	67.8	1,964	24.3	86	
65 years and over.	5,088	315	6.2	3,498	68.8	1,209	23.8	59	4,702	232	4.9	1,908	40.6	2,530	53.8	32	
Foreign-born white:																	
15 years and over.	397,779	100,966	25.4	269,723	67.3	24,034	6.0	2,378	297,216	30,798	10.4	221,204	74.4	43,181	14.5	1,806	
15 to 19 years.	12,788	12,605	98.6	155	1.2	7	0.1	2	12,595	10,341	82.1	2,214	17.6	10	0.2	12	
20 to 24 years.	25,142	19,076	75.9	5,903	23.5	62	0.2	36	21,080	5,922	28.9	15,821	72.0	131	0.6	84	
25 to 34 years.	103,562	39,804	38.4	62,177	60.0	1,051	1.0	377	66,896	5,739	8.6	59,455	88.9	1,308	2.0	364	
35 to 44 years.	96,040	16,129	16.8	76,714	79.9	2,427	2.5	645	63,948	3,773	5.9	56,661	88.6	2,970	4.6	496	
45 to 54 years.	68,353	7,044	10.3	59,927	83.3	3,679	5.4	604	52,505	2,491	4.7	43,060	82.0	6,519	12.4	408	
55 to 64 years.	49,648	3,835	7.7	40,189	80.9	5,131	10.3	425	41,668	1,392	3.3	29,053	69.7	10,885	26.1	305	
65 years and over.	41,709	2,246	5.4	27,460	65.8	11,637	27.9	287	37,358	1,066	2.9	14,800	39.6	21,311	57.0	133	
Negro:																	
15 years and over.	28,742	10,787	37.5	16,350	56.9	1,197	4.2	350	20,115	3,056	15.2	14,622	72.7	2,144	10.7	265	
15 to 19 years.	2,144	2,054	95.8	88	4.1	1	0.0	1	1,952	1,313	67.3	625	32.0	8	0.4	3	
20 to 24 years.	4,831	3,192	65.5	1,615	33.4	20	0.4	22	3,777	759	20.1	2,906	76.9	70	1.9	35	
25 to 34 years.	9,650	3,353	34.7	6,016	62.3	163	1.7	108	7,026	634	9.0	5,984	85.2	304	4.3	97	
35 to 44 years.	6,778	1,466	22.1	4,849	71.5	306	4.5	109	3,854	198	5.0	3,192	80.7	489	12.4	73	
45 to 54 years.	3,472	497	14.3	2,583	74.4	315	9.1	70	1,892	92	4.9	1,286	68.0	472	24.9	36	
55 to 64 years.	1,090	131	12.0	769	70.6	164	15.0	26	864	32	3.7	434	50.2	384	44.4	14	
65 years and over.	682	62	9.1	385	56.5	225	33.0	10	608	21	3.5	171	28.1	410	67.4	5	
Indian—15 years and over.																	
Chinese—15 years and over.	1,963	767	39.1	989	50.4	184	9.4	14	1,649	358	21.7	1,028	62.0	252	15.3	13	
Japanese—15 years and over.	684	380	55.6	289	42.3	9	1.3	4	52	13	3	33	5	1	1	1	
All other—15 years and over.	152	114	75.0	34	22.4	1	0.7	3	15	4	1	11	1	1	1	1	
94	77	17	18.2	17	18.2	1	0.7	3	3	1	1	2	1	1	1	1	
1910																	
All classes—15 years and over.	1,033,089	373,079	36.1	602,102	58.3	47,409	4.6	7,479	944,683	256,062	27.1	587,253	62.2	92,424	9.8	7,504	
Native white:																	
Native parentage.	408,213	142,417	34.9	240,128	58.8	19,895	4.9	4,102	389,159	104,583	26.9	239,877	61.6	40,003	10.3	4,024	
Foreign or mixed parentage.	295,782	145,641	49.4	140,801	47.6	7,138	2.4	1,637	299,472	118,941	39.7	162,988	54.4	15,103	5.0	1,976	
Foreign-born white.	319,129	81,185	25.2	215,989	67.7	19,636	6.2	1,694	247,577	30,475	12.3	179,422	72.5	36,030	14.6	1,370	
Negro.	7,087	2,610	36.8	3,794	53.5	498	7.0	130	6,194	1,620	24.5	3,575	57.7	988	15.6	114	
Indian.	2,603	1,040	40.0	1,295	49.8	240	9.2	16	2,272	540	23.8	1,387	61.0	318	14.0	20	
Chinese.	239	180	60.9	77	32.2	1	0.4	1	6	2	2	2	2	2	2	2	
Japanese.	35	25	71.4	9	25.7	1	2.9	1	2	2	2	2	2	2	2	2	
All other.	1	1	100.0	1	100.0	1	100.0	1	1	1	1	1	1	1	1	1	
1900																	
All classes—15 years and over.	858,170	319,587	37.2	492,362	57.4	39,312	4.6	4,373	790,478	221,046	28.0	487,297	61.6	76,334	9.7	4,842	
Native white:																	
Native parentage.	346,972	122,264	35.2	203,408	58.6	17,320	5.0	2,519	332,193	88,346	26.6	205,149	61.8	35,405	10.7	2,787	
Foreign or mixed parentage.	221,477	118,916	53.7	96,620	43.6	4,863	2.2	788	219,657	94,214	42.9	114,481	52.0	9,764	4.4	1,063	
Foreign-born white.	281,149																

<sup>1</sup> Total includes persons whose marital condition was not reported.

<sup>2</sup> Less than one-tenth of 1 per cent.

\* Totals include persons of unknown age.

## COMPOSITION AND CHARACTERISTICS.

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TABLE 16.—TOTAL, WHITE, AND COLORED POPULATION, WITH STATE OF BIRTH FOR NATIVES, FOR THE STATE: 1920.

NATIVITY AND STATE OF BIRTH.	All classes: 1920	White: 1920	Colored: <sup>1</sup> 1920	PER CENT DISTRIBUTION OF TOTAL.						PER CENT DIS- TRIBUTION OF NATIVE WHITE.	
				All classes.		White.		Colored.			
				1920	1910	1920	1910	1920	1910	1920	1910
				.....	.....	.....	.....	.....	.....	.....	.....
Total Population.....	3,668,412	3,601,627	66,785	100.0	100.0	100.0	100.0	100.0	100.0	.....	.....
Native.....	2,039,120	2,874,992	64,128	80.1	78.7	79.8	78.0	96.0	91.9	100.0	100.0
Born in—											
Michigan.....	2,223,333	2,207,704	15,629	60.6	62.7	61.3	62.7	23.4	61.5	76.8	79.7
Ohio.....	143,520	140,550	2,970	3.9	3.9	3.9	3.9	4.4	5.4	4.9	5.0
New York.....	113,676	113,078	498	3.1	4.2	3.1	4.2	0.7	1.2	3.9	5.3
Indiana.....	74,937	73,619	1,418	2.0	1.6	2.0	1.6	2.1	3.2	2.6	2.0
Illinois.....	71,826	70,470	1,356	2.0	1.2	2.0	1.2	2.0	1.1	2.5	1.5
Pennsylvania.....	62,635	61,730	905	1.7	1.2	1.7	1.2	1.4	1.2	2.1	1.5
Wisconsin.....	37,304	37,153	151	1.0	0.9	1.0	0.9	0.2	0.5	1.3	1.2
Kentucky.....	18,181	14,534	3,647	0.5	0.2	0.4	0.2	5.5	3.1	0.5	0.2
Missouri.....	16,251	15,032	1,219	0.4	0.2	0.4	0.2	1.8	0.6	0.5	0.2
Massachusetts.....	13,836	13,721	115	0.4	0.2	0.4	0.2	0.2	0.2	0.5	0.3
Tennessee.....	12,124	7,105	5,019	0.3	0.1	0.2	(2)	7.5	1.3	0.2	0.1
Iowa.....	11,532	11,367	165	0.3	0.2	0.3	0.2	0.2	0.1	0.4	0.3
Minnesota.....	10,162	10,093	69	0.3	0.2	0.3	0.2	0.1	0.1	0.4	0.2
Georgia.....	9,802	1,867	7,935	0.3	(2)	0.1	(2)	11.9	0.6	0.1	(2)
Alabama.....	9,316	1,917	7,399	0.3	(2)	0.1	(2)	11.1	0.5	0.1	(2)
New Jersey.....	8,243	8,140	103	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
Virginia.....	6,801	4,750	2,051	0.2	0.1	0.1	0.1	3.1	2.4	0.2	0.1
Kansas.....	6,085	5,826	259	0.2	0.1	0.2	0.1	0.4	0.2	0.2	0.2
Maryland.....	5,512	5,148	364	0.2	0.1	0.1	0.1	0.5	0.4	0.2	0.1
Connecticut.....	5,084	5,033	51	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Other states.....	60,688	49,226	11,412	1.7	0.9	1.4	0.9	17.1	3.9	1.7	1.1
Other native <sup>2</sup> .....	18,422	17,029	1,393	0.5	0.5	0.5	0.5	2.1	4.0	0.6	0.6
Foreign born.....	729,292	726,635	2,657	19.9	21.3	20.2	21.4	4.0	8.1	.....	.....

<sup>1</sup> Comprises persons of Negro descent, Indians, Chinese, Japanese, and all other; see Table 1.<sup>2</sup> Less than one-tenth of 1 per cent.<sup>3</sup> Comprises persons born in the United States, state of birth not reported; persons born in outlying possessions, or at sea under United States flag; and persons of foreign birth whose parents were American citizens temporarily absent from the United States.

TABLE 17.—COUNTRY OF BIRTH OF THE FOREIGN-BORN POPULATION, WITH CITIZENSHIP OF THE FOREIGN-BORN WHITE, FOR THE STATE: 1920.

(See also Tables 5, 6, and 12.)

COUNTRY OF BIRTH.	TOTAL FOREIGN BORN.				FOREIGN-BORN WHITE.						FOREIGN-BORN WHITE 21 YEARS OF AGE AND OVER.		
	Both sexes.		Male.	Female.	Total.	Naturalized.		Having first papers.	Alien.	Citi- zen- ship not reported.	Total.	Naturalized.	
	Number.	Per cent distrib- ution.				Number.	Per cent.					Number.	Per cent.
<b>Total</b> .....	729,292	100.0	415,539	313,753	726,635	344,909	47.5	92,830	249,044	39,852	663,160	330,958	49.9
<b>Canada</b> .....	165,902	22.7	83,079	82,223	164,502	102,351	62.2	12,431	37,302	12,418	149,320	98,631	66.1
<b>French</b> .....	18,635	2.6	10,522	8,113	18,635	12,078	64.8	1,723	5,435	1,399	17,670	11,791	66.7
<b>Poland</b> .....	103,928	14.3	63,040	40,886	103,928	23,755	22.9	18,931	59,330	2,310	94,668	22,719	23.9
<b>Germany</b> .....	86,047	11.8	44,549	41,498	86,047	59,390	69.0	8,498	12,860	5,793	83,891	58,828	70.1
<b>England</b> .....	47,185	6.5	26,314	20,871	47,149	26,822	56.9	5,391	11,394	3,542	42,736	25,447	59.5
<b>Russia</b> .....	45,313	6.2	28,255	17,058	45,313	12,232	27.0	7,185	24,507	1,389	38,783	10,939	28.2
<b>Netherlands</b> .....	33,499	4.6	18,262	15,237	33,499	19,575	58.4	3,228	8,377	2,319	30,411	18,913	62.2
<b>Italy</b> .....	30,216	4.1	19,815	10,401	30,216	9,040	29.9	4,766	15,485	925	26,266	8,340	31.8
<b>Finland</b> .....	30,096	4.1	17,394	12,702	30,096	15,493	51.5	3,283	10,061	1,484	24,037	17,740	73.8
<b>Sweden</b> .....	24,707	3.4	14,204	10,503	24,707	18,035	73.0	2,127	13,990	614	19,252	3,038	15.8
<b>Hungary</b> .....	22,607	3.1	13,343	9,264	22,607	3,430	15.2	4,573	11,245	824	19,513	5,186	26.6
<b>Austria</b> .....	22,004	3.0	13,318	8,686	22,004	5,633	25.6	4,302	2,545	1,890	16,151	10,609	65.7
<b>Ireland</b> .....	16,531	2.3	8,591	7,940	16,531	10,724	64.0	1,372	3,905	925	11,740	6,184	52.7
<b>Scotland</b> .....	13,175	1.8	7,290	5,885	13,175	6,014	50.2	1,731	5,011	442	9,817	3,323	33.8
<b>Czechoslovakia</b> .....	11,161	1.5	6,334	4,827	11,161	3,538	32.1	2,120	5,011	442	8,581	3,533	41.2
<b>Belgium</b> .....	10,501	1.4	6,235	4,266	10,501	4,064	38.7	2,010	3,998	429	8,581	3,533	41.2
<b>All other countries</b> .....	66,422	9.1	44,916	21,506	66,422	24,157	37.1	10,882	26,873	3,239	59,799	22,868	38.2

TABLE 18.—YEAR OF IMMIGRATION OF THE FOREIGN-BORN POPULATION, FOR THE STATE: 1920.

SEX.	Total foreign born: 1920	YEAR OF IMMIGRATION.							PER CENT OF TOTAL ARRIVING IN—						
		1918- 1919	1916- 1917	1911- 1915	1906- 1910	1901- 1905	1900 or earlier.	Year not reported.	1918- 1919	1916- 1917	1911- 1915	1906- 1910	1901- 1905	1900 or earlier.	Year not reported.
<b>Both sexes</b> .....	729,292	17,482	14,413	140,639	110,051	74,020	295,883	78,804	2.4	2.0	19.3	15.1	10.1	40.6	10.5
<b>Male</b> .....	415,539	10,277	7,988	88,221	68,427	44,902	165,517	30,207	2.5	1.9	21.2	16.5	10.8	39.8	7.3
<b>Female</b> .....	313,753	7,205	6,425	52,418	41,624	29,118	130,366	48,597	2.3	2.0	16.7	13.3	9.3	41.6	14.9

TABLE 19.—FOREIGN-BORN WHITE POPULATION UNABLE TO SPEAK ENGLISH, FOR THE STATE: 1920.

SEX.	FOREIGN-BORN WHITE 10 YEARS OF AGE AND OVER: 1920			FOREIGN-BORN WHITE 21 YEARS OF AGE AND OVER: 1920		
	Total number.	Unable to speak English.		Total number.	Unable to speak English.	
		Number.	Per cent.		Number.	Per cent.
<b>Both sexes</b> .....	713,228	68,105	9.5	663,160	66,873	10.1
<b>Male</b> .....	407,057	32,432	8.0	381,808	31,015	8.4
<b>Female</b> .....	306,171	35,673	11.7	281,352	34,958	12.4

TABLE 20.—SCHOOL ATTENDANCE, BY AGE PERIODS, FOR THE STATE: 1920.  
[See also Table 2.]

CLASS OF POPULATION AND SEX.	Total number of persons attending school: 1920	PERSONS 7 TO 13 YEARS OF AGE.			PERSONS 14 AND 15 YEARS OF AGE.			PERSONS 16 AND 17 YEARS OF AGE.			PERSONS 18 TO 20 YEARS OF AGE.			OTHERS ATTENDING SCHOOL.	
		Total number.	Attending school.		Total number.	Attending school.		Total number.	Attending school.		Total number.	Attending school.		Under 7 years of age.	21 years of age and over.
			Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		
All classes.....	723,639	477,976	453,652	94.9	119,811	103,747	86.6	119,423	47,055	39.4	176,534	21,711	12.3	85,894	11,580
Male.....	364,885	241,902	229,660	94.9	60,656	52,755	87.0	60,331	21,734	36.0	89,646	10,481	11.7	43,219	7,036
Female.....	358,754	236,074	223,992	94.9	59,155	50,992	86.2	59,092	25,321	42.9	86,888	11,230	12.9	42,675	4,544
Native white:															
Native parentage.....	396,528	256,866	244,696	95.3	82,869	50,058	89.2	59,988	27,527	45.9	87,752	13,032	14.9	49,665	5,550
Male.....	199,716	130,387	124,263	95.3	31,796	28,365	89.2	30,429	12,666	41.6	44,626	6,192	13.9	24,954	3,276
Female.....	196,812	126,479	120,433	95.2	31,073	27,693	89.1	29,559	14,861	50.3	43,126	6,840	15.9	24,711	2,274
Foreign parentage.....	169,832	117,695	111,516	94.7	27,444	22,692	82.7	28,026	8,515	30.4	40,287	3,674	9.1	21,064	2,371
Male.....	85,362	59,250	56,143	94.8	13,932	11,621	83.4	13,966	3,878	27.8	20,353	1,758	8.6	10,629	1,333
Female.....	84,470	58,445	55,373	94.7	13,512	11,071	81.9	14,060	4,637	33.0	19,934	1,916	9.6	10,435	1,038
Mixed parentage.....	116,008	75,520	72,079	95.4	20,395	17,777	87.2	19,856	8,226	41.4	26,651	3,780	14.2	12,660	1,571
Male.....	58,395	38,236	36,470	95.4	10,334	9,059	87.7	10,194	3,807	37.3	13,486	1,801	13.4	6,383	875
Female.....	57,698	37,284	35,609	95.5	10,061	8,718	86.7	9,662	4,419	46.7	13,165	1,979	15.0	6,277	696
Foreign-born white.....	32,508	22,032	19,886	90.3	7,707	6,015	78.0	9,064	2,236	22.4	17,987	993	5.5	1,502	1,876
Male.....	17,118	11,129	10,074	90.0	3,913	3,124	79.8	4,931	1,141	23.1	9,087	596	6.6	782	1,401
Female.....	15,390	10,903	9,812	90.0	3,794	2,891	76.2	5,033	1,095	21.8	8,900	397	4.5	720	475
Negro.....	7,497	4,955	4,717	95.2	1,179	1,046	88.7	1,393	490	35.2	3,501	192	5.5	901	151
Male.....	3,671	2,454	2,332	95.0	572	504	88.1	692	207	29.9	1,894	105	5.5	424	99
Female.....	3,826	2,501	2,385	95.4	607	542	89.3	701	283	40.4	1,607	87	5.4	477	52

TABLE 21.—SCHOOL ATTENDANCE, BY SINGLE YEARS FROM 5 TO 20, FOR THE STATE: 1920.  
[See also Table 2.]

YEAR OF AGE.	NUMBER AND PER CENT OF TOTAL AT SPECIFIED AGE ATTENDING SCHOOL: 1920													
	All classes.						Native white.						Foreign-born white.	
	Both sexes.		Male.		Female.		Native parentage.		Foreign parentage.		Mixed parentage.		Number.	Per cent.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
5 years.....	27,117	34.7	13,600	34.1	13,517	35.4	15,996	37.3	6,501	29.0	3,964	37.0	369	29.7
6 years.....	57,059	74.6	28,775	74.4	28,284	74.8	32,748	77.9	14,068	67.0	8,441	76.2	1,113	67.5
7 years.....	66,456	90.0	33,881	90.1	32,575	90.0	36,814	81.2	16,933	88.1	10,035	80.8	1,852	82.6
8 years.....	60,789	83.5	30,622	83.5	30,167	83.5	30,407	83.7	17,005	83.6	10,302	84.1	2,268	87.4
9 years.....	64,408	84.3	32,598	84.2	31,810	84.2	34,822	84.3	16,164	84.7	10,106	84.7	2,520	90.5
10 years.....	65,991	89.9	33,313	89.9	32,678	89.9	35,310	87.1	18,301	87.3	10,448	87.0	3,128	92.5
11 years.....	63,955	87.0	32,104	86.9	31,791	87.1	34,453	87.1	15,197	87.4	10,417	87.5	3,141	93.0
12 years.....	65,829	90.0	33,638	90.0	32,201	90.0	34,839	87.3	16,096	87.4	10,673	87.4	3,453	91.7
13 years.....	65,214	89.4	30,494	89.5	29,720	89.3	32,051	87.0	13,820	86.3	10,098	86.8	3,524	90.6
14 years.....	67,696	93.0	29,554	93.3	28,142	92.6	30,937	84.3	12,981	81.3	9,786	83.7	3,313	86.7
15 years.....	46,051	79.7	23,201	80.1	22,850	79.4	25,121	83.6	9,711	73.4	7,991	80.3	2,702	69.6
16 years.....	29,136	47.8	13,724	44.9	15,412	60.8	16,823	54.8	5,403	37.6	5,062	49.8	1,493	30.3
17 years.....	17,019	30.6	8,010	26.9	9,009	34.4	10,704	36.5	3,112	22.8	3,164	32.7	743	14.7
18 years.....	11,036	18.5	4,990	16.5	6,046	20.5	6,676	22.4	1,861	13.5	1,924	20.7	474	8.7
19 years.....	6,669	11.3	3,306	11.0	3,363	11.6	3,958	13.5	1,136	8.5	1,146	12.9	290	5.0
20 years.....	4,066	7.0	2,185	7.4	1,881	6.5	2,398	8.4	677	5.1	710	8.4	229	3.5

TABLE 22.—ILLITERACY OF THE POPULATION 10 YEARS OF AGE AND OVER, BY AGE PERIODS, FOR THE STATE: 1920.  
[See also Table 4.]

SEX AND AGE PERIOD.	ALL CLASSES: 1920			NATIVE WHITE.									FOREIGN-BORN WHITE.			NEGRO.		
	Total num- ber.	Illiterate.		Native parentage.			Foreign parentage.			Mixed parentage.			Total num- ber.	Illiterate.		Total num- ber.	Illiterate.	
		Num- ber.	Per cent.	Total num- ber.	Num- ber.	Per cent.	Total num- ber.	Num- ber.	Per cent.	Total num- ber.	Num- ber.	Per cent.		Total num- ber.	Num- ber.		Per cent.	
10 years and over.....	2,895,608	88,046	3.0	1,235,017	7,580	0.6	579,045	4,909	0.9	819,913	1,683	0.5	713,228	70,535	9.9	52,198	2,203	4.2
Male.....	1,539,829	48,173	3.1	645,382	4,795	0.7	290,360	2,941	1.0	180,226	1,092	0.7	407,057	37,461	9.2	30,413	1,293	4.3
Female.....	1,355,779	39,873	2.9	589,635	2,785	0.5	279,685	1,968	0.7	159,687	591	0.4	306,171	33,074	10.8	21,780	910	4.2
21 years and over.....	2,215,436	85,613	3.9	883,685	6,798	0.8	411,053	4,439	1.1	210,189	1,436	0.7	683,160	69,759	10.5	43,407	2,111	4.9
Male.....	1,192,158	46,811	3.9	467,192	4,324	0.9	210,272	2,655	1.3	104,473	938	0.9	381,808	37,103	9.7	25,887	1,285	4.8
Female.....	1,023,278	38,802	3.8	416,493	2,474	0.6	200,781	1,784	0.9	105,696	498	0.5	281,352	32,656	11.6	17,520	876	5.0
Both sexes:																		
10 to 14 years.....	326,453	653	0.2	173,544	270	0.2	77,451	167	0.2	53,291	103	0.2	18,233	83	0.5	3,336	8	0.2
15 to 24 years.....	611,807	6,048	1.0	297,181	894	0.3	139,145	600	0.4	89,135	257	0.3	72,505	3,942	5.4	12,704	262	2.1
25 to 34 years.....	686,704	22,485	3.4	262,829	955	0.4	135,848	987	0.7	69,827	285	0.4	170,488	19,621	11.5	16,676	508	3.0
35 to 44 years.....	501,772	20,432	4.1	188,424	1,207	0.6	92,124	1,012	1.1	49,655	299	0.6	159,988	17,223	10.8	10,732	500	4.7
45 to 54 years.....	380,950	14,392	4.0	134,740	1,282	1.0	67,907	850	1.3	31,435	270	0.9	120,858	11,360	9.4	5,304	403	7.5
55 to 64 years.....	243,216	11,287	4.6	92,443	1,244	1.3	40,394	888	1.7	16,625	233	1.4	81,316	8,659	9.5	1,954	245	12.5
65 years and over.....	190,972	12,521	6.6	83,588	1,651	2.0	16,818	597	3.5	9,790	236	2.4	79,067	9,520	12.0	1,290	266	20.6
Male:																		
10 to 14 years.....	105,513	364	0.2	88,091	151	0.2	39,121	99	0.3	27,054	58	0.2	9,278	42	0.5	1,671	5	0.3
15 to 24 years.....	313,728	3,070	1.0	152,649	551	0.4	70,365	363	0.5	45,125	185	0.4	37,930	1,744	4.6	6,975	167	2.4
25 to 34 years.....	355,010	11,978	3.4	139,145	918	0.4	68,623	605	0.9	33,936	191	0.6	103,562	10,157	9.8	9,650	324	3.4
35 to 44 years.....	274,552	12,161	4.4	100,144	794	0.8	49,772	630	1.3	24,267	201	0.8	96,040	10,121	10.5	6,778	319	4.7
45 to 54 years.....	195,973	8,368	4.3	72,221	864	1.2	35,040	510	1.4	16,115	185	1.1	68,363	6,460	9.5	3,472	242	7.0
55 to 64 years.....	129,766	6,988	4.6	49,054	818	1.7	21,101	403	1.9	8,558	129	1.5	49,648	4,404	8.9	1,090	118	10.8
Female:																		
10 to 14 years.....	99,184	6,036	6.1	42,700	949	2.2	8,776	325	3.7	5,088	143	2.8	41,709	4,436	10.6	1,682	111	16.3
15 to 24 years.....	160,940	289	0.2	85,453	119	0.1	38,330	68	0.2	26,237	45	0.2	8,955	41	0.5	1,665	3	0.2
25 to 34 years.....	298,079	2,978	1.0	144,632	343	0.2	68,790	237	0.3	44,010	72	0.2	34,575	2,198	6.4	5,729	95	1.7
35 to 44 years.....	301,034	10,507	3.5	123,684	337	0.3	67,225	382	0.6	35,891	94	0.3	66,896	9,464	14.1	7,028	181	2.6
45 to 54 years.....	227,220	8,271	3.6	88,280	413	0.5	45,352	382	0.8	25,338	98	0.4	69,948	7,102	11.1	8,948	181	4.6
55 to 64 years.....	164,677	6,024	3.7	62,519	418	0.7	32,603	340	1.0	15,320	85	0.6	52,505	4,909	9.3	1,892	181	8.5
65 years and over.....	113,460	6,804	7.0	43,389	426	1.0	19,293	285	1.5	8,070	104	1.3	41,668	4,255	10.2	1,864	127	14.7
Both sexes:	91,788	6,435	7.0	40,888	702	1.7	8,042	272	3.4	4,702	93	2.0	37,358	5,094	13.6	608	155	25.5

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[Figures for country of origin relate to countries as constituted prior to the World War.]

COUNTRY OF ORIGIN.	Total foreign white stock: 1920	Foreign-born white—Birth-place of father.	NATIVE WHITE OF FOREIGN OR MIXED PARENTAGE.				MOTHER TONGUE.	Total foreign white stock: 1920	Foreign-born white.	NATIVE WHITE OF FOREIGN OR MIXED PARENTAGE.				
			Total.	Both parents foreign.	Father foreign.	Mother foreign.				Total.	Both parents foreign.	Father foreign.	Mother foreign.	
Total.....	1,931,180	726,635	1,204,545	775,288	268,777	160,480	Total.....	1,931,180	726,635	1,204,545	775,288	268,777	160,480	
Northwestern Europe:							English and Celtic.....	629,660	219,849	409,811	176,490	137,316	96,005	
England.....	144,733	62,139	82,594	34,337	31,760	16,497	Germanic:							
Scotland.....	42,084	24,062	18,022	7,831	6,720	3,471	German.....	396,602	110,758	285,844	188,532	63,177	34,135	
Wales.....	3,739	1,333	2,406	877	1,053	476	Dutch and Frisian.....	100,295	84,195	66,100	44,481	13,780	7,889	
Ireland.....	94,201	33,212	60,989	35,121	16,101	9,767	Flemish.....	16,856	9,784	7,072	5,259	1,317	496	
Norway.....	17,325	6,074	10,251	7,135	2,174	1,342	Scandinavian:							
Sweden.....	61,377	25,055	36,322	27,392	5,844	3,187	Swedish.....	66,807	26,895	39,912	30,766	6,014	3,132	
Denmark.....	17,068	7,241	10,427	6,686	2,624	1,016	Norwegian.....	17,055	6,646	10,409	7,030	2,061	1,288	
Netherlands.....	98,705	33,680	65,025	43,839	13,491	7,605	Danish.....	17,591	7,162	10,429	6,715	2,605	1,109	
Belgium.....	18,581	10,651	7,930	5,730	1,569	681	Latin and Greek:							
Luxemburg.....	1,350	488	862	2,731	2,217	1,087	Italian.....	57,475	30,675	26,800	24,272	2,254	274	
Switzerland.....	8,913	2,878	6,035	3,371	3,231	1,383	French.....	77,572	22,798	54,774	28,650	17,500	8,615	
France.....	12,092	4,107	7,985				Spanish.....	2,400	1,957	443	212	154	77	
Central and Eastern Europe:							Portuguese.....	121	74	47	24	17	6	
Germany.....	413,284	116,759	296,525	199,009	63,298	33,318	Rumanian.....	9,229	7,093	2,136	1,997	114	25	
Austria.....	132,330	66,760	65,569	56,667	6,383	2,536	Greek.....	8,360	7,008	1,352	1,028	310	14	
Hungary.....	83,845	31,996	21,849	20,068	921	260	Slavic and Lettic:							
Russia.....	185,810	99,673	86,138	75,506	8,208	2,274	Polish.....	251,381	112,168	130,213	119,009	14,792	4,512	
Finland.....	70,365	30,346	40,010	38,543	2,476	1,000	Czech.....	17,005	7,711	9,294	7,349	1,119	826	
Rumania.....	7,270	5,426	1,844	1,707	98	39	Slovak.....	12,776	6,477	6,299	5,940	270	89	
Bulgaria, Serbia, and Montenegro.....	4,501	3,730	771	715	49	9	Russian.....	23,630	14,824	9,106	7,996	841	299	
Turkey in Europe.....	784	701	83	65	15	3	Ruthenian.....	3,337	2,479	858	840	11	7	
Southern Europe:							Slovenian.....	6,808	3,325	3,483	3,127	288	63	
Greece.....	8,178	6,823	1,355	1,028	313	14	Serbo-Croatian.....	14,818	9,523	5,295	5,001	263	31	
Italy.....	55,877	30,557	25,820	23,397	2,158	265	Bulgarian.....	2,067	1,940	127	99	25	3	
Spain.....	663	473	190	71	78	41	Slavic, not specified.....	3	3					
Portugal.....	114	65	49	23	20	6	Lithuanian and Lettish.....	12,022	7,075	4,947	4,614	262	71	
Europe, not specified.....	790	501	289	221	41	27	Unclassified:							
Asia:							Yiddish and Hebrew.....	40,687	23,153	17,534	16,053	1,144	337	
Turkey in Asia.....	10,127	6,865	3,262	2,979	240	43	Magyar.....	27,763	17,087	10,696	10,327	354	115	
All other countries.....	621	421	200	84	73	43	Finnish.....	65,936	28,181	37,755	34,485	2,302	968	
America:							Armenian.....	3,175	2,606	569	523	43	3	
Canada—French.....	62,206	18,024	44,182	23,013	13,016	6,953	Syrian and Arabic.....	7,195	4,425	2,770	2,540	190	40	
Canada—Other.....	314,844	94,248	260,596	71,027	82,068	66,611	Turkish.....	465	438	27	11	16		
Newfoundland.....	438	252	186	79	57	50	Albanian.....	274	238	36	21	15		
West Indies.....	303	150	153	30	87	38	All other.....	99	72	27	19	8		
Mexico.....	1,387	1,200	187	113	45	29	Unknown.....	904	336	568	307	185	76	
Cent. and South America.....	285	157	128	18	72	83	Of mixed mother tongue.....	40,812		40,812	40,812			
All other.....	1,453	493	960	272	447	241								
Of mixed foreign parentage.....	84,925		84,925	84,925										

<sup>1</sup> Except possessions of the United States.

<sup>2</sup> Probably includes a considerable proportion of Hebrews erroneously reported as of Russian mother tongue.

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COUNTY OR CITY.	Total homes.	Rented.	OWNED.				Tenure unknown.	COUNTY OR CITY.	Total homes.	Rented.	OWNED.				Tenure unknown.
			Total.	Free.	Encum- bered.	Un- known.					Total.	Free.	Encum- bered.	Un- known.	
The state.....	862,745	349,054	469,471	268,287	220,467	10,717	14,220	COUNTIES—CON.							
COUNTIES.															
Alcona.....	1,348	263	1,082	592	488	4	3	Gladwin.....	2,011	401	1,578	626	944	8	32
Alger.....	1,614	719	854	591	286	27	41	Gogebio.....	6,180	2,516	3,453	2,477	637	339	161
Allegan.....	9,890	2,604	7,138	4,064	2,950	124	148	Grand Traverse.....	4,535	1,443	3,032	1,898	1,079	55	60
Alpena.....	4,018	923	3,050	2,320	725	5	45	Gratiot.....	8,587	2,701	5,678	2,904	2,065	109	208
Antrim.....	2,881	847	2,010	1,242	703	5	24	Hillsdale.....	8,030	2,392	5,562	3,400	2,058	95	76
Arenac.....	2,121	400	1,699	880	860	9	22	Houghton.....	14,463	7,378	6,788	4,931	1,555	302	297
Baraga.....	1,423	430	939	630	291	18	54	Huron.....	7,880	1,661	5,609	3,218	2,395	56	110
Barry.....	6,054	1,642	4,351	2,074	1,633	44	61	Ingham.....	20,414	7,102	12,927	5,212	7,831	384	385
Bay.....	15,588	4,388	11,039	7,243	3,702	34	161	Ionia.....	8,777	2,809	5,761	3,464	2,089	208	207
Benzie.....	1,755	553	1,130	681	425	54	42	Iosco.....	1,938	417	1,498	994	500	4	23
Berrien.....	16,570	5,763	10,537	5,808	4,330	399	270	Iron.....	4,265	1,863	2,272	1,807	347	118	130
Branch.....	6,948	2,039	4,798	3,086	1,604	108	111	Isabella.....	5,452	1,947	4,025	2,191	1,815	19	80
Calhoun.....	19,099	7,226	11,532	5,935	5,246	351	341	Jackson.....	18,420	6,173	12,017	5,952	5,920	145	230
Cass.....	5,676	1,872	3,678	2,527	1,061	90	126	Kalamazoo.....	17,700	7,018	10,477	5,399	4,966	112	205
Charlevoix.....	3,789	1,235	2,509	1,504	939	6	45	Kalkaska.....	1,860	395	948	572	374	2	17
Cheboygan.....	3,190	621	2,280	1,586	633	11	48	Kent.....	44,896	19,303	24,815	12,005	11,823	927	778
Chippewa.....	5,289	2,000	3,176	1,937	1,090	149	113	Keweenaw.....	1,198	720	435	308	75	52	43
Clare.....	2,083	533	1,586	797	732	7	14	Lake.....	1,104	227	352	544	300	8	25
Clinton.....	6,208	1,595	4,484	2,705	1,694	85	129	Lapeer.....	6,860	1,824	4,434	2,631	1,701	102	102
Crawford.....	960	396	540	414	134	1	15	Leelanau.....	2,004	345	1,643	1,046	512	85	16
Delta.....	6,342	2,370	3,798	2,635	1,056	107	174	Lenawee.....	13,288	4,263	8,786	5,654	2,951	181	239
Dickinson.....	3,967	1,428	2,467	2,209	220	38	72	Livingston.....	4,760	1,222	3,437	2,210	1,189	38	101
Eaton.....	8,392	2,428	5,847	3,557	2,202	88	117	Luce.....	1,012	406	555	448	97	10	52
Emmet.....	3,800	1,242	2,517	1,652	857	8	41	MacKinnac.....	1,813	546	1,205	839	144	222	53
Genesee.....	28,873	11,102	16,299	6,574	9,988	367	347	Macomb.....	9,547	2,681	6,606	3,946	2,667	52	200

TABLE 24.—OWNERSHIP OF HOMES, FOR COUNTIES AND PLACES HAVING 10,000 INHABITANTS OR MORE: 1920—Con.

COUNTY OR CITY.	Total homes.	Rented.	OWNED.				Tenure unknown.	COUNTY OR CITY.	Total homes.	Rented.	OWNED.				Tenure unknown.
			Total.	Free.	Encum-bered.	Un-known.					Total.	Free.	Encum-bered.	Un-known.	
COUNTIES—con.								CITIES, ETC.—con.							
Manistee.....	5,037	1,308	3,631	2,605	1,003	23	98	Detroit—Continued.							
Marquette.....	9,633	4,304	5,025	4,024	848	153	304	Ward 16.....	15,339	7,700	7,464	2,854	4,488	122	175
Mason.....	4,812	1,412	3,324	1,766	1,511	47	76	Ward 17.....	11,507	5,035	6,367	2,493	3,839	35	105
Meecosta.....	4,615	1,168	3,411	1,834	1,547	30	36	Ward 18.....	8,720	4,115	4,528	1,525	2,922	81	77
Menominee.....	4,743	1,277	3,353	1,938	1,284	131	113	Ward 19.....	10,438	4,506	5,793	2,184	3,346	263	139
Midland.....	4,047	1,053	2,967	1,526	1,425	16	27	Ward 20.....	7,916	3,638	4,176	1,110	2,960	106	102
Missaukee.....	2,069	476	1,565	771	762	32	28	Ward 21.....	16,871	8,365	8,282	1,915	6,220	147	224
Monroe.....	8,996	2,793	6,062	3,790	2,136	136	141	Escanaba.....	2,880	1,298	1,497	1,118	303	76	85
Montcalm.....	8,351	2,058	6,130	3,524	2,452	154	163	Flint.....	19,570	8,565	10,786	3,464	7,176	146	219
Montmorency.....	895	323	568	318	249	1	4	Ward 1.....	5,335	2,747	2,617	824	1,678	15	71
Muskegon.....	15,000	5,260	9,394	5,710	3,483	201	346	Ward 2.....	4,029	1,080	2,302	717	1,566	19	47
Newaygo.....	4,428	1,032	3,324	1,694	1,536	94	72	Ward 3.....	1,910	952	944	457	462	25	14
Oakland.....	21,450	6,972	14,020	6,431	7,024	565	458	Ward 4.....	963	407	542	228	312	2	14
Oceana.....	3,948	1,062	2,766	1,529	1,136	101	120	Ward 5.....	5,261	1,970	3,230	809	2,394	27	61
Ogemaw.....	1,893	453	1,427	664	752	11	13	Ward 6.....	2,072	809	1,251	429	764	58	12
Ontonagon.....	2,330	879	1,406	857	535	14	45	Grand Rapids.....	33,703	16,522	16,661	7,655	8,239	767	520
Oscoda.....	3,771	873	2,855	1,092	1,137	26	43	Ward 1.....	9,559	5,016	4,387	1,889	2,138	360	156
Oscoda.....	381	90	290	151	138	1	1	Ward 2.....	11,616	5,875	5,529	2,926	2,530	73	212
Otsego.....	1,334	456	859	524	333	2	19	Ward 3.....	12,528	5,631	6,745	2,840	3,671	334	152
Ottawa.....	11,369	2,743	8,456	4,418	3,929	109	170	Hamtramck village.....	9,117	5,002	4,043	476	3,524	43	72
Presque Isle.....	2,462	623	1,813	1,229	583	1	26	Highland Park.....	10,401	5,137	5,131	1,211	3,887	33	133
Rosecommon.....	532	130	346	237	109	.....	6	Holland.....	2,895	929	1,937	984	943	10	29
Saginaw.....	23,608	6,557	16,725	10,461	5,976	285	386	Ironwood.....	2,991	1,073	1,831	1,299	339	193	87
St. Clair.....	14,370	4,514	9,419	6,044	3,253	122	437	Ishpeming.....	2,401	1,202	1,148	993	142	13	51
St. Joseph.....	7,585	2,575	4,898	3,361	1,494	43	112	Jackson.....	11,851	4,510	7,195	3,212	3,912	71	146
Sanilac.....	7,597	1,753	5,716	3,210	2,418	88	128	Kalamazoo.....	11,754	5,268	6,339	3,040	3,230	69	147
Schoolcraft.....	2,061	664	1,331	960	349	22	66	Lansing.....	13,811	5,324	8,176	2,566	5,362	248	311
Shiawassee.....	9,491	2,864	6,458	3,770	2,548	140	169	Ward 1.....	1,455	532	824	212	595	17	99
Tuscola.....	8,249	2,182	5,901	3,365	2,464	72	166	Ward 2.....	1,430	654	746	362	379	5	30
Van Buren.....	8,667	2,520	6,027	3,673	2,229	125	120	Ward 3.....	2,173	861	1,267	437	821	9	45
Washtenaw.....	13,327	4,474	8,622	5,560	2,975	87	231	Ward 4.....	2,320	880	1,428	488	799	143	32
Wayne.....	258,245	150,571	104,072	40,303	61,720	2,049	3,602	Ward 5.....	2,014	740	1,265	337	912	16	9
Wexford.....	4,553	1,514	2,948	1,750	1,138	60	91	Ward 6.....	2,459	963	1,417	372	1,007	38	79
CITIES, ETC.								Ward 7.....	1,365	580	774	285	487	2	11
Adrian.....	3,379	1,113	2,230	1,353	810	67	36	Ward 8.....	595	134	455	75	362	18	6
Alpena.....	2,553	758	1,768	1,580	135	3	27	Marquette.....	2,743	1,184	1,484	1,055	394	35	75
Ann Arbor.....	5,325	2,168	3,080	1,854	1,203	23	77	Monroe.....	2,705	1,144	1,527	1,077	443	7	34
Battle Creek.....	9,347	4,090	5,111	2,183	2,708	220	146	Muskegon.....	8,696	3,766	4,750	3,212	1,870	168	180
Bay City.....	11,002	3,570	7,304	5,159	2,115	30	128	Owosso.....	3,245	1,083	2,117	1,233	803	81	45
Benton Harbor.....	3,274	1,543	1,685	848	799	18	66	Pontiac.....	7,090	2,719	4,156	1,712	2,389	55	215
Detroit.....	218,973	133,253	82,679	31,506	49,509	1,684	3,041	Port Huron.....	6,407	2,687	3,675	2,264	1,351	60	65
Ward 1.....	11,460	8,303	2,810	1,174	1,593	43	287	Saginaw.....	14,906	4,731	9,980	6,464	3,370	146	195
Ward 2.....	6,808	5,823	850	582	246	22	135	Ward 1.....	817	333	462	317	142	3	22
Ward 3.....	8,326	6,501	1,652	622	966	64	173	Ward 2.....	644	365	269	189	80	.....	10
Ward 4.....	9,887	7,423	2,273	1,244	1,002	27	191	Ward 3.....	493	364	105	76	29	.....	24
Ward 5.....	10,238	7,705	2,393	834	1,551	8	140	Ward 4.....	745	323	414	268	144	2	8
Ward 6.....	11,666	8,607	2,874	1,161	1,622	91	185	Ward 5.....	658	168	488	337	149	2	2
Ward 7.....	5,466	4,132	1,255	582	645	28	79	Ward 6.....	713	218	475	374	95	6	20
Ward 8.....	14,245	10,470	3,584	1,530	2,003	51	191	Ward 7.....	520	257	258	210	40	8	5
Ward 9.....	12,388	7,627	4,626	1,525	3,075	26	135	Ward 8.....	821	289	524	364	156	4	8
Ward 10.....	9,115	5,926	3,069	1,562	1,469	48	120	Ward 9.....	858	315	534	356	177	2	6
Ward 11.....	6,877	4,319	2,502	1,085	1,166	251	56	Ward 10.....	782	215	561	382	177	2	6
Ward 12.....	10,434	5,785	4,527	1,780	2,698	49	122	Ward 11.....	741	183	552	371	168	13	6
Ward 13.....	9,801	5,590	4,120	1,763	2,348	9	91	Ward 12.....	735	228	494	316	178	.....	13
Ward 14.....	12,031	6,271	5,591	2,238	3,244	109	169	Ward 13.....	809	197	612	310	296	6	.....
Ward 15.....	9,440	5,352	3,943	1,743	2,116	84	145	Ward 14.....	1,214	238	968	486	470	12	8
								Ward 15.....	521	138	378	239	139	.....	5
								Ward 16.....	546	216	305	196	75	34	25
								Ward 17.....	429	138	289	213	61	15	2
								Ward 18.....	556	129	425	317	107	1	2
								Ward 19.....	1,331	274	1,044	553	465	26	13
								Ward 20.....	973	143	823	590	224	9	7
								Sault Ste. Marie.....	2,645	1,324	1,286	807	410	69	35
								Traverse City.....	2,435	1,019	1,384	982	361	41	32
								Wyandotte.....	3,028	1,227	1,749	1,259	479	11	52

## COMPOSITION AND CHARACTERISTICS.

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**TABLE 25.—TOTAL MALES AND FEMALES 10 YEARS OF AGE AND OVER ENGAGED IN EACH SELECTED OCCUPATION, CLASSIFIED BY COLOR OR RACE, NATIVITY, AND PARENTAGE, AND AGE PERIODS, FOR THE STATE: 1920.**

[Population 10 years of age and over—Total, 2,895,606; males, 1,536,629; females, 1,358,977. Persons gainfully occupied—Total, 1,474,014; males, 1,228,631; females, 245,383. Per cent of persons 10 years of age and over gainfully occupied—Total, 50.9; males, 80.0; females, 18.1.]

SEX AND OCCUPATION.	Total.	COLOR OR RACE, NATIVITY, AND PARENTAGE.					AGE PERIODS.					
		Native white.		Foreign-born white.	Negro.	Ind., Chi., Jap., and all other.	10 to 17 years.	18 and 19 years.	20 to 24 years.	25 to 44 years (includes age unknown).	45 to 64 years.	65 years and over.
		Native parent-age.	Foreign or mixed parent-age.									
<b>MALES.....</b>	<b>1,228,631</b>	<b>488,328</b>	<b>343,168</b>	<b>367,028</b>	<b>27,661</b>	<b>2,448</b>	<b>44,689</b>	<b>49,310</b>	<b>153,083</b>	<b>617,467</b>	<b>306,382</b>	<b>57,700</b>
<b>Agriculture, forestry, and animal husbandry..</b>	<b>281,562</b>	<b>128,788</b>	<b>88,222</b>	<b>62,426</b>	<b>1,068</b>	<b>1,058</b>	<b>12,339</b>	<b>10,310</b>	<b>25,297</b>	<b>113,373</b>	<b>95,063</b>	<b>25,180</b>
Corn shellers, hay balers, grain threshers, etc.....	803	508	241	50	4	.....	8	14	47	446	258	30
Dairy farm laborers.....	848	417	301	126	3	1	138	91	195	277	122	25
Dairy farmers.....	1,821	752	602	464	2	1	.....	13	66	877	742	123
Farm foremen, general farms.....	1,771	904	541	316	7	3	.....	19	137	890	559	106
Farm laborers (home farm).....	25,904	13,050	11,143	1,584	87	40	7,441	4,455	6,879	6,032	772	325
Farm laborers (working out).....	44,256	23,998	13,099	6,533	312	314	3,555	4,041	8,715	16,305	8,766	2,874
Farmers, general farms.....	176,595	79,331	53,378	43,140	568	178	.....	491	6,243	75,969	74,616	19,276
Fishermen and oystermen.....	1,399	446	581	319	8	50	22	37	114	647	470	109
Florists, landscape gardeners, and nurserymen.....	522	171	155	189	7	.....	.....	5	23	230	217	47
Fruit growers.....	2,975	1,299	717	952	5	2	.....	7	62	1,112	1,383	411
Garden laborers.....	1,411	438	430	528	11	4	143	85	152	435	390	206
Gardeners.....	3,341	1,176	923	1,214	14	9	.....	2	76	1,142	1,428	693
Lumbermen, raftsmen, and woodchoppers:												
Teamsters and haulers.....	1,222	396	443	373	2	8	71	94	211	527	295	24
Other lumbermen, raftsmen, and woodchoppers.....	14,434	4,019	4,309	5,945	22	439	691	802	1,028	6,758	3,706	549
Orchard and nursery laborers.....	920	395	380	139	5	1	159	97	189	303	126	46
Owners and proprietors of log and timber camps.....	585	168	194	217	4	2	.....	4	16	253	277	35
Stock raisers.....	682	381	174	126	1	.....	.....	1	31	206	281	73
All other occupations.....	2,073	939	606	511	11	6	111	52	213	874	655	168
<b>Extraction of minerals.....</b>	<b>28,582</b>	<b>2,007</b>	<b>6,908</b>	<b>19,603</b>	<b>59</b>	<b>5</b>	<b>721</b>	<b>1,110</b>	<b>3,075</b>	<b>16,830</b>	<b>6,310</b>	<b>536</b>
Coal mine operatives.....	2,128	426	574	1,112	16	.....	43	71	134	1,195	587	48
Copper mine operatives.....	5,536	265	2,173	6,145	3	.....	313	376	831	5,038	1,880	148
Foremen and overseers.....	1,006	91	276	638	1	.....	.....	2	21	622	419	42
Iron mine operatives.....	13,602	384	2,882	10,328	9	1	224	516	1,069	8,466	2,561	166
Quarry operatives.....	988	298	304	360	22	4	40	50	133	499	235	31
Salt well and works operatives.....	1,895	307	415	669	4	.....	93	75	164	669	342	62
All other occupations.....	877	236	284	353	4	.....	8	20	73	461	286	39
<b>Manufacturing and mechanical industries.....</b>	<b>562,838</b>	<b>201,880</b>	<b>142,373</b>	<b>199,748</b>	<b>18,288</b>	<b>549</b>	<b>17,907</b>	<b>23,821</b>	<b>78,662</b>	<b>308,870</b>	<b>116,973</b>	<b>16,605</b>
Apprentices to building and hand trades:												
Machinists' apprentices <sup>1</sup> .....	1,905	807	826	266	6	.....	1,641	138	89	37	1	.....
Other apprentices to building and hand trades.....	1,188	537	500	145	6	.....	1,013	70	57	31	3	.....
Apprentices, other.....	1,993	956	778	247	16	.....	1,373	396	193	64	7	.....
Bakers.....	3,275	1,855	1,701	704	39	3	81	148	503	1,937	535	61
Boiler makers.....	6,005	1,738	1,542	3,644	58	1	.....	93	338	3,167	2,512	527
Brass molders, founders, and casters.....	1,738	550	140	220	38	1	.....	12	57	1,064	410	38
Brick and stone masons.....	6,805	2,151	1,820	2,768	203	5	.....	68	402	3,656	2,188	488
Buffets and polishers (metal).....	2,169	606	676	869	17	1	.....	58	265	1,406	372	14
Builders and building contractors.....	4,162	1,570	1,260	1,294	37	1	.....	64	97	2,162	1,074	224
Cabinetmakers.....	3,287	717	734	1,803	12	1	.....	60	250	1,688	1,094	166
Carpenters.....	39,523	15,411	10,316	13,573	502	21	153	531	2,753	19,829	13,812	2,745
Compositors, linotypers, and typesetters.....	3,670	1,567	1,339	745	18	1	99	168	583	1,984	765	71
Cranemen, derrickmen, hoistmen, etc.....	1,438	533	426	409	67	3	14	43	210	968	197	6
Electricians.....	10,632	5,342	3,436	1,771	77	6	.....	643	2,449	6,561	931	48
Engineers (stationary).....	8,832	3,651	2,819	2,272	81	9	29	75	524	4,678	3,114	412
Flors (metal).....	874	313	244	307	4	1	18	19	89	427	264	57
Firemen (except locomotive and fire department).....	5,691	2,049	1,400	1,936	299	7	62	117	630	3,060	1,662	170
Foremen and overseers (manufacturing).....	18,445	7,708	5,876	4,640	131	1	.....	143	1,286	12,411	4,863	242
Forgemen, hammermen, and welders.....	2,670	1,142	648	819	66	4	.....	148	487	1,824	257	13
Furnacemen and smeltermen.....	807	161	136	433	77	.....	9	17	51	511	203	16
Grinders (metal).....	3,850	1,357	909	1,468	115	1	101	206	819	2,271	429	24
Heaters, ladlers, pourers, and puddlers.....	638	171	117	262	85	1	19	31	88	419	71	8
Iron molders, founders, and casters.....	9,541	2,244	1,614	4,895	780	8	.....	173	1,001	6,663	1,632	72
Jewelers and watchmakers (not in factory).....	807	318	245	237	7	.....	.....	18	97	408	231	53
Laborers (not otherwise specified):												
Brick, tile, and terra cotta factories.....	695	184	157	346	8	.....	35	22	91	385	147	15
Building, general, and not specified laborers.....	20,932	8,108	4,159	6,938	1,681	46	741	879	2,470	9,427	5,747	1,668
Chemical and allied industries.....	4,246	912	744	2,504	70	16	172	193	509	2,308	973	91
Food industries—												
Butter, cheese, and condensed milk factories.....	975	517	224	199	34	1	66	57	148	431	239	34
Sugar factories and refineries.....	1,418	523	432	451	9	3	100	108	242	604	310	54
Other food industries.....	2,173	963	454	593	161	2	153	126	201	990	532	81
Gas works.....	1,079	259	132	546	142	.....	21	30	99	600	287	42
Helpers in building and hand trades.....	1,923	635	448	621	218	1	143	129	253	820	474	104
Iron and steel industries—												
Automobile factories.....	50,092	11,208	6,530	27,726	4,575	53	1,561	2,331	7,298	28,893	8,942	1,067
Blast furnaces and steel rolling mills <sup>2</sup> .....	3,307	740	520	1,066	375	6	116	157	430	1,733	702	70
Car and railroad shops.....	867	180	130	505	52	.....	35	35	87	411	239	60
Ship and boat building.....	1,898	422	423	1,017	35	1	137	120	255	961	381	44
Wagon and carriage factories.....	692	361	181	144	6	.....	55	46	108	268	174	41
Other iron and steel industries.....	15,823	4,156	2,396	7,128	2,118	25	781	871	2,174	8,179	3,394	424
Lime, cement, and artificial stone factories.....	1,476	580	288	541	50	9	55	66	168	743	396	48
Lumber and furniture industries—												
Furniture factories.....	3,883	1,487	971	1,399	22	4	407	281	497	1,344	1,056	298
Saw and planing mills <sup>4</sup> .....	6,166	1,917	2,214	1,925	20	90	543	483	894	2,388	1,583	335
Other lumber and furniture industries.....	2,301	970	772	544	9	6	295	192	293	777	610	134
Metal industries, other than iron and steel—												
Brass mills.....	1,490	249	246	861	134	.....	97	98	197	797	277	24
Copper factories.....	1,018	67	282	615	54	.....	20	37	127	505	244	25
Other metal industries.....	683	161	169	303	60	.....	59	48	94	326	138	18
Paper and pulp mills.....	3,988	1,765	880	1,314	13	16	236	314	627	1,696	973	142
Rubber factories.....	932	187	105	526	114	.....	19	42	157	553	142	10
Tanneries.....	1,780	503	537	688	20	2	118	124	246	808	390	55
Textile industries.....	762	316	241	183	20	2	104	63	102	250	185	58
Other industries.....	19,104	6,709	4,145	6,956	1,261	33	1,377	1,853	2,970	8,729	3,952	723

<sup>1</sup> Includes 1,595 males of unknown age.<sup>2</sup> Many of the "Machinists' apprentices" probably are machine tenders.<sup>3</sup> Includes tinplate mills.<sup>4</sup> Includes box factories (wood).



TABLE 25.—TOTAL MALES AND FEMALES 10 YEARS OF AGE AND OVER ENGAGED IN EACH SELECTED OCCUPATION, CLASSIFIED BY COLOR OR RACE, NATIVITY, AND PARENTAGE, AND AGE PERIODS, FOR THE STATE: 1920—Con.

SEX AND OCCUPATION.	Total.	COLOR OR RACE, NATIVITY, AND PARENTAGE.					AGE PERIODS.						
		Native white.		Foreign-born white.	Negro.	Ind., Chi., Jap., and all other.	10 to 17 years.	18 and 19 years.	20 to 24 years.	25 to 44 years (includes age unknown).	45 to 64 years.	65 years and over.	
		Native parent-age.	Foreign or mixed parent-age.										
MALES—Continued.													
Manufacturing and mechanical industries—Con.													
Machinists.....	60,878	24,481	10,970	18,557	844	26	.....	2,967	12,624	36,673	7,982	632	
Managers and superintendents (manufacturing).....	9,437	4,878	2,885	1,609	5	.....	.....	38	478	6,320	2,459	142	
Manufacturers.....	6,126	2,032	1,495	1,598	1	.....	.....	5	132	2,556	2,116	317	
Mechanics (not otherwise specified).....	12,004	6,077	3,391	2,240	288	8	.....	642	2,751	7,223	1,266	122	
Millers (grain, flour, feed, etc.).....	805	430	219	150	6	.....	.....	6	35	336	356	72	
Millwrights.....	4,703	1,996	1,308	1,361	36	2	.....	88	370	2,675	1,431	139	
Officials (manufacturing).....	1,975	1,042	585	345	2	1	.....	9	71	1,139	681	75	
Oilers of machinery.....	1,081	372	800	321	27	1	47	102	188	445	282	17	
Painters, glaziers, and varnishers (building).....	9,567	4,090	2,515	2,847	113	2	36	105	518	5,003	3,284	621	
Painters, glaziers, and varnishers (factory).....	6,396	2,444	1,523	2,317	110	2	121	155	654	3,954	1,380	132	
Pattern and model makers.....	2,688	932	963	790	3	.....	.....	112	386	1,539	573	78	
Plasterers and cement finishers.....	1,839	444	340	794	261	.....	.....	22	119	1,163	486	49	
Plumbers and gas and steam fitters.....	9,144	3,570	3,452	2,056	56	4	.....	309	1,410	5,726	1,596	103	
Sawyers.....	1,622	605	508	403	4	2	.....	63	193	708	485	73	
Semiskilled operatives (not otherwise specified):													
Chemical and allied industries.....	1,641	529	443	638	31	.....	67	86	229	834	392	33	
Cigar and tobacco factories.....	1,079	278	404	383	14	.....	40	25	69	517	357	71	
Clay, glass, and stone industries.....	1,077	352	327	372	24	2	44	43	122	530	258	21	
Clothing industries.....	710	236	220	222	32	.....	113	23	92	362	114	6	
Electric light and power plants.....	709	304	242	101	1	1	17	42	106	436	97	11	
Electrical supply factories.....	802	389	273	135	5	.....	70	64	175	373	113	7	
Food industries—													
Butter, cheese, and condensed milk factories.....	869	458	229	173	9	.....	25	37	130	517	146	14	
Slaughter and packing houses.....	672	143	130	337	57	.....	28	26	92	393	120	13	
Other food industries.....	1,493	639	401	409	44	.....	249	78	180	649	301	36	
Iron and steel industries—													
Automobile factories.....	54,001	19,087	13,318	20,569	984	43	1,640	2,934	10,308	31,932	6,652	445	
Blast furnaces and steel rolling mills <sup>1</sup> .....	1,312	476	343	445	45	3	51	85	221	723	206	26	
Car and railroad shops.....	1,745	574	465	658	48	.....	48	58	191	973	428	47	
Ship and boat building.....	1,811	576	629	600	5	1	98	105	250	1,019	312	27	
Other iron and steel industries.....	13,264	4,934	3,660	4,304	364	2	780	916	2,495	6,910	1,928	226	
Lumber and furniture industries—													
Furniture factories.....	7,409	2,388	1,937	3,012	59	13	441	474	936	3,211	1,989	358	
Saw and planing mills <sup>2</sup> .....	1,699	622	617	448	9	3	154	94	217	727	426	81	
Other lumber and furniture industries.....	1,887	699	640	536	8	4	178	80	200	885	467	77	
Metal industries, other than iron and steel—													
Brass mills.....	1,122	296	421	368	37	.....	115	93	218	542	139	15	
Other metal industries.....	958	246	296	339	27	.....	64	69	144	528	138	15	
Paper and pulp mills.....	3,357	1,960	702	686	6	3	160	253	635	1,597	646	66	
Printing, publishing, and engraving.....	761	315	313	132	1	.....	146	92	89	322	99	13	
Rubber factories.....	1,276	489	365	354	67	1	35	95	310	718	108	10	
Tanneries.....	746	197	234	313	2	.....	21	20	82	425	174	24	
Textile industries.....	1,097	559	204	233	38	3	131	94	197	411	203	61	
Other industries.....	11,729	4,483	3,398	3,616	224	8	657	681	1,818	5,073	2,234	361	
Shoemakers and cobblers (not in factory).....	2,458	481	311	1,661	31	2	56	26	144	1,174	767	319	
Stonecutters.....	551	121	108	319	2	1	.....	9	18	307	197	20	
Structural iron workers (building).....	1,016	423	313	271	9	.....	.....	29	156	690	132	9	
Tailors.....	3,054	281	371	2,267	128	9	8	26	199	1,775	904	142	
Tinsmiths and sheet metal workers.....	4,101	1,377	1,373	1,426	15	.....	148	606	2,610	730	97	97	
Toolmakers and die setters and sinkers.....	11,794	4,473	3,584	3,709	22	6	533	2,495	7,364	857	45	45	
Upholsterers.....	3,745	1,530	1,277	930	8	.....	123	177	706	2,275	426	38	
All other occupations.....	4,550	1,705	1,534	1,240	68	3	38	114	516	2,498	1,209	175	
Transportation.....	82,530	37,240	24,694	18,581	1,943	72	2,314	3,852	11,733	41,767	10,772	3,092	
Baggage men.....	551	277	173	97	3	1	.....	25	50	231	214	31	
Boiler washers and engine hostlers.....	552	204	156	169	23	.....	22	26	74	287	133	10	
Brakemen.....	2,274	1,155	810	305	4	.....	.....	64	399	1,562	235	14	
Captains, masters, mates, and pilots.....	801	247	309	244	.....	1	.....	5	39	288	399	70	
Chauffeurs.....	7,525	3,268	2,393	1,226	635	3	238	748	2,192	3,853	471	23	
Conductors (steam railroad).....	1,992	899	723	369	1	.....	.....	12	71	1,128	735	46	
Conductors (street railroad).....	2,476	1,374	609	492	1	.....	18	111	615	1,499	224	9	
Draymen, teamsters, and expressmen <sup>3</sup> .....	10,000	7,643	4,865	2,933	547	12	642	1,017	2,671	7,503	3,632	535	
Express messengers and railway mail clerks.....	581	348	166	64	3	.....	.....	29	71	298	167	16	
Foremen and overseers (steam railroad).....	2,208	829	632	743	2	2	.....	12	77	1,062	950	107	
Foremen and overseers (other transportation industries).....	1,182	534	355	283	10	.....	.....	16	53	651	400	51	
Garage keepers and managers.....	1,458	769	472	205	12	.....	.....	10	120	1,055	252	21	
Inspectors (steam railroad).....	1,105	451	318	331	5	.....	6	15	110	595	335	44	
Laborers:													
Garage.....	952	486	269	104	90	3	92	94	215	427	102	22	
Road and street building and repairing.....	3,646	1,147	719	1,019	144	17	89	113	298	1,502	1,245	399	
Steam railroad.....	9,520	3,432	2,244	3,572	255	17	463	525	1,055	4,135	2,931	411	
Street railroad.....	948	252	173	502	20	1	49	29	72	401	336	61	
Other transportation industries.....	857	297	223	328	9	.....	36	43	126	335	224	93	
Locomotive engineers.....	3,273	1,456	1,229	558	.....	.....	.....	90	77	1,994	1,082	107	
Locomotive firemen.....	2,547	1,370	910	240	25	2	.....	189	777	1,459	120	2	
Mail carriers.....	3,335	1,395	1,127	302	70	1	65	100	297	1,756	976	141	
Motorman (street railroad).....	2,844	1,146	920	673	.....	.....	5	14	217	1,618	473	17	
Officials and superintendents (steam railroad).....	970	451	318	201	.....	.....	.....	10	25	489	408	38	
Proprietors and managers of transfer companies.....	982	422	340	211	9	.....	.....	10	80	551	276	35	
Proprietors, officials, and managers (not otherwise specified).....	566	330	158	78	.....	.....	.....	8	31	312	187	28	
Sailors and deck hands.....	1,721	588	713	406	6	8	59	137	394	759	316	56	
Switchmen and flagmen (steam railroad).....	3,867	1,504	1,192	859	12	.....	18	48	325	1,969	1,081	426	
Telegraph and telephonelinemen.....	1,577	932	475	166	4	.....	52	166	371	849	136	3	
Telegraph operators.....	1,688	982	627	186	2	1	27	90	323	965	269	24	
Ticket and station agents.....	709	424	220	65	.....	.....	6	18	77	372	219	17	
All other occupations.....	4,313	1,888	1,256	1,115	51	3	427	168	413	1,832	1,238	235	

<sup>1</sup> Includes tinplate mills.<sup>2</sup> Includes box factories (wood).<sup>3</sup> Teamsters in agriculture, forestry, and the extraction of minerals are classified with the other workers in those industries, respectively; and drivers for bakeries and laundries are classified with deliverymen in trade.

## COMPOSITION AND CHARACTERISTICS.

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TABLE 25.—TOTAL MALES AND FEMALES 10 YEARS OF AGE AND OVER ENGAGED IN EACH SELECTED OCCUPATION, CLASSIFIED BY COLOR OR RACE, NATIVITY, AND PARENTAGE, AND AGE PERIODS, FOR THE STATE: 1920—Con.

SEX AND OCCUPATION.	Total.	COLOR OR RACE, NATIVITY, AND PARENTAGE.					AGE PERIODS.					
		Native white.		Foreign-born white.	Negro.	Ind., Chi., Jap., and all other.	10 to 17 years.	18 and 19 years.	20 to 24 years.	25 to 44 years (includes age unknown).	45 to 64 years.	65 years and over.
		Native parentage.	Foreign or mixed parentage.									
MALES—Continued.												
Trade.....	110,309	50,854	36,268	31,001	1,120	66	4,999	3,176	11,939	61,706	32,682	4,807
Bankers, brokers, and money lenders:												
Bankers and bank officials.....	2,229	1,235	742	251	1	1			139	1,213	711	166
Stockbrokers.....	964	575	257	131	1				113	618	210	23
Other brokers and money lenders.....	883	413	279	188	3			4	59	442	321	57
Clerks in stores <sup>1</sup> .....	6,570	2,896	2,359	1,285	24	6	997	661	1,356	2,570	873	113
Commercial travelers.....	5,784	3,229	1,728	817	10			44	392	3,275	1,891	182
Deliverymen.....	6,595	2,758	2,311	1,346	181	1	594	539	1,213	3,230	940	79
Floorwalkers and foremen in stores.....	711	267	204	232	8			10	44	375	256	26
Insurance agents.....	3,243	1,606	905	630	12			18	180	1,751	1,040	248
Laborers (coal yards).....	1,385	482	289	473	139	2	42	45	134	705	405	54
Laborers (elevators, stockyards, and warehouses).....	1,075	509	317	211	37	1	37	44	111	558	287	38
Laborers (lumberyards).....	2,484	661	598	1,195	26	4	129	87	235	992	863	178
Laborers, porters, and helpers in stores.....	2,386	796	628	675	284	3	285	150	299	1,010	544	98
Meat cutters.....	1,188	471	423	284	9	1	24	51	142	677	264	30
Newsboys.....	1,619	976	502	109	32		1,528	25	18	30	8	10
Proprietors, officials, and managers (not otherwise specified).....	1,253	653	403	19	5			10	56	726	411	50
Real estate agents and officials.....	8,038	3,863	2,273	1,851	46			64	566	4,272	2,694	437
Retail dealers <sup>2</sup> .....	41,675	14,361	11,931	15,149	201	33	77	283	2,329	22,286	14,508	2,192
Sales agents.....	539	442	255	142				8	102	471	218	40
Salesmen (stores).....	26,542	12,504	8,330	4,647	48	13	1,230	1,071	4,109	14,054	4,528	550
Undertakers.....	856	406	312	125	13			6	69	454	284	43
Wholesale dealers, importers, and exporters.....	1,898	999	604	593	2			13	69	1,006	720	90
All other occupations.....	2,097	964	618	475	39	1	56	43	198	991	706	103
Public service (not elsewhere classified).....	19,303	7,980	5,835	5,245	236	7	135	550	1,937	7,861	6,878	1,942
Firemen (fire department).....	2,070	840	979	249	2			41	423	1,195	394	17
Guards, watchmen, and doorkeepers.....	4,621	1,645	1,025	1,899	82		12	29	96	993	2,551	940
Laborers (public service).....	2,621	681	402	1,428	108	2	44	50	144	797	1,010	479
Marshals, sheriffs, detectives, etc.....	1,038	453	382	193	10			4	49	528	389	68
Officials and inspectors (city and county).....	1,801	806	632	362		1		49	669	872	211	
Police.....	2,618	1,126	1,053	422	15	2		4	252	1,701	620	41
Postmasters.....	729	378	273	78				2	18	288	346	75
Soldiers, sailors, and marines <sup>3</sup> .....	2,138	1,351	479	295	12	1	66	393	785	836	51	7
United States officials (except postmasters).....	650	380	175	95				45	857	213	35	
All other occupations.....	1,117	420	435	254	7	1	13	27	76	497	432	72
Professional service.....	36,863	18,731	10,246	7,414	438	34	271	716	3,962	20,721	9,448	1,745
Architects.....	658	331	181	145	1			48	422	163	25	
Artists, sculptors, and teachers of art.....	533	216	168	143	3	3	14	12	72	292	121	22
Chemists, assayers, and metallurgists.....	1,361	734	423	193	6	5			303	896	177	15
Civil engineers and surveyors.....	1,969	1,187	538	242	2				257	1,336	318	58
Clergymen.....	3,557	1,217	900	1,310	127	3			57	1,703	1,478	319
College presidents and professors <sup>4</sup> .....	1,739	488	162	89				40	472	207	20	
Dentists.....	1,724	882	472	345	25			120	1,058	509	37	
Draftsmen.....	3,198	1,597	1,014	577	5	5		311	955	1,748	160	14
Editors and reporters.....	778	461	192	122	3		3	18	84	442	201	30
Electrical engineers.....	932	541	243	143	5			108	666	150	8	
Lawyers, judges, and justices.....	2,999	1,740	908	316	35			100	1,592	1,031	305	
Mechanical engineers.....	2,807	1,207	686	471		3		175	1,646	483	63	
Musicians and teachers of music.....	1,799	704	442	530	123		64	69	237	1,014	364	51
Photographers.....	985	457	261	263	2	2	34	32	90	633	260	27
Physicians and surgeons.....	4,227	2,123	1,023	1,037	39	5		58	2,050	1,765	354	
Religious, charity and welfare workers.....	479	254	118	103	3	1		54	295	126	22	
Showmen.....	615	278	141	82	13	1	20	45	145	251	49	5
Teachers (school).....	3,405	2,032	1,031	325	16	1	15	114	670	1,976	575	55
Theatrical owners, managers, and officials.....	580	282	182	113	3			17	49	340	159	15
Veterinary surgeons.....	567	268	152	146	1			10	300	195	62	
All other occupations.....	3,491	1,732	1,009	719	26	5	120	87	320	1,779	948	237
Domestic and personal service.....	36,882	11,637	7,298	13,200	4,106	641	1,244	937	3,507	17,979	10,549	2,666
Barbers, hairdressers, and manicurists.....	6,324	2,741	1,426	1,772	382	3	74	81	617	3,875	1,536	141
Billiard and pool room keepers.....	1,159	363	301	454	41			2	100	728	296	33
Boarding and lodging house keepers.....	722	241	164	284	30	3		1	12	280	346	83
Elevator tenders.....	1,022	318	205	390	103		69	58	79	211	369	213
Hotel keepers and managers.....	1,307	494	371	411	31			5	25	512	658	107
Janitors and sextons.....	6,735	1,753	1,152	2,585	1,237	8	122	66	227	1,911	3,097	1,312
Laborers (domestic and professional service).....	830	337	218	294	31		47	31	104	328	273	107
Laundry operatives.....	1,181	382	196	271	91	241	80	46	145	599	268	33
Nurses (not trained).....	620	294	182	137	7			32	109	300	139	40
Porters (except in stores).....	1,277	179	149	221	724	4	56	68	200	634	273	46
Restaurant, café, and lunch room keepers.....	2,410	631	438	1,239	46	56		17	169	1,561	624	39
Servants.....	6,646	1,993	1,226	2,532	757	138	566	306	895	3,378	1,280	221
Waiters.....	2,692	612	306	1,188	447	139	149	168	544	1,553	248	30
All other occupations.....	3,907	1,299	964	1,416	179	40	81	56	281	2,076	1,152	261
Clerical occupations.....	60,762	29,211	21,324	9,808	403	16	4,759	4,838	12,971	28,360	8,707	1,127
Accountants and auditors.....	4,672	2,462	1,414	794	2			113	712	3,138	648	61
Agents.....	5,075	2,768	1,566	735			34	90	577	3,142	1,106	126
Bookkeepers and cashiers.....	8,228	3,737	3,321	1,148	16	6	282	575	2,033	4,109	1,050	179
Canvassers.....	816	160	76	79	1		14	6	34	134	99	29
Clerks (except clerks in stores).....	38,515	18,337	13,355	6,491	324	8	2,805	3,661	8,950	16,931	5,507	661
Collectors.....	741	356	227	154	4		30	43	113	323	184	48
Messenger, bundle, and office boys <sup>5</sup> .....	1,848	728	827	248	44	1	1,498	157	57	73	47	16
Stenographers and typists.....	1,367	663	538	159	6	1	96	193	495	510	66	7

<sup>1</sup> Many of the "Clerks in stores" probably are "Salesmen."<sup>2</sup> Includes, also, managers and superintendents of retail stores.<sup>3</sup> Includes only those resident in continental United States at the date of the enumeration.<sup>4</sup> Probably includes some teachers in schools below collegiate rank.<sup>5</sup> Except telegraph messengers.

TABLE 25.—TOTAL MALES AND FEMALES 10 YEARS OF AGE AND OVER ENGAGED IN EACH SELECTED OCCUPATION, CLASSIFIED BY COLOR OR RACE, NATIVITY, AND PARENTAGE, AND AGE PERIODS, FOR THE STATE: 1920—Con.

SEX AND OCCUPATION.	Total.	COLOR OR RACE, NATIVITY, AND PARENTAGE.					AGE PERIODS.					
		Native white:		Foreign-born white.	Negro.	Ind., Chi., Jap., and all other.	10 to 17 years.	18 and 19 years.	20 to 24 years.	25 to 44 years (includes age unknown).	45 to 64 years.	65 years and over.
		Native parent-age.	Foreign or mixed parent-age.									
<b>FEMALES.</b>	245,383	107,082	90,934	40,400	6,687	280	23,125	27,390	56,894	195,829	36,729	5,416
<b>Agriculture, forestry, and animal husbandry.</b>	8,812	3,141	2,765	2,839	45	22	588	264	470	2,605	3,686	1,189
Farm forewomen, general farms	478	216	122	139	1	—	—	—	4	108	261	105
Farm laborers (home farm)	1,687	671	693	316	6	1	308	158	228	620	287	26
Farm laborers (working out)	879	245	252	375	2	5	116	66	111	410	145	31
Farmers, general farms	4,751	1,673	1,301	1,731	33	13	—	—	44	1,151	2,610	946
All other occupations	1,017	336	397	278	3	3	104	40	83	316	383	91
<b>Extraction of minerals (all occupations)</b>	216	55	94	65	2	—	41	43	64	51	15	2
<b>Manufacturing and mechanical industries.</b>	55,587	22,061	22,208	10,447	788	83	8,122	7,097	11,338	20,627	7,814	789
Compositors, linotypers, and typesetters	479	260	168	48	3	—	30	61	132	227	29	—
Dressmakers and seamstresses (not in factory)	7,832	3,117	2,736	1,440	228	11	62	122	522	3,606	2,858	362
Forewomen and overseers (manufacturing)	995	389	462	142	2	—	—	56	210	602	123	4
Laborers (not otherwise specified)	482	193	100	87	102	—	28	15	67	195	154	23
Food industries—	733	374	213	139	7	—	170	94	117	224	112	16
Iron and steel industries—	1,391	544	468	325	53	1	231	206	337	510	101	6
Automobile factories	712	280	236	162	34	—	137	117	161	237	55	5
Other iron and steel industries	679	264	232	163	19	—	93	87	176	273	46	1
Lumber and furniture industries—	564	262	219	80	2	1	134	108	98	160	61	3
Furniture factories	570	247	262	59	1	1	142	121	124	139	38	6
Other lumber and furniture industries	3,949	1,641	1,600	655	52	1	971	732	904	1,034	289	19
Other industries	372	175	126	71	—	—	—	—	64	206	92	10
Manufacturers and officials	2,113	1,008	789	311	5	—	46	88	348	1,156	440	35
Milliners and millinery dealers	1,194	447	514	228	5	—	301	222	276	333	59	3
Semiskilled operatives (not otherwise specified)	3,631	455	2,168	917	90	1	741	633	1,092	1,016	130	19
Chemical and allied industries—	970	440	384	146	—	—	140	115	220	359	121	15
Cigar and tobacco factories	886	266	324	265	8	3	83	76	190	409	98	10
Clothing industries—	2,533	990	1,060	459	23	1	245	236	455	1,112	459	26
Corset factories	505	220	221	63	1	—	143	83	100	143	34	2
Suit, coat, cloak, and overall factories	926	458	295	172	1	—	134	81	111	334	229	37
Other clothing industries	947	467	311	148	21	—	228	129	170	336	81	3
Food industries—	6,273	2,436	2,436	1,359	41	1	828	1,017	1,687	2,411	817	13
Candy factories	2,595	992	1,059	524	19	1	468	482	663	825	151	6
Fruit and vegetable canning, etc.	1,202	535	462	203	2	—	239	198	233	402	127	3
Other food industries	743	283	321	83	4	52	176	169	171	153	62	12
Iron and steel industries—	832	231	355	245	1	—	202	163	204	226	37	—
Automobile factories	1,164	644	309	206	4	1	189	168	261	396	141	9
Other iron and steel industries	967	436	427	101	3	—	181	162	254	338	32	—
Lumber and furniture industries—	1,391	494	698	192	6	1	306	248	333	377	106	21
Furniture factories	502	318	150	34	—	—	78	65	114	189	56	—
Other lumber and furniture industries	876	442	294	133	6	1	118	111	148	255	194	50
Metal industries, other than iron and steel	5,055	2,074	2,059	887	34	1	1,012	818	1,155	1,630	400	31
Paper and pulp mills	824	213	318	272	18	3	8	30	98	430	233	25
Printing, publishing, and engraving	565	273	215	76	—	—	49	70	172	246	26	2
Textile industries—	1,134	457	449	215	12	1	302	101	147	402	169	13
Knitting mills	—	—	—	—	—	—	—	—	—	—	—	—
Silk mills	—	—	—	—	—	—	—	—	—	—	—	—
Other textile industries	—	—	—	—	—	—	—	—	—	—	—	—
Other industries	—	—	—	—	—	—	—	—	—	—	—	—
Tailorers	—	—	—	—	—	—	—	—	—	—	—	—
Upholsterers	—	—	—	—	—	—	—	—	—	—	—	—
All other occupations	—	—	—	—	—	—	—	—	—	—	—	—
<b>Transportation</b>	7,864	3,983	3,073	761	47	—	1,655	1,563	2,272	2,106	248	20
Telegraph operators	499	244	206	49	—	—	32	93	163	179	29	3
Telephone operators	6,750	3,455	2,679	604	12	—	1,567	1,433	2,005	1,610	129	6
All other occupations	615	284	188	108	35	—	56	37	104	317	90	11
<b>Trade</b>	24,735	10,759	9,958	3,849	162	7	2,907	2,621	5,041	10,462	3,455	249
Clerks in stores <sup>1</sup>	6,559	2,706	2,871	908	73	1	1,128	946	1,623	2,343	502	17
Real estate agents and officials	405	202	117	83	3	—	—	4	25	209	144	23
Retail dealers <sup>2</sup>	2,310	774	794	720	20	2	6	37	151	1,157	848	112
Saleswomen (stores)	13,546	6,127	5,539	1,850	28	2	1,563	1,505	2,987	5,933	1,500	58
All other occupations	1,915	950	637	288	38	2	211	129	255	820	461	39
<b>Public service (not elsewhere classified)</b>	650	344	233	69	3	1	1	13	94	355	169	18
Officials and inspectors (state and United States)	311	159	120	31	—	—	—	10	43	174	77	7
All other occupations	339	185	113	38	3	1	1	3	51	181	92	11

<sup>1</sup> Includes 343 females of unknown age.<sup>2</sup> Many of the "Clerks in stores" probably are "Saleswomen."<sup>3</sup> Includes, also, managers and superintendents of retail stores.

**TABLE 25.—TOTAL MALES AND FEMALES 10 YEARS OF AGE AND OVER ENGAGED IN EACH SELECTED OCCUPATION, CLASSIFIED BY COLOR OR RACE, NATIVITY, AND PARENTAGE, AND AGE PERIODS, FOR THE STATE: 1920—Con.**

SEX AND OCCUPATION.	Total.	COLOR OR RACE, NATIVITY, AND PARENTAGE.					AGE PERIODS.						
		Native white.		Foreign-born white.	Negro.	Ind., Chi., Jap., and all other.	10 to 17 years.	18 and 19 years.	20 to 24 years.	25 to 44 years (includes age unknown).	45 to 64 years.	65 years and over.	
		Native parentage.	Foreign or mixed parentage.										
FEMALES—Continued.													
Professional service.....	35,256	19,184	12,994	2,860	211	7	362	2,723	10,940	17,005	3,930	296	
Artists, sculptors, and teachers of art.....	358	200	108	49	1	.....	5	8	49	101	96	9	
Librarians.....	577	372	173	32	.....	.....	.....	23	118	300	123	13	
Musicians and teachers of music.....	2,661	1,553	877	195	34	2	85	126	521	1,481	411	37	
Religious, charity, and welfare workers.....	669	372	205	82	10	.....	.....	14	88	397	150	20	
Teachers (school).....	23,093	12,819	9,053	1,169	50	2	128	1,992	8,034	10,733	2,099	107	
Trained nurses.....	4,505	1,960	1,577	931	35	2	15	349	1,430	2,324	362	25	
All other occupations.....	3,393	1,908	1,001	402	81	1	129	211	700	1,579	689	85	
Domestic and personal service.....	59,259	22,048	17,599	14,163	5,293	156	4,371	4,289	8,504	23,556	15,772	2,767	
Barbers, hairdressers, and manicurists.....	854	323	204	124	203	.....	17	25	136	527	134	15	
Boarding and lodging house keepers.....	4,945	1,889	1,250	1,540	265	1	.....	12	115	2,126	2,295	397	
Charwomen and cleaners.....	495	143	79	214	57	2	18	13	31	241	103	29	
Hotel keepers and managers.....	364	151	128	83	2	.....	.....	.....	7	155	181	21	
Housekeepers and stewardesses.....	7,762	3,278	2,411	1,861	190	22	.....	237	630	2,911	3,156	828	
Janitors and sextons.....	973	202	227	367	177	.....	11	14	55	498	302	33	
Laundresses (not in laundry).....	4,837	1,614	928	1,395	870	80	68	74	223	2,256	1,897	306	
Laundry operatives.....	3,114	1,000	1,048	494	504	8	490	351	563	1,205	477	28	
Nurses (not trained).....	4,976	2,380	1,431	1,120	44	1	.....	116	502	2,099	1,949	310	
Restaurant, café, and lunch room keepers.....	4,493	187	149	126	31	.....	.....	3	29	255	197	9	
Servants.....	25,353	8,568	8,260	5,893	2,545	87	3,089	2,747	4,632	9,246	4,587	752	
Waitresses.....	4,290	1,969	1,304	785	229	3	633	636	1,134	1,647	220	20	
All other occupations.....	803	284	180	161	176	2	45	61	144	380	154	19	
Clerical occupations.....	53,004	25,507	22,010	5,347	136	4	5,078	8,777	18,171	19,062	1,840	76	
Accountants and auditors.....	604	296	249	59	.....	.....	.....	62	204	293	42	3	
Agents, canvassers, and collectors.....	544	300	175	64	5	.....	.....	25	71	277	132	24	
Bookkeepers and cashiers.....	13,586	6,522	5,083	1,354	26	1	867	1,722	4,280	6,077	629	11	
Clerks (except clerks in stores).....	18,107	8,873	7,337	1,830	66	1	2,095	3,147	5,770	6,281	783	31	
Messenger, bundle, and office girls <sup>1</sup> .....	571	260	241	64	6	.....	299	86	113	64	7	2	
Stenographers and typists.....	19,592	9,256	8,325	1,976	33	2	1,802	3,735	7,733	6,070	247	5	

<sup>1</sup> Except telegraph messengers.**TABLE 26.—WOMEN 15 YEARS OF AGE AND OVER IN EACH PRINCIPAL CLASS OF THE POPULATION ENGAGED IN GAINFUL OCCUPATIONS, CLASSIFIED BY MARITAL CONDITION, WITH A DISTRIBUTION OF THE MARRIED BY AGE PERIODS, FOR THE STATE: 1920.**

CLASS OF POPULATION.	Aggregate.	MARRIED.						Single, widowed, divorced, and unknown.
		Total.	15 to 19 years.	20 to 24 years.	25 to 34 years.	35 to 44 years.	45 years and over. <sup>1</sup>	
All classes.....	244,515	52,097	1,678	7,607	17,263	13,230	12,319	192,418
Native white—Native parentage.....	106,668	24,680	940	3,881	8,055	5,980	5,834	81,978
Native white—Foreign or mixed parentage.....	90,593	13,009	438	2,034	4,502	3,302	2,733	77,584
Foreign-born white.....	40,295	10,872	192	1,044	3,203	3,143	3,290	29,423
Negro.....	6,679	3,427	107	643	1,480	781	416	3,262
Indian.....	262	95	1	5	22	23	44	167
Chinese, Japanese, and all other.....	18	4	.....	.....	1	1	2	14

<sup>1</sup> Includes age unknown.

# AGRICULTURE—MICHIGAN.

## INTRODUCTION.

In the following pages are presented all of the published results of the 1920 census of agriculture for this state and its counties, except certain detailed tabulations for the state which appear in Volume V of the Fourteenth Census Reports and a few minor items which have been published in special bulletins. The statistics of farms and farm property, including live stock, relate to January 1, 1920; those of live-stock

products, crops, and farm expenditures are for the calendar year 1919. In order to show the present tendency in agriculture, comparative figures for the census of 1910 are given throughout; and to show the general trend of the agricultural industry over a considerable period of time, all general farm information available is presented for the different censuses since 1850.

## FARMS AND FARM PROPERTY.

TABLE 1.—SUMMARY: 1920 AND 1910.

ITEM.	1920 (January 1)	1910 (April 15)	INCREASE. <sup>1</sup>	
			Amount.	Per cent.
Population, total.....	3,668,412	2,810,173	858,239	30.5
Rural <sup>2</sup> .....	1,426,852	1,483,129	-56,277	-3.8
Urban.....	2,241,560	1,327,044	914,516	68.9
Per cent rural.....	38.9	52.8		
Number of farms.....	196,447	206,960	-10,513	-5.1
Approximate land area of the state.....acres..	36,787,200	36,787,200		
All land in farms.....acres..	19,032,961	18,940,614	92,347	0.5
Improved land in farms.....acres..	12,925,521	12,832,078	93,443	0.7
Woodland in farms.....acres..	3,217,000	2,927,554	289,446	9.9
Other unimproved land in farms.....acres..	2,890,440	3,180,982	-290,542	-9.1
Per cent of land area in farms.....	51.7	51.5		
Per cent of farm land improved.....	67.9	67.8		
Average acreage per farm.....	96.9	91.5	5.4	5.9
Average improved acreage per farm.....	65.8	62.0	3.8	6.1
Value of all farm property.....	\$1,763,334,778	\$1,088,858,379	\$674,476,399	61.9
Land and buildings.....	1,436,686,210	901,138,299	535,547,911	59.4
Land alone.....	959,186,538	615,258,348	343,928,190	55.9
Buildings.....	477,499,672	285,879,951	191,619,721	67.0
Implements and machinery.....	122,389,936	49,916,285	72,473,651	145.2
Live stock.....	204,258,632	137,803,795	66,454,837	48.2
Average value per farm:				
All farm property.....	8,976	5,261	3,715	70.6
Land and buildings.....	7,313	4,354	2,959	68.0
Land alone.....	4,883	2,973	1,910	64.2
Buildings.....	2,431	1,381	1,050	76.0
Implements and machinery.....	623	241	382	158.6
Live stock.....	1,040	666	374	56.2
Average value per acre of land in farms:				
All farm property.....	92.65	57.49	35.16	61.2
Land and buildings.....	75.48	47.58	27.90	58.6
Land alone.....	50.40	32.48	17.92	55.2
Buildings.....	25.09	15.09	10.00	66.3
Implements and machinery.....	6.43	2.64	3.79	143.6
Live stock.....	10.73	7.28	3.45	47.4

<sup>1</sup> A minus sign (-) denotes decrease.

<sup>2</sup> Population residing outside of incorporated places having 2,500 inhabitants or over. The rate of increase (or decrease) in the rural population between the two censuses is affected somewhat by the fact that certain places classified as rural in 1910 had become urban by 1920. The population in 1910 of the territory classified as rural in 1920 was 1,481,627. For this territory, the population shows a decrease between 1910 and 1920 amounting to 2.4 per cent, which percentage indicates the rate of decline in the rural population, leaving out of consideration the changes in classification of territory.

COUNTIES, PRINCIPAL CITIES, AND RIVERS.





EXPLANATION OF TERMS.

To assist in securing comparability for its statistics of agriculture, the Bureau of the Census provided the enumerators with certain definitions and instructions, the more important of which were essentially as given below.

**Farm.**—A "farm" for census purposes is all the land which is directly farmed by one person managing and conducting agricultural operations, either by his own labor alone or with the assistance of members of his household or hired employees. The term "agricultural operations" is used as a general term, referring to the work of growing crops, producing other agricultural products, and raising domestic animals, poultry, and bees. A "farm" as thus defined may consist of a single tract of land or of a number of separate and distinct tracts, and these several tracts may be held under different tenures, as where one tract is owned by the farmer and another tract is hired by him. When a landowner has one or more tenants, renters, croppers, or managers, the land operated by each is considered a "farm."

In applying the foregoing definition of a "farm" for census purposes, enumerators were instructed to report as a "farm" any tract of 3 or more acres used for agricultural purposes, and also any tract containing less than 3 acres which produced at least \$250 worth of farm products in the year 1919, or required for its agricultural operations the continuous services of at least one person.

**Farmer.**—A "farmer" or "farm operator," according to the census definition, is a person who directs the operation of a farm. Hence owners of farms who do not themselves direct the farm operations are not reported as "farmers." Farmers are divided by the Bureau of the Census into three general classes according to the character of their tenure, namely, owners, managers, and tenants.

**Farm owners** include (1) farmers operating their own land only and (2) those operating both their own land and some land hired from others. The latter are sometimes referred to in the census reports as "part owners," the term "full owners" being then used for those owning all their land.

**Managers** are farmers who are conducting farm operations for the owner for wages or a salary.

**Farm tenants** are farmers who, as tenants, renters, or croppers, operate hired land only. They were reported in 1920 in five classes: (1) Share tenants—those who pay a certain share of the products, as one-half, one-third, or one-quarter, for the use of the farm but furnish their own farm equipment and animals; (2) croppers—share tenants who do not furnish their work animals; (3) share-cash tenants—those who pay a share of the products for part of the land rented by them and cash for part; (4) cash tenants—those who pay a cash rental, as \$7 per acre of crop land or \$500 for the use of the whole farm; (5) standing renters—those who pay a stated amount of farm products for the use of the farm, as 3 bales of cotton or 500 bushels of corn. In some cases the character of the tenancy was not ascertained by the enumerator; such tenants are designated "unspecified."

**Farm land.**—Farm land is divided into (1) improved land, (2) woodland, and (3) other unimproved land.

**Improved land** includes all land regularly tilled or mowed, land in pasture which has been cleared or tilled, land lying fallow, land in gardens, orchards, vineyards, and nurseries, and land occupied by farm buildings.

**Woodland** includes all land covered with natural or planted forest trees which produce, or later may produce, firewood or other forest products.

**All other unimproved land** includes brush land, rough or stony land, swamp land, and any other land which is not improved or in forest.

The census classification of farm land as "improved land," "woodland," and "other unimproved land" is one not always easy for the farmers or enumerators to make, and the statistics, therefore, must be considered at best only a close approximation.

NUMBER OF FARMS, ACREAGE, AND VALUE.

TABLE 2.—NUMBER OF FARMS AND FARM ACREAGE: 1850 TO 1920.

CENSUS YEAR.	FARMS.		LAND IN FARMS.				Per cent of land area in farms.	Per cent of farm land im- proved.
	Num- ber.	Per cent of in- crease.	All land.		Improved land.			
			Acres.	Per cent of in- crease.	Acres.	Per cent of in- crease.		
1920.....	196,447	-5.1	19,032,901	0.5	12,925,521	0.7	51.7	67.9
1910.....	206,960	1.8	18,940,614	7.9	12,832,078	8.8	51.5	67.8
1900.....	203,261	17.9	17,501,698	18.8	11,799,250	19.6	47.7	67.2
1890.....	172,344	11.9	14,785,636	7.1	9,865,350	18.9	40.2	66.7
1880.....	154,008	55.9	13,807,240	37.8	8,296,862	62.8	37.5	60.1
1870.....	98,786	58.3	10,019,142	42.5	5,096,939	46.6	27.2	50.9
1860.....	62,422	83.1	7,030,834	60.4	3,476,296	80.2	19.1	49.4
1850.....	34,089		4,383,890		1,929,110		11.9	44.0

<sup>1</sup> A minus sign (—) denotes decrease.

TABLE 3.—VALUE OF FARM PROPERTY: 1850 TO 1920.

CENSUS YEAR.	ALL FARM PROPERTY.		LAND AND BUILDINGS.		IMPLEMENTS AND MACHINERY.		LIVE STOCK.	
	Value.	Per cent of increase.	Value.	Per cent of increase.	Value.	Per cent of increase.	Value.	Per cent of increase.
1920.....	\$1,763,334,778	61.9	\$1,436,688,210	59.4	\$122,389,936	145.2	\$204,253,632	48.2
1910.....	1,088,858,379	57.7	901,138,299	54.7	49,916,285	73.3	137,803,795	74.3
1900.....	690,355,734	6.5	582,517,710	4.7	28,795,380	29.8	70,042,644	13.6
1890.....	647,938,255	12.8	556,190,670	11.4	22,182,600	14.2	69,564,985	24.8
1880.....	574,242,654	55.4	499,103,181	56.7	19,419,360	77.0	55,720,113	39.8
1870.....	369,409,941	94.0	318,592,463	98.1	10,969,583	88.6	39,847,895	68.0
1860.....	190,371,098	203.3	160,836,495	210.1	5,819,832	101.3	23,714,771	196.1
1850.....	62,772,551	.....	51,872,446	.....	2,891,371	.....	8,008,734	.....

<sup>1</sup> Computed gold values, being 80 per cent of the currency values reported.

TABLE 4.—AVERAGE ACREAGE AND AVERAGE VALUE PER FARM: 1850 TO 1920.

[Averages are based on "all farms" in the state.]

CENSUS YEAR.	AVERAGE ACREAGE PER FARM.		AVERAGE VALUE PER FARM.			
	All land.	Improved land.	All farm property.	Land and buildings.	Implements and machinery.	Live stock.
1920.....	96.9	65.8	\$8,976	\$7,313	\$623	\$1,040
1910.....	91.5	62.0	5,261	4,354	241	666
1900.....	86.4	58.0	3,396	2,866	142	389
1890.....	85.8	57.2	3,760	3,227	129	404
1880.....	89.7	53.9	3,729	3,241	126	362
1870.....	101.4	51.6	3,739	3,225	111	403
1860.....	112.6	55.7	3,050	2,677	93	380
1850.....	128.6	56.6	1,841	1,522	85	235

<sup>1</sup> Computed gold values, being 80 per cent of the currency values reported.

TABLE 5.—AVERAGE VALUE PER ACRE: 1850 TO 1920.

[Averages are based on "all land in farms" in the state.]

CENSUS YEAR.	All farm property.	Land and buildings.	Land alone.	Buildings alone.	Implements and machinery.	Live stock.
1920.....	\$92.65	\$75.48	\$50.40	\$25.09	\$6.43	\$10.73
1910.....	57.49	47.68	32.48	15.09	2.64	7.28
1900.....	39.31	33.17	24.12	9.05	1.64	4.50
1890.....	43.82	37.62	.....	.....	1.50	4.70
1880.....	41.59	36.15	.....	.....	1.41	4.04
1870.....	36.87	31.80	.....	.....	1.09	3.98
1860.....	27.08	22.88	.....	.....	0.83	3.37
1850.....	14.32	11.83	.....	.....	0.66	1.83

<sup>1</sup> Computed gold values, being 80 per cent of the currency values reported.

## AGRICULTURE—MICHIGAN.

## FARMS BY SIZE.

TABLE 6.—NUMBER OF FARMS, BY SIZE: 1920 AND 1910.

SIZE GROUP.	NUMBER OF FARMS.		INCREASE. <sup>1</sup>		PER CENT OF TOTAL.	
	1920	1910	Number.	Per cent.	1920	1910
Total.....	196,447	206,960	-10,513	-5.1	100.0	100.0
Under 20 acres.....	12,744	14,785	-2,041	-13.8	6.5	7.1
Under 3 acres.....	325	387	-62	-16.0	0.2	0.2
3 to 9 acres.....	5,878	6,879	-1,001	-15.0	2.9	3.2
10 to 19 acres.....	6,741	7,719	-978	-12.7	3.4	3.7
20 to 49 acres.....	40,765	49,890	-9,125	-18.3	20.8	24.1
50 to 99 acres.....	71,391	73,748	-2,357	-3.2	36.3	35.6
100 to 174 acres.....	52,645	50,622	2,023	4.0	26.8	24.5
175 to 499 acres.....	18,075	17,143	932	5.4	9.2	8.3
500 to 999 acres.....	13,230	12,420	810	6.5	6.7	6.0
1,000 acres and over.....	4,839	4,717	122	2.6	2.5	2.3
500 to 999 acres.....	634	607	27	4.4	0.3	0.3
1,000 acres and over.....	193	165	28	17.0	0.1	0.1

<sup>1</sup> A minus sign (-) denotes decrease.

TABLE 7.—NUMBER OF FARMS AND PER CENT DISTRIBUTION, BY SIZE: 1880 TO 1920.

SIZE GROUP.	1920	1910	1900	1890	1880
Total number of farms.....	196,447	206,960	203,261	172,344	154,068
Under 10 acres.....	6,003	7,068	6,135	5,323	2,805
10 to 19 acres.....	6,741	7,719	7,335	5,347	4,514
20 to 49 acres.....	40,765	49,890	50,197	53,005	45,029
50 to 99 acres.....	71,391	73,748	71,021	61,298	55,777
100 to 174 acres.....	70,720	67,765	68,920	48,237	45,391
175 to 499 acres.....	18,075	17,143	18,075	17,143	17,143
500 to 999 acres.....	13,230	12,420	13,230	12,420	12,420
1,000 acres and over.....	4,839	4,717	4,839	4,717	4,717
Per cent of all farms.....	100.0	100.0	100.0	100.0	100.0
Under 10 acres.....	3.1	3.4	3.0	3.1	1.8
10 to 19 acres.....	3.4	3.7	3.6	3.1	2.9
20 to 49 acres.....	20.8	24.1	24.1	31.1	29.2
50 to 99 acres.....	36.3	35.6	34.9	35.6	36.2
100 to 174 acres.....	36.0	32.7	34.0	28.0	29.5
175 to 499 acres.....	9.2	8.3	9.0	8.3	9.2
500 to 999 acres.....	6.7	6.0	6.5	7.1	6.0
1,000 acres and over.....	2.5	2.3	2.4	2.6	3.0

TABLE 8.—FARM ACREAGE AND VALUE, BY SIZE OF FARM: 1920 AND 1910.

SIZE GROUP (ACRES).	ALL LAND IN FARMS (ACRES).		IMPROVED LAND IN FARMS (ACRES).		VALUE OF LAND AND BUILDINGS.	
	1920	1910	1920	1910	1920	1910
Total.....	19,032,961	18,940,614	12,925,521	12,832,078	\$1,436,686,210	\$901,138,299
Under 20.....	120,604	137,131	104,690	121,750	38,961,427	28,255,364
20 to 49.....	1,489,135	1,814,802	1,126,919	1,351,445	150,289,336	106,804,968
50 to 99.....	5,369,820	5,537,099	3,974,153	3,908,814	431,375,137	271,485,989
100 to 174.....	6,856,373	6,591,003	4,796,617	4,538,148	502,195,333	301,276,358
175 to 499.....	4,335,771	4,125,482	2,675,770	2,602,019	232,847,645	174,584,535
500 to 999.....	404,907	391,180	165,962	159,477	19,117,412	13,040,477
1,000 and over.....	466,281	343,917	81,410	59,425	11,919,020	5,690,538

TABLE 9.—PER CENT OF FARM LAND IMPROVED, AND AVERAGE VALUES, BY SIZE OF FARM: 1920 AND 1910.

SIZE GROUP.	PER CENT OF FARM LAND IMPROVED.		AVERAGE VALUE OF LAND AND BUILDINGS.			
			Per farm.		Per acre.	
	1920	1910	1920	1910	1920	1910
Total.....	67.9	67.8	\$7,313	\$4,354	\$75.48	\$47.58
Under 20 acres.....	86.8	88.8	3,057	1,911	322.89	206.05
20 to 49 acres.....	75.7	74.5	3,686	2,141	100.91	58.85
50 to 99 acres.....	74.0	72.2	6,042	3,081	80.33	49.03
100 to 174 acres.....	70.0	68.9	9,539	5,951	73.25	45.71
175 to 499 acres.....	61.7	63.1	15,649	10,184	65.24	42.32
500 to 999 acres.....	41.0	40.8	30,154	21,484	47.21	33.34
1,000 acres and over.....	17.8	17.3	61,761	34,488	26.12	16.55

## FARMS BY TENURE.

TABLE 10.—NUMBER OF FARMS, BY TENURE: 1920 AND 1910.

TENURE.	NUMBER OF FARMS.		INCREASE. <sup>1</sup>		PER CENT OF TOTAL.	
	1920	1910	Number.	Per cent.	1920	1910
Total.....	196,447	206,960	-10,513	-5.1	100.0	100.0
Owners.....	159,406	172,310	-12,904	-7.5	81.1	83.8
Owning entire farm.....	139,874	151,005	-11,131	-7.4	71.2	73.0
Hiring additional land.....	19,532	21,305	-1,773	-8.3	9.9	10.3
Managers.....	2,319	1,961	358	18.3	1.2	0.9
Tenants.....	34,722	32,689	2,033	6.2	17.7	15.8
Share tenants.....	23,280	20,378	2,902	14.2	11.9	9.8
Share-cash tenants.....	422	870	-448	-51.6	0.2	0.4
Cash tenants.....	9,312	9,629	-317	-3.3	4.7	4.7
Unspecified.....	1,708	1,812	-104	-5.7	0.9	0.9

<sup>1</sup> A minus sign (-) denotes decrease.

TABLE 11.—NUMBER OF FARMS AND PER CENT DISTRIBUTION, BY TENURE: 1880 TO 1920.

TENURE.	1920	1910	1900	1890	1880
Total number of farms.....	196,447	206,960	203,261	172,344	154,068
Farms operated by owners.....	159,406	172,310	168,814	148,203	138,597
Owning entire farm.....	139,874	151,005	153,190	(*)	(*)
Hiring additional land.....	19,532	21,305	15,618	(*)	(*)
Farms operated by managers.....	2,319	1,961	2,234	(*)	(*)
Farms operated by tenants.....	34,722	32,689	32,213	24,136	15,411
Share tenants.....	23,280	20,378	22,482	15,024	10,396
Share-cash tenants.....	422	870			
Cash tenants.....	9,312	9,629	9,731	8,212	5,015
Unspecified.....	1,708	1,812			
Per cent of all farms.....	100.0	100.0	100.0	100.0	100.0
Operated by owners.....	81.1	83.8	83.1	86.0	90.0
Owning entire farm.....	71.2	73.0	75.4	(*)	(*)
Hiring additional land.....	9.9	10.3	7.7	(*)	(*)
Operated by managers.....	1.2	0.9	1.1	(*)	(*)
Operated by tenants.....	17.7	15.8	15.8	14.0	10.0
Share and share-cash.....	12.1	10.3	11.1	9.2	6.8
Cash and unspecified.....	5.6	5.5	4.8	4.8	3.3

<sup>1</sup> Includes farms operated by managers.<sup>2</sup> Not reported separately.<sup>3</sup> Included with farms operated by owners.

TABLE 12.—FARM ACREAGE AND VALUE, BY TENURE: 1920 AND 1910.

TENURE.	ALL LAND IN FARMS (ACRES).		IMPROVED LAND IN FARMS (ACRES).		VALUE OF LAND AND BUILDINGS.	
	1920	1910	1920	1910	1920	1910
Total.....	19,032,961	18,940,614	12,925,521	12,832,078	\$1,436,686,210	\$901,138,299
Owners.....	14,541,461	15,107,494	9,846,841	10,142,150	1,060,478,928	990,050,567
Managers.....	587,891	452,504	272,352	217,109	50,108,044	22,981,178
Tenants.....	3,903,609	3,380,610	2,806,328	2,472,810	330,000,238	179,097,554

TABLE 13.—PER CENT DISTRIBUTION OF FARMS AND OF FARM ACREAGE AND VALUE, BY TENURE: 1920 AND 1910.

TENURE.	NUMBER OF FARMS.		ALL LAND IN FARMS.		IMPROVED LAND IN FARMS.		VALUE OF LAND AND BUILDINGS.	
	1920	1910	1920	1910	1920	1910	1920	1910
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Owners.....	81.1	83.8	76.4	79.8	76.2	79.0	73.5	77.6
Managers.....	1.2	0.9	3.1	2.4	2.1	1.7	3.5	2.6
Tenants.....	17.7	15.8	20.5	17.8	21.7	19.3	23.0	19.9

TABLE 14.—AVERAGE ACREAGE, PER CENT OF FARM LAND IMPROVED, AND AVERAGE VALUES, BY TENURE: 1920 AND 1910.

TENURE.	AVERAGE ACREAGE PER FARM.				PER CENT OF FARM LAND IMPROVED.		AVERAGE VALUE OF LAND AND BUILDINGS.			
	All land.		Improved land.				Per farm.		Per acre.	
	1920	1910	1920	1910	1920	1910	1920	1910	1920	1910
Total.....	96.9	91.5	65.8	62.0	67.9	67.8	\$7,313	\$4,354	\$75.43	\$47.58
Owners.....	91.2	87.7	61.8	58.9	67.7	67.1	6,628	4,057	72.65	46.27
Managers.....	253.5	230.8	117.4	110.7	46.3	48.0	21,646	11,719	85.39	50.79
Tenants.....	112.4	103.4	80.8	75.0	71.9	73.1	9,504	5,479	84.54	52.98

FARMS BY SEX, RACE, AND NATIVITY OF FARMER.

TABLE 15.—NUMBER, ACREAGE, AND VALUE OF FARMS, CLASSIFIED BY SEX AND TENURE OF FARMER: 1920.

SEX AND TENURE.	Number of farms.	All land in farms (acres).	Improved land in farms (acres).	Value of land and buildings.	AVERAGE PER FARM.		
					All land (acres).	Improved land (acres).	Value of land and buildings.
Total.....	196,447	19,032,961	12,925,521	\$1,436,686,210	96.9	65.8	\$7,313
Male.....	190,671	18,592,535	12,639,075	1,404,325,237	97.5	66.3	7,365
Female.....	5,776	440,426	286,446	32,360,973	70.3	49.5	5,693
Owners.....	159,406	14,541,481	9,846,841	1,056,478,928	91.2	61.8	6,628
Male.....	153,872	14,123,300	9,573,754	1,026,134,855	91.8	62.2	6,609
Female.....	5,534	418,181	273,087	30,344,073	75.0	49.3	5,483
Managers.....	2,319	587,891	272,352	50,198,044	283.5	117.4	21,646
Male.....	2,800	584,493	271,150	49,870,544	254.1	117.9	21,683
Female.....	19	3,398	1,202	327,500	178.8	63.3	17,237
Tenants.....	34,722	3,903,609	2,806,328	330,009,288	112.4	80.8	9,504
Male.....	34,499	3,884,742	2,794,771	328,319,838	112.6	81.0	9,517
Female.....	223	18,867	11,557	1,689,450	84.6	61.8	7,576

TABLE 16.—NUMBER, ACREAGE, AND VALUE OF FARMS, CLASSIFIED BY NATIVITY OF WHITE FARMERS AND BY RACE OF COLORED FARMERS: 1920 AND 1910.

COLOR AND NATIVITY OR RACE.	NUMBER OF FARMS.		LAND IN FARMS, 1920 (ACRES).		Value of land and buildings, 1920
	1920	1910	Total.	Improved.	
All farmers.....	196,447	206,960	19,032,961	12,925,521	\$1,436,686,210
White farmers.....	195,714	206,014	18,984,248	12,893,814	1,433,681,404
Native.....	147,450	147,790	14,709,946	10,251,673	1,141,785,581
Foreign-born.....	48,264	58,224	4,274,302	2,642,141	291,895,823
Country of birth:					
Austria.....	2,034	1,118	151,489	92,235	10,455,692
Canada.....	13,303	20,129	1,345,498	881,951	86,053,474
Denmark.....	1,142	1,381	96,642	62,142	6,720,080
England.....	2,203	3,913	197,693	128,208	16,529,475
Finland.....	8,947	(2)	280,031	107,211	13,121,983
Germany.....	9,746	15,788	873,214	588,949	65,942,814
Holland.....	3,279	3,931	235,263	165,337	19,905,820
Hungary.....	933	181	75,302	48,085	5,303,030
Ireland.....	819	2,011	79,639	53,824	5,588,545
Norway.....	654	817	56,678	26,862	2,603,680
Poland.....	2,479	787	219,191	120,085	14,808,057
Russia.....	1,638	746	117,813	73,817	8,259,810
Scotland.....	436	859	49,677	31,283	3,596,740
Sweden.....	3,088	3,330	279,442	128,334	14,099,543
Switzerland.....	271	440	35,882	22,623	2,389,360
Other countries.....	2,202	2,834	180,848	111,695	16,473,170
Colored farmers.....	733	948	48,713	31,707	3,004,806
Negro.....	549	640	40,939	27,682	2,566,855
Indian.....	182	306	7,494	4,040	428,951
Japanese.....	1	.....	160	45	2,000
Chinese.....	1	.....	120	60	6,000

<sup>1</sup> Includes farmers with country of birth not reported, as follows: For 1920, 2,520; for 1910, 412.

<sup>2</sup> Included with "other countries."

TABLE 17.—NUMBER OF FARMERS, CLASSIFIED BY TENURE, COLOR, AND NATIVITY: 1920 AND 1910.

TENURE.	ALL FARMERS.		NATIVE WHITE. <sup>1</sup>		FOREIGN-BORN WHITE.		COLORED.	
	1920	1910	1920	1910	1920	1910	1920	1910
Total.....	196,447	206,960	147,450	147,790	48,264	58,224	733	948
Owners.....	159,406	172,310	115,624	118,660	43,219	52,865	563	785
Managers.....	2,319	1,961	1,925	1,521	385	431	9	9
Tenants.....	34,722	32,689	29,901	27,609	4,660	4,928	161	152

<sup>1</sup> Includes farmers with country of birth not reported.

FARM MORTGAGES.

TABLE 18.—MORTGAGED FARMS: 1920 AND 1910.

[Owned farms only; includes all farms owned in whole or in part by the operator.]

CLASS.	NUMBER OF OWNED FARMS.		INCREASE. <sup>1</sup>		PER CENT OF TOTAL.	
	1920	1910	Number.	Per cent.	1920	1910
Total.....	159,406	172,310	-12,904	-7.5	100.0	100.0
Free from mortgage.....	72,869	88,705	-15,836	-17.9	45.7	51.5
Mortgaged.....	78,758	82,631	-3,873	-4.7	49.4	48.0
Unknown.....	7,779	974	6,805	698.7	4.9	0.6

<sup>1</sup> A minus sign (-) denotes decrease. The comparative figures shown for farms free from mortgage and mortgaged are affected somewhat by the fact that more farms were tabulated as "unknown" in 1920 than in 1910.

TABLE 19.—MORTGAGED FARMS (OR FARM HOMES): 1890 TO 1920.

CLASS.	OWNED FARMS.		OWNED FARM HOMES.		PER CENT OF TOTAL.			
	1920	1910	1900	1890	1920	1910	1900	1890
Total.....	159,406	172,310	168,062	146,697	100.0	100.0	100.0	100.0
Free from mortgage.....	72,909	88,705	85,490	74,302	45.7	51.5	50.9	50.6
Mortgaged.....	78,758	82,631	79,789	72,395	49.4	48.0	47.5	49.4
Unknown.....	7,779	974	2,783	.....	4.9	0.6	1.7	.....

TABLE 20.—MORTGAGE DEBT: 1920 AND 1910.

ITEM.	OWNED FARMS MORTGAGED. <sup>1</sup>		INCREASE. <sup>2</sup>	
	1920	1910	Amount.	Per cent.
Number of farms reporting amount of debt.....	67,119	68,655	-1,536	-2.2
Value of land and buildings.....	\$420,108,158	\$250,874,010	\$169,234,146	67.5
Amount of mortgage debt.....	\$144,103,067	\$75,997,030	\$68,106,037	89.6
Ratio of debt to value, per cent.....	34.3	30.3	.....	.....
Average rate of interest paid, per cent.....	6.0	.....	.....	.....
Average value per farm.....	\$6,250	\$3,654	\$2,605	71.3
Average debt per farm.....	\$2,147	\$1,107	\$1,040	93.9
Average equity per farm.....	\$4,112	\$2,547	\$1,565	61.4

<sup>1</sup> Includes only farms consisting wholly of owned land and reporting amount of debt. In considering the comparative figures, it should be borne in mind that the mortgage debt may have been more completely reported at one census than at the other.

<sup>2</sup> A minus sign (-) denotes decrease.

FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED.

TABLE 21.—FARMS REPORTING EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919 AND 1909.

ITEM.	NUMBER OF FARMS REPORTING.		INCREASE. <sup>1</sup>		PER CENT OF ALL FARMS.	
	1919	1909	Number.	Per cent.	1919	1909
Labor.....	102,431	111,842	-9,411	-8.4	52.1	54.0
Fertilizer.....	65,782	31,327	34,455	110.0	33.5	15.1
Feed.....	111,191	75,882	35,309	46.5	56.6	36.7

<sup>1</sup> A minus sign (-) denotes decrease.

TABLE 22.—AMOUNT OF EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919 AND 1909.

ITEM.	AMOUNT EXPENDED.		INCREASE.	
	1919	1909	Amount.	Per cent.
Labor, total.....	\$31,944,861	\$19,063,082	\$12,881,779	67.6
Amount in cash.....	24,875,549	15,073,667	9,801,882	65.0
Value of rent and board furnished.....	7,069,312	3,989,415	3,079,897	77.2
Fertilizer.....	4,872,543	945,354	3,927,189	415.4
Feed.....	21,938,870	5,682,915	16,255,955	286.0

## LIVE STOCK ON FARMS AND ELSEWHERE.

(DOMESTIC ANIMALS, POULTRY, AND BEES.)

Domestic animals: 1920 and 1910.—The census of 1920 was taken as of January 1 and that of 1910 as of April 15. Since a great many domestic animals are born during the period between January 1 and April 15 and, on the other hand, a considerable number of older animals are slaughtered or die during the same period, the numbers of the different classes of animals for the two censuses are not fully comparable. In addition to the change in the date of enumeration, there have been certain changes in the age and sex classifications. The 1910 figures presented in the following tables are therefore restricted to those classes of domestic animals which are least affected by these changes and for which the figures are fairly comparable with the 1920 returns.

Dairy cows: 1920 and 1910.—In 1910 the census called for "cows and heifers kept for milk" and "cows and heifers not kept for milk." The instructions read: "Report as cows kept for milk those whose milk is used in some form for human food. Cows milked for three months during the year should be reported as *kept for milk*, although a part of the year they run with their calves."

In 1920 the census called for "dairy cattle" and "beef cattle." Dairy cattle were defined as those "kept mainly for milk production," and the following instructions were given the enumerators: "Classify all cattle as beef cattle or as dairy cattle according to the principal purpose for which they are kept." It is believed that under this rule the fully established dairy and beef breeds have been properly reported, with few errors, and that cattle of the dual-purpose breeds or of no definite breeding have been placed in one class or the other, according to the principal purpose for which they are kept.

In states where cattle are raised extensively for beef production the result of this new classification will be to reduce materially the proportion of cows classified as dairy cows, and even in states having few strictly beef cattle the 1920 classification may be expected to give a somewhat smaller proportion of dairy cows than the 1910 classification.

In Michigan the number of "dairy cows," including heifers 1 year old and over, reported for January 1,

1920, was 967,459, as compared with 767,083 "cows kept for milk" reported for April 15, 1910. This represents an increase of 200,376, or 26.1 per cent, notwithstanding the change in classification indicated above. The number of "beef cows" reported for January 1, 1920, was 89,277, as compared with 106,801 "cows not kept for milk" reported for April 15, 1910, representing a decrease of 17,524, or 16.4 per cent.

Farms reporting domestic animals: 1910.—Horses were reported by 184,267 farms in Michigan in 1910, mules by 1,865 farms, cattle by 185,081, sheep by 54,865, and swine by 131,658. In comparing these figures with the 1920 figures given in the table below, due allowance should be made for the fact that the total number of farms in Michigan decreased from 206,960 in 1910 to 196,447 in 1920.

TABLE 23.—DOMESTIC ANIMALS ON FARMS: 1920.

CLASS.	FARMS REPORTING.		ANIMALS.		
	Num-ber.	Per cent of all farms.	Num-ber.	Value.	Average value.
<b>Total.....</b>	<b>186,354</b>	<b>94.9</b>	<b>1,192,145,492</b>	<b>.....</b>	<b>.....</b>
<b>Horses, total.....</b>	<b>176,259</b>	<b>89.7</b>	<b>605,509</b>	<b>56,433,785</b>	<b>\$93.20</b>
Colts under 1 year of age.....	14,123	7.2	17,526	796,823	43.70
Colts 1 year old and under 2 years.....	18,035	9.6	24,170	1,409,409	60.70
Mares 2 years old and over.....	141,389	72.0	284,014	27,296,697	96.11
Geldings 2 years old and over.....	141,508	72.0	277,806	26,454,361	95.23
Stallions 2 years old and over.....	1,040	0.8	1,093	447,505	224.64
<b>Mules, total.....</b>	<b>2,852</b>	<b>1.5</b>	<b>8,884</b>	<b>661,115</b>	<b>112.36</b>
Mule colts under 1 year of age.....	108	0.1	290	18,955	65.36
Mule colts 1 year old and under 2 years.....	249	0.1	429	40,370	94.10
Mules 2 years old and over.....	2,490	1.2	5,165	601,790	110.61
<b>Asses and burros.....</b>	<b>105</b>	<b>0.1</b>	<b>145</b>	<b>11,511</b>	<b>79.39</b>
<b>Cattle, total.....</b>	<b>173,417</b>	<b>88.3</b>	<b>1,586,042</b>	<b>101,717,971</b>	<b>64.13</b>
<b>Beef cattle, total.....</b>	<b>55,707</b>	<b>28.4</b>	<b>329,901</b>	<b>17,299,094</b>	<b>52.44</b>
Calves under 1 year of age.....	20,449	13.5	100,802	2,288,230	22.75
Heifers 1 year old and under 2 years.....	13,144	0.7	38,000	1,764,541	45.64
Cows and heifers 2 years old and over.....	12,325	0.8	50,617	4,035,090	79.72
Steers 1 year old and under 2 years.....	22,950	11.7	91,265	4,880,350	53.47
Steers 2 years old and over.....	5,130	4.1	43,923	3,830,135	87.19
Bulls 1 year old and over.....	4,168	2.1	4,839	500,739	103.48
<b>Dairy cattle, total.....</b>	<b>167,641</b>	<b>85.3</b>	<b>1,256,141</b>	<b>84,418,877</b>	<b>87.20</b>
Calves under 1 year of age.....	90,505	49.1	203,911	6,059,137	22.96
Heifers 1 year old and under 2 years.....	75,095	38.7	105,304	7,098,794	40.56
Cows and heifers 2 years old and over.....	167,274	85.1	802,095	68,324,090	85.13
Bulls 1 year old and over.....	22,604	11.5	24,771	2,335,956	94.30
<b>Sheep, total.....</b>	<b>35,454</b>	<b>18.0</b>	<b>1,209,191</b>	<b>13,688,379</b>	<b>11.32</b>
Lambs under 1 year of age.....	21,387	10.9	359,175	3,017,547	10.07
Ewes 1 year old and over.....	33,570	17.1	809,125	9,437,023	11.06
Rams 1 year old and over.....	19,499	9.9	26,651	493,146	18.50
Wethers 1 year old and over.....	766	0.4	14,240	140,663	0.89
<b>Goats, total.....</b>	<b>415</b>	<b>0.2</b>	<b>1,607</b>	<b>11,037</b>	<b>8.87</b>
Kids under 1 year of age, raised for fleeces.....	25	(1)	104	487	4.68
Goats 1 year old and over, raised for fleeces.....	40	(1)	331	2,521	7.62
All other goats.....	342	0.2	1,172	8,029	6.85
<b>Swine, total.....</b>	<b>138,170</b>	<b>70.3</b>	<b>1,106,066</b>	<b>19,621,714</b>	<b>17.74</b>
Pigs under 6 months old.....	89,588	45.6	637,080	6,035,321	9.66
Sows and gilts for breeding, 6 months old and over.....	92,279	47.0	184,556	0,898,176	37.38
Boars for breeding, 6 months old and over.....	12,198	6.2	14,190	581,012	40.92
All other hogs, 6 months old and over.....	46,253	23.5	220,222	5,507,205	25.01

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 24.—POULTRY AND BEES ON FARMS: 1920 AND 1910.

ITEM.	FARMS REPORT- ING, 1920.		NUMBER REPORTED. <sup>1</sup>		Value, 1920	Aver- age value, 1920
	Num- ber.	Per cent of all farms.	1920 (Jan. 1)	1910 (Apr. 15)		
<b>Poultry, total.....</b>	<b>180,693</b>	<b>92.0</b>	<b>11,183,064</b>	<b>29,967,039</b>	<b>\$11,587,814</b>	<b>\$1.04</b>
Chickens.....	180,664	92.0	10,913,645	9,698,401	11,002,012	1.01
Turkeys.....	14,044	7.1	74,780	81,263	258,857	3.46
Ducks.....	15,764	8.0	69,960	54,723	99,932	1.43
Geese.....	18,844	9.6	73,205	66,792	200,413	2.74
Guinea fowls.....	4,971	2.5	26,365	26,274	17,522	0.66
Pigeons.....	1,887	1.0	25,109	39,510	9,078	0.36
<b>Hives of bees.....</b>	<b>11,724</b>	<b>6.0</b>	<b>93,348</b>	<b>115,274</b>	<b>525,326</b>	<b>5.63</b>

<sup>1</sup> The numbers of the different classes of poultry are not strictly comparable for the two censuses, since a considerable number of fowls are killed between Jan. 1 and Apr. 15.

<sup>2</sup> Includes small numbers of peafowls and pheasants.

TABLE 25.—SELECTED CLASSES OF DOMESTIC ANIMALS ON FARMS: 1920 AND 1910.

CLASS.	NUMBER.		INCREASE. <sup>1</sup>	
	1920 (Jan. 1)	1910 (Apr. 15)	Number.	Per cent.
<b>Horses:</b>				
Total, excluding spring colts re- ported for 1910.....	605,509	602,410	3,099	0.5
Colts under 1 year old on Jan. 1 of census year.....	17,526	41,474	-23,948	-57.7
Horses 1 year old and over on Jan. 1 of census year.....	587,983	560,936	27,047	4.8
<b>Mules:</b>				
Total, excluding spring colts re- ported for 1910.....	5,884	3,638	2,246	61.7
Mule colts under 1 year old on Jan. 1 of census year.....	290	309	-19	-6.1
Mules 1 year old and over on Jan. 1 of census year.....	5,594	3,329	2,265	68.0
<b>Cattle:</b>				
Total, excluding spring calves re- ported for 1910.....	1,586,042	1,261,773	324,269	25.7
Calves under 1 year old on Jan. 1 of census year.....	364,503	324,263	40,240	12.4
Cows and heifers 1 year old and over on Jan. 1 of census year.....	1,056,736	873,884	182,852	20.9
Steers and bulls 1 year old and over on Jan. 1 of census year.....	164,803	63,626	101,177	159.0
<b>Sheep:</b>				
Total, excluding spring lambs re- ported for 1910.....	1,209,191	1,545,241	-336,050	-21.7

<sup>1</sup> A minus sign (—) denotes decrease.

TABLE 26.—DOMESTIC ANIMALS NOT ON FARMS: 1920 AND 1910.

CLASS.	INCLOSURES REPORTING.		ANIMALS.			
	1920 (Jan. 1)	1910 (Apr. 15)	Number.		Num- ber.	Per cent.
			1920 (Jan. 1)	1910 (Apr. 15)		
<b>Total.....</b>	<b>42,476</b>	<b>67,383</b>				
<b>Horses.....</b>	<b>26,328</b>	<b>50,939</b>	<b>58,474</b>	<b>100,238</b>	<b>-41,764</b>	<b>-41.7</b>
Horses 1 year old and over on Jan. 1 of census year.....			58,091	99,154	-41,063	-41.4
<b>Mules.....</b>	<b>373</b>	<b>277</b>	<b>894</b>	<b>700</b>	<b>194</b>	<b>27.7</b>
Mules 1 year old and over on Jan. 1 of census year.....			874	684	190	27.8
<b>Asses and burros.....</b>	<b>50</b>	<b>63</b>	<b>66</b>	<b>74</b>	<b>-8</b>	<b>.....</b>
<b>Cattle.....</b>	<b>21,675</b>	<b>27,622</b>	<b>42,061</b>	<b>47,385</b>	<b>-5,324</b>	<b>-11.2</b>
Cattle 1 year old and over on Jan. 1 of census year.....			35,935	36,904	-969	-2.6
<b>Sheep.....</b>	<b>435</b>	<b>318</b>	<b>7,465</b>	<b>6,453</b>	<b>1,012</b>	<b>15.7</b>
Goats.....	211	292	420	2,118	-1,698	-80.2
<b>Swine.....</b>	<b>7,767</b>	<b>3,931</b>	<b>23,970</b>	<b>13,894</b>	<b>10,076</b>	<b>72.5</b>

<sup>1</sup> A minus sign (—) denotes decrease. Per cent not shown when base is less than 100.

TABLE 27.—TOTAL NUMBER OF DOMESTIC ANIMALS: 1920.

CLASS.	Total.	On farms.	Not on farms.
<b>Horses.....</b>	<b>663,983</b>	<b>605,509</b>	<b>58,474</b>
Horses 2 years old and over.....	621,181	563,813	57,368
<b>Mules.....</b>	<b>6,778</b>	<b>5,884</b>	<b>894</b>
Mules 2 years old and over.....	5,994	5,165	829
<b>Asses and burros.....</b>	<b>211</b>	<b>145</b>	<b>66</b>
<b>Cattle.....</b>	<b>1,628,103</b>	<b>1,586,042</b>	<b>42,061</b>
Beef cattle.....	334,160	329,901	4,259
Dairy cattle.....	1,293,943	1,256,141	37,802
Dairy cows.....	831,209	802,095	29,114
<b>Sheep.....</b>	<b>1,216,656</b>	<b>1,209,191</b>	<b>7,465</b>
Goats.....	2,027	1,807	420
<b>Swine.....</b>	<b>1,130,036</b>	<b>1,106,036</b>	<b>23,970</b>

## LIVE-STOCK PRODUCTS.

**Farm value of live-stock products: 1919 and 1909.**—The Thirteenth Census schedule called for the total value as well as the total quantity of all live-stock products, whether sold or consumed on the farm. The 1909 values are therefore based directly on the reported figures. But in the Fourteenth Census schedule the question as to value in the case of dairy products, eggs, and chickens was restricted to the amounts sold. The 1919 value of butter made on farms has been computed on the basis of the average value received per pound for butter sold; the values of eggs produced and chickens raised have been computed in a similar way. The values of cheese made on farms and of honey and wax produced have been computed on the basis of average values per pound secured through the Bureau of Crop Estimates of the Department of Agriculture. The method of obtaining these average values was the same as that used for securing average values for the important crops, which is described in a later paragraph.

**Dairy products.**—It is difficult to secure reports of the total quantity of milk produced during a given year, especially from farmers who keep cows chiefly to supply milk and butter for family use. Since such farmers usually keep no records, they are able to make only rough estimates of the milk production and frequently underestimate the quantity of milk produced for home use. Many farmers, too, either because they are unwilling to make any estimates or for other reasons, fail to report their milk production, even though they report butter or other dairy products as well as dairy cows.

For several decades past the Bureau of the Census has made estimates for such incomplete reports, where the farmer reported "cows kept for milk" but failed to report the amount of milk produced, these estimates being based on the average production per cow as shown by the complete reports. Since farmers with first-class dairy herds and up-to-date methods are more likely to make complete reports than those with cows of a lower grade, the estimates obtained in this

way have probably been somewhat above the actual production. With the new basis of classification for dairy cows in use for 1920, however, as already noted, the estimates should be more satisfactory than heretofore, since milk will be estimated only for cows kept mainly for milk production.

In the table which follows, both the actual reported quantity of milk produced and the estimated total are given. The latter includes, in addition to the milk reported, an estimate of the amount of milk produced on farms which reported dairy cows but failed to report any milk. A certain quantity of milk, on the other hand, was reported from farms which reported no dairy cows. This is included in the total and may represent either milk produced by beef cows milked a part of the year on farms having no dairy cows or milk produced on farms which kept dairy cows some time during the year 1919 but had none on January 1, 1920. It may be safely assumed that the returns for butter and cheese made on farms and for milk, cream, butter fat, and butter sold are much more nearly complete than in the case of milk produced. Hence no estimates have been made for these items.

TABLE 28.—DAIRY COWS ON FARMS, 1920; AND DAIRY PRODUCTS, 1919 AND 1909.

ITEM.	FARMS REPORTING.		Number or quantity.	Unit.	Value.
	Number.	Per cent of all farms.			
Dairy cows on farms Jan. 1, 1920, total.....	167,274	85.1	802,095	Head.....	
On farms reporting milk produced.....	143,655	73.1	704,768	Head.....	
On farms not reporting milk produced.....	23,619	12.0	97,327	Head.....	
Average production of milk per dairy cow, 1919 <sup>1</sup> .....			461	Gals.....	
Specified dairy products:					
Milk, as reported..... 1919.....			337,954,884	Gals.....	
..... 1909.....			283,387,201	Gals.....	
Increase, 1909-1919.....			54,567,683	Gals.....	
Per cent of increase.....			19.3		
Total production of milk, including estimates..... 1919.....			382,822,631	Gals.....	
Butter made..... 1919.....	109,163	55.6	25,755,423	Lbs.....	\$13,706,212
..... 1909.....	131,519	63.5	50,405,426	Lbs.....	\$11,805,872
Cheese made..... 1919.....	377	0.2	76,660	Lbs.....	\$26,836
..... 1909.....	246	0.1	291,176	Lbs.....	\$36,223
Milk sold..... 1919.....	44,380	22.6	130,804,366	Gals.....	\$34,335,072
..... 1909.....	25,853	12.5	74,025,769	Gals.....	\$8,365,401
Cream sold..... 1919.....	21,978	11.2	4,459,626	Gals.....	\$5,964,703
..... 1909.....	9,587	4.6	2,435,061	Gals.....	\$1,675,024
Butter fat sold..... 1919.....	58,378	29.7	81,647,906	Lbs.....	\$17,041,904
..... 1909.....	28,334	13.7	18,287,691	Lbs.....	\$4,845,015
Butter sold..... 1919.....	44,874	22.8	10,164,869	Lbs.....	\$5,441,424
..... 1909.....	92,853	44.9	30,010,783	Lbs.....	\$7,178,433
Value of milk, cream, and butter fat sold, and of butter and cheese made <sup>2</sup> ..... 1919.....					\$71,074,727
..... 1909.....					\$26,727,538
Increase, 1909-1919.....					\$44,347,189
Per cent of increase.....					165.9
Receipts from sale of dairy products <sup>3</sup> ..... 1919.....					\$62,783,113
..... 1909.....					\$22,099,178
Increase, 1909-1919.....					\$40,683,935
Per cent of increase.....					184.1

<sup>1</sup> Based on the 1919 milk production as reported for dairy cows, and the number of dairy cows on hand Jan. 1, 1920.

<sup>2</sup> This item represents the total farm value of dairy products, excluding milk and cream consumed as such on the farm where produced.

<sup>3</sup> Figures for 1919 do not include "cheese sold," as that item was not reported for 1919. The value of cheese sold in 1909 was \$35,307.

TABLE 29.—SHEEP ON FARMS, 1920 AND 1910; GOATS ON FARMS, 1920; AND WOOL AND MOHAIR PRODUCED, 1919 AND 1909.

ITEM.	Farms reporting.	Number of sheep (or goats) on hand.	WOOL (OR MOHAIR) PRODUCED.		
			Number of animals shorn.	Weight (pounds).	Value.
Sheep on farms Jan. 1, 1920, total.....	35,454	1,200,191			
On farms reporting wool.....	29,396	1,054,414			
On farms not reporting wool.....	6,058	154,777			
Sheep of shearing age <sup>1</sup> on farms Apr. 15, 1910.....	54,871	1,545,241			
Wool produced, as reported, total..... 1919.....	30,438		906,649	7,051,939	\$4,131,704
On farms reporting sheep.....	29,396		877,064	6,836,771	\$4,009,330
On farms not reporting sheep.....	1,042		29,585	215,168	\$122,374
Total production of wool, including estimates..... 1919.....				7,835,558	\$4,622,979
..... 1909.....				11,965,405	\$3,428,320
Increase, 1909-1919 <sup>2</sup> .....				-4,129,847	\$1,194,659
Per cent of increase <sup>2</sup> .....				-34.5	34.3
Goats raised for fleeces, on farms Jan. 1, 1920.....	55	435			
Mohair produced, as reported, total..... 1919.....	43		438	1,017	\$709
..... 1909.....	117			5,677	\$1,712

<sup>1</sup> Sheep born before Jan. 1, 1910.

<sup>2</sup> A minus sign (—) denotes decrease.

TABLE 30.—CHICKENS (OR FOWLS) ON FARMS, 1920 AND 1910; AND POULTRY PRODUCTS, 1919 AND 1909.

[The products shown for 1919 include chicken eggs and chickens only, while the 1909 figures include the products of all kinds of poultry.]

ITEM.	FARMS REPORTING.		Number or quantity.	Value.
	Number.	Per cent of all farms.		
Chickens on farms Jan. 1, 1920, total.....	180,664	92.0	Number. 10,913,045	
On farms reporting eggs produced.....	108,093	85.6	10,344,122	
On farms reporting chickens raised.....	146,874	74.8	9,420,018	
Fowls on farms Apr. 15, 1910.....	189,417	91.5	9,967,039	
Eggs produced, as reported..... 1919.....	109,208	86.1	Dozens. 53,382,335	\$22,346,107
Total production of eggs, including estimates..... 1919.....			55,986,999	23,514,540
..... 1909.....			59,915,851	11,734,799
Eggs sold, as reported..... 1919.....	146,282	74.5	36,362,264	15,151,355
..... 1909.....	154,069	74.4	38,568,386	7,547,202
Chickens raised, as reported..... 1919.....	147,821	75.2	Number. 10,790,096	9,891,478
Total chickens raised, including estimates..... 1919.....			12,441,555	11,446,231
..... 1909.....			12,877,537	6,191,440
Chickens sold, as reported..... 1919.....	102,895	52.4	4,783,178	4,384,695
..... 1909.....	120,804	58.4	5,289,794	2,746,226

TABLE 31.—BEES ON FARMS, 1920 AND 1910; AND HONEY AND WAX PRODUCED, 1919 AND 1909.

ITEM.	Farms reporting.	Hives of bees.	PRODUCT.	
			Quantity (pounds).	Value.
Bees on farms Jan. 1, 1920, total.....	11,724	93,348		
On farms reporting honey.....	6,900	70,320		
On farms not reporting honey.....	4,704	23,028		
Bees on farms Apr. 15, 1910.....	10,892	115,274		
Honey produced..... 1919.....	7,086		1,321,447	\$409,649
..... 1909.....	11,249		2,507,810	289,137
Wax produced..... 1919.....			20,304	7,310
..... 1909.....			28,524	7,605



## CROPS.

**Summary: 1919 and 1909.**—This section summarizes the census data relative to all of the farm crops of 1919 and 1909, including the percentage of increase for the decade in acreage, production, and value.

In comparing one year with another it should be borne in mind that the acreage of crops (or the number

of fruit trees) and the number of farms reporting are on the whole a better index of the general changes or tendencies in agriculture than either the quantity or the value of the crops, since variations in quantity may be due mainly to favorable or unfavorable seasons, and variations in the value of the crops may result largely from changes in prices between one census year and the next.

TABLE 32.—SUMMARY FOR ALL CROPS: 1919 AND 1909.

CROP.	FARMS REPORTING.				ACRES HARVESTED.			PRODUCTION.					
	Number.		Per cent of all farms.		1919	1909	Per cent of increase. <sup>1</sup>	Quantity.			Value.		
	1919	1909	1919	1909				Unit.	1919	1909	Per cent of increase. <sup>1</sup>	1919	1909
<b>All crops.</b>													
With acreage reports					29,168,200	8,194,842	11.9					\$404,014,810	\$152,102,868
With no acreage reports												368,103,868	140,189,462
												35,850,942	11,812,407
<b>Cereals, total<sup>2</sup>.</b>					5,114,095	4,415,629	15.8	Bu.	120,383,085	121,862,638	-1.2	170,897,885	70,544,250
Corn	145,024	101,001	74.1	78.2	1,269,153	1,589,596	-20.2	Bu.	45,088,912	52,908,842	-14.8	67,633,385	29,580,929
Oats	141,312	141,731	71.9	68.5	1,514,808	1,420,070	6.0	Bu.	36,956,425	43,869,602	-15.8	31,412,962	15,506,195
Wheat, total	103,093	82,214	52.5	39.7	1,050,687	802,137	31.7	Bu.	20,411,825	16,025,791	27.4	45,722,488	16,586,868
Winter	87,217	79,588	44.4	38.5	947,342	793,606	19.4	Bu.	19,232,161	15,899,301	21.0	43,080,044	16,458,878
Spring	21,759		11.1		109,345	8,531		Bu.	1,179,664	126,490	832.6	2,642,444	127,900
Emmer and spelt	649	1,816	0.3	0.9	2,674	6,742	-60.3	Bu.	51,353	154,103	-66.7	87,307	97,414
Barley	54,897	21,601	27.9	10.4	296,515	93,065	218.6	Bu.	4,802,768	2,132,101	125.3	6,433,742	1,232,344
Rye	77,821	48,889	39.0	23.0	912,951	419,020	117.9	Bu.	12,168,182	5,814,394	109.3	18,252,291	3,944,616
Buckwheat	10,209	17,933	5.2	8.7	41,426	75,909	-45.4	Bu.	524,004	953,119	-45.3	812,203	694,748
Mixed crops <sup>3</sup>	2,816		1.4		19,379			Bu.	379,616			493,507	
<b>Other grains and seeds with acreage reports, total<sup>4</sup>.</b>					361,535	498,928	-27.5					19,177,933	11,060,285
Dry edible beans	46,561	55,406	23.7	26.8	314,873	403,669	-22.0	Bu.	4,332,317	5,282,511	-18.0	17,329,268	9,716,315
Soy beans	1,439		0.7		6,257			Bu.	78,515			334,720	
Dry peas	9,225	18,128	4.7	8.8	38,874	94,932	-59.1	Bu.	454,639	1,162,403	-60.9	1,363,917	1,387,430
Flaxseed	181	187	0.1	0.1	1,297	261	396.9	Bu.	13,627	2,943	363.0	42,247	4,951
Sugar-beet seed	19		( <sup>5</sup> )		234			Lbs.	96,292			57,775	
<b>Seeds with no acreage reports, total<sup>7</sup>.</b>													
Red clover seed	14,611		7.4					Bu.	144,696	151,567	-4.5	4,264,754	1,008,761
Other clover and alfalfa seed	2,080		1.4					Bu.	101,223	138,492	-4.7	3,036,690	942,195
Timothy seed	515	233	0.3	0.1				Bu.	30,714			890,703	
Millet seed	154	40	0.1	( <sup>5</sup> )				Bu.	4,125	10,682	-61.4	24,750	19,496
								Bu.	7,363	2,228	230.8	29,452	2,203
<b>Hay and forage, total<sup>8</sup>.</b>	175,241	170,958	89.2	82.6	3,644,952	2,715,447		Tons.	6,345,510	3,634,196		105,280,992	36,049,801
All tame or cultivated grasses					2,750,832	2,572,433	6.9	Tons.	3,063,392	3,178,277	-3.6	77,443,255	34,287,575
Timothy alone	60,754	58,731	25.8	28.4	655,784	749,663	-12.5	Tons.	718,012	929,165	-22.7	18,668,312	10,499,364
Timothy and clover mixed	119,229	110,320	60.7	57.7	1,852,780	1,625,229	14.0	Tons.	2,044,711	1,991,618	2.7	51,117,775	21,276,325
Clover alone	12,638	18,987	6.5	9.2	120,299	168,180	-28.5	Tons.	131,517	216,862	-39.4	3,156,408	2,103,819
Alfalfa	11,942	1,456	6.1	0.7	74,059	6,553		Tons.	118,571	13,872	754.8	3,438,559	180,273
Other tame grasses <sup>9</sup>	7,785		4.0		47,931	22,908	108.2	Tons.	50,581	26,760	88.0	1,082,201	227,794
Wild, salt, or prairie grasses	5,831	3,899	3.0	1.9	49,856	33,345	49.5	Tons.	57,971	39,970	45.0	782,627	232,416
Small grains cut for hay	10,421		5.3		59,454			Tons.	44,339			843,391	
Annual legumes cut for hay	1,166	3,683	0.6	1.8	6,554			Tons.	6,260	29,035	74.4	125,200	
Silage crops	38,303		19.5		343,254			Tons.	2,551,806			19,138,561	
Corn cut for forage <sup>10</sup>	53,767		27.4		418,031	89,416		Tons.	566,932	379,887		6,236,252	1,329,047
Kafir, sorghum, etc., for forage	12		( <sup>5</sup> )		49			Tons.	87			957	
Root crops for forage	6,918		3.5		11,892	838		Tons.	54,673	7,027	678.0	710,749	49,766
<b>Vegetables, total</b>													
Potatoes (Irish or white)	155,752	176,649	79.3	85.3	280,638	365,483	-23.2	Bu.	23,929,560	38,243,828	-37.4	65,066,550	16,201,328
Sweet potatoes and yams	94	124	( <sup>5</sup> )	0.1	22	24		Bu.	723	909	-19.9	49,055,600	9,913,778
Other vegetables <sup>11</sup>	24,224	148,030	12.3	71.5	50,955	90,861						1,823	905
Farm garden <sup>12</sup>	163,676		83.3									6,455,768	6,286,645
												9,583,350	
<b>Miscellaneous crops, total</b>													
Sugar beets grown for sugar	14,812	14,639	7.5	7.1	106,450	78,711	35.2	Tons.	1,025,550	706,990	45.1	13,166,903	4,638,724
Sorghum grown for sirup	1,665	1,223	0.8	0.6	711	338	110.4	Tons.	2,306	2,167	6.9	11,793,830	4,010,178
Maple sugar and sirup	6,870	6,542	3.3	3.2								33,591	12,826
Hemp	3		( <sup>5</sup> )		244			Lbs.	255,685			609,519	333,791
Chicory	480	525	0.2	0.3	1,784	1,584	12.6	Lbs.	18,196,063	19,204,000	-5.2	38,360	70,020
Mint and mint oil	342	446	0.2	0.2	3,878	6,380	-39.0	Lbs.	118,135	121,109	-6.6	90,980	191,000
Sundry minor crops <sup>13</sup>					46	60						565,675	194,591
												34,952	17,518
<b>Fruits, total</b>													
Small fruits	81,254		15.9		21,021	21,419	-1.9	Qts.	23,940,801	27,214,659	-12.0	26,129,793	12,599,720
Other fruits												4,736,480	2,028,805
												21,393,313	10,570,855

<sup>1</sup> A minus sign (—) denotes decrease. Per cent not shown when base is less than 100 or when per cent is more than 1,000.

<sup>2</sup> Excluding 413,031 acres reported for corn cut for forage, which is practically all duplicated in the acreage shown for corn harvested as grain.

<sup>3</sup> The 1909 figures include a small quantity of kafir and milo.

<sup>4</sup> Principally oats and barley grown and harvested together.

<sup>5</sup> The 1909 figures include small quantities of golden-seal seed (value only) and peanuts.

<sup>6</sup> Less than one-tenth of 1 per cent.

<sup>7</sup> Includes small quantities of "other grass seed" (1919 and 1909) and of vetch seed (1919). The total values include the value of flower and vegetable seeds, as follows: For 1919, \$274,756; for 1909, \$44,106. The acreage for flower and vegetable seeds was incompletely reported and has not been tabulated. The entire acreage

from which the grass and clover seeds were secured is believed to be included in the acreage given elsewhere for hay and forage.

<sup>8</sup> Corn cut for forage was not reported to any extent in 1909; hence no fair comparison between 1919 and 1909 can be made, either for the hay and forage totals or for the bracketed group in which corn cut for forage appears.

<sup>9</sup> Includes millet and Hungarian grass.

<sup>10</sup> The 1919 figures represent vegetables raised for sale only.

<sup>11</sup> In 1909 the value of the farm garden was largely included in the value of "other vegetables."

<sup>12</sup> These crops comprise tobacco, broom corn, and ginseng (1919 and 1909), and hops and willows (1909).

<sup>13</sup> Includes the value of a small quantity of nuts.

The combined acreage of crops harvested in Michigan in 1919 for which the acreage was reported was 9,168,200, which represents 70.9 per cent of the total improved land in farms (12,925,521 acres). The total crop acreage reported for 1909 was 8,194,842, or 63.9 per cent of the improved land in farms (12,832,078 acres). Most of the remaining improved land doubtless consisted of improved pasture, land lying fallow, house and farm yards, and land occupied by orchards and vineyards, the acreage of which was not reported.

In addition to the crops regularly harvested in 1919, as shown in the tables, there were reported 13,039 acres of mature crops grazed or "hogged off."

**Farm value of crops.**—At the census of 1920 the farm schedule called for the value of all farm property, including live stock, and the value of live-stock products sold.

In the case of farm crops, however, wherever a unit value could be used, such as the value per bushel or per ton, the farmer was asked to report the acreage and production of each crop but not the value. To supplement the information obtained from the farmers, the Bureau of Crop Estimates of the United States Department of Agriculture secured by special schedule from its crop reporters average values for such crops. These special schedules were tabulated by the Bureau of the Census, and the resulting averages, approved by the Bureau of Crop Estimates as representing a fair average of the farm value per unit, were used in computing most of the crop values presented in the accompanying tables.

For some products it was not possible to find any satisfactory unit on which to base a computation of the total value. Values were therefore obtained on the 1920 census schedule for vegetables, other than potatoes and sweet potatoes, and for the farm garden.

TABLE 33.—ACREAGE OF IMPORTANT CROPS: 1879 TO 1919.

CROP.	1919	1909	1899	1889	1879
Corn.....	1,269,155	1,589,596	1,501,189	994,597	919,656
Oats.....	1,514,808	1,429,076	1,019,438	1,085,759	536,187
Wheat.....	1,056,087	802,137	1,925,769	1,501,225	1,822,749
Barley.....	296,515	93,065	44,965	99,305	54,506
Rye.....	912,951	419,020	174,096	140,754	22,815
Buckwheat.....	41,428	75,909	55,669	70,046	33,948
Dry edible beans.....	314,873	403,669	167,025	.....	.....
Dry peas.....	38,874	94,932	71,376	.....	.....
Hay and forage.....	13,644,952	2,715,447	2,328,498	2,024,736	1,245,441
Potatoes.....	280,538	365,483	311,963	198,476	128,848
Sugar beets grown for sugar.....	106,450	78,711	40,247	.....	.....

<sup>1</sup>Includes 418,031 acres in corn cut for forage. This crop was not included to any extent in the hay and forage totals prior to 1919.

TABLE 34.—PERCENTAGES AND AVERAGES FOR IMPORTANT CROPS: 1919 AND 1909.

CROP.	PER CENT OF IMPROVED LAND OCCUPIED.		AVERAGE YIELD PER ACRE.			AVERAGE VALUE PER ACRE.	
	1919	1909	Unit.	1919	1909	1919	1909
Corn.....	9.8	12.4	Bu...	35.5	33.3	\$53.29	\$18.61
Oats.....	11.7	11.1	Bu...	24.4	30.7	20.74	12.95
Wheat.....	8.2	6.3	Bu...	19.3	20.0	43.27	20.68
Barley.....	2.3	0.7	Bu...	16.2	22.9	21.87	13.24
Rye.....	7.1	3.3	Bu...	13.3	13.9	19.99	9.41
Buckwheat.....	0.3	0.6	Bu...	12.6	12.6	19.61	7.34
Dry edible beans.....	2.4	3.1	Bu...	13.8	13.1	55.04	24.07
Dry peas.....	0.3	0.7	Bu...	11.7	12.2	35.09	14.09
Hay and forage.....	28.2	21.2	Tons.	1.74	1.34	28.88	13.28
Potatoes.....	2.2	2.8	Bu...	85.3	104.6	174.86	27.13
Sugar beets grown for sugar.....	0.8	0.6	Tons.	9.63	8.98	110.70	50.95

TABLE 35.—VEGETABLES RAISED FOR SALE: 1919.

[Vegetables other than potatoes and sweet potatoes.]

CROP.	FARMS REPORTING.		Acres harvested.	Value of product.
	Number.	Per cent of all farms.		
Total.....	24,224	12.3	50,955	\$6,455,768
Asparagus.....	237	0.1	256	34,525
Beans (green).....	2,092	1.1	2,073	154,491
Beets.....	288	0.1	141	24,324
Cabbages.....	4,510	2.3	4,297	613,235
Cantaloupes and muskmelons.....	2,174	1.1	2,347	465,489
Carrots.....	671	0.3	344	80,067
Cauliflower.....	119	0.1	101	19,073
Celery.....	1,218	0.6	3,343	1,212,527
Corn (pop).....	697	0.4	1,745	103,010
Corn (sweet).....	4,999	2.5	9,944	483,479
Cucumbers.....	11,813	6.0	10,351	1,176,686
Lettuce.....	647	0.3	412	143,948
Onions.....	2,806	1.4	2,154	535,151
Peas (green).....	2,318	1.2	7,022	280,373
Peppers (green).....	199	0.1	118	29,087
Radishes.....	135	0.1	133	27,732
Rhubarb.....	117	0.1	156	48,354
Squashes.....	480	0.2	321	28,721
Tomatoes.....	5,388	2.7	4,074	706,215
Turnips.....	128	0.1	107	11,485
Watermelons.....	1,252	0.6	727	101,444
All other vegetables.....	.....	.....	300	91,267
Mixed vegetables.....	300	0.2	489	84,055

TABLE 36.—SUGAR CROPS: 1919 AND 1909.

CROP.	FARMS REPORTING.		Acres (or trees).	PRODUCTION.		
	Number.	Per cent of all farms.		Quantity.	Unit.	Value.
Maple sugar and sirup, total.....	6,570	3.3	Trees tapped.	.....	.....	\$609,519
.....1919.....	.....	.....	858,881	.....	.....	333,791
.....1909.....	6,542	3.2	986,737	77,178	Lbs.	28,557
Sugar made.....	.....	.....	.....	293,301	Lbs.	35,341
.....1919.....	1,308	0.6	.....	206,795	Gals.	580,962
.....1909.....	.....	.....	.....	269,093	Gals.	298,450
Sirup made.....	6,369	3.1	.....	.....	.....	.....
Sugar beets grown for sugar.....	.....	.....	Acres.	.....	.....	.....
.....1919.....	14,812	7.5	106,450	1,025,550	Tons.	11,793,836
.....1909.....	14,639	7.1	78,711	706,990	Tons.	4,010,178
Sorghum grown for sirup.....	.....	.....	.....	.....	.....	.....
.....1919.....	1,665	0.8	1,711	12,306	Tons.	.....
.....1909.....	1,223	0.6	338	2,157	Tons.	.....
Sirup made.....	.....	.....	.....	121,671	Gals.	33,591
.....1919.....	.....	.....	.....	21,350	Gals.	12,826
.....1909.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> Figures include estimates for incomplete reports.

TABLE 37.—SMALL FRUITS: 1919 AND 1909.

CROP.	FARMS REPORTING.		Acres harvested.	PRODUCTION.	
	Number.	Per cent of all farms.		Quantity (quarts).	Value.
Total.....	1919 31,254	15.9	21,021	23,948,801	\$4,736,480
.....	1909 21,419	.....	21,419	27,214,659	2,028,865
Strawberries.....	1919 21,987	11.2	8,048	12,555,543	2,265,400
.....	1909 16,798	8.1	8,051	14,218,768	1,000,788
Raspberries.....	1919 14,272	7.3	9,786	7,652,580	1,700,100
.....	1909 17	(1)	18	5,239	996
Raspberries and loganberries.....	1919 11,075	5.4	8,786	8,381,943	695,019
.....	1909 3,632	1.8	2,165	2,452,909	490,580
Blackberries and dewberries.....	1919 4,707	2.3	2,973	3,075,954	218,174
.....	1909 59	(1)	22	20,367	3,057
Cranberries.....	1919 91	(1)	202	125,536	6,992
.....	1909 2,299	1.2	629	638,481	127,295
Currants.....	1919 3,458	1.7	609	768,259	58,288
.....	1909 648	0.3	353	593,682	89,052
Other berries.....	1919 .....	.....	798	644,199	49,004
.....	1909 .....	.....	.....	.....	.....

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 38.—FRUIT TREES AND GRAPEVINES NOT OF BEARING AGE: 1920 AND 1910.

FRUIT.	FARMS REPORTING.				TREES OR VINES NOT OF BEARING AGE.	
	Number.		Per cent of all farms.		1920	1910
.....	1920	1910	1920	1910	1920	1910
Orchard fruits, total <sup>1</sup> ..	51,584	.....	26.3	.....	3,615,164	6,679,949
Apples.....	38,502	87,846	19.6	42.4	2,050,229	2,253,072
Peaches.....	10,860	23,377	5.5	13.7	764,838	2,991,090
Pears.....	14,347	29,058	7.3	14.0	302,734	623,931
Plums and prunes..	12,621	25,331	6.4	12.2	142,657	253,479
Cherries.....	17,657	29,792	9.0	14.4	351,892	540,580
Grapes.....	6,617	11,040	3.4	5.3	607,149	1,889,648

<sup>1</sup> Includes apricots, quinces, and (for 1910) mulberries. Since these fruits were not specifically called for by the 1920 schedule, the returns for that year are somewhat incomplete.

TABLE 39.—ORCHARD FRUITS AND GRAPES: 1919 AND 1909.

FRUIT.	FARMS REPORTING TREES OR VINES OF BEARING AGE.				NUMBER OF TREES OR VINES OF BEARING AGE.		PRODUCTION.				
	Number.		Per cent of all farms.		.....		Quantity.			Value.	
	1920	1910	1920	1910	1920	1910	Unit.	1919	1909	1919	1909
Orchard fruits, total <sup>1</sup> .....	142,984	.....	72.8	.....	10,112,005	12,842,827	Bu....	7,261,831	15,220,104	\$15,598,738	\$9,020,842
Apples.....	133,382	153,026	67.9	73.9	5,615,905	7,534,343	Bu....	5,843,271	12,332,296	11,686,542	5,969,080
Peaches.....	21,133	47,060	10.8	22.7	2,010,022	2,907,170	Bu....	448,177	1,689,596	1,232,495	1,700,330
Pears.....	64,847	75,567	33.0	36.5	1,029,735	1,136,151	Bu....	405,189	696,023	871,155	535,771
Plums and prunes.....	40,853	49,498	20.8	23.9	377,123	464,917	Bu....	203,091	181,188	507,760	205,765
Cherries.....	68,378	73,913	34.8	35.7	1,076,748	760,183	Bu....	360,952	338,945	1,299,428	590,829
Grapes.....	46,090	41,485	23.5	20.0	11,097,734	11,913,376	Lbs....	115,871,465	120,695,997	5,793,575	1,531,057

<sup>1</sup> Includes apricots, quinces, and (for 1910) mulberries. Since these fruits were not specifically called for by the 1920 schedule, the returns for that year are somewhat incomplete.

**Age of farmers.**—A farmer or farm operator, as defined for census purposes, is a person who operates a farm. The number of farm operators, for which the age distribution is shown in the following table, is therefore the same as the number of farms.

TABLE 40.—FARM OPERATORS CLASSIFIED ACCORDING TO AGE AND TENURE: 1920 AND 1910.

AGE.	TOTAL.		OWNERS.		MAN-AGERS.		TENANTS.	
	1920	1910	1920	1910	1920	1910	1920	1910
All farmers, total.....	186,447	206,960	159,406	172,310	2,319	1,961	34,722	32,689
Reporting age.....	194,077	206,308	157,539	171,746	2,268	1,938	34,270	32,624
Under 25 years.....	5,775	6,589	2,307	2,074	204	184	3,264	3,431
25 to 34 years.....	34,327	35,759	21,193	23,509	624	533	12,510	11,717
35 to 44 years.....	47,591	49,925	37,388	40,880	629	520	9,574	8,519
45 to 54 years.....	47,260	52,800	41,498	48,745	442	414	5,320	5,201
55 to 64 years.....	37,474	38,090	34,674	35,170	252	192	2,543	2,689
65 years and over.....	21,650	23,615	20,479	22,453	117	95	1,054	1,067
Not reporting age.....	2,370	652	1,867	564	51	23	452	65

Farmers classified by number of years on farm.—In the following table the farmers of the state are classified according to the number of years they had been on the farms which they were operating when the census was taken. The purpose of this classification is to show the relative stability of the different classes.

In 1920 the date of enumeration (January 1) came just before the period during which changes from one farm to another are commonly made in most localities, and hence at a time when many farmers had almost, but not quite, completed one, two, or more years on their farms. Considerable numbers of these farmers reported one, two, or more full years, in place of reporting the correct number of months (or years and months). In 1910, however, the enumeration date (April 15) was late enough so that, in localities where the common moving time was in the early part of the year, the number of years of occupancy was accurately reported. These differences seriously affect the comparability of the returns, especially for the first two years of occupancy. Hence these two years, which were tabulated separately and are so published in Volume V of the Fourteenth Census Reports, have been combined in the following table.

TABLE 41.—FARM OPERATORS CLASSIFIED ACCORDING TO NUMBER OF YEARS ON FARM, BY TENURE: 1920 AND 1910.

NUMBER OF YEARS ON FARM.	TOTAL.		OWNERS.		MAN-AGERS.		TENANTS.	
	1920	1910	1920	1910	1920	1910	1920	1910
All farmers, total.....	186,447	206,960	159,406	172,310	2,319	1,961	34,722	32,689
Rptg. years on farm.....	193,223	192,708	157,476	159,705	2,194	1,825	33,553	31,178
Less than 2 years.....	31,454	37,119	18,281	21,401	904	844	12,299	14,874
2 to 4 years.....	37,133	37,729	25,489	27,908	629	501	11,015	9,320
5 to 9 years.....	38,554	37,519	32,406	33,014	378	282	5,772	4,223
10 years and over.....	86,052	80,341	81,300	77,382	285	198	4,467	2,761
Not reporting.....	3,224	14,252	1,930	12,605	125	136	1,169	1,511

**Cooperative marketing and purchasing.**—Cooperative marketing of farm products or cooperative purchasing of supplies through farmers' organizations in 1919 was reported by 47,021 farms in Michigan, including 13,237 farms which reported both sales

and purchases, 28,867 farms which reported sales only, and 4,917 farms which reported purchases only.

TABLE 42.—COOPERATIVE MARKETING AND PURCHASING THROUGH FARMERS' ORGANIZATIONS: 1919.

ITEM.	FARMS REPORTING.		AMOUNT.	
	Number.	Per cent of all farms.	Total.	Average per farm.
Marketing or purchasing.....	47,021	23.9		
Marketing.....	42,104	21.4	\$24,294,688	\$577
Purchasing.....	18,154	9.2	2,445,953	136

**Farm facilities.**—Motor vehicles, telephones, water, and light on farms.—The following table indicates the extent to which the farmers of Michigan used motor vehicles and telephones, and the extent to which the farm homes were supplied with water and modern lighting facilities.

TABLE 43.—MOTOR VEHICLES, TELEPHONES, WATER, AND LIGHT ON FARMS: 1920.

ITEM.	FARMS REPORTING.		Number reported.	Number per 1,000 of all farms.
	Number.	Per cent of all farms.		
Automobiles.....	78,919	40.2	82,427	421
Motor trucks.....	4,681	2.4	4,886	25
Tractors.....	5,584	2.8	5,884	30
Telephones.....	97,874	49.8		
Water piped into house.....	29,729	15.1		
Gas or electric light.....	15,095	8.0		

**Pure-bred live stock on farms.**—The inquiry relating to pure-bred live stock called for registered animals only, but it seems evident, from a study of the returns, that some animals merely eligible for registry (but not actually registered) were included in the reports.

The number of farms in Michigan in 1920 was 196,447, of which number 186,354 reported domestic animals of some kind, and 21,873 reported pure-bred live stock.

TABLE 44.—PURE-BRED LIVE STOCK CLASSIFIED ACCORDING TO BREED: 1920.

NOTE.—Pure-bred horses reported in Michigan represented 0.5 per cent of all horses on farms (see Table 23); pure-bred cattle, 4 per cent of the total; pure-bred sheep, 1.8 per cent; and pure-bred swine, 3 per cent.

BREED.	Number.	BREED.	Number.
Horses, total.....	2,779	Sheep, total.....	21,342
Belgian.....	478	Cheviot.....	24
Clydesdale.....	123	Dorset Horn.....	72
French Draft.....	45	Hampshire Down.....	1,910
Hackney.....	14	Leicester.....	100
Percheron.....	1,636	Lincoln.....	268
Shire.....	59	Merino.....	4,998
Standard Bred.....	205	Oxford.....	2,800
All other breeds <sup>1</sup> .....	219	Rambouillet.....	2,267
Cattle, total.....	62,800	Shropshire.....	7,942
Beef breeds, total.....	16,267	Suffolk.....	42
Aberdeen Angus.....	1,519	All other breeds <sup>1</sup> .....	919
Galloway.....	1,225	Swine, total.....	33,527
Hersford.....	1,825	Berkshire.....	1,618
Polled Durham.....	1,067	Chester White.....	7,869
Shorthorn.....	11,712	Duroc-Jersey.....	12,842
All other beef breeds <sup>1</sup> .....	119	Hampshire.....	1,023
Dairy breeds, total.....	46,533	Poland China.....	8,739
Ayrshire.....	291	Spotted Poland China.....	249
Brown Swiss.....	429	Tamworth.....	135
Guernsey.....	3,369	Yorkshire.....	376
Holstein-Friesian.....	32,702	All other breeds <sup>1</sup> .....	676
Jersey.....	8,296		
All other dairy breeds <sup>1</sup> .....	1,446		

<sup>1</sup> Includes animals reported as pure bred, with breed not specified.

Calves, pigs, and lambs raised on farms.—The figures presented include young animals born in 1919, which were retained on the farm, sold to others, or slaughtered for food, but do not include young animals purchased or those that died.

TABLE 45.—CALVES, PIGS, AND LAMBS RAISED ON FARMS: 1919.

ITEM.	FARMS REPORTING.		ANIMALS RAISED.	
	Number.	Per cent of all farms.	Number.	Average per farm.
Calves.....	151,710	77.2	651,658	4.3
Pigs.....	90,423	49.1	1,494,815	15.5
Lambs.....	28,688	14.6	640,574	22.3

Domestic animals sold or slaughtered on farms.—The number of cattle, swine, and sheep slaughtered on farms was reported for both 1919 and 1909, but the farm schedule for 1919 carried no inquiry with regard to the value of the animals slaughtered, or with regard to the number or value of the animals sold by farmers. The total value of domestic animals sold or slaughtered on farms in Michigan in 1919 has been estimated, however, at \$75,600,000, as compared with \$43,567,427, the value reported for 1909.

TABLE 46.—DOMESTIC ANIMALS SLAUGHTERED ON FARMS: 1919 AND 1909.

ITEM AND CENSUS YEAR.	FARMS REPORTING.		ANIMALS SLAUGHTERED.		Meat and meat products sold (pounds).
	Number.	Per cent of all farms.	Number.	Average per farm.	
Cattle and calves.....1919..	41,377	21.1	117,219	2.8	15,609,775
.....1909..	101,901	51.6	105,515	2.2	
Cattle.....1919..	19,852	9.6	43,619	2.2	22,369,438
Calves.....1909..	16,091	7.8	61,896	3.8	
Swine.....1919..	124,099	63.2	348,798	2.8	325,574
.....1909..	114,104	55.1	381,247	3.3	
Sheep and lambs.....1919..	3,236	1.6	10,232	3.2	15,609,775
.....1909..	3,012	1.5	17,818	5.9	

Sales of selected crops.—The sales of the crops listed represent that part of the year's production which was sold, or to be sold, by those farmers who produced the crops.

TABLE 47.—PRODUCTION AND SALES OF SELECTED CROPS: 1919 AND 1909.

CROP AND CENSUS YEAR.	Farms reporting production.	FARMS REPORTING SALES.		Production.	QUANTITY SOLD (OR TO BE SOLD).	
		Num-ber.	Per cent of farms reporting production.		Amount.	Per cent of production.
Corn.....1919..	145,624	12,033	8.3	Bushels. 45,088,912	Bushels. 2,398,624	5.3
.....1909..	161,901	21,747	13.4	52,908,842	2,869,955	5.4
Oats.....1919..	141,312	19,385	13.7	36,956,425	4,673,381	12.6
.....1909..	141,731	42,166	29.8	43,869,502	7,910,857	18.0
Barley.....1919..	54,897	5,825	10.6	4,802,768	567,446	11.6
.....1909..	21,601	2,009	9.3	2,132,101	153,310	7.2
Hay.....1919..	.....	.....	.....	Tons. 3,172,012	Tons. 570,066	18.0
.....1909..	.....	.....	.....	3,247,282	632,793	19.5
Potatoes.....1919..	155,752	64,339	41.3	Bushels. 23,929,500	Bushels. 13,815,844	57.7
Apples.....1919..	.....	23,234	.....	5,843,271	4,428,372	75.8

Fruit products of farms.—The figures relate only to fruit products obtained from fruit grown on those farms reporting the products.

TABLE 48.—FRUIT PRODUCTS (FARM PRODUCTION): 1919 AND 1909.

ITEM.	Farms reporting.	Production.
Cider.....1919..	11,231	Gallons. 541,468
.....1909..	42,663	3,386,138
Cider made (or to be made) into vinegar.....1919..	7,785	278,752
Vinegar made on farms <sup>1</sup> .....1909..	12,650	602,697
Grape juice.....1919..	2,117	29,205
Wine and grape juice.....1909..	4,259	199,030
Dried fruits.....1919..	1,098	Pounds. 22,250
.....1909..	818	48,328

<sup>1</sup> Includes vinegar other than that made from cider.

Forest products of farms.—Forest products, as defined on the farm schedule, include firewood, fence posts, crossties, pulp wood, saw logs, poles, etc., and standing timber sold and cut during the years indicated. The figures cover only forest products of farms and do not represent by any means the total value of all forest products cut in the state during the census years.

TABLE 49.—FOREST PRODUCTS OF FARMS: 1919 AND 1909.

ITEM.	1919	1909
Forest products of farms:		
Farms reporting.....	72,001	90,865
Per cent of all farms.....	36.7	43.7
Value.....	\$12,049,621	\$7,911,901
Average per farm reporting.....	\$170	\$88
Forest products sold from farms (or cut and held for sale):		
Farms reporting.....	12,575	.....
Value.....	\$4,578,940	\$3,531,022
Average per farm reporting.....	\$364	.....
Forest products used on farms (or cut and held for use):		
Farms reporting.....	69,836	.....
Value.....	\$8,070,681	\$4,380,879
Average per farm reporting.....	\$116	.....

Nurseries and greenhouses.—The data presented for nurseries include the returns from all farms and establishments reporting receipts from the sale of nursery stock, and those for greenhouses include the returns from all farms and establishments reporting receipts from the sale of greenhouse products (whether grown in hothouses or in cold frames).

TABLE 50.—NURSERIES AND GREENHOUSES: 1919 AND 1909.

ITEM.	1919	1909
Nurseries:		
Number of nurseries (farms and establishments) reporting.....	170	313
Acreage used for growing nursery stock.....	1,591	3,034
Receipts from sale of products.....	\$779,155	\$642,774
Average receipts per nursery.....	\$4,583	\$2,054
Average receipts per acre.....	\$489.73	\$211.86
Greenhouses:		
Number of farms and establishments reporting.....	894	353
Square feet under glass.....	5,672,838	4,122,099
Receipts from sale of products.....	\$2,766,760	\$1,143,764
Flowers and flowering plants.....	\$1,896,519	.....
Vegetables and vegetable plants.....	\$870,241	.....
Average receipts per farm or establishment.....	\$3,095	\$3,240

COUNTY TABLE I.—FARMS AND FARM PROPERTY, 1920,

	THE STATE.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.
<b>ALL FARMS.</b>								
1 Number of farms.. 1920.....	196,447	932	386	5,734	1,275	1,481	1,392	653
2 1910.....	206,960	884	278	6,217	1,326	1,641	1,440	412
3 1900.....	203,261	743	124	6,089	1,187	1,283	1,180	241
4 All farmers classified by sex, 1920:								
5 Male..... number..	190,671	895	380	5,501	1,234	1,432	1,362	629
6 Female..... number..	5,776	37	6	233	41	49	30	24
7 Color and nativity of all farmers, 1920:								
8 Native white..... number..	147,450	490	71	4,679	584	1,007	657	89
9 Foreign-born white..... number..	48,264	436	315	1,018	688	473	729	549
10 Negro and other nonwhite..... number..	733	6	.....	37	3	1	6	15
11 All farms classified by size, 1920:								
12 Under 3 acres..... number..	325	2	.....	11	2	2	1	.....
13 3 to 9 acres..... number..	5,678	5	1	182	9	13	16	14
14 10 to 19 acres..... number..	6,741	3	3	272	8	40	25	16
15 20 to 49 acres..... number..	40,765	155	175	1,680	181	302	354	269
16 50 to 99 acres..... number..	71,391	366	135	2,181	495	575	552	212
17 100 to 174 acres..... number..	52,645	248	57	1,136	396	376	328	113
18 175 to 259 acres..... number..	13,236	88	7	201	110	118	76	20
19 260 to 499 acres..... number..	4,839	46	4	60	61	44	32	9
20 500 to 999 acres..... number..	634	12	4	9	11	8	6	.....
21 1,000 acres and over..... number..	193	7	.....	2	2	3	2	.....
<b>LAND AND FARM AREA.</b>								
22 Approximate land area, 1920..... acres..	36,787,200	437,760	588,800	533,120	373,760	304,000	239,360	586,880
23 Land in farms, 1920..... acres..	19,032,961	131,388	30,380	436,616	153,729	156,963	135,334	48,948
24 1910.....	18,940,614	104,732	29,639	472,708	147,970	145,430	114,176	34,844
25 1900.....	17,561,698	60,793	14,636	461,066	120,285	106,327	79,788	29,058
26 Improved land in farms, 1920..... acres..	12,925,521	49,577	8,379	327,395	63,237	83,952	72,851	14,437
27 1910.....	12,832,078	38,037	5,643	354,105	51,403	78,810	55,671	9,344
28 1900.....	11,799,250	23,391	2,290	338,514	38,263	55,524	35,525	5,809
29 Woodland in farms, 1920..... acres..	3,217,000	32,998	14,142	46,849	50,243	50,890	49,220	26,985
30 Other unimproved land in farms, 1920..... acres..	2,890,440	48,813	7,850	62,372	40,249	22,121	13,263	7,526
31 Per cent of land area in farms, 1920.....	51.7	30.0	5.2	81.9	41.1	51.6	56.5	8.3
32 Per cent of farm land improved, 1920.....	67.9	37.7	27.6	75.0	41.1	53.5	53.8	29.5
33 Average acreage per farm, 1920.....	96.9	141.0	78.7	76.1	120.6	106.0	97.2	75.0
34 Average improved acreage per farm, 1920.....	65.8	53.2	21.7	57.1	49.6	56.7	52.3	22.1
<b>VALUE OF FARM PROPERTY.</b>								
35 All farm property.. 1920..... dollars..	1,763,334,778	5,580,934	1,605,489	42,856,408	6,076,095	7,494,643	7,947,590	2,913,205
36 1910.....	1,088,858,379	2,485,841	814,237	32,108,556	3,338,255	4,881,093	3,949,878	1,145,632
37 1900.....	690,356,734	999,686	153,388	19,850,228	1,830,038	2,447,490	1,523,941	360,398
38 Land in farms.. 1920..... dollars..	959,186,538	2,815,060	735,164	21,725,096	2,812,655	3,988,232	4,095,634	1,438,910
39 1910.....	615,258,348	1,336,190	514,250	17,903,302	1,690,843	2,539,580	2,088,245	600,780
40 1900.....	423,569,950	601,910	85,290	12,223,260	988,470	1,278,210	799,020	186,940
41 Farm buildings.. 1920..... dollars..	477,499,672	1,351,790	458,705	12,771,647	1,690,484	2,018,723	2,119,781	800,555
42 1910.....	285,879,951	580,846	171,425	8,983,970	863,105	1,332,640	1,015,125	331,835
43 1900.....	158,947,760	194,120	27,030	4,856,110	361,630	566,250	314,680	90,470
44 Implements and machinery.. 1920..... dollars..	122,389,936	476,009	104,002	2,986,251	520,751	501,931	634,228	221,775
45 1910.....	49,916,285	155,845	45,778	1,409,118	234,243	296,831	219,469	78,583
46 1900.....	28,795,380	71,840	10,740	825,260	122,330	156,930	110,060	25,240
47 Live stock on farms.. 1920..... dollars..	204,258,632	938,075	307,618	5,373,414	1,052,205	985,757	1,097,947	451,965
48 1910.....	137,803,795	400,960	82,784	3,812,166	550,064	692,042	627,039	134,434
49 1900.....	70,042,644	231,816	30,328	1,945,598	357,608	446,100	300,281	57,748
50 Average values, 1920:								
51 All property per farm..... dollars..	8,976	5,988	4,159	7,474	4,766	5,061	5,709	4,461
52 Land and buildings per farm..... dollars..	7,313	4,471	3,093	6,016	3,532	4,056	4,465	3,430
53 Land alone per acre..... dollars..	50.40	21.43	24.20	49.76	18.30	25.41	30.26	29.40
<b>FARMS OPERATED BY OWNERS.</b>								
54 Number of farms.. 1920.....	159,406	840	379	4,825	1,185	1,299	1,254	605
55 1910.....	172,310	808	269	5,319	1,248	1,506	1,301	400
56 1900.....	168,614	701	121	5,142	1,090	1,156	1,087	235
57 Per cent of all farms, 1920.....	81.1	90.1	98.2	84.1	92.9	87.7	90.1	92.6
58 Land in farms, 1920..... acres..	14,541,461	104,524	28,880	362,692	135,104	129,609	114,368	44,937
59 Improved land in farms, 1920..... acres..	9,840,841	43,708	7,828	263,757	56,931	71,269	63,829	13,158
60 Value of land and buildings, 1920..... dollars..	1,050,478,928	3,501,000	1,117,669	27,438,183	3,952,159	5,010,825	5,368,575	2,058,915
61 Degree of ownership, 1920:								
62 Farmers owning entire farm..... number..	139,874	756	374	4,297	1,149	1,138	1,111	585
63 Farmers hiring additional land..... number..	19,532	84	5	528	36	161	143	20
64 Color and nativity of owners, 1920:								
65 Native white owners..... number..	115,624	419	67	3,855	537	857	574	70
66 Foreign-born white owners..... number..	43,219	415	312	940	645	441	674	525
67 Negro and other nonwhite owners..... number..	583	6	.....	30	3	1	6	10
<b>FARMS OPERATED BY MANAGERS.</b>								
68 Number of farms.. 1920.....	2,319	15	4	84	25	17	8	12
69 1910.....	1,961	10	5	91	21	13	12	3
70 1900.....	2,234	6	1	79	49	3	8	1
71 Land in farms, 1920..... acres..	537,891	16,401	1,220	9,828	9,578	8,935	7,730	1,668
72 Improved land in farms, 1920..... acres..	272,352	1,797	440	6,476	2,846	2,498	1,260	498
73 Value of land and buildings, 1920..... dollars..	50,198,044	283,200	66,200	1,005,610	279,500	196,700	164,070	81,200
<b>FARMS OPERATED BY TENANTS.</b>								
74 Number of farms.. 1920.....	34,722	77	3	825	65	105	130	36
75 1910.....	32,689	66	4	807	57	122	127	9
76 1900.....	32,213	36	2	808	45	124	91	5
77 Per cent of all farms, 1920.....	17.7	8.3	0.8	14.4	5.1	11.1	9.3	5.5
78 Land in farms, 1920..... acres..	3,903,609	10,463	280	74,066	9,047	13,419	13,236	2,343
79 Improved land in farms, 1920..... acres..	2,806,328	4,074	111	57,162	3,460	10,774	7,762	781
80 Value of land and buildings, 1920..... dollars..	330,009,238	382,650	10,000	6,052,950	271,480	799,430	687,770	99,350
81 Form of tenancy, 1920:								
82 Share tenants..... number..	23,280	30	1	488	21	99	90	2
83 Share-cash tenants..... number..	422	.....	.....	15	.....	.....	3	.....
84 Cash tenants..... number..	9,312	39	2	227	41	57	28	26
85 Unspecified..... number..	1,708	8	.....	95	3	9	9	8
86 Color and nativity of tenants, 1920:								
87 Native white tenants..... number..	29,901	58	1	747	33	135	76	13
88 Foreign-born white tenants..... number..	4,660	19	2	71	32	30	54	18
89 Negro and other nonwhite tenants..... number..	161	.....	.....	7	.....	.....	5	.....



WITH SELECTED ITEMS FOR 1910 AND 1900.

Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.	Chippewa.	Clare.	Clinton.	Crawford.
3,313	3,216	972	5,443	3,222	3,646	2,572	1,306	1,186	1,569	1,248	3,323	212
3,428	3,233	1,245	5,252	3,378	3,761	2,556	1,480	1,499	1,399	1,302	3,497	248
3,570	3,193	949	5,094	3,475	4,100	2,609	1,295	1,164	1,036	852	3,777	228
3,220	3,121	915	5,222	3,148	3,571	2,485	1,275	1,112	1,511	1,219	3,251	204
93	95	57	221	74	75	87	81	74	58	29	72	8
3,107	1,822	765	3,866	3,040	3,371	2,222	889	727	505	957	3,000	135
204	1,389	202	1,569	180	261	171	407	452	1,000	291	322	77
2	5	5	8	2	14	179	10	7	4	1	1	8
4	3	11	1	7	3	2	2	3	1	1	1	9
115	144	45	365	115	147	87	23	18	3	22	74	10
97	187	52	743	115	153	91	39	32	10	22	71	11
534	952	226	2,025	521	476	383	305	319	223	191	420	54
1,163	1,281	329	1,346	1,165	1,010	757	441	415	553	430	1,256	57
1,032	545	214	708	1,005	1,259	905	360	277	563	352	1,149	53
271	73	76	182	223	446	326	93	79	133	101	257	18
93	26	26	66	135	114	114	34	36	61	89	88	14
4	5	8	5	11	12	5	3	8	4	22	7	17
1	1	3	3	1	1	1	6	2	2	18	4	18
355,840	283,520	200,960	364,160	318,080	443,520	315,520	203,040	464,000	1,006,720	372,480	365,440	368,000
332,369	227,932	89,414	326,690	308,805	407,953	286,991	134,723	127,197	185,202	186,581	343,965	50,884
336,836	213,222	98,588	333,326	306,489	411,801	295,435	127,625	120,418	176,237	164,905	351,640	46,610
342,157	196,343	67,814	340,330	309,246	426,590	307,951	104,930	95,089	121,297	82,236	356,327	29,248
245,983	167,998	49,047	262,917	227,781	301,566	219,426	64,744	55,937	105,870	65,801	275,734	11,048
252,207	142,635	48,856	269,074	228,379	310,568	224,140	61,587	50,925	79,336	53,921	282,259	10,701
251,828	120,605	30,951	263,364	227,385	321,221	232,601	45,076	35,379	48,574	28,420	277,631	7,823
42,617	43,726	27,754	32,633	27,123	38,449	38,302	40,861	38,921	68,783	67,610	47,496	29,702
43,769	16,209	12,613	31,140	53,901	67,943	29,263	23,118	32,339	10,549	53,170	20,735	10,134
93.4	80.4	44.5	89.7	97.1	92.0	91.0	51.2	27.4	18.4	50.1	94.1	13.8
74.0	73.7	54.9	80.5	73.8	73.9	76.5	48.1	44.0	57.2	35.3	80.2	21.7
100.3	70.9	92.0	95.8	95.8	111.9	111.6	103.2	107.2	118.0	149.5	103.5	240.0
74.2	52.2	50.5	48.3	70.7	82.7	85.3	49.6	47.2	67.5	52.7	83.0	52.1
27,242,967	23,902,673	4,795,654	51,255,030	32,542,366	38,097,905	26,468,809	6,232,500	5,356,024	12,741,647	7,519,162	41,769,505	1,281,006
18,083,292	13,578,518	3,568,730	34,518,200	21,642,944	25,691,237	18,147,622	3,943,507	3,440,314	5,030,568	3,772,643	25,550,457	787,245
12,571,569	9,016,945	1,460,816	22,665,285	14,485,839	18,729,349	12,808,211	2,309,833	1,929,407	2,156,569	1,198,533	16,886,491	251,668
13,841,167	12,720,907	2,865,473	29,308,240	18,311,165	18,805,609	15,766,806	2,845,680	2,522,553	6,763,185	3,986,460	23,104,135	684,776
9,959,541	7,617,245	2,041,780	21,610,020	12,268,117	14,614,135	11,309,326	1,956,215	1,637,961	2,850,832	2,212,545	14,875,812	490,380
7,732,010	5,610,130	830,750	15,256,280	8,794,170	11,263,550	8,619,630	1,200,540	1,059,470	1,200,390	657,790	10,476,460	123,050
7,614,353	6,840,978	1,144,767	14,785,793	8,075,200	10,520,427	6,443,581	1,938,000	1,508,790	3,453,445	1,906,557	10,984,480	383,370
5,110,760	3,322,255	925,340	8,974,816	5,814,355	6,840,642	4,204,443	1,142,880	994,930	1,090,338	794,735	6,405,103	157,960
2,814,100	1,934,320	356,580	5,077,270	3,641,080	4,805,800	2,593,530	545,490	428,000	382,780	227,390	3,833,580	48,300
2,138,269	1,738,044	261,579	3,645,963	2,188,699	2,348,783	1,624,855	513,038	500,896	1,175,348	538,100	2,782,060	61,885
911,143	809,557	183,486	1,198,355	858,947	1,041,981	602,613	228,816	253,568	344,505	179,613	1,034,694	50,187
558,050	405,550	81,230	748,530	621,740	698,720	417,700	149,930	125,830	146,900	55,990	630,900	22,010
3,649,178	2,002,744	523,835	3,515,028	3,967,302	4,423,080	2,639,067	938,782	823,785	1,349,669	1,088,045	4,896,830	150,875
2,701,848	1,829,459	418,124	2,735,009	2,701,525	3,194,479	2,031,240	610,095	523,855	732,855	586,750	3,234,948	88,718
1,407,409	1,006,945	192,256	1,583,205	1,028,849	1,961,279	1,177,451	413,873	316,047	420,639	267,033	1,945,491	58,308
8,223	7,432	4,934	9,417	10,100	9,901	10,291	4,772	4,516	8,121	6,265	12,570	6,042
6,476	6,083	4,126	8,101	8,189	8,043	8,635	3,661	3,399	6,512	4,722	10,258	5,038
41.04	55.81	32.05	89.71	59.30	46.10	54.94	21.12	19.83	36.52	21.37	67.17	13.46
2,635	2,841	866	4,532	2,367	2,652	1,793	1,150	1,102	1,428	1,048	2,522	177
2,743	2,965	1,132	4,294	2,508	2,760	1,780	1,112	1,425	1,287	1,193	2,779	221
2,387	2,833	871	4,218	2,741	3,041	1,983	1,191	1,094	1,947	767	3,072	218
79.6	88.3	89.1	83.3	73.5	72.7	89.7	88.1	92.9	91.0	84.0	75.9	83.5
253,486	197,726	78,827	241,723	209,064	265,912	176,009	110,430	107,511	161,017	135,497	252,088	38,414
186,628	145,893	42,805	196,133	155,077	195,902	134,518	54,672	50,755	94,059	51,776	202,307	8,273
16,017,410	16,839,385	3,289,740	34,232,639	17,884,245	18,715,686	13,055,561	3,701,905	3,452,883	8,966,900	4,427,257	25,252,310	789,040
2,295	2,534	710	3,995	1,939	2,311	1,557	1,008	1,033	1,250	878	2,050	161
343	307	156	537	428	341	236	142	69	178	170	472	16
2,455	1,586	677	3,064	2,208	2,411	1,527	780	659	433	779	2,267	107
181	1,250	186	1,462	157	229	146	381	436	991	269	255	70
2	5	3	6	2	12	120	9	7	4	2	1	61
30	13	24	108	17	35	55	25	21	17	23	22	10
23	14	12	141	11	32	20	15	11	14	8	16	9
21	57	6	54	22	88	15	4	15	7	18	22	1
4,740	2,949	3,067	9,795	2,227	6,117	8,572	10,115	13,791	7,326	19,890	2,779	8,004
3,308	1,302	2,000	7,184	1,589	4,681	6,986	3,216	2,169	1,913	3,082	2,329	1,523
318,650	304,200	507,100	1,801,975	291,700	593,950	732,580	643,000	388,000	292,580	475,650	268,065	175,066
645	362	82	803	838	959	724	131	63	124	177	779	25
662	254	101	817	859	969	756	133	63	95	101	756	18
662	303	72	822	712	971	606	100	55	82	67	683	9
19.5	11.3	8.4	14.8	26.0	28.1	28.1	10.0	5.3	23.4	14.2	23.4	11.8
74,143	27,257	7,520	75,172	97,614	135,929	101,510	14,178	5,895	16,859	31,194	89,088	4,480
56,047	20,803	4,242	69,000	71,115	100,953	77,922	6,856	3,013	8,898	10,043	71,088	1,282
5,119,460	2,418,300	213,400	8,059,425	8,210,420	10,016,400	8,422,246	436,775	190,460	957,150	980,110	8,568,240	104,050
525	118	43	545	645	828	650	71	31	39	129	617	9
4	6	9	9	5	7	6	2	1	1	2	10	7
66	238	27	192	104	112	68	30	69	25	148	4	6
50	12	12	87	84	12	1	5	15	21	15	14	78
624	227	66	718	816	927	641	107	53	65	159	711	22
21	135	14	83	22	30	24	23	10	18	67	67	3
1	1	2	2	1	2	59	1	1	1	1	1	81

COUNTY TABLE I.—FARMS AND FARM PROPERTY, 1920.

		Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Grand Traverse.
<b>ALL FARMS.</b>									
1	Number of farms, 1920	1,305	429	3,719	1,293	3,639	1,452	528	1,725
2	1910	1,128	235	3,902	1,457	3,896	1,395	257	2,031
3	1900	888	118	4,190	1,134	4,501	769	80	1,722
4	All farmers classified by sex, 1920:								
5	Male	1,346	414	3,065	1,252	3,544	1,410	502	1,609
6	Female	49	15	54	46	95	33	26	56
7	Color and nativity of all farmers, 1920:								
8	Native white	467	124	3,526	915	3,138	946	5	1,366
9	Foreign-born white	926	305	189	365	501	502	523	359
10	Negro and other nonwhite	2	4	4	18	4	4	4	4
11	All farms classified by size, 1920:								
12	Under 3 acres	3	1	5	3	3	1	2	3
13	3 to 9 acres	10	4	121	36	124	14	26	27
14	10 to 19 acres	13	6	109	51	127	24	45	41
15	20 to 49 acres	345	145	668	326	587	289	298	392
16	50 to 99 acres	524	181	1,440	455	1,270	594	114	631
17	100 to 174 acres	346	95	1,075	288	1,107	369	33	400
18	175 to 259 acres	96	25	234	91	313	108	2	109
19	260 to 499 acres	49	12	63	41	100	43	6	54
20	500 to 999 acres	7	6	4	4	6	8	2	7
21	1,000 acres and over	2	4	4	3	2	2	2	1
<b>LAND AND FARM AREA.</b>									
22	Approximate land area, 1920	748,160	496,040	365,440	310,400	419,200	332,160	725,120	298,880
23	Land in farms, 1920	142,137	53,451	342,500	125,218	368,520	154,633	27,442	170,188
24	1910	112,811	23,480	345,853	124,972	388,476	128,598	13,119	176,651
25	1900	93,710	12,395	351,743	101,701	400,681	60,878	3,701	148,649
26	Improved land in farms, 1920	53,021	15,149	263,959	61,587	291,624	73,001	9,829	113,852
27	1910	42,932	8,342	268,977	54,265	312,978	54,123	4,742	109,378
28	1900	33,088	5,070	264,523	38,188	312,826	25,000	1,044	83,423
29	Woodland in farms, 1920	53,821	20,278	32,351	38,781	38,336	30,703	10,755	35,000
30	Other unimproved land in farms, 1920	35,295	18,024	46,190	24,850	38,560	50,869	6,858	21,336
31	Per cent of land area in farms, 1920	19.0	10.8	93.7	40.3	87.9	46.6	3.8	56.9
32	Per cent of farm land improved, 1920	37.3	28.3	77.1	49.2	79.1	47.2	35.8	66.9
33	Average acreage per farm, 1920	101.9	124.6	92.1	96.5	101.3	106.5	52.0	98.7
34	Average improved acreage per farm, 1920	38.0	35.3	71.0	47.4	80.1	50.3	18.6	66.0
<b>VALUE OF FARM PROPERTY.</b>									
35	All farm property, 1920	8,154,505	2,805,077	38,828,180	5,748,924	44,599,356	9,171,445	2,950,286	10,843,582
36	1910	3,509,854	941,392	22,896,874	4,084,950	24,974,322	4,072,100	852,988	8,476,299
37	1900	1,737,452	282,576	16,065,393	2,372,304	18,880,467	1,102,936	81,554	4,346,397
38	Land in farms, 1920	3,814,855	1,253,258	19,749,610	2,568,450	24,381,811	4,528,857	1,312,102	5,399,155
39	1910	1,742,405	443,305	12,506,039	2,140,330	13,065,970	2,381,222	475,664	4,815,785
40	1900	881,830	138,210	9,640,330	1,389,000	11,106,430	599,130	33,320	2,502,220
41	Farm buildings, 1920	2,307,120	778,996	11,353,831	1,767,810	12,646,855	2,551,317	1,011,025	3,361,990
42	1910	966,170	302,825	6,340,790	1,141,385	7,016,100	852,700	236,711	2,318,875
43	1900	300,930	68,950	3,946,480	497,610	4,879,160	206,360	24,780	1,049,820
44	Implements and machinery, 1920	726,069	250,086	2,887,585	503,684	2,744,856	608,843	192,450	871,672
45	1910	260,206	70,357	946,634	234,639	1,024,819	201,336	42,066	403,622
46	1900	136,730	17,760	601,900	130,490	702,670	78,940	5,440	226,480
47	Live stock on farms, 1920	1,305,861	522,737	4,837,154	913,980	4,825,834	1,482,428	434,100	1,210,765
48	1910	535,073	124,905	3,104,411	568,666	3,267,433	636,842	98,547	935,017
49	1900	827,962	57,656	1,816,683	369,204	2,192,207	218,506	18,014	567,877
50	Average values, 1920:								
51	All property per farm	5,846	6,540	10,440	4,429	12,256	6,316	5,583	6,286
52	Land and buildings per farm	4,389	4,737	8,363	3,337	10,176	4,876	4,401	5,079
53	Land alone per acre	26.84	23.45	57.06	20.47	66.16	29.29	47.81	31.72
<b>FARMS OPERATED BY OWNERS.</b>									
54	Number of farms, 1920	1,332	400	2,849	1,198	2,684	1,257	522	1,526
55	1910	1,067	221	2,990	1,333	2,983	1,293	250	1,801
56	1900	796	100	3,308	1,034	3,493	696	78	1,529
57	Per cent of all farms, 1920	95.5	94.6	76.6	92.3	73.8	86.6	98.9	88.5
58	Land in farms, 1920	134,820	38,909	244,488	112,445	253,354	129,099	27,193	148,932
59	Improved land in farms, 1920	49,365	13,867	189,447	55,418	200,464	62,482	9,728	199,322
60	Value of land and buildings, 1920	5,755,075	1,729,875	22,192,381	3,917,055	24,318,473	5,996,143	2,300,877	7,427,135
61	Degree of ownership, 1920:								
62	Farmers owning entire farm	1,290	396	2,420	1,076	2,254	1,086	518	1,256
63	Farmers living additional land	42	10	429	122	430	171	4	270
64	Color and nativity of owners, 1920:								
65	Native white owners	434	108	2,695	828	2,316	779	5	1,185
66	Foreign-born white owners	897	298	154	352	308	474	517	341
67	Negro and other nonwhite owners	1	4	4	18	4	4	4	4
<b>FARMS OPERATED BY MANAGERS.</b>									
68	Number of farms, 1920	8	14	28	19	53	19	6	36
69	1910	17	5	8	9	67	8	1	22
70	1900	23	6	14	2	58	3	1	17
71	Land in farms, 1920	1,051	13,362	4,110	3,833	10,285	8,254	4,930	4,930
72	Improved land in farms, 1920	1,163	840	3,166	1,570	8,087	1,622	3,281	3,281
73	Value of land and buildings, 1920	120,000	267,679	398,850	134,700	1,604,500	227,800	451,810	451,810
<b>FARMS OPERATED BY TENANTS.</b>									
74	Number of farms, 1920	55	9	842	81	902	176	6	163
75	1910	44	9	904	115	846	94	6	208
76	1900	49	13	808	98	950	62	2	176
77	Per cent of all farms, 1920	3.9	2.1	22.6	6.2	24.8	12.1	1.1	9.4
78	Land in farms, 1920	5,366	1,180	93,902	8,040	104,881	17,280	240	16,326
79	Improved land in farms, 1920	2,403	422	71,346	4,599	83,063	8,897	101	11,249
80	Value of land and buildings, 1920	246,900	34,700	8,512,210	278,505	11,105,693	856,431	22,850	882,700
81	Form of tenancy, 1920:								
82	Share tenants	14	1	603	34	655	102	2	114
83	Share-cash tenants	32	8	136	40	170	64	8	3
84	Cash tenants	9	4	31	4	65	8	27	19
85	Unspecified	29	7	804	71	777	150	6	151
86	Color and nativity of tenants, 1920:								
87	Native white tenants	25	2	34	10	125	26	6	12
88	Foreign-born white tenants	1	4	4	4	4	4	4	4
89	Negro and other nonwhite tenants	1	4	4	4	4	4	4	4

WITH SELECTED ITEMS FOR 1910 AND 1900—Continued.

Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.
3,859 4,205 4,587	4,025 4,298 4,391	1,741 1,033 362	4,604 4,728 4,871	3,224 3,508 3,815	3,223 3,602 4,052	929 958 743	621 381 231	3,333 3,456 3,436	3,544 3,736 3,860	3,161 3,372 3,308	796 842 079	5,605 6,276 6,554
3,780 79	3,027 98	1,644 97	4,450 154	3,152 72	3,136 87	898 31	588 33	3,257 76	3,439 105	3,087 74	780 16	5,447 158
3,433 412 14	3,906 117 2	253 1,488	2,632 1,972	2,992 229 3	2,983 238 2	503 363 3	94 527	2,630 641 62	3,266 274 4	2,620 534 7	703 90 3	4,269 1,288 8
11 71 78 907 1,700	12 144 138 695 1,640	1 24 43 744 592	6 77 53 590 1,876	5 122 113 486 1,155	6 32 101 472 1,112	1 23 4 190 332	1 8 10 320 168	8 31 46 731 1,353	8 164 133 422 975	43 342 146 446 847	3 3 9 165 279	14 209 330 1,232 2,101
867 166 51 8	1,094 225 69 7 1	253 39 32 12 1	1,568 321 105 8 2	976 266 92 8 1	1,052 274 109 11 4	230 83 45 11 10	91 5 5 1 2	916 195 52 8 1	1,208 433 185 14 2	898 323 105 9 2	240 64 26 7 2	1,333 202 87 6 1
370,560 328,074 333,148 322,652	382,080 362,815 372,630 390,614	652,160 134,790 93,857 48,452	546,560 480,988 338,085 436,096	353,920 323,196 338,085 346,444	370,560 344,102 351,505 355,466	364,800 121,694 112,710 63,359	768,000 42,849 29,368 22,979	986,050 316,771 298,099 254,062	452,480 411,677 422,507 423,215	359,680 311,934 331,014 330,537	366,720 86,888 80,501 56,892	550,400 469,924 486,043 490,690
251,326 248,899 221,068 37,116 39,632	283,071 292,014 297,181 38,190 41,554	58,798 35,921 18,193 55,812 22,180	383,584 356,731 307,044 38,687 58,717	238,492 248,078 258,088 31,482 53,222	266,698 277,880 279,503 34,877 42,527	49,073 40,735 25,156 39,920 35,101	14,108 9,008 5,250 13,044 14,797	205,871 193,124 163,062 34,524 70,435	247,905 304,387 267,940 43,733 72,078	247,905 304,387 267,940 27,565 30,464	51,829 42,503 27,388 18,465 16,574	352,740 365,717 362,902 66,204 50,980
88.5 70.6 85.0 65.1	95.0 78.0 90.1 70.3	20.7 42.1 77.4 32.6	88.0 73.8 104.5 83.3	91.3 73.8 100.2 74.0	92.9 77.5 106.8 82.7	33.4 40.8 131.0 53.5	30.9 69.0 22.7	80.5 96.9 116.2 63.5	91.0 71.9 116.2 83.5	86.7 79.5 98.7 78.4	23.7 59.7 109.1 65.1	85.4 75.1 83.8 62.9
42,398,764 22,208,618 12,960,909	39,034,284 27,219,325 17,284,810	8,399,917 3,863,719 922,181	41,760,531 26,262,449 13,341,896	35,224,579 21,886,869 15,292,535	37,914,768 23,217,892 15,858,240	6,367,533 2,707,404 1,135,325	3,289,128 1,277,764 283,629	23,208,834 15,813,417 7,829,876	36,815,109 25,722,319 18,102,132	31,370,231 23,400,464 16,238,917	3,642,623 2,533,839 1,265,685	49,004,994 34,025,818 23,008,449
25,646,622 13,039,733 7,911,480 9,640,771 5,416,641 2,591,850	20,315,831 15,270,246 10,045,720 11,181,405 7,324,582 4,520,450	4,325,646 2,172,063 508,350 2,234,929 1,044,074 227,510	22,462,915 14,338,153 7,462,440 11,142,000 6,662,787 2,911,960	18,919,041 12,307,787 9,543,900 9,552,755 5,643,711 3,485,810	19,813,529 12,951,328 9,489,960 10,434,062 6,116,038 3,883,850	3,346,371 1,408,504 133,460 1,618,504 642,000 237,400	1,494,920 710,272 4,271,310 969,853 3,817,868 65,780	15,332,840 8,685,457 4,271,310 7,583,636 3,817,868 1,607,170	18,986,054 14,346,731 10,481,320 8,924,304 7,030,090 4,400,020	17,189,597 13,809,225 10,481,320 8,924,304 6,137,827 3,671,380	1,778,985 1,300,080 674,070 1,038,255 710,845 205,390	25,800,182 18,957,100 15,030,270 15,298,272 10,057,730 5,714,890
2,749,872 903,215 635,790 4,361,499 2,789,029 1,821,789	2,707,628 1,078,933 666,370 4,849,420 3,545,594 2,052,270	618,006 233,271 60,680 1,221,246 414,311 125,641	2,888,021 1,349,405 774,530 5,265,795 3,912,104 2,192,966	2,207,829 912,694 620,880 4,544,954 3,022,707 1,700,075	2,891,654 1,044,592 620,880 4,755,523 3,105,933 1,897,550	426,837 155,961 75,100 977,731 440,639 242,905	262,785 83,451 18,200 561,670 173,093 65,999	2,056,746 703,176 360,520 3,235,562 2,106,916 1,190,876	2,443,600 1,036,248 691,620 4,393,061 3,309,250 1,958,502	2,139,552 969,834 619,680 3,116,778 2,480,578 1,466,537	811,738 158,874 86,560 518,948 864,070 209,065	3,529,792 1,640,102 931,590 5,276,802 3,970,789 2,231,555
10,987 9,144 78.17	9,898 7,820 56.00	4,825 3,768 32.09	9,070 7,299 46.70	10,926 8,831 58.54	11,764 9,400 57.58	6,854 5,342 27.50	5,297 3,909 34.89	8,403 6,576 48.40	10,388 8,459 46.12	9,924 8,261 55.11	4,577 3,533 20.48	8,004 7,332 54.90
2,794 3,433 3,804 72.4 226,582 172,065 23,898,888	3,004 3,214 3,372 74.6 251,142 196,058 21,846,166	1,280 770 275 73.5 106,033 42,484 5,207,865	4,009 4,356 4,381 87.1 415,631 331,320 28,616,435	2,500 2,736 3,107 77.5 236,512 174,067 19,980,172	2,375 2,758 3,252 88.2 235,096 183,536 20,785,790	819 890 668 88.2 96,799 41,719 4,254,925	597 369 220 96.1 41,459 13,445 2,373,698	2,726 3,028 2,905 81.8 253,683 168,667 17,845,830	2,727 2,862 2,959 76.9 202,631 211,756 21,700,472	2,363 2,567 2,428 74.8 207,587 164,643 17,327,261	690 770 601 80.7 75,606 44,453 2,472,265	4,541 5,058 5,149 51.0 364,638 275,948 31,743,877
2,397 397	2,593 411	1,192 88	3,578 431	2,090 410	1,976 399	721 98	580 17	2,330 396	2,337 390	1,953 410	595 95	4,092 449
2,478 307 9	2,902 101 1	208 1,072	2,220 1,789	2,303 196	2,165 208 2	476 340 3	87 510 52	2,112 562 52	2,492 233 2	1,892 465 6	606 82 2	3,392 1,144 61
27 21 22 4,169 3,209 500,100	21 17 56 3,191 2,375 811,630	13 8 4 2,979 1,328 206,200	47 33 22 7,808 5,870 599,540	32 33 36 6,721 4,884 1,588,627	33 21 40 7,211 5,258 674,000	11 13 14 12,287 1,537 244,100	2 2 2 78 65 15,000	25 21 45 5,758 2,643 330,476	34 46 64 7,248 4,317 698,596	31 33 61 4,472 3,611 417,800	7 5 3 1,043 548 32,200	71 67 63 9,189 7,405 1,474,750
1,038 751 761 26.9 97,323 76,052 10,888,405	1,000 1,067 963 24.8 108,482 84,638 9,819,440	448 249 83 25.7 25,778 12,986 1,146,510	548 350 413 11.9 57,549 46,394 4,889,840	692 739 672 21.5 79,963 58,941 6,902,997	815 823 760 25.3 101,195 77,904 8,837,801	99 55 61 10.7 12,608 6,417 463,940	22 9 9 3.5 1,312 598 76,075	582 407 488 17.5 57,330 40,502 4,740,220	783 828 837 22.1 111,798 79,798 7,699,560	767 782 819 22.4 99,875 79,661 8,368,840	99 67 75 12.4 10,319 6,828 307,775	993 1,151 1,302 17.7 96,097 69,387 7,879,827
840 19 172 1	774 11 173 42	2 445 1	261 6 219 62	531 12 149 102	698 15 102	57 37 5	3 18 1	441 5 84 52	620 8 99 56	610 19 134 4	72 17 10	612 8 31.8 55
934 100 4	983 16 1	35 413	378 170	660 30 2	787 28	79 20	7 15	497 76 9	743 38 2	701 65 1	91 7 1	821 159 3

1 The correction of errors discovered after the 1900 census reports were published would make this acreage for Hillsdale County 377,941.

COUNTY TABLE I.—FARMS AND FARM PROPERTY, 1920,

	Keweenaw.	Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.
<b>ALL FARMS.</b>								
1 Number of farms, 1920.....	72	703	3,614	1,347	5,080	2,632	194	470
2 1910.....	36	732	3,808	1,444	5,334	2,775	195	490
3 1900.....	22	625	4,051	1,395	5,662	3,082	144	394
4 All farmers classified by sex, 1920:								
5 Male.....number.....	70	668	3,536	1,296	5,003	2,542	189	460
6 Female.....number.....	2	35	78	51	77	90	5	19
7 Color and nativity of all farmers, 1920:								
8 Native white.....number.....	9	418	2,819	912	4,672	2,377	83	187
9 Foreign-born white.....number.....	63	285	794	406	406	254	110	290
10 Negro and other nonwhite.....number.....	1	1	1	29	2	1	1	2
11 All farms classified by size, 1920:								
12 Under 3 acres.....number.....	1	6	1	10	3	9	9	9
13 3 to 9 acres.....number.....	2	46	10	210	68	7	7	9
14 10 to 19 acres.....number.....	9	72	20	204	45	45	45	108
15 20 to 49 acres.....number.....	34	149	525	182	804	264	55	108
16 50 to 99 acres.....number.....	29	244	1,317	468	1,978	710	55	196
17 100 to 174 acres.....number.....	8	198	1,152	465	1,499	961	41	109
18 175 to 259 acres.....number.....	1	45	381	147	292	409	12	34
19 260 to 499 acres.....number.....	1	40	109	46	82	160	9	15
20 500 to 999 acres.....number.....	1	11	7	6	1	9	3	7
21 1,000 acres and over.....number.....	4	4	2	2	1	9	3	1
<b>LAND AND FARM AREA.</b>								
22 Approximate land area, 1920.....acres.....	354,560	370,560	426,240	216,320	475,520	363,520	588,800	668,160
23 Land in farms, 1920.....acres.....	4,857	88,438	395,932	165,399	459,708	333,339	23,988	53,043
24 1910.....acres.....	2,731	87,730	400,452	159,303	462,032	349,075	20,732	55,189
25 1900.....acres.....	3,708	60,421	398,611	142,858	469,848	351,687	18,730	47,499
26 Improved land in farms, 1920.....acres.....	2,015	36,364	291,706	90,825	370,047	231,346	10,029	21,561
27 1910.....acres.....	1,236	33,884	296,802	83,812	379,563	247,364	7,926	21,118
28 1900.....acres.....	1,541	24,831	283,783	65,528	374,770	250,965	2,880	15,147
29 Woodland in farms, 1920.....acres.....	726	31,231	43,022	60,657	46,186	41,135	7,758	25,584
30 Other unimproved land in farms, 1920.....acres.....	2,116	20,843	61,204	13,917	40,475	60,858	6,201	5,898
31 Per cent of land area in farms, 1920.....	1.4	23.9	92.9	76.5	96.0	91.7	4.1	7.9
32 Per cent of farm land improved, 1920.....	41.5	41.1	73.7	54.9	81.0	69.4	41.8	40.6
33 Average acreage per farm, 1920.....	67.5	125.8	109.6	122.8	89.9	126.6	123.6	110.7
34 Average improved acreage per farm, 1920.....	28.0	51.7	80.7	67.4	72.8	87.9	51.7	45.0
<b>VALUE OF FARM PROPERTY.</b>								
35 All farm property, 1920.....dollars.....	284,990	3,561,087	34,489,547	8,035,204	67,855,071	27,815,913	1,195,983	2,032,500
36 1910.....dollars.....	95,131	2,245,762	20,285,943	6,120,448	41,339,983	17,908,983	626,546	1,345,783
37 1900.....dollars.....	50,410	1,001,968	13,853,063	3,479,103	25,593,766	13,989,871	249,494	682,261
38 Land in farms, 1920.....dollars.....	147,045	1,691,321	17,380,550	3,796,362	37,601,083	13,523,244	573,554	946,819
39 1910.....dollars.....	43,800	1,230,841	10,215,824	3,269,205	24,600,719	9,483,769	319,225	705,655
40 1900.....dollars.....	28,580	545,590	8,017,410	1,908,760	15,496,740	8,595,380	137,560	386,580
41 Farm buildings, 1920.....dollars.....	77,180	995,887	9,941,575	2,591,853	17,609,516	7,935,703	310,040	530,683
42 1910.....dollars.....	30,125	558,170	5,741,528	1,816,225	10,581,205	4,927,025	169,175	316,455
43 1900.....dollars.....	8,870	208,140	3,434,170	917,770	6,339,160	3,375,550	50,970	126,980
44 Implements and machinery, 1920.....dollars.....	19,090	277,604	2,653,021	678,953	4,450,483	2,091,593	83,657	179,194
45 1910.....dollars.....	7,800	135,735	1,128,366	350,993	1,684,167	809,459	40,874	106,738
46 1900.....dollars.....	4,280	64,200	593,700	193,380	966,490	499,010	16,330	47,500
47 Live stock on farms, 1920.....dollars.....	41,675	596,275	4,534,401	968,036	8,193,989	4,265,373	228,732	375,804
48 1910.....dollars.....	13,408	321,016	3,200,225	684,025	4,967,671	2,688,735	97,272	216,935
49 1900.....dollars.....	8,700	184,038	1,807,783	459,193	2,791,376	1,619,951	44,634	121,201
50 Average values, 1920:								
51 All property per farm.....dollars.....	3,958	5,066	9,543	5,965	13,357	10,568	6,165	4,243
52 Land and buildings per farm.....dollars.....	3,114	3,822	7,555	4,743	10,868	8,153	4,555	3,085
53 Land alone per acre.....dollars.....	30.27	19.12	43.85	22.95	82.33	40.57	23.91	17.85
<b>FARMS OPERATED BY OWNERS.</b>								
54 Number of farms, 1920.....	21	619	2,751	1,219	3,473	2,074	183	447
55 1910.....	18	660	3,093	1,339	3,877	2,221	176	460
56 1900.....	18	574	3,241	1,284	4,349	2,534	129	366
57 Per cent of all farms, 1920.....	29.2	88.1	70.1	90.5	68.4	78.8	94.3	93.3
58 Land in farms, 1920.....acres.....	1,543	73,710	287,278	139,426	287,726	249,476	20,022	48,781
59 Improved land in farms, 1920.....acres.....	856	30,695	211,540	81,012	234,037	174,491	8,966	20,179
60 Value of land and buildings, 1920.....dollars.....	89,750	2,278,288	19,801,250	5,487,890	35,240,273	16,123,407	766,444	1,374,280
61 Degree of ownership, 1920:								
62 Farmers owning entire farm.....number.....	20	592	2,398	1,090	2,988	1,852	175	427
63 Farmers hiring additional land.....number.....	1	27	353	129	485	222	8	20
64 Color and nativity of owners, 1920:								
65 Native white owners.....number.....	4	344	2,097	804	3,140	1,858	73	167
66 Foreign-born white owners.....number.....	17	275	653	390	332	215	109	278
67 Negro and other nonwhite owners.....number.....	1	1	1	25	1	1	1	2
<b>FARMS OPERATED BY MANAGERS.</b>								
68 Number of farms, 1920.....	1	10	25	39	46	32	4	8
69 1910.....	1	6	28	13	21	30	11	1
70 1900.....	1	5	34	11	29	17	3	7
71 Land in farms, 1920.....acres.....	100	3,733	5,161	16,154	5,420	6,023	1,370	1,585
72 Improved land in farms, 1920.....acres.....	40	708	3,259	4,162	4,298	3,712	610	278
73 Value of land and buildings, 1920.....dollars.....	2,250	81,100	394,700	494,900	525,089	408,740	58,500	42,000
<b>FARMS OPERATED BY TENANTS.</b>								
74 Number of farms, 1920.....	50	74	838	89	1,561	526	7	24
75 1910.....	17	66	687	92	1,436	524	8	29
76 1900.....	4	46	776	100	1,284	531	12	21
77 Per cent of all farms, 1920.....	60.4	10.5	23.2	6.6	30.7	20.0	3.6	5.0
78 Land in farms, 1920.....acres.....	3,154	10,995	103,493	9,819	163,562	77,940	2,596	2,677
79 Improved land in farms, 1920.....acres.....	1,119	4,963	76,907	5,651	131,712	55,143	453	1,104
80 Value of land and buildings, 1920.....dollars.....	132,225	327,820	7,606,175	405,425	19,445,237	4,920,800	58,650	61,222
81 Form of tenancy, 1920:								
82 Share tenants.....number.....	2	57	546	55	1,040	406	4	6
83 Share-cash tenants.....number.....	4	9	9	2	23	23	1	1
84 Cash tenants.....number.....	46	11	246	26	408	49	2	18
85 Unspecified.....number.....	2	6	37	6	90	71	1	1
86 Color and nativity of tenants, 1920:								
87 Native white tenants.....number.....	4	65	699	75	1,487	489	6	15
88 Foreign-born white tenants.....number.....	46	9	139	11	73	37	1	9
89 Negro and other nonwhite tenants.....number.....	1	1	1	3	1	1	1	1

WITH SELECTED ITEMS FOR 1910 AND 1900—Continued.

Macomb.	Manistee.	Marquette.	Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.	Montcalm.	Montmorency.	Muskegon.	Newaygo.	
3,570	1,499	846	2,011	2,678	2,106	2,163	1,359	4,108	4,493	421	2,036	2,836	1
3,764	1,648	661	2,124	2,823	1,677	2,246	1,439	4,821	4,678	466	2,373	3,130	2
3,852	1,811	513	1,885	2,970	1,430	2,153	1,036	4,458	4,714	336	2,334	2,846	3
3,479	1,430	807	1,968	2,605	2,010	2,094	1,323	4,024	4,388	413	1,966	2,736	4
91	69	39	43	71	96	69	36	84	105	8	70	100	5
2,616	900	236	1,215	2,164	829	1,586	914	3,680	3,611	297	1,273	2,214	6
954	594	609	787	470	1,266	556	440	418	866	124	758	617	7
5	5	1	9	42	11	21	5	10	16	5	5	5	8
3	2	14	24	3	11	3	2	8	7	1	10	1	9
227	22	17	43	41	21	42	17	164	75	1	67	24	10
208	33	283	587	436	460	546	10	187	108	1	114	54	11
880	323	274	803	1,074	802	890	533	894	1,088	71	595	62	12
1,304	578							1,766	1,796	151	702	1,123	13
738	401	191	417	814	607	533	387	944	1,131	123	401	688	14
159	92	41	96	208	123	90	112	119	207	42	100	179	15
47	39	22	28	54	66	41	56	24	71	20	38	94	16
3	8	3	9	9	13	8	6	6	8	9	4	31	17
1	1	1	4	3	3	1	5	1	2	2	5	11	18
302,080	359,680	1,196,800	316,160	365,440	675,840	338,560	372,480	366,720	463,360	359,040	322,560	644,640	19
272,357	147,569	88,450	183,428	281,574	222,353	202,927	168,710	318,845	396,333	55,212	173,518	317,091	20
286,503	144,933	67,806	171,295	285,781	167,443	176,626	147,355	332,246	392,870	55,715	185,010	325,721	21
286,366	114,636	53,696	131,162	250,077	132,710	148,817	101,414	328,490	371,511	35,322	175,057	281,464	22
221,453	85,292	27,944	108,180	165,492	85,305	108,762	78,386	271,485	269,145	22,801	107,679	167,559	23
221,534	75,031	23,041	100,925	159,794	64,690	94,717	60,918	279,771	266,401	17,506	109,656	166,072	24
222,753	53,008	17,848	71,974	131,390	46,029	72,214	33,498	265,138	243,376	11,029	98,655	136,997	25
30,006	41,233	43,140	46,145	51,011	68,063	29,809	26,030	30,245	54,681	20,811	38,830	87,853	26
20,898	21,044	17,366	29,103	65,071	68,985	64,356	64,294	17,115	72,507	5,600	27,009	61,679	27
90.2	41.0	7.4	58.0	77.1	32.9	59.9	45.3	86.9	85.5	15.4	53.8	58.2	28
81.3	57.8	31.6	59.0	58.3	38.4	53.6	46.5	85.1	67.9	41.3	62.1	52.8	29
76.3	98.4	104.6	91.2	105.2	105.6	93.8	124.1	77.6	88.2	131.1	85.2	111.8	30
62.0	56.9	33.0	53.8	61.8	40.5	50.3	57.7	66.1	59.9	54.2	52.9	59.1	31
45,207,396	8,027,628	3,842,314	12,330,592	14,824,254	12,926,017	14,178,687	8,551,879	45,309,128	31,912,810	2,578,757	12,751,511	16,738,851	32
23,027,327	5,899,905	1,867,952	0,076,009	8,936,822	5,584,532	7,409,369	4,899,023	27,925,016	19,039,265	1,205,947	9,437,737	12,387,408	33
17,958,652	2,947,126	1,101,078	4,170,307	4,888,663	2,854,440	3,699,113	1,881,103	17,694,164	10,078,569	525,738	5,200,906	5,004,225	34
26,990,981	4,233,133	1,805,386	6,497,743	7,412,449	6,593,195	7,811,459	4,620,365	26,380,086	17,045,174	1,204,704	6,212,165	8,582,886	35
12,549,494	3,298,788	898,038	5,152,727	4,765,200	2,808,096	4,253,806	2,558,869	17,133,343	10,388,289	670,966	4,913,741	6,980,806	36
11,626,700	1,634,630	623,350	2,498,710	2,765,820	1,486,950	1,990,840	761,420	11,210,700	5,701,450	295,020	3,056,360	3,153,960	37
11,172,935	2,258,335	1,066,125	3,567,600	4,245,451	3,417,565	3,570,048	2,198,215	11,506,080	9,064,994	743,472	4,049,920	4,797,217	38
6,321,980	1,572,155	528,440	2,364,989	2,296,135	1,550,775	1,709,325	934,740	6,706,057	5,168,144	267,315	2,916,495	3,105,600	39
3,993,430	712,510	244,410	937,260	1,079,220	622,830	800,970	231,000	4,052,660	2,476,770	92,520	1,254,560	1,300,020	40
2,816,981	607,574	300,422	934,290	1,217,529	1,010,625	998,597	620,262	2,963,216	2,410,546	278,767	924,625	1,190,215	41
1,080,182	324,696	147,044	507,537	499,703	411,651	376,219	219,857	1,145,740	937,936	88,309	461,848	610,858	42
705,410	158,860	61,150	224,490	277,340	197,540	208,130	83,330	710,330	490,420	34,560	251,400	301,210	43
4,226,499	928,586	670,381	1,330,959	1,948,825	1,634,632	1,780,583	1,113,037	4,469,746	3,392,096	351,814	1,504,801	2,167,033	44
2,769,671	704,268	294,430	1,050,756	1,375,784	814,010	1,070,019	655,657	2,939,876	2,644,896	179,357	1,145,653	1,040,042	45
1,633,112	441,126	172,168	509,847	766,283	547,120	669,178	305,353	1,720,484	1,409,929	103,638	638,586	843,035	46
12,663	5,355	4,542	6,132	5,540	6,138	6,555	6,293	11,029	7,103	6,125	6,263	5,902	47
10,690	4,331	3,394	5,005	4,356	4,739	5,266	5,017	9,223	5,811	4,627	5,040	4,718	48
99.10	28.69	20.41	35.42	26.33	29.52	38.49	27.39	82.74	43.01	21.82	35.80	27.07	49
2,845	1,366	749	1,751	2,212	2,018	1,773	1,189	3,228	3,634	388	1,792	2,413	50
3,048	1,494	564	1,936	2,471	1,617	1,935	1,296	3,448	4,061	432	2,023	2,790	51
3,076	1,196	460	1,717	2,559	1,367	1,890	981	3,616	4,036	311	2,012	2,636	52
79.7	91.1	88.5	87.1	82.7	95.8	82.0	87.5	78.6	80.9	92.2	86.5	86.1	53
197,579	131,030	68,515	149,858	223,043	203,920	153,776	133,123	240,742	310,817	49,764	136,069	243,155	54
162,486	74,850	23,473	92,210	132,989	77,543	83,965	66,298	205,224	210,810	20,662	86,478	134,184	55
27,638,085	5,666,768	2,352,481	8,472,043	9,450,750	8,952,160	8,732,005	5,624,780	28,849,891	20,085,063	1,629,276	7,987,040	10,708,978	56
2,518	1,172	723	1,548	1,924	1,961	1,582	1,052	2,731	3,178	355	1,613	2,108	57
327	194	26	203	288	57	191	137	497	466	33	149	305	58
2,050	784	205	1,003	1,745	769	1,256	773	2,866	2,800	268	1,042	1,823	59
795	578	543	740	436	1,238	502	412	354	821	120	715	586	60
-----	4	1	8	31	11	15	4	8	13	-----	5	4	61
80	19	11	31	28	33	5	8	29	33	5	36	33	62
26	10	16	16	16	22	11	11	29	24	3	32	20	63
48	17	11	28	21	32	23	8	18	39	5	23	19	64
6,485	4,297	14,262	7,834	8,127	12,054	9,340	11,219	2,970	5,176	666	8,529	11,531	65
4,832	2,788	1,903	2,168	2,715	5,155	2,764	1,398	2,601	3,813	331	3,391	4,230	66
1,105,475	335,400	289,000	265,200	170,600	667,700	255,170	341,300	470,250	486,400	14,400	578,575	414,350	67
695	114	86	229	436	55	385	162	851	826	28	238	390	68
690	144	81	172	336	38	300	132	844	593	31	318	320	69
728	98	42	140	390	31	261	47	824	639	20	299	291	70
19.5	7.6	10.2	11.4	16.3	2.6	17.8	11.9	20.7	18.4	6.7	11.7	13.8	71
68,293	12,242	5,673	25,736	50,404	6,379	39,811	24,368	75,133	80,340	4,782	28,330	62,406	72
54,135	7,654	2,568	13,802	29,788	2,607	22,033	10,690	63,680	54,522	1,808	17,810	29,145	73
9,320,356	489,300	230,030	1,328,100	2,036,550	360,900	2,403,332	852,500	9,066,025	5,538,705	304,500	1,696,470	2,266,275	74
328	71	9	138	332	10	264	110	461	690	10	129	293	75
10	2	-----	5	3	-----	3	3	12	4	-----	4	3	76
331	36	77	61	75	37	96	33	329	55	16	96	69	77
26	5	-----	25	26	8	22	16	49	77	2	9	25	78
542	100	24	187	394	34	326	134	788	779	25	203	362	79
153	13	62	41	31	21	53	27	62	44	3	35	27	80
-----	1	-----	1	11	-----	6	1	1	3	-----	-----	1	81

COUNTY TABLE I.—FARMS AND FARM PROPERTY, 1920.

		Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.
<b>ALL FARMS.</b>									
1	Number of farms, 1920.....	4,035	2,357	1,281	917	2,310	278	573	4,296
2	1910.....	4,993	2,808	1,283	371	2,574	344	551	4,603
3	1900.....	4,977	2,650	811	187	2,287	210	570	4,522
4	All farmers classified by sex, 1920:								
5	Male.....number.....	3,936	2,284	1,242	882	2,261	266	555	4,133
6	Female.....number.....	99	73	39	35	49	12	18	163
7	Color and nativity of all farmers, 1920:								
8	Native white.....number.....	3,362	1,795	865	248	1,096	230	329	2,871
9	Foreign-born white.....number.....	671	555	416	669	610	45	243	1,424
10	Negro and other nonwhite.....number.....	2	7			4		1	1
11	All farms classified by size, 1920:								
12	Under 3 acres.....number.....	9	3	3	1	6			6
13	3 to 9 acres.....number.....	112	35	11	18	19		14	164
14	10 to 19 acres.....number.....	124	51	9	38	35		7	229
15	20 to 49 acres.....number.....	527	555	256	344	381	22	104	1,142
16	50 to 99 acres.....number.....	1,187	916	478	304	942	89	197	1,828
17	100 to 174 acres.....number.....	1,439	605	346	150	639	95	159	787
18	175 to 259 acres.....number.....	460	125	101	35	108	35	52	108
19	260 to 499 acres.....number.....	169	52	54	17	101	28	33	29
20	500 to 999 acres.....number.....	18	10	16	8	14	4	5	3
21	1,000 acres and over.....number.....		5	7	2	5	4	2	
<b>LAND AND FARM AREA.</b>									
22	Approximate land area, 1920.....acres.....	567,040	347,520	371,200	853,120	369,280	368,640	337,920	361,600
23	Land in farms, 1920.....acres.....	462,018	231,030	166,463	80,170	259,130	47,724	73,961	308,872
24	1910.....acres.....	542,242	243,695	144,628	38,073	248,477	59,924	59,559	324,129
25	1900.....acres.....	548,399	213,610	72,846	26,013	187,664	30,587	47,605	319,440
26	Improved land in farms, 1920.....acres.....	340,567	150,118	67,052	25,025	147,382	15,633	32,384	238,248
27	1910.....acres.....	467,761	151,782	55,437	11,992	129,303	16,218	27,627	247,236
28	1900.....acres.....	409,014	120,001	29,220	5,570	96,232	7,976	21,881	230,264
29	Woodland in farms, 1920.....acres.....	55,840	48,347	72,995	44,433	42,884	24,815	34,590	29,446
30	Other unimproved land in farms, 1920.....acres.....	65,611	32,595	26,416	10,712	68,804	7,226	6,487	41,178
31	Per cent of land area in farms, 1920.....	81.5	66.5	44.8	9.4	70.2	12.9	21.9	85.4
32	Per cent of farm land improved, 1920.....	73.7	65.0	40.3	31.2	56.9	32.9	44.5	77.1
33	Average acreage per farm, 1920.....	114.5	98.0	129.9	87.4	112.2	171.7	129.1	71.9
34	Average improved acreage per farm, 1920.....	84.4	63.7	52.3	27.3	63.8	56.4	57.4	55.5
<b>VALUE OF FARM PROPERTY.</b>									
35	All farm property, 1920.....dollars.....	67,619,941	15,009,333	6,498,745	4,051,109	12,276,336	1,798,957	2,609,122	33,537,062
36	1910.....dollars.....	34,343,074	11,950,321	3,696,989	1,334,300	8,175,561	1,205,674	1,683,745	23,704,396
37	1900.....dollars.....	25,432,975	6,086,834	1,247,660	877,124	3,895,959	280,058	956,249	13,666,423
38	Land in farms, 1920.....dollars.....	42,722,990	7,614,804	3,305,128	2,020,976	5,648,449	944,615	1,225,329	16,829,895
39	1910.....dollars.....	19,065,213	6,751,615	2,061,350	738,480	4,368,480	773,865	889,425	13,210,506
40	1900.....dollars.....	15,844,060	3,598,400	695,460	228,500	2,140,360	147,000	535,610	8,396,730
41	Farm buildings, 1920.....dollars.....	16,086,629	4,438,421	1,620,335	1,133,193	3,888,811	374,000	715,070	10,056,870
42	1910.....dollars.....	9,629,293	3,198,640	813,130	330,615	2,178,960	197,875	440,230	6,523,923
43	1900.....dollars.....	6,317,230	1,465,620	220,830	77,850	849,340	44,550	191,180	3,183,460
44	Implements and machinery, 1920.....dollars.....	3,397,285	1,174,121	470,958	273,169	945,148	141,420	237,340	2,364,104
45	1910.....dollars.....	1,410,233	590,554	205,191	81,740	441,671	62,697	117,733	1,069,191
46	1900.....dollars.....	817,980	293,030	69,750	23,470	231,230	16,570	66,640	605,100
47	Live stock on farms, 1920.....dollars.....	5,413,037	1,781,987	1,102,324	623,771	1,813,930	338,722	430,783	4,287,193
48	1910.....dollars.....	4,238,335	1,403,612	612,318	183,465	1,185,450	171,237	236,357	2,000,776
49	1900.....dollars.....	2,433,705	729,784	264,620	47,304	678,029	71,638	162,819	1,481,133
50	Average values, 1920:								
51	All property per farm.....dollars.....	16,758	6,368	5,073	4,418	5,314	6,471	4,553	7,807
52	Land and buildings per farm.....dollars.....	14,575	5,114	3,845	3,440	4,120	4,744	3,387	6,258
53	Land alone per acre.....dollars.....	92.47	32.96	19.86	25.21	21.80	19.80	16.57	54.49
<b>FARMS OPERATED BY OWNERS.</b>									
54	Number of farms, 1920.....	2,788	1,953	1,101	890	2,024	253	503	3,844
55	1910.....	3,751	2,455	1,178	353	2,312	322	525	4,059
56	1900.....	3,677	2,309	762	178	2,027	185	522	3,935
57	Per cent of all farms, 1920.....	69.1	82.9	85.9	97.1	87.6	91.0	87.8	89.5
58	Land in farms, 1920.....acres.....	287,360	178,962	121,381	76,424	220,040	40,483	60,307	270,848
59	Improved land in farms, 1920.....acres.....	212,774	123,001	53,880	23,893	127,199	14,127	29,087	209,296
60	Value of land and buildings, 1920.....dollars.....	30,925,792	9,568,735	3,703,035	3,031,064	7,884,780	1,096,865	1,718,840	23,018,220
61	Degree of ownership, 1920:								
62	Farmers owning entire farm.....number.....	2,504	1,684	1,009	855	1,812	228	437	3,513
63	Farmers hiring additional land.....number.....	284	269	92	35	212	25	66	331
64	Color and nativity of owners, 1920:								
65	Native white owners.....number.....	2,317	1,441	722	237	1,449	207	271	2,505
66	Foreign-born white owners.....number.....	470	508	379	653	572	46	231	1,338
67	Negro and other nonwhite owners.....number.....	1	4			3		1	1
<b>FARMS OPERATED BY MANAGERS.</b>									
68	Number of farms, 1920.....	180	30	18	3	13	3	8	43
69	1910.....	102	33	14	6	15	1	3	41
70	1900.....	93	31	9	3	24	4	9	31
71	Land in farms, 1920.....acres.....	31,506	5,821	13,544	240	3,873	3,340	8,265	5,443
72	Improved land in farms, 1920.....acres.....	21,826	2,678	1,748	175	1,455	863	719	3,600
73	Value of land and buildings, 1920.....dollars.....	9,400,860	398,000	300,803	14,000	235,600	129,000	89,700	832,700
<b>FARMS OPERATED BY TENANTS.</b>									
74	Number of farms, 1920.....	1,067	374	162	24	273	22	62	409
75	1910.....	1,140	318	91	12	247	21	23	503
76	1900.....	1,207	310	50	6	236	21	39	556
77	Per cent of all farms, 1920.....	26.4	15.9	12.6	2.6	11.8	7.9	10.8	9.5
78	Land in farms, 1920.....acres.....	143,152	46,247	31,538	3,506	35,217	3,901	5,399	32,581
79	Improved land in farms, 1920.....acres.....	105,967	24,439	11,424	957	18,728	1,193	3,078	25,352
80	Value of land and buildings, 1920.....dollars.....	18,482,967	2,086,490	921,625	109,105	1,396,900	94,450	132,459	3,034,845
81	Form of tenancy, 1920:								
82	Share tenants.....number.....	682	277	69	1	214	13	35	194
83	Share-cash tenants.....number.....	7	5	3	1	2		2	10
84	Cash tenants.....number.....	362	72	72	17	42	7	18	177
85	Unspecified.....number.....	16	20	18	5	15	2	7	28
86	Color and nativity of tenants, 1920:								
87	Native white tenants.....number.....	911	327	129	11	237	20	50	334
88	Foreign-born white tenants.....number.....	156	44	33	13	35	2	12	75
89	Negro and other nonwhite tenants.....number.....		3			1			



WITH SELECTED ITEMS FOR 1910 AND 1900—Continued.

Presque Isle.	Rosecom- mon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	School- craft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	
1,056 1,086 846	267 249 136	5,143 5,370 5,818	4,159 4,527 4,980	2,436 2,623 2,697	5,112 5,659 5,820	381 441 352	3,359 3,577 3,793	4,658 5,244 5,492	4,662 4,952 4,942	3,550 3,837 4,151	3,858 4,776 5,131	1,583 1,779 1,940	1 2 3
1,020 36	253 14	4,996 147	4,016 143	2,376 60	4,965 147	366 15	3,275 84	4,524 134	4,496 166	3,485 65	3,726 132	1,524 59	4 5
648 407 1	176 89 2	3,701 1,433 9	3,087 1,072	2,267 166 3	3,106 2,005 1	193 188	2,836 522 1	3,516 1,138 4	3,805 801 56	3,040 501 9	2,671 1,167 20	1,182 396 5	6 7 8
6 18 159 352	1 10 3 94 76	4 121 158 1,821 2,183	10 136 145 738 1,552	4 89 72 284 618	44 53 661 2,001	2 4 108 144	3 97 107 513 1,309	5 87 67 862 1,877	14 249 335 1,390 1,522	7 105 109 398 1,006	5 228 275 1,166 1,396	9 31 32 401 603	9 10 11 12 13
340 117 63 4 2	44 17 14 5 3	1,089 197 59 8 3	1,194 282 92 9 1	909 331 119 10 3	1,844 375 121 9 3	87 22 9 3 2	1,050 223 52 5 2	1,410 270 65 13 2	890 192 63 5 2	1,268 478 164 12 3	689 105 34 7 7	380 97 15 32 16 7 17 18	14 15 16 17 18
433,920 132,755 131,619 85,604	344,320 51,349 33,907 28,201	529,920 420,049 430,230 434,990	454,400 395,921 414,574 422,017	321,020 292,038 300,624 303,516	624,640 549,839 551,321 537,273	772,480 42,949 45,455 38,664	356,480 320,616 327,064 334,895	529,280 445,260 450,219 453,875	394,880 341,089 361,570 363,141	450,560 421,211 427,026 422,902	366,800 282,294 316,216 325,891	366,280 146,712 147,685 106,554	19 20 21 22
50,788 39,925 26,034 45,642 38,252	10,419 8,951 4,210 31,115 9,815	317,270 304,738 283,021 53,335 59,044	311,491 317,495 310,021 46,012 37,518	234,521 243,381 253,827 23,981 33,536	454,204 434,565 398,039 39,759 55,876	15,976 15,431 10,613 19,014 7,959	258,781 265,031 260,650 26,816 65,828	335,519 332,927 301,147 43,013 65,828	295,009 282,198 277,786 40,312 34,798	318,748 331,632 332,344 40,286 56,177	213,443 261,100 255,885 30,333 18,518	88,408 79,044 51,241 20,169 29,135	23 24 25 26 27
30.6 38.3 125.7 48.1	14.9 20.3 192.3 39.0	81.1 73.8 83.5 61.7	87.1 78.7 95.2 74.9	90.7 80.3 119.9 98.3	88.0 82.6 107.6 88.9	5.6 37.2 112.7 41.9	89.9 80.7 95.4 77.0	84.1 75.4 95.6 72.0	86.4 78.0 73.2 57.1	93.5 75.7 118.7 89.8	66.1 81.4 68.0 55.3	39.7 80.3 92.7 55.8	28 29 30 31
4,694,246 2,475,134 1,473,431	1,173,859 842,763 176,897	46,122,632 26,330,140 18,417,800	30,241,275 23,067,600 15,814,229	26,044,805 10,044,966 12,379,637	44,289,088 27,944,051 14,566,513	2,033,318 1,200,507 570,262	38,532,088 22,114,238 15,028,763	44,765,183 25,901,050 15,408,257	35,233,230 26,724,700 16,434,647	46,986,273 26,540,586 21,453,765	71,188,534 38,712,788 35,171,688	6,068,878 5,167,650 2,111,411	32 33 34
2,144,916 1,294,399 845,880 1,302,615 596,696 257,180	669,905 582,645 100,230 277,015 122,710 22,060	24,475,984 14,400,374 11,074,520 13,041,226 6,955,018 4,144,200	21,950,768 12,899,649 8,144,950 10,668,835 6,178,395 3,301,940	15,440,360 12,030,231 8,269,680 6,531,590 4,527,438 2,776,420	23,292,467 15,224,746 8,269,680 11,922,928 7,082,115 3,166,730	964,670 601,150 314,900 555,845 311,175 124,140	20,118,993 11,564,834 8,941,480 10,858,580 6,367,291 3,655,550	23,653,515 14,160,266 9,183,020 12,100,949 6,636,555 3,303,280	19,024,016 15,802,549 10,720,540 9,884,386 7,341,755 3,627,660	23,040,310 15,873,987 12,430,660 13,694,175 8,223,840 5,990,720	52,040,690 25,073,946 26,437,410 11,722,840 8,122,106 5,885,170	2,890,810 2,773,438 1,149,420 1,763,275 1,855,535 441,890	35 36 37 38 39 40
453,619 181,851 118,280 793,096 402,288 252,151	71,812 43,627 9,350 155,127 93,881 44,257	3,489,822 1,378,998 882,610 5,110,100 3,695,750 2,310,470	2,693,013 1,052,530 623,820 3,822,659 2,937,026 1,747,079	1,477,731 1,088,081 391,060 2,595,124 1,925,814 1,069,507	3,241,254 1,334,242 705,640 5,832,439 4,302,948 2,424,463	100,537 97,416 37,170 316,266 190,766 14,042	2,010,954 1,088,081 616,700 4,643,501 3,106,052 1,815,023	3,383,312 1,322,181 745,680 5,627,407 3,782,098 2,170,877	2,350,265 1,061,542 580,150 3,374,593 2,518,854 1,500,297	3,542,750 1,885,264 810,090 6,700,038 4,057,625 2,215,695	3,437,284 1,402,067 911,350 3,987,720 3,214,069 1,937,768	477,320 286,912 120,650 937,473 751,765 402,951	41 42 43 44 45 46
4,445 3,265 10.16	4,396 3,547 13.05	8,968 7,295 56.97	9,435 7,845 55.46	10,692 9,020 52.87	8,664 6,889 42.36	5,337 3,991 22.46	11,471 9,222 62.75	9,610 7,076 53.12	7,558 6,330 57.53	13,236 10,350 64.72	18,452 16,525 198.41	3,834 2,940 19.70	47 48 49
1,018 1,048 626 96.4 127,144 49,088 3,285,431	229 206 124 85.8 21,078 7,370 594,800	4,400 4,765 5,039 85.6 347,006 255,949 30,601,910	3,408 3,847 4,264 81.9 313,229 245,812 25,188,960	1,076 1,902 1,974 68.8 180,087 366,012 13,232,640	4,194 4,944 4,950 82.0 443,612 366,012 28,271,595	356 393 320 93.4 34,770 152,364 1,380,015	2,508 2,774 3,007 74.7 223,323 182,364 21,923,845	3,811 4,495 3,964 80.1 355,591 266,376 28,608,610	3,736 3,919 3,270 71.7 253,302 199,522 22,082,067	2,716 3,019 3,270 71.7 297,799 225,269 25,519,251	2,767 3,648 3,764 80.3 170,504 142,999 37,706,681	1,414 1,805 1,804 59.3 128,851 77,626 4,065,975	50 51 52 53 54 55 56
984 34 618 399 1	222 7 146 81 2	3,999 401 3,115 1,277 8	2,864 544 2,463 945	1,315 361 1,542 131 3	3,500 604 2,418 1,775 1	341 15 173 183	2,165 343 2,107 401	3,268 546 2,830 978 3	3,189 547 2,981 711 44	2,383 333 2,287 421 8	2,446 321 1,903 853 11	1,198 216 1,026 383 5	57 58 59 60 61
9 4 3 1,955 520 67,500	12 16 2 9,296 1,720 152,320	62 51 72 20,456 13,354 1,908,040	52 19 47 10,127 6,286 1,500,725	19 16 19 4,173 3,451 389,485	28 18 95 6,500 5,214 349,250	6 18 9 2,284 840 66,500	20 32 20 4,042 2,671 302,100	29 59 54 5,459 3,859 447,599	88 122 61 11,701 9,384 1,308,300	71 35 42 14,943 10,670 1,664,250	57 67 67 8,443 6,376 4,129,799	6 14 63 783 593 33,200	62 63 64 65 66 67
29 34 17 2.7 3,556 1,180 91,600	26 27 10 9.7 20,975 1,329 199,800	681 554 707 13.2 62,187 44,967 5,000,000	699 661 669 16.8 72,665 59,393 5,035,018	741 705 704 30.4 107,778 87,269 8,349,925	890 697 775 17.4 99,727 82,978 6,594,550	19 30 23 5.0 5,895 758 74,000	831 771 736 24.7 92,751 73,726 8,751,628	818 700 776 17.6 86,210 65,284 6,698,255	838 911 817 18.0 73,026 57,103 6,117,445	763 783 839 21.5 108,469 81,909 9,562,060	1,034 1,100 1,288 26.8 77,847 64,069 21,928,060	163 160 126 10.3 17,078 10,289 551,910	68 69 70 71 72 73 74
12 16 1 23 6	14 11 1 23 3	375 4 301 536 145	348 19 284 578 121	694 2 41 706 35	485 17 317 667 223	5 16 12 14 5	664 16 123 710 120 1	526 14 233 664 153 1	666 5 160 747 81 10	499 14 204 690 72 1	330 16 687 731 295 8	125 1 28 151 12 81	75 76 77 78 79 80 81

COUNTY TABLE II.—LIVE STOCK ON FARMS AND RANGES,

	THE STATE.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.
<b>DOMESTIC ANIMALS: 1920.</b>								
1 Farms reporting domestic animals.....number..	186,354	911	361	5,280	1,245	1,396	1,352	566
2 Value of all domestic animals.....dollars..	192,145,492	904,412	300,223	4,957,336	1,015,014	919,170	1,040,938	439,674
<b>Horses:</b>								
3 Total number.....	605,509	2,913	635	16,182	3,561	3,677	4,328	867
4 Colts under 1 year of age.....	17,526	171	35	384	244	117	236	9
5 Colts 1 year old and under 2 years.....	24,170	187	22	484	237	209	257	21
6 Mares 2 years old and over.....	284,014	1,373	262	7,445	1,524	1,762	1,965	320
7 Geldings 2 years old and over.....	277,806	1,169	305	7,829	1,537	1,574	1,855	508
8 Stallions 2 years old and over.....	1,993	13	11	40	19	15	12	9
9 Total value.....dollars..	56,433,765	271,310	112,854	1,520,328	341,979	363,834	355,071	184,235
<b>Mules:</b>								
10 Total number.....	5,884	8	6	208	14	57	21	1
11 Mule colts under 1 year of age.....	290			3				
12 Mule colts 1 year old and under 2 years.....	429	1		10		1		
13 Mules 2 years old and over.....	5,165	7	6	195	6	56	21	1
14 Total value.....dollars..	661,115	950	900	23,439	1,460	7,800	1,850	150
<b>Asses and burros:</b>								
15 Total number.....	145				1		2	
16 Total value.....dollars..	11,511				100		65	
<b>Cattle:</b>								
17 Total number.....	1,586,042	10,233	2,652	39,018	12,750	10,387	11,349	4,383
18 Total value.....dollars..	101,717,971	483,388	165,418	2,811,033	537,379	468,717	560,583	235,711
<b>Beef cattle—</b>								
19 Total number.....	329,901	2,776	199	3,072	3,086	1,485	1,445	371
20 Calves under 1 year of age.....	100,592	1,211	141	734	1,246	548	734	160
21 Heifers 1 year old and under 2 years.....	38,680	311	9	472	302	158	148	43
22 Cows and heifers 2 years old and over.....	50,617	204	19	647	449	320	71	81
23 Steers 1 year old and under 2 years.....	91,265	785	17	822	879	350	439	60
24 Steers 2 years old and over.....	43,928	240	11	309	182	69	52	22
25 Bulls 1 year old and over.....	4,839	25	2	88	48	40	1	5
26 Total value.....dollars..	17,299,094	112,631	6,364	162,453	106,250	57,569	41,737	15,312
<b>Dairy cattle—</b>								
27 Total number.....	1,256,141	7,457	2,453	35,946	9,664	8,902	9,904	4,012
28 Calves under 1 year of age.....	263,911	1,880	610	6,769	2,703	2,494	2,556	972
29 Heifers 1 year old and under 2 years.....	165,364	1,152	427	4,683	1,193	1,250	1,236	643
30 Cows and heifers 2 years old and over.....	802,095	4,342	1,322	23,830	5,621	5,032	5,026	2,234
31 Bulls 1 year old and over.....	24,771	93	94	664	147	126	186	163
32 Total value.....dollars..	84,418,877	370,767	159,054	2,648,580	431,129	411,148	518,846	220,399
<b>Sheep:</b>								
33 Total number.....	1,209,191	10,395	607	11,667	7,688	1,049	4,639	131
34 Lambs under 1 year of age.....	359,175	1,987	147	2,533	1,703	553	889	34
35 Ewes 1 year old and over.....	809,125	8,098	420	8,252	5,798	1,347	3,621	63
36 Rams 1 year old and over.....	26,651	288	20	333	172	44	118	19
37 Wethers 1 year old and over.....	14,240	22	11	549	15	5	11	15
38 Total value.....dollars..	13,688,379	112,708	7,619	136,566	78,601	18,969	51,784	1,925
<b>Goats:</b>								
39 Total number.....	1,607	1		183	28	1	15	
40 Total value.....dollars..	11,037	5		875	263	3	94	
<b>Swine:</b>								
41 Total number.....	1,106,066	2,162	531	24,668	3,134	3,493	4,135	739
42 Pigs under 6 months old.....	687,089	1,162	243	15,329	1,538	1,816	2,425	487
43 Sows and gilts for breeding, 6 months old and over.....	154,556	412	105	4,191	757	709	816	145
44 Boars for breeding, 6 months old and over.....	14,199	42	13	275	62	55	71	16
45 All other hogs, 6 months old and over.....	220,222	546	170	4,873	777	913	823	91
46 Total value.....dollars..	19,621,714	36,051	13,432	465,097	55,232	59,847	71,489	17,653
<b>POULTRY AND BEES: 1920.</b>								
47 Chickens.....number..	10,913,645	32,869	7,075	391,422	37,293	53,062	53,142	12,329
48 Other poultry.....number..	269,419	933	123	5,145	803	1,189	1,721	194
49 Value of all poultry.....dollars..	11,587,814	31,499	7,395	405,070	33,444	53,180	51,961	12,291
50 Bees.....number of hives..	93,348	298		2,088	559	1,734	646	
51 Total value.....dollars..	525,326	2,164		11,002	3,747	13,407	5,060	
<b>LIVE-STOCK PRODUCTS: 1919.</b>								
<b>Dairy products:</b>								
52 Milk produced (as reported).....gallons..	337,954,884	1,648,006	813,517	10,482,936	1,962,206	2,286,683	2,092,263	890,045
53 Milk sold.....gallons..	130,864,366	11,910	26,550	6,564,212	126,451	20,046	611,324	8,162
54 Cream sold.....gallons..	4,459,626	39,283	40,277	104,731	23,881	27,075	65,312	17,600
55 Butter fat sold.....pounds..	31,647,908	237,341	4,620	850,443	265,870	376,572	201,010	77,064
56 Butter made on farms.....pounds..	26,755,423	199,320	66,451	340,695	325,384	223,534	182,997	142,459
57 Butter sold.....pounds..	10,154,869	60,203	15,275	136,238	156,032	79,663	37,141	35,047
58 Cheese made on farms.....pounds..	76,660	100		1,415	217	140	100	447
59 Value of dairy products.....dollars..	71,074,727	280,598	95,694	2,480,814	402,485	364,841	422,010	145,519
60 Receipts from sale of dairy products.....dollars..	62,783,113	210,835	72,207	2,372,152	307,477	293,082	344,561	88,017
61 Average production of milk per dairy cow.....gallons..	461	397	642	475	418	469	416	417
<b>Eggs and chickens:</b>								
62 Eggs produced (as reported).....dozens..	53,382,335	183,083	47,189	2,092,374	234,044	256,356	261,336	71,625
63 Eggs sold.....dozens..	36,262,264	85,373	11,601	1,590,505	90,717	152,413	139,538	28,815
64 Chickens raised (as reported).....number..	10,790,096	40,479	4,188	351,079	44,184	56,383	49,477	9,854
65 Chickens sold.....number..	4,783,178	11,551	870	178,643	13,624	21,353	16,472	2,638
66 Value of chickens and eggs produced.....dollars..	32,237,585	104,595	27,416	1,110,792	126,624	159,286	144,966	39,326
67 Receipts from sale of chickens and eggs.....dollars..	19,536,350	43,012	6,648	782,149	46,093	83,336	69,258	14,789
<b>Honey and wax:</b>								
68 Honey produced.....pounds..	1,321,447	5,349		19,109	11,092	39,762	10,164	
69 Wax produced.....pounds..	20,304	60		279	140	422	15	
70 Value of honey and wax.....dollars..	416,959	1,680		6,024	3,489	12,478	3,156	
<b>Wool:</b>								
71 Sheep shorn.....number..	906,649	7,621	437	9,024	5,538	1,705	3,496	87
72 Wool produced (as reported).....pounds..	7,051,939	55,408	2,875	69,759	39,887	11,679	26,963	448
73 Value.....dollars..	4,131,704	32,241	1,680	40,670	23,558	6,276	15,217	247

<sup>1</sup> Value of milk, cream, and butter fat sold, and of butter and cheese made on farms.

COUNTY TABLE III.—DOMESTIC ANIMALS

1 Inclosures reporting domestic animals.....	42,476	101	333	575	346	335	171	179
2 Horses, total number.....	58,474	136	712	630	345	428	264	183
3 Mules, total number.....	894			21		1		2
4 Asses and burros, total number.....	66				4			
5 Cattle, total number.....	42,061	204	688	322	274	442	267	341
6 Dairy cows.....	29,114	94	403	237	226	293	183	226
7 Sheep, total number.....	7,465	121	4	31	66	8	3	
8 Goats, total number.....	420			5				
9 Swine, total number.....	23,970	62	697	218	167	190	100	49

1920; AND LIVE-STOCK PRODUCTS, 1919.

Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.	Chippewa.	Clare.	Clinton.	Crawford.
3,076 3,426,873	3,113 2,445,007	833 487,468	4,902 3,248,328	3,111 3,685,235	3,485 4,154,397	2,389 2,467,474	1,223 875,386	1,113 783,253	1,484 1,301,091	1,200 1,044,110	3,232 4,647,807	194 143,656
10,591 303 458 5,108 4,697 26 913,314	9,783 2,227 255 4,702 4,577 22 881,901	2,339 33 81 958 1,256 11 203,489	12,453 253 364 5,834 5,958 44 1,303,401	10,202 236 369 5,040 4,585 32 888,227	12,924 351 496 5,990 6,055 32 1,047,532	8,415 277 326 4,182 3,594 36 793,101	3,211 130 153 1,461 1,450 17 308,000	2,712 84 116 1,245 1,254 13 312,105	4,581 262 258 2,141 1,905 15 581,019	4,005 145 244 1,040 1,654 22 283,128	12,673 372 561 6,070 5,635 35 1,154,817	469 15 16 220 217 1 40,780
83 2 81 8,775 2 200 23,894 1,642,588	32 32 32 3,065 1 25 24,003 1,296,927	47 47 47 6,214 2 150 4,907 232,743	414 14 48 352 54,585 13,902 8 290 20,043 1,382,317	126 7 6 113 13,902 3 220 23,442 1,589,527	172 18 16 138 17,507 6 240 34,176 2,058,673	189 26 26 137 20,940 1 1,000 17,449 1,045,095	42 13 9 12 5,225 1,700 1,000 6,798 462,691	13 9 1 9 1,025 1,700 1,000 8,261 362,398	9 29 2 27 1,025 2,445 1,000 11,791 619,330	29 29 2 27 2,445 2,445 1,000 10,963 549,002	102 2 93 11,990 1 40 31,668 2,312,662	2 2 2 400 2 50 1,390 67,296
5,674 1,750 718 992 1,575 587 52 306,316 18,220 3,449 2,135 12,239 397 1,336,272	1,840 557 236 230 649 158 10 72,726 22,163 4,494 3,146 14,096 427 1,224,201	969 338 104 158 335 22 12 36,676 3,938 957 505 2,332 54 196,067	1,651 586 220 512 186 85 62 93,583 18,392 3,065 2,259 12,691 377 1,288,734	4,579 1,141 483 768 1,429 710 48 292,285 18,863 3,246 2,282 12,888 447 1,288,241	10,408 2,103 1,070 1,187 3,803 2,120 125 577,421 23,768 4,665 3,326 15,177 600 1,481,252	4,166 1,095 606 1,260 613 446 146 239,599 8,006 2,233 971 4,683 280 808,396	1,792 728 265 444 273 40 42 62,571 8,006 2,233 971 4,683 119 303,366	1,518 661 128 271 284 157 37 59,032 6,743 2,005 851 3,773 114 303,366	1,316 595 149 281 212 40 39 57,013 10,475 2,755 1,342 4,801 158 582,317	2,600 961 231 873 811 175 49 109,219 8,363 2,407 1,342 4,801 92 439,783	10,718 3,300 1,305 1,922 2,994 1,017 180 588,459 20,960 3,379 2,964 14,207 400 1,724,203	203 72 40 21 31 13 24 25 7,295 1,187 325 164 683 15 60,001
33,733 7,859 24,412 988 474 383,519 32 175 25,577 16,085 4,633 289 4,570 478,302	2,022 344 1,618 58 2 22,292 1 5 14,835 9,290 2,156 184 3,205 240,192	650 165 457 17 11 6,973 19 175 1,822 953 367 29 473 37,809	8,649 2,026 6,335 271 17 108,126 19 175 22,929 13,804 3,538 321 5,266 399,434	47,647 11,490 34,915 977 265 562,029 6 55 37,022 24,899 6,009 433 5,711 640,275	40,604 10,820 27,995 961 828 445,101 36 264 35,338 23,290 6,187 464 5,397 585,080	15,405 3,314 11,693 409 79 181,489 31 185 25,161 14,845 4,629 356 5,501 424,764	3,985 938 2,927 82 38 39,967 2 10 3,197 1,600 859 56 682 59,193	4,827 870 3,826 128 3 55,832 2 10 2,804 1,542 649 71 542 50,003	3,389 776 2,474 131 8 42,560 9 83 2,866 1,604 657 59 546 57,084	14,002 3,043 10,212 292 455 141,101 26 156 4,181 2,609 883 52 637 58,278	51,893 9,413 41,010 1,331 159 608,083 21 167 32,001 19,361 6,133 505 6,002 559,448	3,116 791 2,269 56 139 25,669 375 216 115 11 34 9,161
195,093 4,430 215,140 1,273 7,165	152,106 4,813 147,188 1,925 10,549	31,980 985 31,661 747 4,706	248,525 5,902 256,820 2,204 9,880	260,448 5,565 276,395 1,538 6,672	245,817 7,005 280,215 1,523 8,474	149,684 4,773 158,388 1,523 7,205	46,698 1,370 46,159 2,119 17,237	33,957 1,042 33,165 1,007 7,367	42,224 1,943 47,215 150 1,363	45,562 1,108 42,131 421 1,804	225,791 4,388 240,192 1,695 10,831	6,798 473 7,277 6 42
5,954,978 1,735,290 53,928 783,337 348,720 140,503 1,134,920 1,024,165 503 1,021,318 688,125 203,555 90,329 616,188 371,947 11,614 242 3,687 27,157 211,127 124,576	5,219,800 2,387,481 101,087 214,841 628,592 280,459 1,115,339 929,854 391 704,110 419,829 192,800 51,905 473,157 222,093 31,881 328 10,001 1,207 9,376 5,433	751,964 54,134 12,090 83,645 132,984 53,674 160,193 118,756 406 150,999 85,360 33,671 11,275 91,704 45,527 11,510 187 3,639 412 3,109 1,703	4,947,240 1,502,349 44,401 406,922 589,228 228,235 976,063 800,050 433 1,121,431 576,535 353,216 90,774 803,024 329,571 17,838 201 5,602 6,923 53,894 32,403	5,053,011 1,317,051 50,132 800,669 335,921 212,584 1,047,283 904,137 453 1,261,592 1,028,743 252,787 147,841 749,840 558,823 13,553 170 4,262 35,819 292,764 185,867	5,856,789 1,790,296 139,450 721,956 436,869 212,584 1,239,511 1,119,445 446 1,119,012 798,796 222,189 119,718 692,255 453,820 14,657 213 4,621 29,447 215,770 129,392	3,075,704 189,819 59,694 601,317 341,726 148,433 310 621,064 520,144 402 618,635 415,993 144,739 71,945 400,620 245,720 15,998 427 5,113 11,834 94,058 55,488	1,758,817 111,401 46,962 176,104 295,712 149,175 810 358,283 283,819 414 229,146 131,318 54,375 19,422 149,218 75,718 53,502 887 16,905 2,750 2,005 11,829	1,612,833 60,521 13,317 124,669 275,142 127,227 106 257,772 182,850 461 165,316 77,255 44,246 10,269 115,424 44,261 21,455 327 6,769 2,906 17,932 10,187	3,142,202 274,671 59,786 190,575 433,828 172,452 329,110 258,934 610 186,946 98,992 40,652 15,233 143,283 54,012 4,523 105 2,351 12,127 79,744 50,051	2,154,529 218,566 22,305 313,841 168,262 33,296 487,598 360,043 483 1,000,169 780,388 206,092 88,382 592,036 390,484 31,406 394 9,878 45,420 341,878 201,364	290,650 46,816 3,446 15,874 48,575 23,687 55,666 44,808 473 29,733 14,174 7,744 2,552 20,932 8,988 30 9 1,874 14,418 8,376	

NOT ON FARMS OR RANGES: 1920.

373	765	139	625	512	847	429	449	305	690	161	470	86
469	927	159	878	617	1,254	541	590	459	1,212	207	573	151
10	52	17	33	2	31	5	12	3	17	15	15	4
272	383	212	396	365	470	879	479	281	900	171	646	98
190	290	103	301	284	351	282	331	199	559	118	241	62
38	1	1	4	178	168	55	19	18	770	62	337	7
1	505	65	342	519	534	358	243	215	491	40	923	30

## AGRICULTURE—MICHIGAN.

COUNTY TABLE II.—LIVE STOCK ON FARMS AND RANGES,

		Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Grand Traverse.
<b>DOMESTIC ANIMALS: 1920.</b>									
1	Farms reporting domestic animals.....number..	1,201	398	3,577	1,177	3,479	1,408	493	1,598
2	Value of all domestic animals.....dollars..	1,266,660	511,132	4,566,578	852,397	4,575,873	1,411,975	426,645	1,138,958
<b>Horses:</b>									
3	Total number.....	3,181	879	12,791	2,843	13,106	4,742	768	4,411
4	Colts under 1 year of age.....	127	18	320	70	364	235	17	110
5	Colts 1 year old and under 2 years.....	161	35	451	112	432	279	17	126
6	Mares 2 years old and over.....	1,547	340	6,148	1,314	6,180	2,252	314	2,200
7	Geldings 2 years old and over.....	1,336	485	5,827	1,330	6,067	1,956	406	1,963
8	Stallions 2 years old and over.....	10	10	45	17	57	20	9	12
9	Total value.....dollars..	511,211	153,743	1,122,901	324,620	1,233,199	403,982	147,430	483,317
<b>Mules:</b>									
10	Total number.....	6	12	124	21	96	52	3	50
11	Mule colts under 1 year of age.....	1	1	11	1	8	13	3	3
12	Mule colts 1 year old and under 2 years.....	5	12	101	21	88	36	3	47
13	Mules 2 years old and over.....	825	1,325	13,430	3,610	11,805	5,314	525	7,917
14	Total value.....dollars..	825	1,325	13,430	3,610	11,805	5,314	525	7,917
<b>Asses and burros:</b>									
15	Total number.....	3	3	3	1	1	1	1	1
16	Total value.....dollars..	3	3	3	1	1	1	1	1
<b>Cattle:</b>									
17	Total number.....	11,820	4,248	31,045	9,129	34,044	13,966	3,833	10,087
18	Total value.....dollars..	650,080	248,412	2,313,339	440,114	2,461,899	789,164	259,398	540,859
<b>Beef cattle—</b>									
19	Total number.....	1,110	382	6,418	1,627	8,564	3,375	123	1,515
20	Calves under 1 year of age.....	273	121	1,796	653	2,029	1,115	65	561
21	Heifers 1 year old and under 2 years.....	143	51	705	213	1,201	283	15	205
22	Cows and heifers 2 years old and over.....	352	83	1,203	341	1,138	288	20	251
23	Steers 1 year old and under 2 years.....	255	92	1,818	307	2,046	1,094	7	346
24	Steers 2 years old and over.....	46	32	748	42	1,030	353	3	133
25	Bulls 1 year old and over.....	41	3	148	41	170	29	4	10
26	Total value.....dollars..	48,561	10,984	374,676	58,126	552,195	169,954	5,280	67,859
<b>Dairy cattle—</b>									
27	Total number.....	10,710	3,866	24,627	7,502	25,480	10,591	3,710	8,522
28	Calves under 1 year of age.....	2,694	843	4,945	1,870	5,110	2,893	959	2,078
29	Heifers 1 year old and under 2 years.....	1,690	658	3,434	1,075	3,348	1,575	550	1,180
30	Cows and heifers 2 years old and over.....	6,021	2,264	15,301	4,447	16,567	5,960	2,118	5,089
31	Bulls 1 year old and over.....	305	101	987	110	455	193	83	189
32	Total value.....dollars..	601,519	226,428	1,938,763	390,988	1,909,674	619,210	254,058	473,100
<b>Sheep:</b>									
33	Total number.....	4,041	6,987	50,623	2,253	38,066	6,903	741	1,498
34	Lambs under 1 year of age.....	875	1,330	9,952	570	15,382	1,277	131	353
35	Ewes 1 year old and over.....	2,973	5,455	39,191	1,683	21,196	5,450	555	1,052
36	Rams 1 year old and over.....	141	172	1,158	69	671	174	38	68
37	Wethers 1 year old and over.....	47	20	322	26	847	2	17	25
38	Total value.....dollars..	50,827	83,325	585,147	28,418	407,589	86,150	11,023	15,615
<b>Goats:</b>									
39	Total number.....	1	1	16	1	3	2	1	12
40	Total value.....dollars..	15	15	231	10	23	12	10	76
<b>Swine:</b>									
41	Total number.....	2,711	1,038	28,393	2,574	25,802	6,601	834	4,560
42	Pigs under 6 months old.....	1,468	492	18,156	1,448	16,199	4,188	176	2,197
43	Sows and gilts for breeding, 6 months old and over.....	630	280	5,086	497	3,871	1,295	48	956
44	Boars for breeding, 6 months old and over.....	114	37	331	49	315	92	6	73
45	All other hogs, 6 months old and over.....	499	229	5,320	580	5,417	1,026	104	1,343
46	Total value.....dollars..	53,711	24,312	531,477	46,425	461,368	127,253	8,319	91,074
<b>POULTRY AND BEES: 1920.</b>									
47	Chickens.....number..	39,483	10,493	241,607	45,648	210,593	59,766	6,759	67,394
48	Other poultry.....number..	497	142	4,356	1,205	4,758	1,411	160	1,316
49	Value of all poultry.....dollars..	39,192	10,217	259,043	44,923	238,843	61,135	7,130	66,794
50	Bees.....number of hives..	138	188	1,044	1,953	1,856	1,574	27	697
51	Total value.....dollars..	1,388	1,388	11,533	16,660	11,118	9,318	325	5,013
<b>LIVE-STOCK PRODUCTS: 1919.</b>									
<b>Dairy products:</b>									
52	Milk produced (as reported).....gallons..	2,638,695	922,684	7,412,392	1,687,843	7,453,239	2,486,666	852,388	1,829,829
53	Milk sold.....gallons..	625,652	182,255	4,474,514	221,849	3,845,438	72,092	122,526	135,901
54	Cream sold.....gallons..	44,683	39,653	78,863	28,643	63,846	58,407	12,568	22,786
55	Butter fat sold.....pounds..	250,121	67,971	388,206	134,001	334,751	449,962	102,746	193,133
56	Butter made on farms.....pounds..	304,692	73,734	305,781	269,643	534,736	199,622	126,082	295,349
57	Butter sold.....pounds..	140,123	27,613	102,984	151,124	292,739	26,170	39,948	105,095
58	Cheese made on farms.....pounds..	200	3,294	80	2,134	.....	320	1,102	275
59	Value of dairy products <sup>1</sup> .....dollars..	450,169	168,407	1,590,317	333,502	1,472,271	451,213	180,813	344,601
60	Receipts from sale of dairy products.....dollars..	366,582	142,768	1,481,094	270,053	1,333,238	360,839	133,850	243,489
61	Average production of milk per dairy cow.....gallons..	468	474	507	404	482	443	426	396
<b>Eggs and chickens:</b>									
62	Eggs produced (as reported).....dozens..	257,658	53,143	1,042,236	226,764	921,485	293,771	40,917	301,035
63	Eggs sold.....dozens..	122,057	19,400	847,570	132,927	594,912	168,291	12,666	153,651
64	Chickens raised (as reported).....number..	33,872	7,876	222,098	48,874	209,408	59,723	4,963	75,664
65	Chickens sold.....number..	9,926	1,470	118,697	17,163	90,430	25,357	810	27,979
66	Value of chickens and eggs produced.....dollars..	141,822	32,529	670,859	147,435	627,425	161,203	25,632	157,015
67	Receipts from sale of chickens and eggs.....dollars..	62,344	9,941	460,765	76,605	354,848	84,034	7,280	85,705
<b>Honey and wax:</b>									
68	Honey produced.....pounds..	.....	9,353	22,581	61,154	23,486	37,449	991	15,897
69	Wax produced.....pounds..	.....	95	608	1,040	708	532	5	154
70	Value of honey and wax.....dollars..	.....	2,933	7,219	19,332	7,536	11,819	309	4,983
<b>Wool:</b>									
71	Sheep shorn.....number..	3,048	7,497	41,380	1,256	24,553	5,588	354	1,606
72	Wool produced (as reported).....pounds..	19,519	53,810	319,099	8,732	192,975	39,764	1,966	11,615
73	Value.....dollars..	9,809	28,606	188,979	4,757	115,664	23,390	1,114	5,887

<sup>1</sup>Value of milk, cream, and butter fat sold, and of butter and cheese made on farms.

COUNTY TABLE III.—DOMESTIC ANIMALS

1	Inclosures reporting domestic animals.....	509	910	669	265	1,033	119	1,496	255
2	Horses, total number.....	741	524	857	381	1,933	168	1,273	353
3	Mules, total number.....	6	11	13	1	19	2	21	7
4	Asses and burros, total number.....	.....	.....	.....	.....	3	1	1	.....
5	Cattle, total number.....	733	1,527	466	258	605	154	2,185	217
6	Dairy cows.....	534	1,182	325	197	443	112	1,595	159
7	Sheep, total number.....	198	74	161	.....	149	188	59	26
8	Goats, total number.....	12	.....	4	.....	2	5	5	6
9	Swine, total number.....	398	284	305	107	573	99	527	142

1920; AND LIVE-STOCK PRODUCTS, 1919—Continued.

Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kal-kaska.	Kent.
3,724	3,870	1,532	4,451	3,090	3,105	897	568	3,188	3,328	2,942	749	5,303
4,060,513	4,487,023	1,194,110	4,983,652	4,302,294	4,524,469	937,766	545,303	3,053,384	4,150,174	2,937,874	486,961	4,074,163
12,284	12,888	2,504	17,920	11,731	12,684	2,810	1,129	11,401	12,338	9,036	1,807	15,835
372	326	64	806	273	453	139	21	345	301	191	46	491
493	422	55	869	419	562	163	29	682	382	321	54	561
6,552	6,344	827	8,422	5,613	6,059	1,359	451	5,476	5,921	4,389	890	7,194
5,837	5,753	1,540	7,974	5,382	5,576	1,131	614	4,868	5,098	4,713	809	7,539
30	43	18	44	44	34	18	14	20	41	22	8	50
1,190,848	1,157,064	466,073	1,519,709	981,226	1,101,899	233,978	196,889	971,958	1,032,780	918,263	197,333	1,407,436
100	212	9	56	65	99	15	2	42	204	132	43	81
5	14	2	8	3	3	5	1	3	4	8	3	2
95	183	7	45	63	91	14	2	37	200	122	39	73
10,998	24,499	1,425	5,235	7,075	10,465	1,525	200	3,875	19,440	13,560	5,385	8,623
2	8	1	-----	-----	1	-----	1	1	2	3	1	8
27	192	100	-----	-----	30	-----	50	100	250	80	200	75
29,709	28,524	10,961	60,246	29,301	32,580	9,263	4,753	23,894	32,050	21,901	4,670	41,952
2,036,932	2,105,439	622,521	2,968,423	2,199,931	2,372,403	513,695	301,843	1,610,060	2,017,942	1,346,982	245,174	2,875,074
6,689	4,114	531	24,132	9,326	11,683	2,108	465	9,756	7,603	5,342	402	7,753
1,858	1,076	220	9,411	2,003	2,748	685	173	4,040	1,618	2,155	172	2,732
906	453	93	3,103	917	1,008	168	42	1,837	767	594	33	937
709	711	171	2,772	1,364	1,289	310	99	1,267	1,111	912	53	1,977
2,337	1,177	28	6,390	3,179	3,928	495	96	2,246	2,202	1,100	123	1,505
1,132	609	9	2,295	1,681	2,575	401	50	784	1,751	474	9	440
47	88	10	161	177	75	49	5	72	154	107	7	162
376,375	264,192	22,377	942,258	501,880	809,311	98,974	26,953	411,340	455,805	259,955	16,025	409,823
23,020	24,410	10,480	36,114	19,975	20,897	7,155	4,288	17,138	24,447	16,559	4,268	34,199
4,467	4,085	2,361	7,312	4,055	4,647	2,283	1,066	3,102	5,210	3,061	1,197	7,218
2,800	3,086	1,589	4,500	2,079	2,641	813	712	3,121	3,314	2,227	530	4,343
15,306	16,832	6,141	23,580	12,885	13,130	3,863	2,399	11,551	15,368	10,923	2,438	22,033
447	457	339	722	356	479	96	141	834	555	348	103	605
1,660,557	1,841,247	600,144	2,026,170	1,608,051	1,563,152	414,721	274,885	1,198,720	1,562,137	1,087,027	229,149	2,405,251
25,825	41,054	5,469	7,445	53,551	45,911	11,860	2,134	16,826	41,836	22,898	454	14,450
4,458	11,053	1,468	1,646	13,327	14,845	3,919	264	3,399	13,006	6,049	120	8,330
20,664	28,774	3,914	5,564	38,002	30,269	7,696	1,712	12,725	26,752	16,310	322	10,733
635	1,079	84	232	1,065	1,005	333	69	809	803	676	40	320
68	148	3	3	467	52	12	99	174,355	407,563	261,893	4,952	170,079
307,307	491,878	58,905	91,281	572,170	551,686	133,006	26,407	174,355	407,563	261,893	4,952	170,079
34	13	-----	91	7	12	14	1	7	43	38	-----	9
378	66	-----	807	40	55	70	10	36	373	305	-----	45
29,934	40,578	1,895	27,946	28,199	27,497	3,133	801	16,785	32,532	22,276	1,725	23,093
18,922	26,864	957	17,611	16,918	17,102	1,956	445	10,014	20,413	13,532	896	14,274
5,044	7,071	468	3,331	5,004	4,893	608	168	2,949	5,643	4,107	406	3,973
388	523	71	232	404	312	62	170	2,969	390	334	42	256
5,580	6,120	399	6,772	5,873	5,220	507	170	3,553	6,386	4,308	381	4,590
544,023	707,885	45,005	398,247	541,852	487,871	50,492	19,944	298,000	611,820	396,786	33,817	452,829
252,578	381,936	27,113	291,428	209,538	204,343	35,279	15,476	182,203	218,473	160,129	29,782	269,303
6,454	7,438	427	9,705	4,044	4,561	1,102	173	2,360	5,353	3,471	775	6,464
262,668	355,437	27,127	262,620	235,359	220,065	35,152	16,187	173,103	236,676	178,756	28,904	291,359
2,093	1,509	-----	3,188	1,529	1,806	845	13	1,957	1,174	996	354	1,838
8,323	6,960	-----	19,523	7,301	10,989	4,813	80	9,076	6,211	5,148	3,183	11,280
5,382,430	7,849,205	2,340,802	9,048,964	6,237,810	5,746,078	1,671,650	976,386	5,120,025	7,100,721	4,491,992	1,184,848	11,057,397
2,743,551	4,020,832	488,526	2,955,379	2,974,925	1,554,882	112,869	56,872	1,092,115	1,654,942	1,642,676	10,171	5,181,140
91,632	81,730	40,078	51,064	78,987	35,236	20,576	20,316	74,781	89,765	70,502	14,339	201,876
304,282	806,977	49,589	994,897	426,070	1,012,984	234,794	80,806	353,840	475,267	446,613	151,272	762,426
409,950	283,944	334,917	593,102	366,669	414,129	176,904	124,559	447,272	444,729	445,613	125,670	681,026
125,821	100,644	142,962	90,136	127,899	146,597	48,406	48,555	104,650	231,885	213,409	46,188	357,303
205	554	3,447	192	674	294	700	405	-----	515	2,925	884	3,710
1,281,175	1,703,000	420,674	1,528,180	1,229,734	1,217,347	284,881	154,833	1,019,493	1,430,889	1,056,899	177,236	2,417,089
1,132,952	1,665,854	314,300	1,271,778	1,100,637	1,072,160	221,634	115,825	844,435	1,311,852	935,635	136,642	2,285,411
426	512	414	407	517	483	473	477	443	465	473	498	543
1,068,637	1,713,480	120,799	1,467,831	1,047,510	1,038,009	177,747	94,769	838,056	1,091,829	789,251	127,472	1,308,243
857,445	1,398,102	45,778	1,106,174	684,047	722,989	85,561	37,160	602,908	754,141	480,731	64,662	776,622
227,481	311,201	19,493	216,388	207,796	214,045	35,480	11,808	162,024	208,587	159,451	37,527	239,062
106,912	171,293	6,924	61,313	95,644	101,969	12,478	3,188	71,631	94,904	80,455	12,515	119,817
630,600	915,643	78,528	745,564	647,750	614,266	99,317	57,061	459,422	667,165	486,152	83,334	794,958
436,525	677,423	29,482	479,136	379,391	382,471	44,275	21,348	291,482	408,631	285,941	37,283	447,415
40,255	7,787	-----	67,225	14,749	13,556	18,832	160	24,567	12,270	12,070	12,523	13,148
650	192	-----	1,040	127	315	136	-----	235	88	40	170	209
12,713	2,483	-----	21,214	4,618	4,315	5,887	50	7,701	3,836	3,756	3,943	4,151
20,847	29,730	3,133	5,054	43,291	40,283	10,765	1,846	13,234	32,161	17,427	367	12,508
159,014	236,196	24,230	43,537	348,773	299,795	74,097	11,095	93,349	271,680	134,969	2,712	97,457
95,040	146,972	12,375	24,493	200,824	172,285	47,745	6,216	56,136	159,139	79,899	1,446	55,121

NOT ON FARMS OR RANGES: 1920—Continued.

619	626	2,181	543	855	537	247	1,134	265	778	833	127	1,144
741	673	1,373	492	1,424	695	175	816	356	1,169	1,146	246	2,139
4	10	-----	10	27	11	-----	10	-----	19	8	2	53
-----	2	1	-----	-----	1	-----	-----	-----	1	4	-----	1
501	502	3,019	450	544	503	230	2,222	260	425	570	123	707
390	327	2,308	363	394	305	190	1,430	166	289	429	90	572
411	746	40	53	319	184	20	41	26	59	419	1	39
3	1	2	-----	6	4	-----	2	2	14	27	2	13
830	828	683	499	394	328	172	419	179	484	317	92	311

## AGRICULTURE—MICHIGAN.

COUNTY TABLE II.—LIVE STOCK ON FARMS AND RANGES,

	Keweenaw.	Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.
<b>DOMESTIC ANIMALS: 1920.</b>								
1 Farms reporting domestic animals.....number..	65	688	3,504	1,287	4,893	2,495	175	458
2 Value of all domestic animals.....dollars..	40,414	567,735	4,279,861	910,694	7,673,022	4,067,473	222,537	361,759
<b>Horses:</b>								
3 Total number.....	85	1,896	13,625	3,425	17,531	9,402	462	1,181
4 Colts under 1 year of age.....		61	539	71	324	222	18	69
5 Colts 1 year old and under 2 years.....		108	698	87	498	293	17	85
6 Mares 2 years old and over.....	15	892	6,491	1,632	8,685	4,590	188	509
7 Geldings 2 years old and over.....	69	828	5,850	1,617	7,975	4,280	236	612
8 Stallions 2 years old and over.....	1	7	47	18	49	17	3	6
9 Total value.....dollars..	14,745	180,183	1,133,368	396,359	1,760,385	841,391	70,097	149,867
<b>Mules:</b>								
10 Total number.....		39	53	45	277	78	2	2
11 Mule colts under 1 year of age.....			6	2	34	1		
12 Mule colts 1 year old and under 2 years.....		1	1	2	24		2	
13 Mules 2 years old and over.....		38	46	41	219	69		2
14 Total value.....dollars..		5,455	5,980	6,800	34,510	7,810	800	400
<b>Asses and burros:</b>								
15 Total number.....			1		14	6		
16 Total value.....dollars..			100		980	324		
<b>Cattle:</b>								
17 Total number.....	411	6,489	36,748	10,350	44,218	27,751	1,753	3,717
18 Total value.....dollars..	24,486	322,207	2,402,915	428,222	3,925,056	2,494,573	123,141	184,915
<b>Beef cattle—</b>								
19 Total number.....	45	1,289	10,099	2,933	8,225	4,035	390	695
20 Calves under 1 year of age.....	19	274	2,991	1,000	943	703	101	292
21 Heifers 1 year old and under 2 years.....	9	224	1,215	341	470	549	36	94
22 Cows and heifers 2 years old and over.....	5	291	2,078	719	599	755	125	127
23 Steers 1 year old and under 2 years.....	11	377	2,583	620	1,516	1,541	81	136
24 Steers 2 years old and over.....		109	1,019	153	4,716	614	44	43
25 Bulls 1 year old and over.....	1	14	213	100	73	72	3	3
26 Total value.....dollars..	1,460	58,946	521,912	101,102	839,234	260,213	19,866	25,597
<b>Dairy cattle—</b>								
27 Total number.....	366	5,200	26,649	7,417	35,993	23,716	1,363	3,022
28 Calves under 1 year of age.....	89	1,505	6,204	1,772	5,487	5,206	402	676
29 Heifers 1 year old and under 2 years.....	60	783	3,460	1,075	4,750	4,029	208	469
30 Cows and heifers 2 years old and over.....	216	2,823	16,549	4,406	24,917	14,010	780	1,807
31 Bulls 1 year old and over.....	11	89	436	164	859	23	3	70
32 Total value.....dollars..	23,026	263,261	1,881,003	327,120	3,084,372	2,234,360	103,275	159,318
<b>Sheep:</b>								
33 Total number.....	14	2,247	28,932	1,287	66,340	39,511	1,247	687
34 Lambs under 1 year of age.....	1	677	8,616	356	38,693	10,115	138	122
35 Ewes 1 year old and over.....	10	1,486	20,848	832	24,649	28,520	1,080	542
36 Rams 1 year old and over.....	3	67	683	70	768	674	26	17
37 Wethers 1 year old and over.....		7	705	29	2,230	202	3	6
38 Total value.....dollars..	173	21,543	331,290	13,499	750,681	439,830	15,906	8,707
<b>Goats:</b>								
39 Total number.....		6	24		27			
40 Total value.....dollars..		31	70		186			
<b>Swine:</b>								
41 Total number.....	44	1,958	24,309	4,100	64,533	16,145	827	947
42 Pigs under 6 months old.....	30	1,044	16,021	2,315	39,685	9,461	574	444
43 Sows and gilts for breeding, 6 months old and over.....	11	387	3,817	684	9,217	2,816	112	270
44 Boars for breeding, 6 months old and over.....	1	40	251	85	783	158	7	36
45 All other hogs, 6 months old and over.....	2	487	4,220	1,016	14,848	3,710	134	197
46 Total value.....dollars..	1,010	38,316	406,138	65,814	1,202,624	283,545	13,094	17,870
<b>POULTRY AND BEES: 1920.</b>								
47 Chickens.....number..	1,188	25,175	222,878	55,809	452,301	159,533	5,603	12,848
48 Other poultry.....number..	53	967	7,084	1,399	11,020	4,267	216	546
49 Value of all poultry.....dollars..	1,261	27,001	243,265	52,106	509,410	190,253	6,195	14,016
50 Bees.....number of hives..		267	2,225	667	2,443	1,079		4
51 Total value.....dollars..		1,539	11,275	5,236	11,557	7,647		20
<b>LIVE-STOCK PRODUCTS: 1919.</b>								
<b>Dairy products:</b>								
52 Milk produced (as reported).....gallons..	93,211	846,864	8,242,239	1,509,552	12,343,983	6,857,403	323,826	507,156
53 Milk sold.....gallons..	15,558	37,769	2,015,296	67,764	9,627,571	5,439,528	6,434	35,450
54 Cream sold.....gallons..	911	25,440	88,186	26,147	126,916	22,233	3,194	23,567
55 Butter fat sold.....pounds..	1,480	132,235	1,160,130	159,435	188,481	132,334	6,367	25,378
56 Butter made on farms.....pounds..	13,587	60,615	608,157	181,646	345,010	251,061	65,893	107,695
57 Butter sold.....pounds..	6,600	12,828	214,377	57,964	162,331	115,489	25,454	52,321
58 Cheese made on farms.....pounds..		464	210	183	390	30		
59 Value of dairy products <sup>1</sup> .....dollars..	13,746	162,535	1,572,583	247,719	3,058,809	1,631,356	43,885	109,991
60 Receipts from sale of dairy products.....dollars..	10,234	136,529	1,379,597	184,602	2,960,621	1,567,369	22,791	82,485
61 Average production of milk per dairy cow.....gallons..	429	343	477	362	541	541	553	517
<b>Eggs and chickens:</b>								
62 Eggs produced (as reported).....dozens..	6,126	117,381	1,208,333	260,124	2,177,124	856,220	26,724	71,311
63 Eggs sold.....dozens..	2,302	62,526	855,567	153,052	1,746,377	587,298	8,713	26,079
64 Chickens raised (as reported).....number..	994	31,452	111,125	52,334	436,869	221,961	4,966	7,808
65 Chickens sold.....number..	319	11,852	96,626	13,803	232,884	123,394	1,369	2,868
66 Value of chickens and eggs produced.....dollars..	3,689	76,243	848,846	150,088	1,372,961	531,155	18,058	40,710
67 Receipts from sale of chickens and eggs.....dollars..	1,351	36,735	554,268	74,353	986,060	340,709	5,620	14,974
<b>Honey and wax:</b>								
68 Honey produced.....pounds..		3,143	35,913	12,399	19,356	12,380		69
69 Wax produced.....pounds..		17	513	235	398	140		
70 Value of honey and wax.....dollars..		980	11,318	3,929	6,143	3,888		21
<b>Wool:</b>								
71 Sheep shorn.....number..	13	1,088	24,085	984	32,547	30,932	144	486
72 Wool produced (as reported).....pounds..	41	12,129	204,643	7,731	268,785	265,635	1,243	3,611
73 Value.....dollars..	22	7,155	125,680	3,953	150,529	167,082	674	1,865

<sup>1</sup> Value of milk, cream, and butter fat sold, and of butter and cheese made on farms.

COUNTY TABLE III.—DOMESTIC ANIMALS

1 Inclosures reporting domestic animals.....	358	113	453	87	963	327	172	333
2 Horses, total number.....	190	121	562	141	1,007	395	383	549
3 Mules, total number.....		1	4		20	2		2
4 Asses and burros, total number.....					3			
5 Cattle, total number.....	640	253	342	188	456	228	278	572
6 Dairy cows.....	414	157	259	55	328	184	155	325
7 Sheep, total number.....	8	8	243	55	191	135	8	18
8 Goats, total number.....			7		6	4	7	
9 Swine, total number.....	67	53	247	72	748	132	268	260



1920; AND LIVE-STOCK PRODUCTS, 1919—Continued.

Macomb.	Manistee.	Marquette.	Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.	Montcalm.	Montmorency.	Muskegon.	Newaygo.
3,426	1,428	774	1,900	2,544	2,028	2,104	1,293	3,946	4,262	404	1,873	2,719
3,945,084	874,017	049,374	1,260,416	1,823,948	1,882,473	1,671,690	1,057,495	4,064,232	3,170,170	386,789	1,463,297	2,024,245
10,705	3,601	1,540	5,433	7,553	5,063	6,772	4,010	12,829	12,670	1,103	4,971	7,927
175	88	42	124	201	207	234	167	275	354	48	170	232
244	150	60	187	363	295	293	273	376	508	54	198	381
5,009	1,666	582	2,524	3,681	2,170	3,383	1,964	6,250	5,818	500	2,099	3,654
5,251	1,675	840	2,578	3,291	2,369	2,832	1,564	5,897	5,953	496	2,485	3,639
26	22	16	20	17	22	30	12	31	37	6	19	21
981,863	317,704	262,016	450,953	622,168	697,637	580,832	354,860	1,126,689	1,080,930	108,996	400,843	687,761
89	50	4	49	40	20	73	22	96	57	14	51	141
26	1	1	4	1	2	8	1	1	1	1	1	4
21	3	1	8	4	2	1	1	5	2	2	1	12
42	47	4	37	35	16	65	21	90	56	12	60	125
8,885	5,490	425	4,801	4,080	2,814	7,226	2,270	11,005	7,490	1,340	5,165	14,182
1	1	1	1	1	1	4	2	4	1	1	1	2
30,948	9,754	5,955	12,811	18,037	21,510	19,813	11,271	27,015	27,512	4,018	13,436	19,847
2,537,213	467,730	346,897	676,224	962,075	1,052,552	858,511	581,001	2,132,634	1,714,738	181,267	828,903	1,056,550
3,092	2,367	294	1,840	2,213	635	5,885	1,607	4,080	4,741	1,366	1,479	2,787
603	871	86	668	1,041	109	4,194	903	456	1,179	661	457	1,013
448	284	37	240	291	180	392	213	193	1,076	90	165	461
715	571	94	340	220	171	215	151	352	605	402	190	441
909	439	51	425	541	130	833	238	1,208	1,663	157	412	604
372	126	21	119	104	24	211	35	1,828	588	23	244	121
45	76	5	48	16	21	10	12	13	30	24	11	57
176,798	102,944	13,752	86,707	74,401	27,781	161,630	50,088	332,722	232,691	48,644	63,348	115,850
27,856	7,387	5,661	10,971	15,324	20,875	13,428	9,664	22,935	22,771	2,652	11,957	17,000
3,841	1,692	1,371	2,612	3,847	4,753	3,711	2,728	3,277	4,885	729	2,373	4,341
3,246	1,093	1,953	2,146	3,114	3,912	1,666	1,020	2,847	2,750	353	1,527	2,241
20,119	4,479	3,139	6,663	9,824	12,298	7,830	5,796	16,286	14,739	1,529	7,859	10,189
650	123	198	200	239	612	321	120	525	397	41	198	289
2,360,415	364,786	333,145	588,517	887,674	1,024,771	696,881	531,513	1,799,912	1,482,147	132,623	765,555	940,721
9,910	816	877	2,819	7,710	1,887	6,829	5,625	12,800	11,553	2,525	2,376	9,331
2,439	249	251	428	1,464	352	1,398	1,154	3,864	2,646	518	665	3,166
7,140	518	549	2,316	6,013	1,415	5,227	4,328	8,199	8,235	1,935	1,652	5,840
236	40	64	41	219	119	171	185	294	261	69	50	201
95	9	13	34	14	1	33	8	443	511	3	9	124
117,403	9,498	10,357	30,052	80,708	22,862	71,006	58,613	143,943	123,012	25,315	26,634	86,247
9	8	4	36	4	22	2	19	31	91	15	15	17
69	68	40	133	20	327	15	125	250	621	127	127	142
17,179	4,042	1,425	5,596	8,559	6,315	9,608	3,299	40,532	13,767	1,174	7,523	9,755
11,227	2,491	819	3,429	5,323	3,390	6,661	1,765	25,485	5,558	683	5,161	6,125
2,275	672	266	1,049	1,821	1,224	1,561	762	5,042	2,636	191	1,335	1,096
171	64	42	77	95	147	103	76	380	153	13	121	114
3,506	815	298	1,041	1,320	1,554	1,283	696	9,625	2,390	287	906	1,820
299,631	74,037	28,739	93,223	154,877	106,331	158,753	59,796	649,471	243,449	19,871	141,625	179,038
237,730	52,710	21,520	68,528	121,899	58,117	107,485	52,710	364,481	228,051	13,353	90,950	141,410
6,180	827	130	798	2,073	1,004	2,146	954	10,121	2,292	456	5,708	2,099
275,314	49,567	21,007	65,550	119,426	51,413	107,710	50,414	388,078	215,678	12,876	98,338	135,038
1,331	740	1	934	1,119	1,119	1,558	1,010	1,838	1,252	203	929	1,302
6,121	4,402	4,993	6,451	746	746	10,163	6,128	7,436	6,248	2,140	3,166	7,750
10,149,425	1,458,250	1,150,110	2,548,884	4,251,009	4,493,664	3,023,640	2,095,827	7,218,810	5,691,300	662,195	3,043,756	3,055,948
7,632,276	166,041	174,584	370,810	101,421	1,475,658	121,249	10,012	4,839,902	1,916,072	19,004	1,413,000	147,552
63,140	27,337	20,717	49,534	58,450	105,843	50,799	20,942	81,957	82,658	9,452	25,917	59,166
290,164	142,660	35,305	257,749	792,674	287,347	551,629	518,327	106,972	700,371	85,461	366,790	901,274
433,627	249,426	173,798	388,878	346,890	344,015	341,927	167,947	276,692	536,374	82,193	191,014	242,791
243,816	100,033	89,702	166,024	71,708	166,298	89,753	27,742	124,027	147,726	19,598	95,546	60,512
15,902	154	121	118	230	160	110	110	570	120	25	311	493
2,600,308	326,636	210,135	500,996	711,015	878,082	556,512	390,076	1,589,270	1,187,355	114,320	744,433	737,211
2,485,635	292,760	206,931	332,624	621,667	695,221	417,715	319,860	1,505,682	961,280	81,219	690,020	656,224
514	371	407	419	498	390	426	364	467	470	444	450	421
1,159,640	248,452	116,728	323,511	554,180	337,107	434,617	243,987	1,727,395	1,152,877	74,976	489,543	556,703
771,616	163,297	54,270	178,013	373,462	125,515	298,632	148,323	1,207,010	838,231	32,707	324,624	456,942
249,324	56,679	16,859	74,235	126,870	57,891	115,719	49,090	371,167	180,117	12,471	91,809	129,494
104,499	20,568	5,138	29,672	51,468	13,289	39,062	18,951	172,390	76,872	3,350	39,909	59,185
779,758	161,637	73,763	198,709	320,173	186,740	264,221	142,238	1,065,837	600,324	39,590	305,732	230,161
461,080	90,301	32,162	99,225	192,824	63,186	166,608	78,248	662,494	396,084	15,337	183,351	232,060
16,651	10,059	16,011	13,615	3,038	22,045	8,165	23,268	13,404	7,231	5,529	10,637	10,637
259	288	271	98	46	175	203	265	178	87	38	174	69
5,255	3,222	5,061	4,256	959	6,897	2,604	7,308	4,219	2,273	1,728	3,360	70
7,633	659	640	1,155	7,196	1,141	5,514	4,584	9,191	9,485	1,974	1,818	5,666
64,746	4,635	3,811	8,190	53,441	6,629	42,513	32,396	49,267	71,751	15,059	13,031	40,661
39,120	2,262	2,223	4,833	30,528	3,751	23,101	19,703	28,787	40,219	8,913	7,473	23,541

NOT ON FARMS OR RANGES: 1920—Continued.

368	438	1,624	277	271	317	269	240	431	451	96	468	262
499	331	1,367	315	323	325	360	261	501	606	272	780	258
12	2	15	4	3	4	6	4	10	7	1	17	13
1	1	1	1	1	1	1	1	1	1	1	1	1
262	239	2,761	241	243	655	225	351	281	404	176	240	266
194	168	1,964	148	189	349	175	224	184	250	90	200	186
2	23	37	89	45	2	17	80	34	1	1	1	88
313	453	660	187	98	188	104	72	500	154	111	123	199

## AGRICULTURE—MICHIGAN.

COUNTY TABLE II.—LIVE STOCK ON FARMS AND RANGES,

	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.
<b>DOMESTIC ANIMALS: 1920.</b>								
1 Farms reporting domestic animals.....number..	3,855	2,233	1,253	778	2,222	274	518	4,068
2 Value of all domestic animals.....dollars..	5,095,032	1,671,902	1,050,242	608,435	1,707,280	327,181	412,187	3,875,213
<b>Horses:</b>								
3 Total number.....	13,745	6,022	3,932	1,206	6,749	883	1,313	11,445
4 Colts under 1 year of age.....	235	175	183	35	226	33	47	237
5 Colts 1 year old and under 2 years.....	350	226	249	39	359	62	58	376
6 Mares 2 years old and over.....	6,113	2,799	1,017	452	3,274	426	575	4,998
7 Geldings 2 years old and over.....	7,007	2,801	1,564	678	2,860	360	629	5,813
8 Stallions 2 years old and over.....	40	21	19	4	30	2	4	21
9 Total value.....dollars..	1,310,807	590,275	279,824	224,378	577,172	82,706	181,768	1,116,563
<b>Mules:</b>								
10 Total number.....	215	128	15	6	55	17	22	78
11 Mule colts under 1 year of age.....	3	6	1	1	5	1	1	1
12 Mule colts 1 year old and under 2 years.....	13	12	1	1	5	1	1	1
13 Mules 2 years old and over.....	199	110	14	6	47	17	22	77
14 Total value.....dollars..	23,948	14,564	1,625	900	5,255	1,883	3,250	8,255
<b>Asses and burros:</b>								
15 Total number.....	6	11	1	1	1	1	1	1
16 Total value.....dollars..	290	2,250	1	1	25	1	50	100
<b>Cattle:</b>								
17 Total number.....	37,463	15,025	12,180	5,825	13,531	2,879	4,101	34,228
18 Total value.....dollars..	3,070,225	879,700	574,163	335,019	908,482	147,403	194,171	2,356,968
<b>Beef cattle:</b>								
19 Total number.....	7,897	2,699	3,463	248	3,861	509	985	1,794
20 Calves under 1 year of age.....	2,049	813	1,542	103	1,817	336	442	402
21 Heifers 1 year old and under 2 years.....	1,124	421	631	27	535	50	108	260
22 Cows and heifers 2 years old and over.....	1,487	672	309	34	328	65	85	525
23 Steers 1 year old and under 2 years.....	2,397	536	763	76	973	116	312	461
24 Steers 2 years old and over.....	651	183	178	5	185	26	33	106
25 Bulls 1 year old and over.....	189	74	40	3	23	6	5	40
26 Total value.....dollars..	442,948	125,076	147,225	9,521	145,248	20,838	35,295	96,155
<b>Dairy cattle:</b>								
27 Total number.....	29,566	12,326	8,717	5,577	14,670	2,280	3,116	32,434
28 Calves under 1 year of age.....	4,736	2,915	2,118	1,452	3,696	648	809	5,766
29 Heifers 1 year old and under 2 years.....	3,392	1,711	1,139	1,044	1,798	342	463	4,533
30 Cows and heifers 2 years old and over.....	20,735	7,519	5,310	2,946	8,055	1,255	1,801	21,451
31 Bulls 1 year old and over.....	703	181	141	135	221	35	43	694
32 Total value.....dollars..	2,627,877	754,624	426,938	325,498	763,234	126,565	158,876	2,261,813
<b>Sheep:</b>								
33 Total number.....	29,209	2,266	10,643	1,861	9,403	7,099	452	5,458
34 Lambs under 1 year of age.....	8,507	608	1,321	229	1,351	1,241	158	878
35 Ewes 1 year old and over.....	18,749	1,589	9,044	1,498	7,698	5,689	280	4,380
36 Rams 1 year old and over.....	552	66	270	96	328	167	8	172
37 Wethers 1 year old and over.....	1,391	3	8	38	26	2	6	28
38 Total value.....dollars..	315,915	24,359	115,870	25,180	107,897	83,848	4,859	66,239
<b>Goats:</b>								
39 Total number.....	20	17	8	1	25	1	1	19
40 Total value.....dollars..	98	135	60	1	188	1	1	190
<b>Swine:</b>								
41 Total number.....	20,442	7,913	4,523	1,038	6,259	660	1,591	15,853
42 Pigs under 6 months old.....	11,714	4,775	2,590	635	3,878	417	844	10,323
43 Sows and gilts for breeding, 6 months old and over.....	3,548	1,413	1,084	177	1,269	153	374	2,314
44 Boars for breeding, 6 months old and over.....	384	114	78	38	95	15	39	132
45 All other hogs, 6 months old and over.....	4,796	1,611	761	188	1,017	75	334	3,084
46 Total value.....dollars..	373,749	160,619	78,700	22,958	108,270	11,341	28,089	326,898
<b>POULTRY AND BEES: 1920.</b>								
47 Chickens.....number..	234,236	101,809	46,666	14,858	93,208	9,298	17,974	371,189
48 Other poultry.....number..	7,954	1,791	967	139	2,162	273	727	4,763
49 Value of all poultry.....dollars..	309,435	102,060	46,051	14,927	94,741	9,731	17,845	405,498
50 Bees.....number of hives..	1,563	1,559	1,030	45	1,624	198	83	1,305
51 Total value.....dollars..	8,570	8,025	6,031	400	11,900	1,810	751	6,482
<b>LIVE-STOCK PRODUCTS: 1919.</b>								
<b>Dairy products:</b>								
52 Milk produced (as reported).....gallons..	9,726,552	3,031,557	2,630,266	1,435,597	3,376,129	547,462	779,493	9,451,276
53 Milk sold.....gallons..	7,204,326	33,531	24,950	20,416	330,028	47,478	13,323	4,696,460
54 Cream sold.....gallons..	34,163	43,347	21,990	20,807	87,251	4,341	16,475	116,537
55 Butter fat sold.....pounds..	63,173	673,524	396,102	141,732	532,174	103,232	51,113	837,908
56 Butter made on farms.....pounds..	729,903	252,648	189,628	175,730	336,027	50,180	95,852	556,889
57 Butter sold.....pounds..	466,924	74,526	29,768	37,645	56,935	15,295	30,301	416,982
58 Cheese made on farms.....pounds..	65	505	682	682	50	418	111	80
59 Value of dairy products <sup>1</sup> .....dollars..	2,618,693	613,670	334,568	218,924	647,133	92,886	104,390	2,202,082
60 Receipts from sale of dairy products.....dollars..	2,474,405	524,378	256,148	144,055	504,943	74,538	71,536	2,118,335
61 Average production of milk per dairy cow.....gallons..	510	442	526	490	423	461	440	478
<b>Eggs and chickens:</b>								
62 Eggs produced (as reported).....dozens..	1,064,467	561,271	213,707	95,774	445,874	50,873	87,997	2,215,104
63 Eggs sold.....dozens..	633,582	348,936	124,147	27,811	265,895	24,185	37,049	1,825,005
64 Chickens raised (as reported).....number..	230,737	100,326	47,836	13,944	101,239	12,563	22,174	320,186
65 Chickens sold.....number..	96,295	39,473	17,998	3,448	38,073	3,721	4,407	173,021
66 Value of chickens and eggs produced.....dollars..	769,369	315,398	122,348	50,227	261,366	30,274	54,047	1,148,333
67 Receipts from sale of chickens and eggs.....dollars..	408,659	175,866	62,099	15,765	138,630	12,543	18,526	869,294
<b>Honey and wax:</b>								
68 Honey produced.....pounds..	21,025	25,211	16,952	100	24,060	5,785	2,515	20,151
69 Wax produced.....pounds..	671	202	161	1	213	1	75	32
70 Value of honey and wax.....dollars..	6,760	7,888	5,313	31	7,536	1,793	807	6,269
<b>Wool:</b>								
71 Sheep shorn.....number..	19,340	2,424	9,105	1,875	7,298	5,664	222	4,648
72 Wool produced (as reported).....pounds..	158,260	16,941	63,005	13,898	55,243	35,941	1,427	36,260
73 Value.....dollars..	94,852	9,735	37,440	8,454	30,648	22,646	782	20,699

<sup>1</sup> Value of milk, cream, and butter fat sold, and of butter and cheese made on farms.

COUNTY TABLE III.—DOMESTIC ANIMALS

	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.
1 Inclosures reporting domestic animals.....	745	226	127	523	308	32	154	440
2 Horses, total number.....	1,135	315	135	913	302	41	381	566
3 Mules, total number.....	107	1	2	3	10	2	7	15
4 Asses and burros, total number.....	1	3	2	3	1	1	1	1
5 Cattle, total number.....	544	235	149	974	339	121	166	275
6 Dairy cows.....	406	148	111	592	285	37	114	204
7 Sheep, total number.....	81	1	56	7	48	65	1	14
8 Goats, total number.....	5	1	1	1	1	1	1	1
9 Swine, total number.....	311	110	48	415	83	37	188	172

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1920; AND LIVE-STOCK PRODUCTS, 1919—Continued.

Presque Isle.	Roscom- mon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	School- craft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	
1,019	241	4,949	3,996	2,336	4,960	352	3,244	4,503	4,117	3,454	3,653	1,423	1
757,031	145,464	4,788,064	3,650,649	2,415,516	5,499,991	304,598	4,419,358	5,324,918	3,126,175	6,346,304	3,691,254	876,712	2
2,604	530	16,063	13,818	8,259	20,281	993	14,277	16,180	11,471	14,154	10,316	3,620	3
140	15	427	443	215	931	50	363	453	244	410	173	97	4
124	18	582	619	277	1,444	40	520	629	381	522	213	165	5
1,203	273	7,791	6,719	4,063	9,617	420	5,565	7,709	5,599	6,530	4,531	1,721	6
1,128	220	7,799	5,999	3,673	8,161	475	7,792	7,333	5,207	6,645	5,366	1,618	7
9	4	64	38	31	54	8	37	56	40	47	33	19	8
291,779	44,125	1,569,129	1,191,296	733,291	1,679,715	137,410	1,177,216	1,592,562	1,130,270	1,274,978	950,396	318,981	9
4	11	98	40	138	84	4	120	121	216	164	92	55	10
-----	-----	6	11	5	4	-----	9	7	7	-----	-----	-----	11
-----	-----	16	6	11	11	-----	17	16	1	-----	-----	-----	12
4	11	76	23	122	69	4	94	98	197	157	88	54	13
550	930	10,615	3,315	13,410	7,636	600	12,935	14,559	25,057	18,265	9,600	4,705	14
-----	-----	8	1	1	8	-----	3	1	1	3	3	2	15
-----	-----	173	625	150	150	-----	625	100	100	275	60	200	16
9,019	1,490	40,259	36,284	16,618	61,431	2,704	27,734	44,170	23,447	40,842	26,080	9,385	17
342,942	71,370	2,567,825	2,080,526	1,003,924	3,340,718	143,333	2,119,707	3,075,795	1,501,107	3,066,748	2,367,708	470,605	18
1,690	309	5,660	9,765	3,010	16,890	542	6,036	11,695	2,964	13,395	1,998	1,418	19
485	138	1,265	2,977	849	5,825	156	1,175	2,893	635	2,635	508	793	20
218	32	648	1,075	327	2,417	66	619	1,335	511	1,324	213	130	21
612	84	861	1,230	755	1,687	105	1,274	973	684	2,155	538	113	22
238	40	1,797	3,008	697	5,790	133	1,898	3,879	815	3,997	353	345	23
102	5	1,007	1,318	327	1,110	70	940	2,539	231	3,036	321	29	24
35	10	92	159	55	81	12	130	76	88	248	65	8	25
58,648	11,594	300,065	423,595	180,442	686,881	24,611	365,866	656,100	171,597	900,050	149,575	41,404	26
7,329	1,181	34,599	26,519	13,608	44,541	2,162	21,698	32,475	20,483	27,447	24,082	7,967	27
2,260	318	6,519	5,712	3,240	12,202	481	4,221	6,406	4,214	5,079	2,816	1,881	28
1,057	173	4,298	3,511	1,571	5,793	342	2,733	4,150	2,451	3,286	2,663	1,080	29
3,790	673	23,201	16,863	8,472	25,803	1,281	14,338	21,361	13,482	18,419	18,013	4,882	30
222	17	581	433	325	743	58	406	558	336	663	590	124	31
284,294	59,776	2,258,760	1,656,931	823,482	2,653,837	118,722	1,763,901	2,419,695	1,329,510	2,166,698	2,218,133	429,201	32
6,740	1,708	12,300	9,852	21,829	13,372	329	61,783	12,681	6,781	107,682	2,128	2,349	33
1,657	387	2,724	1,700	6,559	2,483	105	32,513	2,432	1,426	49,789	672	514	34
4,788	1,276	8,979	7,734	14,591	10,494	197	27,076	9,867	5,123	55,692	1,363	1,712	35
284	44	306	245	470	377	8	982	384	210	1,543	57	113	36
11	1	291	173	209	18	19	612	98	22	858	36	10	37
69,958	20,548	136,224	105,507	239,517	161,444	4,131	649,191	154,600	77,453	1,278,875	26,469	21,638	38
1	2	11	23	66	11	1	65	58	25	20	27	10	39
5	25	105	207	336	33	35	445	190	181	90	210	73	40
4,325	439	30,376	15,553	24,761	19,523	1,001	25,801	27,533	20,618	40,728	16,333	2,973	41
2,266	240	19,556	10,167	15,347	12,819	443	17,102	18,471	11,635	25,173	9,419	1,459	42
820	121	4,319	2,212	4,084	2,671	113	4,354	4,126	3,970	6,480	2,067	779	43
76	12	287	131	337	170	16	293	296	299	506	191	62	44
1,163	66	6,214	3,043	4,993	3,863	429	4,052	4,641	4,714	8,563	4,656	673	45
51,797	8,293	503,541	269,648	424,888	310,365	19,089	459,129	487,212	391,107	707,073	330,811	60,510	46
34,081	7,973	315,861	227,431	173,007	301,874	11,603	197,772	274,163	216,610	294,962	226,431	58,155	47
1,914	200	7,035	10,063	3,510	14,306	173	4,775	5,997	4,285	6,186	10,779	1,018	48
34,389	9,483	317,741	260,360	175,026	317,360	11,668	215,566	287,068	236,523	341,962	288,076	56,882	49
204	40	2,170	2,212	881	3,226	-----	1,305	3,272	2,090	1,908	1,468	805	50
1,676	180	10,295	11,650	4,582	15,088	-----	8,637	15,391	11,865	11,772	8,390	3,879	51
1,065,268	260,578	8,784,818	6,026,186	3,165,793	10,318,057	331,165	6,472,814	8,727,384	5,030,916	8,127,336	7,334,572	1,642,763	52
55,941	7,540	4,104,879	1,639,484	276,145	2,599,152	51,093	3,307,898	3,411,228	878,318	3,676,634	6,538,681	151,764	53
20,373	2,301	119,696	109,585	16,285	250,453	10,825	39,610	130,376	75,962	123,067	25,093	8,276	54
92,313	26,490	540,643	631,306	833,401	1,096,872	15,600	655,778	767,400	819,544	733,331	19,258	280,813	55
195,268	39,487	860,037	731,417	264,619	763,950	79,904	375,473	400,282	429,282	481,631	329,805	238,377	56
69,854	15,286	338,354	277,190	88,193	93,353	40,395	153,274	209,687	100,364	277,423	173,477	97,012	57
-----	-----	2,598	6,895	500	250	-----	136	205	1,189	1,100	3,585	785	58
194,071	42,439	1,800,052	1,343,995	589,927	1,899,724	83,345	1,385,627	1,609,566	1,000,167	1,938,732	2,189,567	341,767	59
128,581	30,081	1,629,960	1,088,012	494,484	1,537,197	62,336	1,270,691	1,446,432	872,368	1,822,938	2,094,853	264,954	60
295	404	426	427	402	445	330	488	447	426	462	481	390	61
206,499	56,832	1,589,764	1,170,220	924,999	1,649,253	64,271	853,846	1,348,013	1,058,200	1,409,162	916,195	239,087	62
99,936	20,207	1,060,059	791,116	595,564	1,191,001	23,020	636,659	944,044	679,633	984,152	530,955	136,537	63
33,304	8,074	279,260	214,602	268,097	264,151	9,189	100,755	247,688	222,171	308,650	282,901	65,618	64
11,522	2,949	119,980	94,604	80,419	111,947	2,514	99,821	109,322	116,233	189,367	112,137	21,065	65
108,977	33,816	884,447	707,029	615,762	875,729	37,284	532,293	769,834	634,085	894,730	733,316	156,107	66
49,670	12,077	533,641	430,704	319,532	570,504	12,675	354,543	474,687	383,928	601,789	368,913	75,448	67
3,631	515	26,614	33,015	10,249	60,081	-----	13,328	34,503	18,015	15,944	19,299	8,581	68
12	-----	221	497	325	1,345	-----	218	762	322	435	554	47	69
1,130	160	8,330	10,414	3,294	19,109	-----	4,210	10,970	5,701	5,100	6,182	2,677	70
5,124	1,213	8,714	7,844	18,042	10,316	3,196	44,818	9,923	5,269	66,935	1,240	1,751	71
37,793	8,521	67,348	62,381	140,643	84,199	25,478	333,747	78,693	40,680	597,319	9,291	12,501	72
19,874	4,934	40,657	37,699	86,748	49,422	12,773	182,448	46,916	22,776	328,760	5,723	6,938	73

NOT ON FARMS OR RANGES: 1920—Continued.

234	54	894	785	495	624	207	627	616	566	465	2,782	328	1
380	78	1,251	985	590	672	399	704	754	746	845	8,772	494	2
-----	5	12	2	4	6	-----	13	14	26	14	56	10	3
-----	-----	-----	1	-----	-----	-----	9	-----	-----	3	4	-----	4
208	89	562	602	424	605	780	462	566	434	260	901	273	5
139	60	456	483	295	449	139	353	406	362	182	724	210	6
71	-----	90	1	116	218	1	15	54	21	318	68	25	7
-----	-----	5	1	18	4	-----	12	4	6	2	42	2	8
177	47	334	367	577	367	293	275	330	195	240	947	134	9

COUNTY TABLE IV.—VALUE OF ALL CROPS, AND ACREAGE

		THE STATE.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.
<b>VALUE OF ALL CROPS.</b>									
1	Total.....dollars..	404,014,810	1,432,244	301,908	10,418,636	1,890,682	2,690,796	2,446,460	612,211
2	Cereals.....dollars..	170,897,885	327,672	43,020	5,078,851	427,418	489,870	688,955	87,337
3	Other grains and seeds.....dollars..	23,442,087	141,485	2,940	63,953	152,794	291,292	598,589	5,791
4	Hay and forage.....dollars..	105,280,992	517,803	143,137	2,654,684	730,553	601,509	613,605	306,955
5	Vegetables.....dollars..	66,096,550	300,460	108,138	1,210,605	502,619	1,069,445	276,657	186,280
6	Fruits.....dollars..	26,129,793	59,091	4,470	1,381,981	76,930	226,530	16,412	25,686
7	All other crops.....dollars..	13,160,903	85,733	203	28,562	368	12,450	302,232	162
<b>SELECTED CROPS (acres harvested and production).</b>									
8	<b>Cereals:</b>								
9	Total.....acres..	5,114,095	13,975	1,858	140,837	17,840	20,802	25,541	3,211
10	Corn.....bushels..	120,383,085	267,296	38,436	3,309,288	360,132	334,471	503,448	84,434
11	Oats.....acres..	1,269,155	671	3	40,723	600	6,516	4,399	6
12	Wheat.....bushels..	45,083,912	21,898	56	1,377,209	24,886	197,818	201,180	187
13	Barley.....acres..	1,514,308	6,547	1,045	33,148	9,133	4,783	12,125	2,130
14	Rye.....bushels..	36,056,425	144,941	26,832	739,121	225,348	43,837	202,675	68,665
15	Buckwheat.....acres..	1,056,087	2,104	403	37,817	4,316	1,881	1,969	660
16	Other grains and seeds.....bushels..	20,411,825	30,519	4,804	813,810	52,614	21,674	24,427	8,090
17	Barley.....acres..	296,515	1,096	266	2,770	2,187	206	1,718	226
18	Rye.....bushels..	4,802,768	18,020	4,539	41,977	36,778	2,114	18,926	4,153
19	Buckwheat.....acres..	912,951	2,888	132	26,283	1,491	5,944	4,596	171
20	Other grains and seeds.....bushels..	12,168,182	40,111	1,959	329,543	17,784	54,994	45,592	2,997
21	Dry edible beans.....acres..	41,426	136	2	313	81	1,390	507	5
22	Soy beans.....bushels..	524,004	1,408	11	3,793	781	13,189	7,568	53
23	Dry peas.....acres..	314,873	614	.....	614	119	2,088	8,188	3
24	Dry peas.....bushels..	4,832,317	9,488	.....	4,668	967	21,159	137,335	51
25	Other grains and seeds.....acres..	6,257	2	.....	122	8	72	169	1
26	Hay and forage.....bushels..	78,515	22	.....	832	67	683	2,020	10
27	Dry peas.....acres..	38,874	2,236	96	21	2,569	64	907	125
28	Hay and forage.....bushels..	454,639	25,465	980	200	32,939	353	10,764	1,846
29	<b>Hay and forage:</b>								
30	Total.....acres..	3,644,952	17,655	4,759	92,764	25,530	25,631	19,509	8,492
31	All tame or cultivated grasses.....tons..	6,345,510	23,866	6,070	178,458	33,701	38,890	31,540	12,488
32	Timothy alone.....acres..	2,750,862	15,809	4,279	57,834	24,025	18,509	17,189	8,249
33	Timothy and clover mixed.....tons..	3,093,392	18,309	5,342	67,080	26,728	15,222	20,702	12,042
34	Clover alone.....acres..	655,784	1,133	67	22,904	566	2,120	1,337	99
35	Alfalfa.....tons..	718,012	1,277	74	27,480	687	1,316	1,695	139
36	Other tame or cultivated grasses.....acres..	1,852,789	13,946	4,103	20,596	22,967	11,909	14,708	8,020
37	Alfalfa.....tons..	2,044,711	16,123	5,090	34,671	25,327	9,796	17,414	11,756
38	Other tame or cultivated grasses.....acres..	120,209	577	50	2,090	301	1,741	658	64
39	Alfalfa.....tons..	131,517	714	89	2,290	385	1,435	930	78
40	Other tame or cultivated grasses.....acres..	74,059	27	3	983	141	2,210	351	3
41	Alfalfa.....tons..	118,571	60	8	1,559	246	2,222	582	4
42	Other tame or cultivated grasses.....acres..	47,931	126	56	2,261	50	529	135	63
43	Alfalfa.....tons..	50,581	135	81	1,080	83	453	81	63
44	Wild, salt, or prairie grasses.....acres..	49,856	230	196	980	109	75	108	53
45	Small grains cut for hay.....tons..	57,971	153	165	1,025	198	52	172	16
46	Annual legumes cut for hay.....acres..	59,454	319	200	1,910	154	1,256	305	94
47	Silage crops.....tons..	44,389	494	177	1,824	169	691	278	114
48	Corn cut for forage.....acres..	6,554	58	.....	285	6	76	5	2
49	Kafir, sorghum, etc., for forage.....tons..	6,200	55	.....	385	9	53	5	2
50	Root crops for forage.....acres..	348,254	254	19	13,626	611	2,391	855	13
51	Corn out for forage.....tons..	2,551,806	2,196	130	87,207	5,180	15,166	8,354	75
52	Kafir, sorghum, etc., for forage.....acres..	418,031	823	.....	17,069	497	3,573	995	3
53	Root crops for forage.....tons..	566,932	1,887	.....	19,525	968	7,406	1,725	6
54	Vegetables:								
55	Potatoes (Irish or white).....acres..	87	.....	.....	.....	.....	.....	.....	.....
56	Other vegetables.....bushels..	11,802	162	56	160	128	51	52	78
57	Other vegetables.....acres..	54,673	772	256	512	449	300	304	233
58	<b>Miscellaneous crops:</b>								
59	Sugar beets grown for sugar.....acres..	280,538	1,256	446	5,219	2,243	4,760	996	601
60	Maple trees tapped.....bushels..	23,929,560	110,561	37,694	356,439	215,135	474,981	103,743	67,754
61	Maple sugar made.....pounds..	50,955	28	13	1,598	61	641	52	75
62	Maple sirup made.....gallons..	106,450	.....	.....	310	.....	48	2,683	.....
63	Maple sirup made.....tons..	1,025,550	.....	.....	2,031	.....	423	26,176	.....
64	<b>FRUITS.</b>								
65	Total.....acres..	21,021	10	2	671	19	20	15	5
66	Strawberries.....quarts..	23,940,801	4,690	537	713,415	23,582	13,089	13,953	2,265
67	Raspberries.....acres..	8,048	6	1	257	14	11	11	4
68	Raspberries.....quarts..	12,585,543	1,886	339	429,206	20,077	7,631	9,823	1,604
69	Orchard fruits:								
70	Total.....trees not of bearing age..	7,652,580	1,999	100	74,007	2,915	4,454	3,899	.....
71	Apples.....bushels harvested..	3,615,164	7,957	1,836	315,487	34,202	21,414	5,705	6,818
72	Peaches.....trees not of bearing age..	10,112,005	24,735	2,564	689,747	34,567	135,552	20,717	12,815
73	Pears.....bushels harvested..	7,261,831	28,342	2,172	556,781	35,226	103,138	6,314	12,442
74	Cherries.....trees not of bearing age..	2,050,229	6,507	1,748	148,984	31,765	10,611	4,390	6,386
75	Plums and prunes.....bushels harvested..	5,615,905	22,187	2,475	224,316	30,965	102,731	17,655	11,826
76	Plums and prunes.....trees not of bearing age..	5,843,271	26,585	2,150	397,197	33,141	91,210	5,272	12,164
77	Cherries.....bushels harvested..	784,838	104	.....	72,226	62	327	89	15
78	Plums and prunes.....trees not of bearing age..	2,010,022	24	.....	226,101	73	1,184	13	4
79	Plums and prunes.....bushels harvested..	448,177	2	.....	78,409	5	25	39	4
80	Plums and prunes.....trees not of bearing age..	302,734	253	9	50,324	817	388	326	43
81	Cherries.....bushels harvested..	1,029,735	516	10	145,890	682	2,612	782	45
82	Plums and prunes.....trees not of bearing age..	405,189	611	5	54,108	462	1,174	570	4
83	Plums and prunes.....bushels harvested..	142,657	627	56	13,138	566	398	354	233
84	Cherries.....trees not of bearing age..	377,123	828	26	26,575	1,093	1,284	919	202
85	Cherries.....bushels harvested..	203,091	451	6	14,153	533	662	142	50
86	Plums and prunes.....trees not of bearing age..	351,892	466	23	28,338	992	3,690	546	191
87	Plums and prunes.....bushels harvested..	1,076,748	1,200	53	45,343	1,754	27,741	1,348	738
88	Grapes.....vines not of bearing age..	360,952	693	11	11,137	1,085	10,667	201	220
89	Grapes.....vines of bearing age..	607,149	27	.....	3,599	29	83	131	.....
90	Grapes.....pounds harvested..	11,097,794	57	.....	94,276	83	3,171	792	.....
		115,871,465	350	.....	859,824	.....	20,435	8,430	.....

AND PRODUCTION OF PRINCIPAL CROPS: 1919.

Barry.	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.	Chippewa.	Clare.	Clinton.	Crawford.
6,299,112 3,727,929 183,316 1,585,608 664,663 87,779 49,817	7,258,866 2,484,634 1,313,317 1,386,808 827,042 79,316 1,167,249	1,347,440 289,943 45,572 151,554 281,826 573,534 5,011	12,872,551 3,736,553 44,250 1,627,026 1,074,206 6,272,924 117,592	6,535,668 4,197,215 103,785 1,590,841 520,086 49,110 14,031	7,381,128 4,539,346 124,999 1,627,896 669,701 115,909 3,277	5,639,385 3,535,378 73,353 1,137,213 460,182 143,464 289,795	1,905,369 327,710 113,108 606,944 690,981 145,514 21,112	1,398,154 231,028 47,408 553,605 514,120 49,210 2,783	2,390,804 536,403 74,404 1,504,737 263,320 10,085 1,855	1,838,855 688,912 185,222 589,693 334,509 29,528 10,991	8,827,867 4,786,930 1,090,226 2,146,360 443,741 123,753 236,857	200,599 52,125 3,641 54,610 77,330 12,891 2
108,991 2,494,383 29,986 929,766 25,073 626,767 26,450 541,878 2,779 45,402 24,133 341,391 353 5,184	64,931 1,957,502 17,322 767,644 27,831 839,677 8,156 151,848 5,531 121,033 5,257 70,434 414 4,435	12,330 187,145 4,899 126,302 899 7,320 2,000 18,705 39 305 3,960 29,151 418 5,039	103,772 2,318,976 33,523 978,520 21,281 451,080 38,703 747,411 1,088 14,717 8,803 125,674 203 2,398	119,503 2,782,891 88,025 1,385,674 22,874 463,938 24,421 465,541 9,716 121,854 22,354 325,834 608 8,901	144,003 2,975,734 37,647 1,170,395 27,034 521,962 32,169 573,985 5,776 67,050 40,771 621,563 501 10,706	110,429 2,210,249 33,337 995,982 18,548 317,806 34,028 579,122 1,348 16,974 22,756 294,009 308 3,477	15,463 237,003 3,839 105,613 5,087 66,051 1,920 21,456 3,323 8,386 2,715 24,274 1,126 12,087	12,962 179,361 1,493 47,058 5,943 77,307 1,725 17,818 8,804 8,386 2,413 22,753 3,784	25,282 528,372 115 186,474 18,299 433,864 3,377 43,571 2,895 35,611 7,722 5,240 25 161	26,084 524,144 5,294 186,474 8,229 184,883 2,668 34,902 1,231 20,189 7,784 86,814 652 6,053	115,897 3,291,042 30,181 1,275,882 33,919 1,017,893 34,521 720,997 8,822 141,180 8,117 129,184 228 3,222	2,671 35,961 520 16,512 4,910 1,764 54 1,216 10,953 150 1,708
2,140 21,614 59 628 46 612	18,059 812,126 230 4,020 216 3,257	1,081 10,260 22 181 36 363	136 1,691 25 153 2 14	177 1,421 35 208	1,677 15,065 96 1,070	80 468 49 272 44 223	1,812 17,611 35 288 206 1,989	278 2,214 14 121 1,333 9,776	18 208 26 153 619 23,991	2,813 34,283 26 153 619 8,901	13,831 167,131 149 2,060 27 109	32 341 24 25 15 123
60,944 101,332 41,703 42,661 15,355 15,689 22,513 22,515 2,709 2,806 494 771 632 880	41,896 77,002 35,006 43,937 5,572 6,948 28,195 35,240 636 796 127 297 476 656	8,504 10,499 5,220 3,541 1,033 544 3,239 2,105 225 193 286 212 487 487	62,375 98,986 87,827 45,807 11,750 13,754 19,503 23,351 4,234 4,337 1,827 3,776 513 589	63,790 98,860 43,225 44,387 10,350 10,768 26,267 26,365 4,630 4,300 1,138 2,103 840 851	72,768 133,250 50,607 49,039 10,582 9,605 35,855 34,483 2,760 2,829 498 807 912 1,315	53,399 76,521 27,255 27,088 5,288 4,425 12,455 12,291 7,614 7,663 1,495 2,280 403 429	24,154 35,335 19,088 18,997 1,020 1,008 14,876 13,823 1,002 1,002 1,500 1,740 620 459	22,312 27,146 19,412 18,997 1,557 1,634 10,368 15,039 775 775 237 294 605 355	59,917 60,483 59,194 59,420 5,047 4,699 53,636 54,385 290 312 210 294 21 33	18,712 32,980 15,446 18,372 1,764 1,617 12,659 15,667 501 476 210 279 312 333	64,356 122,703 50,923 67,206 8,219 10,186 37,798 49,028 3,529 4,684 1,043 1,950 334 458	3,213 3,504 1,717 1,149 203 93 1,275 861 76 33 29 30 134 132
1,644 1,874 458 809 106 100 6,180 43,188 10,802 12,522	466 594 86 87 15 23 2,655 24,271 3,387 6,834	63 74 1,304 511 38 53 909 5,112 894 1,017	994 1,238 1,691 1,888 100 196 4,601 31,479 10,786 14,913	762 927 492 356 150 221 4,594 39,103 14,539 13,756	1,338 1,704 491 302 60 65 9,778 67,553 10,484 14,603	1,272 1,629 996 1,045 120 75 5,018 28,864 18,738 17,820	130 69 1,372 777 42 48 2,178 13,591 1,178 2,150	66 37 1,049 589 88 50 790 5,197 795 1,596	226 206 339 202 8 10 12 60 881 2,007	300 390 334 644 107 127 1,488 11,040 881 2,007	382 457 110 117 27 19 5,896 45,202 6,982 9,587	122 113 586 330 53 46 224 1,010 458 593
51 178	281 1,256	76 191	376 965	28 105	5 15	165 680	112 680	138 576	147 350	36 115	53 263	56 55
2,811 211,718 304	2,850 228,749 1,070	1,458 107,350 267	5,275 227,371 2,684	3,194 165,357 638	2,838 194,491 845	2,658 144,704 380	3,047 204,828 240	2,689 226,391 47	1,455 84,058 98	1,506 128,251 71	1,452 124,524 148	389 32,678 15
181 1,470 43,747 10,010 10,338	8,574 95,467 25 20 1,651	278 3,702 5,397 50 4,075	278 3,702 20,306 4,254 4,075	13,429 38 3,807	3,218 194 539	7,778 220 1,777	141 872 6,174 20 1,456	2 10 4,246 108 889	105 606 2,351 105 648	1,078 17,352 32,163 1,831 8,332	59 60 61 62 63	
130 142,648 62 94,440 35 24,524	126 94,019 76 63,298 36 22,506	205 165,924 87 24,579 122 84,920	8,120 10,951,153 2,683 5,250,981 4,206 3,818,530	116 82,764 51 51,735 44 21,699	232 213,401 136 165,409 70 35,343	180 164,319 118 119,843 49 32,071	65 62,735 27 20,661 29 26,388	30 12,188 22 10,404 7 1,275	5 3,556 4 3,077 7 4,986	18 9,601 9 3,007 62 4,986	120 129,564 53 81,962 62 38,551	7 2,333 5 1,139 1 694
21,366 91,798 23,322 12,787 73,773 10,463 4,932 5,640 4,52 861 4,053 4,705 1,075 3,097 718 1,711 5,293 984	22,500 89,199 19,806 17,139 73,103 12,685 875 813 513 2,022 9,102 5,157 958 2,212 1,175 1,706 3,872 1,274	110,668 274,131 234,742 73,166 108,690 178,579 14,455 45,752 9,646 3,570 10,333 7,131 1,057 5,403 6,060 18,420 103,453 36,369	661,342 1,540,038 508,977 220,403 287,833 357,348 295,315 772,721 41,805 103,891 388,937 51,501 15,563 26,954 6,060 25,910 69,398 22,297	14,378 40,431 11,268 6,775 22,794 6,997 4,370 7,824 129 2,432 3,410 2,278 990 2,346 549 1,459 7,364 1,313	39,250 85,640 29,102 23,456 57,085 18,986 8,663 7,824 1,167 1,333 4,819 2,643 1,427 3,340 603 3,270 10,913 3,595	34,074 89,071 18,260 17,877 45,000 13,433 12,905 12,212 175 1,333 2,640 1,103 891 2,479 1,282 1,480 14,422 4,609	48,181 99,921 62,091 16,156 80,180 55,060 100 200 32 604 2,640 1,103 891 2,479 1,282 1,480 14,422 4,609	40,241 58,271 22,378 39,001 51,980 20,499 14 5 1 388 642 231 407 516 841 3,770 1,131	4,693 5,558 4,710 4,392 5,431 4,693 161 305 16 624 883 3,001 1,012 2,035 625 1,180 2,535 528	17,905 80,181 44,789 11,032 62,573 38,679 2,031 4,710 333 619 3,073 3,001 1,526 3,785 1,511 2,380 6,040 715	17,688 10,594 6,168 6,805 15,992 5,918 76 77 78 34 180 180 51 90 22 51 322 48	
2,318 8,263 115,388	4,779 47,653 364,110	185 3,227 18,210	259,587 4,319,218 59,671,547	810 7,280 143,322	2,548 21,926 192,128	8,158 200,752 1,437,436	22 2,380 8,123	28 310 1,646	5 1,126 1,908 5,815	1,126 1,908 5,815	1,453 7,677 118,014	24 88 89 90

COUNTY TABLE IV.—VALUE OF ALL CROPS, AND ACREAGE

		Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.	Gogebic.	Grand Traverse.
<b>VALUE OF ALL CROPS.</b>									
1	<b>Total</b> .....dollars..	1,658,222	695,403	8,781,018	1,568,879	8,839,342	2,334,604	466,866	4,079,921
2	Cereals.....dollars..	247,684	91,309	4,827,616	308,595	4,252,348	811,936	32,618	770,676
3	Other grains and seeds.....dollars..	57,042	3,364	665,419	49,163	509,886	349,173	36	81,244
4	Hay and forage.....dollars..	763,159	307,356	2,436,585	472,907	2,703,455	727,679	273,682	508,446
5	Vegetables.....dollars..	520,238	183,884	528,822	650,508	726,243	328,339	157,534	1,873,343
6	Fruits.....dollars..	57,028	9,042	111,409	80,770	111,421	19,406	2,980	840,064
7	All other crops.....dollars..	13,071	448	211,167	5,936	535,989	98,071	7	6,148
<b>SELECTED CROPS (acres harvested and production).</b>									
<b>Cereals:</b>									
8	<b>Total</b> .....acres..	12,518	3,599	113,105	15,946	116,369	26,752	1,192	33,814
9	.....bushels..	241,497	83,400	3,251,627	217,750	2,959,139	630,281	27,569	508,013
10	Corn.....acres..	118	37	30,118	3,117	22,988	5,213	5	10,958
11	.....bushels..	2,018	757	1,374,782	86,169	946,423	241,340	81	285,488
12	Oats.....acres..	5,667	2,376	29,587	4,669	39,037	9,861	656	4,976
13	.....bushels..	193,666	69,713	812,966	57,113	1,000,771	229,856	19,964	42,297
14	Wheat.....acres..	1,837	623	29,332	2,196	31,250	2,310	456	4,159
15	.....bushels..	18,788	7,131	674,242	20,799	668,535	28,804	5,950	49,188
16	Barley.....acres..	1,217	392	8,857	544	10,777	2,276	47	168
17	.....bushels..	17,758	8,210	134,656	4,095	156,222	34,933	1,082	1,331
18	Rye.....acres..	382	101	14,873	3,785	11,116	6,542	24	12,235
19	.....bushels..	5,055	1,384	248,462	36,105	157,507	88,141	455	117,817
20	Buckwheat.....acres..	137	52	246	705	756	381	2	875
21	.....bushels..	1,640	868	4,330	7,753	11,089	3,971	27	8,280
<b>Other grains and seeds:</b>									
22	Dry edible beans.....acres..	70	2	9,425	713	8,126	3,497	.....	1,277
23	.....bushels..	725	29	114,583	6,183	107,513	57,585	.....	11,595
24	Soy beans.....acres..	.....	.....	84	11	44	43	.....	10
25	.....bushels..	.....	.....	1,057	126	591	905	.....	111
26	Dry peas.....acres..	1,764	73	66	436	38	2,203	.....	76
27	.....bushels..	17,379	1,076	661	2,426	459	29,855	.....	440
<b>Hay and forage:</b>									
28	<b>Total</b> .....acres..	26,046	8,321	73,898	20,513	85,983	23,324	7,144	27,920
29	.....tons..	34,904	14,351	147,041	27,101	160,596	44,517	11,870	35,122
30	All tame or cultivated grasses.....acres..	24,301	7,165	55,833	16,364	71,517	19,342	6,943	18,148
31	.....tons..	27,766	10,766	72,136	14,284	81,296	21,556	10,409	11,799
32	Timothy alone.....acres..	2,967	1,801	15,476	2,123	22,268	2,281	354	2,782
33	.....tons..	2,920	1,819	20,045	1,623	24,650	2,502	518	1,334
34	Timothy and clover mixed.....acres..	20,883	5,476	35,580	12,484	44,767	15,321	6,485	12,187
35	.....tons..	24,317	8,327	45,259	11,040	50,324	17,139	9,732	7,726
36	Clover alone.....acres..	382	289	3,469	807	2,829	1,116	71	849
37	.....tons..	439	467	4,419	715	3,452	1,207	125	547
38	Alfalfa.....acres..	19	9	746	423	1,393	68	.....	1,631
39	.....tons..	24	20	1,448	465	2,548	129	.....	1,046
40	Other tame or cultivated grasses.....acres..	50	90	562	527	260	556	33	699
41	.....tons..	56	123	966	441	322	579	34	546
42	Wild, salt, or prairie grasses.....acres..	31	228	146	91	104	284	25	532
43	.....tons..	46	203	173	152	197	452	29	218
44	Small grains cut for hay.....acres..	463	885	214	1,371	227	253	55	1,925
45	.....tons..	426	390	259	589	230	333	91	713
46	Annual legumes cut for hay.....acres..	44	8	51	128	45	49	3	73
47	.....tons..	43	4	112	107	45	90	5	56
48	Silage crops.....acres..	523	241	7,679	1,523	8,321	2,275	78	2,929
49	.....tons..	5,012	2,046	60,678	9,518	67,122	19,705	1,142	16,348
50	Corn cut for forage.....acres..	475	131	9,942	917	5,595	1,030	29	4,137
51	.....tons..	663	218	13,417	1,914	11,285	1,864	54	4,890
52	Kafir, sorghum, etc., for forage.....acres..	2	.....	.....	.....	.....	.....	.....	.....
53	.....tons..	3	.....	.....	.....	.....	.....	.....	.....
54	Root crops for forage.....acres..	207	103	33	119	174	91	11	176
55	.....tons..	955	734	266	537	421	511	140	1,098
<b>Vegetables:</b>									
56	Potatoes (Irish or white).....acres..	2,575	758	1,581	2,801	3,107	1,011	505	8,245
57	.....bushels..	205,988	74,977	143,500	275,083	242,725	91,632	52,999	839,823
58	Other vegetables.....acres..	65	11	76	239	515	137	21	266
<b>Miscellaneous crops:</b>									
59	Sugar beets grown for sugar.....acres..	90	.....	1,368	7	5,278	925	.....	.....
60	.....tons..	730	.....	10,842	75	44,921	8,371	.....	.....
61	Maple trees tapped.....number..	7,131	1,050	99,632	8,192	26,740	30	.....	8,108
62	Maple sugar made.....pounds..	265	.....	21,311	445	1,390	.....	.....	23
63	Maple sirup made.....gallons..	1,581	160	23,495	1,763	6,730	5	.....	2,104
<b>FRUITS.</b>									
<b>Small fruits:</b>									
64	<b>Total</b> .....acres..	13	2	138	88	434	26	3	83
65	.....quarts..	7,885	1,895	202,061	81,662	415,670	24,702	1,834	60,893
66	Strawberries.....acres..	10	2	72	48	98	17	2	31
67	.....quarts..	4,618	1,850	145,319	57,317	207,197	17,025	1,383	24,710
68	Raspberries.....acres..	1	.....	56	81	289	6	.....	39
69	.....quarts..	1,637	.....	50,772	16,565	185,368	4,125	.....	26,650
<b>Orchard fruits:</b>									
70	<b>Total</b> .....trees not of bearing age..	13,927	5,226	16,829	24,280	9,085	10,459	3,282	117,563
71	.....trees of bearing age..	40,689	5,400	72,128	70,449	105,775	18,365	1,765	347,939
72	.....bushels harvested..	27,687	4,332	32,058	30,103	11,341	6,900	1,314	349,252
73	Apples.....trees not of bearing age..	13,156	4,953	10,799	19,520	5,304	8,314	3,178	44,927
74	.....trees of bearing age..	39,955	5,242	51,292	54,634	85,181	15,293	1,682	181,538
75	.....bushels harvested..	27,599	4,307	22,986	25,460	7,889	6,021	1,300	261,112
76	Peaches.....trees not of bearing age..	.....	.....	2,490	117	426	96	.....	3,781
77	.....trees of bearing age..	.....	.....	5,344	912	3,240	40	.....	6,090
78	.....bushels harvested..	.....	.....	906	87	542	4	.....	511
79	Pears.....trees not of bearing age..	14	5	622	1,509	2,292	492	21	5,870
80	.....trees of bearing age..	5	2	6,406	2,604	6,203	663	1	13,175
81	.....bushels harvested..	2	.....	6,774	1,249	2,052	339	.....	7,634
82	Plums and prunes.....trees not of bearing age..	149	121	1,200	757	162	700	30	3,032
83	.....trees of bearing age..	109	55	2,814	2,578	4,018	1,143	35	6,615
84	.....bushels harvested..	10	4	585	811	667	271	1	4,826
85	Cherries.....trees not of bearing age..	608	147	1,716	2,377	901	857	53	59,953
86	.....trees of bearing age..	620	101	6,272	9,721	7,133	1,226	47	140,521
87	.....bushels harvested..	76	21	807	2,546	191	265	13	75,269
<b>Grapes.....vines not of bearing age..</b>									
88	.....vines of bearing age..	.....	.....	1,003	64	773	178	.....	1,203
89	.....pounds harvested..	.....	.....	6,995	713	7,978	741	.....	18,065
90	.....pounds harvested..	.....	.....	99,719	4,714	56,807	5,330	.....	94,572



AND PRODUCTION OF PRINCIPAL CROPS: 1919—Continued.

Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	
9,573,982	7,405,458	2,076,806	12,166,028	7,700,192	8,073,027	1,406,313	683,074	7,573,041	7,648,981	6,529,689	1,502,756	11,126,072	1
4,251,033	4,742,467	286,350	4,061,012	4,197,423	4,428,015	313,945	77,823	2,888,370	4,204,237	3,436,506	338,687	4,443,293	2
1,501,629	35,070	8,251	2,326,860	407,981	487,625	139,464	3,295	1,263,165	148,162	40,321	12,735	576,314	3
2,021,631	2,077,984	1,082,394	3,391,638	2,213,339	2,094,603	529,542	382,622	1,005,648	1,997,823	1,417,246	188,052	2,513,916	4
351,993	422,864	699,842	976,092	640,266	795,128	369,353	207,718	1,148,630	916,923	1,227,673	917,194	2,525,915	5
90,009	81,132	19,969	132,668	136,241	200,057	34,604	10,358	241,547	381,286	389,890	44,294	1,040,235	6
1,267,687	45,941	.....	1,277,758	98,042	67,599	22,405	1,858	425,675	550	18,053	1,794	26,399	7
105,276	133,507	10,524	133,006	105,611	121,360	15,671	2,959	87,157	132,963	112,532	15,585	136,128	8
3,086,701	3,207,702	255,859	3,195,098	3,053,822	2,861,903	257,220	65,656	2,103,705	2,914,368	2,153,725	224,141	2,953,312	9
29,562	39,850	112	14,438	28,682	26,789	1,921	11	20,038	38,068	30,234	4,710	32,184	10
1,129,018	1,414,137	3,770	736,010	1,299,816	853,686	61,267	236	877,665	1,334,539	809,969	121,741	908,148	11
33,152	29,930	6,375	57,733	29,635	28,340	6,788	1,396	25,479	26,702	22,256	1,364	36,415	12
1,114,772	685,300	193,422	1,471,041	882,695	721,128	116,475	43,276	641,577	532,975	354,182	11,144	797,324	13
24,298	26,758	2,788	22,340	13,648	37,644	1,011	974	17,040	14,156	30,938	1,252	32,443	14
514,537	542,005	40,433	383,851	298,160	830,648	10,099	11,344	230,485	252,115	597,282	12,566	729,833	15
11,282	11,698	588	21,541	8,902	6,681	1,691	330	8,031	3,907	2,544	18	3,694	16
234,118	156,781	10,528	373,468	159,497	101,124	10,585	6,977	133,206	51,068	36,488	7,130	53,135	17
6,287	24,311	461	15,024	22,678	21,574	3,526	216	15,296	48,198	25,790	7,117	30,781	18
86,244	397,843	5,055	195,376	307,125	343,693	40,515	2,683	203,401	723,546	345,600	65,716	454,053	19
580	409	149	854	783	356	406	5	864	1,147	465	925	540	20
5,670	4,282	1,569	13,346	11,621	4,334	4,140	06	9,518	16,951	5,248	10,116	6,481	21
21,955	205	9	27,010	6,491	8,528	1,379	.....	17,622	1,919	211	253	14,011	22
312,192	1,561	95	431,753	76,366	98,459	17,881	4	270,492	19,630	984	2,143	138,065	23
76	19	.....	395	185	118	45	.....	127	71	62	15	278	24
913	180	.....	8,279	2,178	1,360	606	.....	1,973	503	392	80	2,547	25
48	8	110	5,273	49	43	644	76	512	498	9	14	153	26
547	58	1,687	71,727	393	445	6,552	1,083	7,062	5,401	47	77	1,893	27
58,233	77,276	34,577	106,379	65,696	61,089	17,912	9,192	53,696	81,284	64,338	11,107	84,469	28
115,935	127,493	43,733	199,528	139,336	142,325	28,927	10,359	98,927	142,455	91,249	15,658	159,181	29
47,827	51,355	33,379	80,566	48,528	44,028	16,634	8,601	44,306	46,666	40,174	5,099	63,520	30
68,398	56,748	41,157	104,391	61,334	54,876	17,214	14,253	49,207	43,714	38,152	3,042	69,711	31
5,551	26,823	4,392	6,455	10,141	13,460	947	477	7,991	15,526	9,903	1,678	35,873	32
7,177	29,564	6,143	7,815	23,656	18,231	1,048	732	8,812	13,928	8,857	687	39,507	33
38,705	17,415	27,886	80,472	25,434	26,888	13,918	7,809	32,475	24,804	23,070	1,459	24,616	34
50,710	17,968	33,427	93,014	32,396	32,285	15,173	12,965	36,084	22,159	22,305	791	20,633	35
2,208	2,112	153	1,927	1,744	2,706	443	265	2,838	2,719	4,531	342	1,580	36
3,356	2,171	215	2,484	2,172	2,973	525	473	2,805	2,504	4,545	197	1,783	37
666	3,594	104	222	1,061	588	52	23	629	2,224	946	387	699	38
1,306	5,615	96	397	1,899	895	91	35	928	3,011	1,361	307	1,052	39
697	1,411	844	490	1,148	386	274	27	373	1,393	1,124	1,003	747	40
849	1,430	1,276	681	1,211	492	477	48	578	1,512	1,081	1,060	736	41
232	1,064	535	85	2,307	393	68	63	44	9,799	589	197	680	42
467	1,913	610	100	2,994	668	83	80	56	12,110	618	112	898	43
192	1,747	426	171	164	261	239	105	371	1,027	1,473	1,416	824	44
159	1,250	562	321	166	232	223	264	499	801	684	552	698	45
10	110	23	9	217	48	26	2	68	65	157	235	87	46
30	104	36	8	281	48	47	2	22	53	163	136	72	47
5,143	7,639	105	9,109	7,179	10,732	1,196	59	4,065	10,184	7,273	1,786	12,324	48
43,274	51,120	923	79,129	61,154	74,379	9,605	600	38,880	68,160	38,437	8,772	75,447	49
4,578	15,344	24	7,023	7,230	5,582	574	26	4,756	13,463	14,055	2,388	6,804	50
7,670	16,255	40	12,968	13,193	11,991	1,069	58	6,815	17,416	13,164	2,899	10,497	51
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52
251	17	85	416	65	45	175	336	86	60	17	49	73	53
937	94	405	2,611	214	131	586	1,212	448	201	41	145	1,785	54
1,396	1,795	2,641	3,269	2,198	3,213	1,627	541	4,847	3,800	4,009	4,362	11,712	55
91,699	106,320	290,084	352,434	188,622	289,069	151,025	74,555	474,954	261,011	290,591	414,681	944,683	56
193	239	133	190	617	390	57	41	337	2,686	1,690	170	2,878	57
12,053	.....	.....	14,121	790	315	243	.....	3,550	.....	10	.....	47	58
108,367	.....	.....	111,085	6,599	2,043	1,924	.....	35,702	.....	128	.....	390	59
24,574	65,362	.....	414	34,345	48,699	341	3,254	10,206	357	5,355	2,251	26,701	60
70	3,748	.....	.....	1,622	6,220	2	95	100	.....	464	6	5,317	61
6,033	14,773	.....	100	7,902	11,927	93	651	2,784	116	1,284	640	7,124	62
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63
130	114	34	107	127	152	25	1	64	299	251	12	667	64
94,921	79,021	18,752	81,538	140,632	109,252	12,792	1,067	57,943	192,340	241,843	6,083	643,930	65
86	46	28	48	70	66	13	1	36	150	143	8	275	66
57,421	53,092	15,162	38,223	85,906	66,393	8,609	714	41,917	130,895	171,230	4,968	313,760	67
36	56	5	52	45	82	10	.....	24	117	70	1	294	68
27,063	16,457	2,850	38,955	38,194	39,601	3,622	185	13,707	39,798	36,021	452	211,537	69
10,432	26,978	12,397	17,163	21,123	29,530	5,020	3,778	17,159	41,820	59,103	10,720	152,948	70
88,904	81,902	11,317	157,592	91,873	62,936	19,786	5,460	84,461	137,570	79,370	28,890	344,554	71
32,485	28,118	8,076	45,570	51,049	64,819	15,829	5,067	112,668	164,693	41,397	20,871	389,517	72
7,225	14,682	11,498	12,523	13,235	22,794	4,165	3,637	11,989	21,347	34,281	8,156	89,582	73
74,260	53,428	9,914	135,765	72,513	48,722	17,954	5,365	72,816	100,001	43,330	23,879	184,533	74
28,062	23,810	7,762	35,369	45,485	77,167	15,124	5,046	107,771	153,730	28,304	19,655	287,728	75
336	7,073	.....	1,405	2,711	2,603	95	.....	711	15,364	15,562	153	27,957	76
3,451	9,872	.....	1,417	4,420	2,909	176	.....	712	15,364	10,850	885	50,373	77
287	257	.....	113	993	613	49	.....	59	2,069	2,256	14	22,428	78
773	1,250	25	834	970	631	190	9	924	1,188	2,443	165	15,309	79
2,929	4,897	14	8,069	6,693	3,397	493	.....	2,935	8,429	10,921	470	34,772	80
2,202	2,182	.....	6,433	3,276	3,734	331	.....	2,379	6,091	5,531	169	26,624	81
908	1,390	467	1,116	2,468	1,804	189	49	1,169	1,164	2,226	272	12,478	82
3,354	4,730	700	4,466	2,728	3,003	509	72	3,866	4,453	3,102	768	40,375	83
1,442	755	197	1,269	694	2,197	142	15	1,085	913	1,049	881	44,805	84
1,190	2,581	407	1,285	1,739	1,698	379	83	2,366	2,757	3,545	1,874	10,621	85
4,901	8,967	689	7,875	5,477	4,905	653	23	4,629	9,322	10,663	2,888	28,452	86
492	837	117	2,338	601	1,108	183	6	1,373	1,890	4,135			

COUNTY TABLE IV.—VALUE OF ALL CROPS, AND ACREAGE

		Keweenaw.	Lake.	Lapeer.	Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.
<b>VALUE OF ALL CROPS.</b>									
1	Total.....	dollars.. 58,378	970,459	8,385,548	3,308,037	12,385,131	6,122,397	240,542	433,454
2	Cereals.....	dollars.. 5,609	293,598	3,548,376	725,911	7,865,341	3,241,452	31,905	81,036
3	Other grains and seeds.....	dollars.. 20,737	20,737	325,586	82,510	94,024	344,892	2,346	17,261
4	Hay and forage.....	dollars.. 35,620	225,771	2,526,465	604,317	3,431,901	1,061,106	96,287	204,535
5	Vegetables.....	dollars.. 15,879	396,713	1,675,689	1,593,977	622,060	479,462	100,628	119,741
6	Fruits.....	dollars.. 1,270	40,699	100,424	395,394	132,837	85,806	9,214	7,829
7	All other crops.....	dollars.. 1,941	209,008	5,928	238,968	9,679	162	2,152	
<b>SELECTED CROPS (acres harvested and production).</b>									
8	<b>Cereals:</b>								
9	Total.....	acres.. 254	11,337	115,928	27,067	176,178	95,217	2,437	4,914
10	Corn.....	bushels.. 4,534	194,961	2,525,978	508,561	5,306,650	2,355,236	27,566	73,617
11	Oats.....	acres.. 6	4,096	20,659	7,392	62,167	23,314	9	22
12	Wheat.....	bushels.. 118	125,202	789,388	281,594	2,573,219	964,741	180	610
13	Barley.....	acres.. 2,734	2,044	38,669	8,641	42,951	25,386	1,397	3,262
14	Rye.....	bushels.. 71	15,364	833,326	118,962	1,291,917	683,445	17,863	53,418
15	Buckwheat.....	acres.. 926	1,086	24,376	4,000	46,118	12,265	417	827
16	Other grains and seeds:	bushels.. 50	15,104	446,844	53,985	1,051,200	220,293	3,292	9,468
17	Dry edible beans.....	acres.. 682	31	13,040	84	14,566	4,987	173	470
18	Soy beans.....	bushels.. 15	244	180,383	672	218,027	70,573	1,856	5,969
19	Dry peas.....	acres.. 181	3,892	17,687	5,740	9,763	28,251	431	187
20	Buckwheat.....	bushels.. 5	37,444	251,559	58,273	162,044	400,052	4,200	1,666
21	Other tame or cultivated grasses:	acres.. 152	1,290	9,306	13,737	7,159	12,033	175	474
22	Timothy alone.....	bushels.. 5	1,290	9,306	13,737	7,159	12,033	175	474
23	Timothy and clover mixed.....	acres.. 319	2,991	867	43	5,060	2	9	
24	Clover alone.....	bushels.. 4,386	39,794	8,853	334	60,600	30	52	
25	Alfalfa.....	acres.. 24	121	107	8				
26	Other tame or cultivated grasses:	bushels.. 208	1,431	1,064	586	97	77	586	
27	Hay and forage:	acres.. 56	204	1,338	10	70	776	742	5,678
28	Total.....	bushels.. 457	2,248	12,658	39				
29	All tame or cultivated grasses.....	acres.. 1,340	10,879	81,090	23,384	93,778	60,503	4,294	9,130
30	Timothy alone.....	tons.. 1,478	15,718	146,216	33,483	205,596	131,409	4,228	8,398
31	Timothy and clover mixed.....	acres.. 1,181	5,896	70,252	16,237	67,857	45,573	3,857	8,841
32	Clover alone.....	tons.. 1,360	4,342	78,994	12,029	95,416	51,903	3,445	7,859
33	Alfalfa.....	acres.. 20	1,538	10,650	1,018	26,825	15,534	103	908
34	Other tame or cultivated grasses:	tons.. 28	1,018	13,072	701	35,267	16,504	135	711
35	Timothy alone.....	acres.. 1,146	8,523	55,850	13,076	21,065	26,871	3,709	7,785
36	Timothy and clover mixed.....	tons.. 1,318	2,643	60,472	8,414	27,315	30,965	3,265	7,022
37	Clover alone.....	acres.. 489	2,414	670	5,235	1,630	10	66	
38	Alfalfa.....	tons.. 391	2,488	542	6,379	1,902	10	77	
39	Other tame or cultivated grasses:	acres.. 88	1,436	1,017	13,437	991	35	4	
40	Timothy alone.....	tons.. 101	2,435	2,109	24,676	1,777	35	4	
41	Timothy and clover mixed.....	acres.. 15	263	893	456	1,295	547	78	
42	Clover alone.....	tons.. 20	289	627	263	1,779	755	45	
43	Alfalfa.....	acres.. 149	481	114	237	469	2,344	16	8
44	Other tame or cultivated grasses:	tons.. 71	488	131	127	779	2,969	8	12
45	Wild, salt, or prairie grasses.....	acres.. 2	824	180	421	1,081	227	153	198
46	Small grains cut for hay.....	tons.. 5	954	157	604	408	298	80	140
47	Annual legumes cut for hay.....	acres.. 46	57	131	131	244	90	9	5
48	Silage crops.....	tons.. 15	701	7,077	2,046	12,698	8,452	19	3
49	Corn cut for forage.....	acres.. 5,460	59,717	14,338	84,268	68,775	110	48	
50	Kafir, sorghum, etc., for forage.....	tons.. 2,462	4,193	3,638	11,260	3,787	89	24	
51	Root crops for forage.....	acres.. 3,276	6,680	4,121	24,005	7,280	105	17	
52	Potatoes (Irish or white).....	tons.. 8	469	117	674	169	30	151	60
53	Other vegetables.....	tons.. 30	1,177	493	2,184	387	68	473	317
54	<b>Vegetables:</b>								
55	Potatoes (Irish or white).....	acres.. 86	1,883	7,294	6,618	1,936	2,164	372	629
56	Other vegetables.....	bushels.. 5,853	171,543	717,707	721,985	120,389	160,519	35,804	46,806
57	Miscellaneous crops:	acres.. 1	83	151	143	804	148	40	10
58	Sugar beets grown for sugar.....	acres.. 10	1,094			2,075	96		
59	Maple trees tapped.....	tons.. 42	16,533			19,209	719		
60	Maple sugar made.....	number.. 1,414	25,085	8,795	29,797	1,915	465	3,487	
61	Maple sirup made.....	pounds.. 153	1,200	167	3,729			26	
62	Maple sirup made.....	gallons.. 453	6,563	2,076		4,212	464	58	765
<b>FRUITS.</b>									
63	<b>Small fruits:</b>								
64	Total.....	acres.. 1	19	103	59	153	99	10	7
65	Strawberries.....	quarts.. 770	8,899	63,770	37,843	157,855	94,953	3,605	4,474
66	Raspberries.....	acres.. 1	14	28	24	76	40	5	7
67	Raspberries.....	quarts.. 770	5,080	22,450	16,077	106,084	50,066	2,563	4,274
68	Orchard fruits:	acres.. 3	56	26	26	55	40	4	
69	Total.....	quarts.. 2,676	34,021	17,009	40,796	30,309	620	200	
70	Apples.....	trees not of bearing age.. 371	5,418	26,159	110,584	35,836	20,003	2,871	4,100
71	Peaches.....	trees of bearing age.. 597	16,723	172,686	254,844	159,854	91,763	6,258	6,559
72	Pears.....	bushels harvested.. 556	19,198	38,041	161,620	40,663	30,137	4,181	3,460
73	Plums and prunes.....	trees not of bearing age.. 318	4,544	21,113	70,402	16,504	12,431	2,298	3,536
74	Cherries.....	trees of bearing age.. 526	15,288	140,429	145,796	94,361	71,069	5,200	6,262
75	Grapes.....	bushels harvested.. 544	18,805	28,758	117,878	28,527	22,801	4,051	3,399
76	Apples.....	trees not of bearing age.. 84	2,618	11,108	13,677	4,877			7
77	Peaches.....	trees of bearing age.. 143	8,674	13,559	21,016	8,787			12
78	Pears.....	bushels harvested.. 28	1,842	651	962	2,510			1
79	Plums and prunes.....	trees not of bearing age.. 190	984	5,067	1,332	694		2	
80	Cherries.....	trees of bearing age.. 402	6,903	8,184	17,680	4,170		37	
81	Grapes.....	bushels harvested.. 125	6,449	3,467	6,501	4,062		15	
82	Apples.....	trees not of bearing age.. 17	204	763	1,277	1,057		74	166
83	Peaches.....	trees of bearing age.. 36	340	5,422	3,420	3,203		46	50
84	Pears.....	bushels harvested.. 109	1,147	2,175	804	517		2	3
85	Plums and prunes.....	trees not of bearing age.. 26	396	681	22,730	3,116	944	497	391
86	Cherries.....	trees of bearing age.. 35	570	11,254	83,885	20,324	4,494	975	235
87	Grapes.....	bushels harvested.. 12	131	445	37,449	3,863	247	113	67
88	Apples.....	vines not of bearing age.. 358	8,613	770	2,145	574			
89	Peaches.....	vines of bearing age.. 1,137	6,166	9,262	31,099	7,012			
90	Grapes.....	pounds harvested.. 5,565	123,963	47,635	251,168	69,770			

AND PRODUCTION OF PRINCIPAL CROPS: 1919—Continued.

Macomb.	Manistee.	Marquette.	Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.	Montcalm.	Montmorency.	Muskegon.	Newaygo.	
6,860,415 3,350,351 85,819 2,084,374 1,080,121 187,636 62,114	2,320,791 638,188 76,269 410,005 675,131 514,175 7,025	920,212 94,217 4,018 424,505 371,932 24,750 790	4,246,006 1,073,705 104,823 838,510 950,831 1,270,228 7,900	5,178,136 1,552,518 257,078 964,524 2,152,757 244,855 6,404	2,786,935 1,336,490 86,094 1,222,433 832,611 93,057 71,948	4,041,954 1,336,490 1,010,664 959,432 430,562 28,355 275,442	2,241,367 529,336 47,720 416,539 1,182,487 32,215 33,070	9,493,654 6,161,876 60,190 2,245,980 640,212 179,145 206,251	9,539,095 3,310,485 768,763 1,427,006 3,788,735 232,933 21,123	598,919 120,785 92,982 199,411 169,959 15,356 426	3,085,197 968,469 123,193 858,035 612,968 518,854 3,688	4,809,382 1,739,636 299,070 1,008,130 1,010,515 540,240 11,791	1 2 3 4 5 6 7
96,595 2,375,109 22,629 743,317 33,392 927,542 28,425 539,373 3,813 50,598 7,075 94,060 922 12,053  1,157 14,791 119 1,474 18 198	28,433 421,157 8,935 227,000 3,839 36,951 3,557 41,790 236 2,225 11,667 106,896 467 4,548  1,902 17,716 77 484 19 180	4,188 96,188 12 199 3,075 81,091 483 4,991 400 7,322 183 2,058 21 271  1 13 ----- ----- 109 1,240	38,921 696,259 8,433 221,713 11,391 181,032 11,184 200,214 604 5,872 6,886 83,888 209 1,448  2,060 22,293 15 154 100 1,012	62,651 1,115,828 17,047 538,314 17,209 251,546 4,162 60,259 1,080 11,350 21,481 237,202 688 7,664  5,502 57,382 127 1,002 133 1,198	20,776 447,221 536 16,350 12,725 324,858 3,504 37,953 2,332 43,183 1,402 20,084 138 1,658  91 910 6 62 1,347 16,240	35,644 1,079,160 11,173 479,949 16,325 448,574 1,578 31,378 4,355 91,475 1,771 22,328 322 3,416  14,234 235,762 121 1,686 233 2,977	26,035 368,007 5,299 161,835 7,162 62,761 1,838 25,528 671 5,359 10,639 108,128 311 3,416  618 7,115 41 347 302 2,853	140,155 4,173,329 48,014 2,049,628 86,711 1,061,947 40,152 819,516 6,182 112,626 5,943 72,138 3,083 56,204  160 701 2 25 99 1,067	114,810 2,304,957 20,154 739,138 20,248 582,548 15,549 321,526 2,705 37,701 40,236 612,836 593 6,234  77 834 2 21 1,053 12,548	5,705 94,854 835 15,261 2,887 46,245 1,189 13,210 579 8,819 994 9,407 1,121 1,418  1,908 22,065 24 272 982 10,737	32,319 655,025 10,299 316,512 9,567 148,764 5,676 112,944 348 3,625 6,201 67,418 133 2,787  1,908 22,065 24 272 982 10,737	63,310 1,187,296 18,030 549,668 15,553 252,322 9,348 168,554 539 6,115 18,520 109,305 643 4,320  6,414 70,256 98 1,086 91 741	8 9 10 11 12 13 14 15 16 17 18 19 20 21  22 23 24 25 26 27
65,891 143,740 50,068 54,866 11,954 13,114 35,960 39,319 1,193 1,416 272 406 689 611  195 243 155 134 73 98 10,804 80,479 4,866 6,247	21,489 27,738 12,841 9,215 3,285 2,070 8,068 5,775 477 399 402 434 609 537  1,240 907 1,964 937 191 110 2,086 11,304 2,691 3,551	15,066 17,810 13,855 16,079 873 1,129 12,734 14,619 135 225 26 30 77 76  787 697 256 265 7 5 70 485 ----- -----	30,235 45,770 23,125 25,529 5,015 5,533 15,954 17,205 744 953 1,113 1,815 299 317  340 440 690 1,037 134 75 1,992 12,580 3,834 5,447	40,403 55,959 32,717 29,115 6,595 5,533 23,169 20,866 1,827 1,411 332 390 794 915  159 186 1,195 1,198 21 17 3,239 20,398 2,090 4,778	37,265 66,448 31,197 39,240 3,766 4,806 26,106 32,625 853 1,253 91 132 381 424  899 1,145 514 702 14 22 2,284 20,864 2,030 2,544	33,130 49,855 28,937 31,434 9,693 2,153 1,271 22,704 7,461 377 303 203 133 451 596  133 184 164 802 274 116 2,008 12,847 18,014 4,280	21,524 28,779 14,536 9,693 61,098 19,813 12,004 20,742 24,264 2,294 3,039 6,428 10,715 510 596  133 184 164 802 274 116 2,008 12,847 18,014 4,280	75,728 138,957 49,287 61,098 19,813 12,004 20,742 24,264 2,294 3,039 6,428 10,715 510 596  528 573 241 983 70 61 6,900 42,203 6,845 8,884	58,553 92,001 42,579 38,820 14,059 12,004 24,392 22,846 3,049 2,727 355 515 724 728  115 126 241 134 ----- ----- 158 1,107 355 691	7,349 9,438 6,406 6,989 260 236 5,657 6,308 453 418 10 342 26 18  940 1,089 1,522 1,039 105 3,979 26,124 4,085 6,432	33,968 59,910 22,516 21,858 8,330 8,398 11,879 11,577 459 428 237 342 1,611 1,123  1,457 1,268 1,670 385 150 105 4,513 31,919 4,944 6,964	40,903 67,102 22,106 25,700 10,473 10,148 15,344 13,306 1,168 953 537 743 584 490  1,457 1,268 1,670 385 150 105 4,513 31,919 4,944 6,964	28 29 30 31 32 33 34 35 36 37 38 39 40  41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
230 1,673 4,684 329,820 1,094  559 5,158 3,714 20 993	476 1,714 3,152 223,703 905  2 17 8,206 462 2,187	91 279 1,359 145,134 157  1 8 1,328 12 248	120 662 4,517 343,931 2,934  ----- ----- 10,599 ----- 2,733	82 267 10,119 975,006 449  ----- ----- 6,746 76 2,223	327 1,941 3,661 337,925 249  606 6,044 2,444 114 557	73 475 1,888 144,586 143  2,045 23,646 553 124 81	98 431 5,061 545,671 82  431 2,636 3,143 90 771	104 679 2,701 151,393 935  1,862 17,620 1,168 168 227	187 477 13,808 1,745,998 1,646  44 368 15,699 718 4,178	74 332 778 72,711 3  ----- ----- 626 410 98	94 303 2,818 175,586 1,070  3 2,290 ----- ----- 889	63 261 5,378 409,485 1,652  17 128 9,841 60 3,449	59 60 61 62 63
230 364,453 113 241,855 90 100,145  53,794 95,106 47,227 28,239 43,757 29,535 19,094 28,504 3,722 2,434 10,006 10,294 2,490 4,900 2,819 1,535 7,939 857	640 339,103 58 42,785 545 255,771  97,088 206,838 207,090 60,182 114,898 181,661 14,776 39,870 3,986 4,754 6,709 5,975 1,953 6,396 2,893 15,393 38,955 12,605	36 20,923 32 28,694 1 620  9,872 8,609 9,548 8,666 7,641 9,377 ----- ----- 43 7 6 409 131 32 694 580 133	462 617,975 167 319,900 251 281,231  54,836 296,805 530,124 33,101 125,917 426,766 6,901 113,425 64,498 7,447 14,111 10,580 2,814 15,226 14,144 4,573 28,126 15,136	67 73,041 38 43,113 22 26,974  18,199 85,378 113,642 14,617 77,746 110,813 352 116 36 787 1,878 1,000 832 501 1,847 1,931 3,791 7,719	21 28,971 17 27,472 2 630  20,518 53,562 48,700 18,712 51,946 43,520 ----- ----- 112 32 5 822 501 239 862 1,942 295	142 56,447 117 30,912 23 18,264  15,819 30,273 5,130 15,525 12,906 9,148 20,721 14,952 81 67 11 914 1,536 605 96 223 1,488 217 1,096 1,942 295	8 2,931 8 2,842 ----- 89  10,270 22,854 17,840 15,525 9,148 20,721 14,952 10,788 42,109 1,406 1,914 12,110 4,302 1,606 5,780 356 2,551 17,186 2,277	304 408,756 110 181,244 158 182,572  46,384 149,315 17,840 15,525 9,148 20,721 14,952 10,788 42,109 1,406 1,914 12,110 4,302 1,606 5,780 356 2,551 17,186 2,277	117 108,975 58 73,528 50 25,742  28,303 99,533 100,526 22,376 86,637 94,022 1,168 728 135 1,074 3,654 3,520 1,340 3,389 121 2,338 5,123 1,424	5 5,252 1 502 3 3,390  3,147 7,971 6,984 2,529 7,236 6,084 ----- ----- 92 136 69 228 281 121 298 313 110	588 665,562 230 389,943 323 244,192  44,543 118,580 183,376 31,173 87,459 169,982 2,078 9,806 3,464 3,080 5,050 3,437 1,609 5,494 5,061 6,603 10,771 1,432	228 231,896 89 79,560 45 22,843  32,774 138,015 245,875 26,879 115,194 236,995 1,396 9,310 2,803 946 3,447 2,765 807 1,965 2,845 8,297 2,347	64 65 66 67 68 69  70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87
4,557 32,004 303,328	617 2,432 18,660	----- ----- -----	536 10,676 97,965	10,355 2,915 27,461	3 7 60	849 2,260 26,204	50 782 1,870	10,518 175,056 1,087,332	972 12,851 146,245	1 3 -----	18,375 42,570 234,347	1,043 5,363 46,515	88 89 90

COUNTY TABLE IV.—VALUE OF ALL CROPS, AND ACREAGE

		Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	
VALUE OF ALL CROPS.										
1	Total.....	dollars..	9,871,866	5,887,827	1,867,653	904,964	4,559,717	331,589	1,154,075	6,883,796
2	Cereals.....	dollars..	4,003,636	1,377,846	597,652	135,212	1,038,647	96,114	201,710	3,058,130
3	Other grains and seeds.....	dollars..	134,240	186,373	169,655	18,528	133,658	47,520	9,991	47,887
4	Hay and forage.....	dollars..	2,551,720	781,962	601,281	503,668	908,896	121,695	177,305	2,100,079
5	Vegetables.....	dollars..	2,492,803	1,414,508	445,909	232,190	2,190,369	50,447	743,251	1,129,049
6	Fruits.....	dollars..	683,799	2,116,718	45,145	15,089	181,731	9,043	20,200	504,622
7	All other crops.....	dollars..	6,108	11,430	8,610	277	46,416	770	2,218	44,029
SELECTED CROPS (acres harvested and production).										
8	Cereals:									
9	Total.....	acres..	122,177	50,462	22,885	5,965	42,798	5,322	10,703	100,840
10	Corn.....	bushels..	2,980,127	910,439	472,898	122,037	738,100	76,650	147,380	1,993,443
11	Oats.....	acres..	28,701	15,795	3,275	7	10,378	495	1,270	25,093
12	Wheat.....	bushels..	1,166,415	491,479	132,305	160	357,080	17,499	43,400	576,800
13	Barley.....	acres..	41,349	10,528	8,958	3,656	12,535	2,335	3,095	28,291
14	Rye.....	bushels..	1,030,719	128,580	195,126	91,616	159,727	35,184	36,778	576,823
15	Buckwheat.....	acres..	16,403	8,072	1,079	1,608	3,561	671	685	26,663
16	Barley.....	bushels..	290,533	130,516	23,593	17,620	51,475	6,202	6,384	603,922
17	Rye.....	acres..	6,639	2,918	1,515	472	885	211	83	1,993
18	Buckwheat.....	bushels..	95,325	2,618	20,904	8,908	9,662	2,507	731	26,957
19	Barley.....	acres..	27,846	14,430	6,587	150	14,012	1,341	5,294	18,608
20	Rye.....	bushels..	369,400	150,250	87,164	2,280	141,612	12,394	56,052	206,308
21	Buckwheat.....	acres..	773	503	429	29	846	170	253	160
22	Other grains and seeds:									
23	Dry edible beans.....	acres..	2,222	3,973	1,449	7	2,288	68	86	1,022
24	Soy beans.....	bushels..	24,149	44,789	18,356	123	26,984	794	908	8,665
25	Dry peas.....	acres..	264	75	23	-----	48	-----	22	36
26	Hay and forage:									
27	Total.....	acres..	87,587	34,326	22,209	15,235	43,344	5,256	9,797	78,091
28	All tame or cultivated grasses.....	tons..	183,230	55,438	32,410	20,502	63,302	6,593	11,029	150,892
29	Timothy alone.....	acres..	65,052	22,101	19,512	14,826	31,856	4,198	7,523	45,684
30	Timothy and clover mixed.....	acres..	62,997	18,002	19,758	19,789	25,359	3,720	4,798	49,993
31	Clover alone.....	acres..	19,721	5,899	713	218	5,250	312	1,254	18,934
32	Alfalfa.....	tons..	19,032	4,372	717	266	4,048	250	584	19,773
33	Other tame or cultivated grasses.....	acres..	41,605	12,840	18,074	14,540	24,719	3,451	5,004	24,642
34	Wild, salt, or prairie grasses.....	tons..	38,250	9,832	18,008	19,382	19,539	2,895	3,170	27,908
35	Small grains cut for hay.....	acres..	1,565	642	367	68	1,132	317	421	833
36	Annual legumes cut for hay.....	tons..	1,726	593	384	91	929	418	823	950
37	Silage crops.....	acres..	1,708	1,838	230	-----	437	52	237	317
38	Corn cut for forage.....	tons..	2,808	2,615	407	-----	470	77	277	459
39	Kafir, sorghum, etc., for forage.....	acres..	1,003	884	128	-----	318	66	607	958
40	Root crops for forage.....	tons..	1,151	1,230	242	-----	373	80	444	903
41	Vegetables:									
42	Potatoes (Irish or white).....	acres..	11,144	6,584	1,896	876	8,321	252	3,940	4,720
43	Other vegetables.....	bushels..	1,037,021	600,493	182,872	79,322	1,002,240	19,227	349,878	239,643
44	Miscellaneous crops:									
45	Sugar beets grown for sugar.....	acres..	697	967	41	12	173	3	23	2,311
46	Maple trees tapped.....	acres..	14	-----	66	-----	320	1	-----	313
47	Maple sugar made.....	tons..	100	-----	503	-----	1,855	8	-----	3,058
48	Maple sirup made.....	pounds..	4,958	15,103	945	335	13,912	1,070	2,710	10,737
49	Maple sirup made.....	gallons..	54	576	10	34	308	-----	-----	617
50	Maple sirup made.....	gallons..	1,152	3,924	253	71	3,902	233	792	3,060
FRUITS.										
51	Small fruits:									
52	Total.....	acres..	276	412	9	7	120	-----	10	730
53	Strawberries.....	quarts..	347,200	542,599	3,626	10,282	39,527	-----	7,190	735,132
54	Raspberries.....	acres..	100	142	8	6	31	-----	10	321
55	Orchard fruits:									
56	Total.....	quarts..	183,247	169,654	3,163	9,885	10,825	-----	7,190	476,254
57	Apples.....	acres..	111	101	1	-----	86	-----	-----	325
58	Peaches.....	quarts..	110,058	77,786	303	-----	17,602	-----	-----	200,520
59	Pears.....	acres..	164,542	174,429	6,529	7,149	19,866	2,937	3,226	62,385
60	Plums and prunes.....	acres..	342,988	558,730	26,247	6,515	63,388	6,460	11,302	157,518
61	Cherries.....	bushels harvested..	287,473	925,287	21,581	6,581	86,515	4,421	9,359	126,895
62	Apples.....	acres..	122,367	78,808	5,058	6,532	15,824	2,354	2,710	87,957
63	Peaches.....	acres..	256,905	189,013	23,054	6,145	55,049	5,982	10,510	98,167
64	Pears.....	bushels harvested..	248,436	720,359	20,083	6,497	82,892	4,257	9,136	93,283
65	Plums and prunes.....	acres..	19,975	29,250	13	-----	16	-----	-----	9,100
66	Cherries.....	acres..	39,848	202,799	10	-----	16	-----	-----	17,354
67	Apples.....	bushels harvested..	15,779	116,226	-----	-----	2	-----	-----	6,535
68	Pears.....	acres..	8,673	7,396	376	38	375	82	37	6,187
69	Plums and prunes.....	acres..	18,404	16,941	1,067	3	1,288	85	45	19,272
70	Cherries.....	bushels harvested..	14,332	13,882	849	-----	1,196	31	17	13,206
71	Apples.....	acres..	10,093	13,630	470	383	624	212	182	4,852
72	Peaches.....	acres..	15,400	52,524	838	242	1,345	132	325	11,317
73	Pears.....	bushels harvested..	7,644	40,477	192	60	723	42	66	11,033
74	Cherries.....	acres..	3,439	45,255	612	196	3,027	289	291	4,289
75	Plums and prunes.....	acres..	12,431	97,453	1,278	125	5,086	261	422	11,406
76	Cherries.....	bushels harvested..	1,282	34,313	457	24	700	91	120	2,858
77	Grapes.....	vines not of bearing age..	5,677	392	216	-----	430	58	-----	43,036
78	Vines of bearing age.....	acres..	33,998	12,096	2,561	1	2,087	193	-----	288,187
79	Pounds harvested.....	pounds..	396,891	82,882	7,151	4	20,005	573	-----	1,865,634

AND PRODUCTION OF PRINCIPAL CROPS: 1919—Continued.

Presque Isle.	Rosecom-mon.	Saginaw.	St. Clair.	St. Joseph.	Sanilac.	School-craft.	Shiawassee.	Tuscola.	Van Buren.	Wash-tenaw.	Wayne.	Wexford.	
1,565,248	194,861	11,667,121	7,576,579	5,221,998	12,466,494	468,597	8,782,304	13,070,798	9,286,211	9,505,001	7,107,520	2,326,073	1
287,227	57,646	4,993,175	3,520,453	3,490,538	4,722,680	64,573	4,176,909	4,733,373	3,017,589	5,296,810	3,029,326	613,588	2
95,253	6,025	1,478,198	151,717	102,995	909,628	8,175	840,092	1,599,931	46,462	63,060	6,725	16,896	3
473,187	63,220	2,526,426	3,095,168	1,105,676	5,365,407	164,455	2,400,903	2,755,706	1,693,781	3,084,311	1,892,569	389,025	4
659,555	63,977	901,459	587,917	444,443	642,254	213,201	483,827	1,620,081	1,207,657	847,180	1,011,048	1,235,382	5
46,701	3,970	88,652	97,127	56,090	221,637	18,087	71,518	95,410	3,168,512	205,349	236,745	68,781	6
325	14	1,876,216	124,197	22,256	604,888	106	795,055	2,265,688	152,210	9,191	41,107	5,402	7
17,187	3,073	119,217	120,025	126,989	155,492	3,578	107,772	122,470	105,387	137,142	83,897	26,384	8
239,954	42,092	3,908,694	2,680,886	2,260,519	4,079,701	62,327	2,967,870	3,597,168	1,989,769	3,674,155	2,143,926	406,691	9
362	408	32,784	17,135	43,470	10,710	7	23,891	26,703	36,607	34,534	24,076	8,996	10
12,079	12,773	1,360,148	536,521	1,074,445	503,310	375	1,021,378	1,251,532	960,672	1,350,036	891,428	244,393	11
8,403	941	48,989	54,771	18,112	98,095	2,451	32,602	49,604	22,103	38,828	26,646	2,654	12
143,062	10,336	1,819,334	1,334,925	286,393	2,542,920	47,248	1,013,178	1,444,983	852,729	1,094,829	701,448	21,983	13
3,910	168	21,840	29,163	24,035	23,554	407	27,717	18,652	19,888	33,284	19,802	2,327	14
31,810	1,791	461,240	523,866	388,375	438,348	4,093	549,571	428,046	358,010	704,883	373,407	20,144	15
1,486	48	9,435	6,565	1,258	18,019	490	8,853	13,264	1,536	9,077	2,545	53	16
20,218	476	188,014	112,529	14,997	377,296	7,640	148,505	260,813	18,069	160,644	46,659	371	17
2,831	1,388	5,518	10,195	38,611	9,984	54	13,777	12,813	24,456	21,961	9,028	11,760	18
30,171	15,655	71,068	128,158	476,579	142,521	580	221,304	189,601	290,234	334,937	114,508	109,749	19
103	68	5,521	1,152	1,399	780	53	556	1,020	627	1,019	1,059	242	20
1,075	653	5,326	19,124	18,048	10,282	1,069	7,998	14,010	7,149	14,349	12,958	2,631	21
116	56	22,995	1,646	411	9,126	9	13,070	19,620	320	433	152	432	22
1,421	577	334,143	22,654	2,413	148,512	158	176,773	355,082	2,583	3,409	1,130	2,944	23
34	7	473	79	150	510	-----	244	405	29	26	15	3	24
254	1	8,428	925	993	7,180	-----	3,230	5,704	249	242	83	23	25
1,504	46	4,482	139	68	2,579	253	356	730	30	28	4	71	26
16,155	685	5,527	2,087	505	25,089	2,504	4,894	10,704	175	277	83	589	27
17,925	3,573	84,668	110,288	61,671	161,767	6,753	66,010	84,706	65,914	95,296	60,454	18,914	28
21,073	3,265	184,010	161,909	71,354	281,559	7,175	136,216	163,865	105,650	208,004	130,838	27,087	29
16,954	2,516	66,664	98,805	32,369	144,885	6,266	54,395	72,768	39,856	66,556	41,572	11,237	30
17,649	1,792	83,885	104,265	26,907	181,676	5,981	76,293	84,465	44,890	78,360	46,282	8,376	31
390	568	12,421	24,013	7,933	17,248	158	8,335	14,548	18,142	34,637	16,325	3,058	32
443	358	16,382	25,566	5,459	22,467	100	11,631	17,946	15,114	38,392	18,042	3,457	33
16,065	1,709	51,052	70,700	16,101	124,706	6,050	41,416	54,568	20,477	23,919	20,382	5,401	34
16,479	1,185	63,440	73,997	13,212	155,175	5,831	58,356	62,169	22,305	28,300	22,525	2,818	35
352	173	1,850	1,000	5,297	1,881	35	3,364	1,604	3,142	2,671	778	442	36
490	134	2,310	2,257	4,326	2,400	37	4,022	1,808	3,270	3,182	881	200	37
117	3	483	221	2,605	1,993	-----	553	963	1,724	3,962	1,022	1,280	38
182	4	944	307	3,501	312	-----	1,108	1,530	2,545	6,906	3,004	968	39
30	63	858	2,271	563	857	23	227	1,077	1,371	1,467	1,665	1,050	40
55	111	809	2,138	409	1,322	13	276	1,012	1,626	1,580	1,280	873	41
21	163	818	321	1,346	262	67	361	148	914	3,466	386	210	42
27	221	929	294	1,641	310	34	468	261	931	8,998	280	141	43
111	453	245	274	1,029	163	183	41	244	2,826	325	398	2,536	44
73	286	177	242	564	182	107	62	265	2,967	296	471	1,092	45
65	13	62	23	220	43	-----	20	35	200	518	59	30	46
82	12	64	22	175	65	32	32	38	163	684	73	25	47
414	40	6,351	5,984	3,780	9,953	17	5,262	7,725	6,465	14,859	9,320	1,617	48
2,382	233	55,534	47,170	22,753	84,570	215	48,335	72,155	40,376	107,404	67,996	12,109	49
245	340	9,724	4,793	22,893	6,282	22	5,851	3,581	15,398	9,558	8,424	3,234	50
468	573	16,087	9,566	19,300	13,783	40	10,723	5,732	15,425	17,208	14,000	5,197	51
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	52
115	48	804	88	4	179	198	80	215	205	14	295	50	53
392	148	8,234	350	14	973	768	303	949	928	54	1,731	147	54
3,176	326	3,649	2,462	3,050	2,185	996	1,773	6,860	4,746	2,894	5,652	6,094	56
278,064	24,580	277,737	156,264	139,352	178,963	93,463	151,885	670,023	345,467	263,112	324,933	558,804	57
8	9	1,325	403	489	1,758	27	198	281	2,311	605	6,091	831	58
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	59
618	50	11,651	1,200	5,377	5,777	-----	7,218	17,071	23	18	337	-----	60
1	-----	118,864	10,242	51,757	67,855	-----	67,855	195,684	187	187	3,354	-----	61
116	5	2,429	11,653	6,197	18,068	200	18,068	24,071	21,698	7,515	3,795	6,904	62
-----	-----	-----	5	161	437	-----	643	3,987	3,987	159	-----	302	63
-----	-----	429	2,200	1,942	4,393	88	4,393	5,313	4,961	2,082	842	1,767	63
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	64
1	8	279	229	120	514	6	135	110	1,183	242	431	34	64
1,024	2,810	274,918	194,036	106,653	474,452	3,648	120,531	78,955	1,555,895	230,379	604,837	24,331	65
1	0	121	83	75	43	5	48	41	595	103	211	30	66
804	2,021	199,767	114,954	80,997	41,668	2,548	72,741	38,461	1,086,356	142,309	416,859	23,164	67
-----	-----	145	98	35	390	-----	67	53	431	91	146	2	68
60	789	65,614	59,353	19,169	345,768	-----	39,064	30,669	306,452	56,151	126,670	670	69
16,931	6,883	22,475	17,059	22,921	10,536	4,047	11,898	14,632	261,856	60,205	57,774	12,607	70
34,010	10,533	116,957	157,138	30,542	192,647	9,134	104,504	173,056	567,443	152,690	77,515	41,886	71
22,471	1,871	5,685	25,810	11,144	63,462	8,676	18,767	33,993	435,131	64,484	43,370	30,891	72
14,828	6,584	17,237	11,590	10,462	6,474	3,687	7,563	10,855	143,780	44,057	32,757	8,995	73
26,477	10,240	93,926	126,501	18,797	154,581	8,428	83,461	147,691	208,542	98,651	36,263	31,336	74
20,498	1,593	6,353	15,228	7,418	37,734	8,641	11,809	25,927	321,249	47,056	28,301	29,027	75
18	-----	1,755	8,825	7,797	7,797	-----	1,635	1,068	72,719	13,466	11,180	265	76
7	-----	1,223	5,539	2,215	6,338	-----	4,059	4,419	187,251	21,892	16,592	179	77
454	31	1,116	836	1,680	1,546	-----	1,227	698	4,141	4,238	3,960	3	78
873	38	1,510	1,637	789	1,546	-----	555	1,123	25,067	3,041	5,933	943	79
408	18	5,912	10,910	2,330	13,296	-----	5,484	7,902	107,763	12,151	10,005	833	80
703	126	2,578	8,060	1,635	8,627	-----	4,686	5,555	33,436	8,736	7,722	314	81
1,944	150	1,526	1,099	891	921	50	888	606	4,091	2,292	4,614	462	82
901	24	3,607	5,629	1,351	6,802	22	3,785	3,714	12,564	7,037	5,579	1,028	83
928	132	238	1,252	196	2,350	-----	413	1,079	5,764	2,190	1,128	390	84
1,698	155	1,853	978	1,954	798	310	1,257	1,080	15,699	3,359	3,310	1,942	85
657	36	7,289	8,559	5,849	11,630	684	7,715	9,330	51,265	12,967			

COUNTY TABLE V.—MORTGAGE DEBT, 1920; AND EXPENDITURES FOR LABOR, FERTILIZER, AND FEED, 1919.

	THE STATE.	Alcona.	Alger.	Allegan.	Alpena.	Antrim.	Arenac.	Baraga.	Barry.
<b>MORTGAGE DEBT REPORTS: 1920.</b>									
For all farms operated by owners:									
1 Number free from mortgage debt.....	72,869	356	142	2,187	603	563	428	281	1,345
2 Number with mortgage debt.....	78,783	468	194	2,479	539	691	776	283	1,260
3 Number with no mortgage report.....	7,779	16	43	159	43	45	50	41	33
For farms consisting of owned land only:									
4 Number of farms reporting amount of debt.....	67,119	419	189	2,156	514	580	656	270	1,052
5 Value of land and buildings.....dollars..	420,108,166	1,611,650	603,575	11,817,025	1,754,175	2,153,245	2,675,425	1,199,935	6,217,805
6 Amount of mortgage debt.....dollars..	144,103,067	460,372	182,734	4,555,865	508,488	619,545	1,030,286	274,985	2,297,146
7 Ratio of debt to value.....per cent..	34.3	28.3	30.3	38.6	29.0	28.8	38.5	22.9	36.9
8 Average rate of interest paid.....per cent..	6.0	6.6	5.9	5.8	6.6	6.4	6.6	5.9	5.8
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>									
Labor:									
9 Farms reporting.....number..	102,431	389	119	2,812	584	627	711	342	1,841
10 Total expenditure.....dollars..	31,944,861	98,644	28,389	764,906	120,407	152,401	198,535	96,069	408,466
11 Amount in cash.....dollars..	24,875,549	74,538	25,337	596,903	91,025	119,858	165,970	68,714	308,858
12 Value of rent and board furnished.....dollars..	7,069,312	24,106	3,052	168,003	28,482	32,543	42,565	27,355	99,608
Fertilizer:									
13 Farms reporting.....number..	65,782	12	10	2,132	70	120	71	23	649
14 Amount expended.....dollars..	4,872,543	743	263	131,530	2,395	4,967	4,363	1,099	75,050
Feed:									
15 Farms reporting.....number..	111,191	424	153	4,150	443	929	577	448	1,959
16 Amount expended.....dollars..	21,938,870	48,063	25,760	882,299	103,904	121,809	64,591	67,201	352,697
	Bay.	Benzie.	Berrien.	Branch.	Calhoun.	Cass.	Charlevoix.	Cheboygan.	Chippewa.
<b>MORTGAGE DEBT REPORTS: 1920.</b>									
For all farms operated by owners:									
1 Number free from mortgage debt.....	1,231	409	2,178	1,324	1,315	1,001	598	583	568
2 Number with mortgage debt.....	1,564	423	2,204	892	1,243	744	541	483	655
3 Number with no mortgage report.....	46	34	150	151	94	48	11	36	205
For farms consisting of owned land only:									
4 Number of farms reporting amount of debt.....	1,364	327	1,857	867	1,041	603	446	442	547
5 Value of land and buildings.....dollars..	7,962,470	1,043,790	13,072,400	6,477,640	7,532,125	4,184,800	1,581,715	1,439,077	3,012,400
6 Amount of mortgage debt.....dollars..	2,929,481	300,242	4,711,807	2,345,366	2,880,742	1,379,803	440,316	346,686	1,003,906
7 Ratio of debt to value.....per cent..	36.8	28.8	36.0	36.2	38.2	33.0	27.8	24.1	33.3
8 Average rate of interest paid.....per cent..	6.0	6.4	6.0	5.7	5.8	6.0	6.4	6.2	6.6
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>									
Labor:									
9 Farms reporting.....number..	1,777	458	3,183	1,532	2,245	1,328	571	473	1,022
10 Total expenditure.....dollars..	542,194	120,837	1,436,286	397,850	665,798	450,353	186,768	124,068	242,634
11 Amount in cash.....dollars..	435,579	107,114	1,219,006	314,252	485,635	354,626	150,300	110,995	184,675
12 Value of rent and board furnished.....dollars..	106,615	13,723	217,280	83,598	180,163	95,727	36,458	13,668	57,959
Fertilizer:									
13 Farms reporting.....number..	863	75	2,296	817	477	375	206	58	20
14 Amount expended.....dollars..	78,462	5,269	225,884	54,705	36,714	58,106	10,718	3,133	1,668
Feed:									
15 Farms reporting.....number..	1,249	612	3,693	1,977	2,284	1,523	751	640	648
16 Amount expended.....dollars..	176,459	96,078	785,528	426,559	549,331	360,291	102,684	89,285	84,378
	Clare.	Clinton.	Crawford.	Delta.	Dickinson.	Eaton.	Emmet.	Genesee.	Gladwin.
<b>MORTGAGE DEBT REPORTS: 1920.</b>									
For all farms operated by owners:									
1 Number free from mortgage debt.....	357	1,124	115	636	238	1,275	574	1,105	322
2 Number with mortgage debt.....	673	1,267	60	593	146	1,500	608	1,385	875
3 Number with no mortgage report.....	18	131	2	103	22	74	16	194	60
For farms consisting of owned land only:									
4 Number of farms reporting amount of debt.....	545	973	56	571	141	1,230	520	1,110	737
5 Value of land and buildings.....dollars..	2,202,306	8,873,600	155,650	2,570,400	683,920	9,317,110	1,545,200	9,871,585	3,455,710
6 Amount of mortgage debt.....dollars..	774,805	3,068,675	40,340	790,792	227,220	3,267,195	483,671	3,102,596	1,203,158
7 Ratio of debt to value.....per cent..	35.2	34.6	25.9	30.8	33.2	35.1	31.6	31.4	34.8
8 Average rate of interest paid.....per cent..	6.6	5.7	6.4	6.0	5.6	5.8	6.4	6.0	6.7
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>									
Labor:									
9 Farms reporting.....number..	614	2,218	65	544	231	1,840	515	1,956	670
10 Total expenditure.....dollars..	137,960	650,750	33,976	145,856	95,222	498,937	113,298	730,072	143,275
11 Amount in cash.....dollars..	102,155	486,590	27,450	108,367	77,974	380,343	95,383	549,728	105,313
12 Value of rent and board furnished.....dollars..	35,805	164,160	6,516	37,489	17,248	118,594	17,915	180,344	37,962
Fertilizer:									
13 Farms reporting.....number..	38	1,764	11	92	16	2,182	147	2,518	74
14 Amount expended.....dollars..	2,075	94,427	712	6,708	684	128,732	7,138	194,078	8,173
Feed:									
15 Farms reporting.....number..	660	1,629	129	816	260	1,824	780	1,668	734
16 Amount expended.....dollars..	81,489	281,871	43,156	151,106	60,423	282,140	120,351	311,118	88,273



COUNTY TABLE V.—MORTGAGE DEBT, 1920; AND EXPENDITURES FOR LABOR, FERTILIZER, AND FEED, 1919—Contd.

		Gogebio.	Grand Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.
<b>MORTGAGE DEBT REPORTS: 1920.</b>										
1	For all farms operated by owners:									
2	Number free from mortgage debt.....	252	711	1,051	1,496	640	1,830	1,238	1,010	338
3	Number with mortgage debt.....	208	768	1,679	1,399	583	2,055	1,147	1,179	441
4	Number with no mortgage report.....	62	47	164	100	57	124	115	186	40
5	For farms consisting of owned land only:									
6	Number of farms reporting amount of debt.....	203	610	1,295	1,132	539	1,767	887	907	368
7	Value of land and buildings.....dollars..	979,825	2,816,920	11,285,008	8,089,515	2,347,000	12,899,700	6,903,092	8,028,120	1,499,675
8	Amount of mortgage debt.....dollars..	274,806	872,634	3,515,032	3,008,201	746,824	4,668,448	2,585,033	2,751,255	470,020
9	Ratio of debt to value.....per cent..	28.0	31.0	31.1	37.2	31.8	36.2	37.4	34.3	31.9
10	Average rate of interest paid.....per cent..	6.1	6.5	6.1	5.7	6.0	6.3	5.8	5.8	6.3
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>										
11	Labor:									
12	Farms reporting.....number..	198	1,028	2,479	1,021	744	2,334	2,198	2,032	441
13	Total expenditure.....dollars..	68,782	333,395	807,884	436,025	189,234	758,629	621,624	766,299	137,969
14	Amount in cash.....dollars..	54,543	260,228	642,055	325,728	148,983	598,340	489,177	566,246	111,337
15	Value of rent and board furnished.....dollars..	14,239	73,167	165,829	110,297	40,251	160,289	132,447	200,053	26,632
16	Fertilizer:									
17	Farms reporting.....number..	18	183	1,960	1,872	92	2,194	1,381	1,290	71
18	Amount expended.....dollars..	2,814	10,033	118,091	99,583	10,937	131,566	60,962	100,812	6,025
19	Feed:									
20	Farms reporting.....number..	460	1,112	1,929	2,660	1,225	1,631	1,747	1,788	439
21	Amount expended.....dollars..	102,103	246,498	259,380	664,533	203,119	198,658	368,184	439,046	78,074

		Iron.	Isabella.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Lake.	Lapeer.
<b>MORTGAGE DEBT REPORTS: 1920.</b>										
1	For all farms operated by owners:									
2	Number free from mortgage debt.....	365	1,127	1,360	1,106	300	1,890	11	310	1,266
3	Number with mortgage debt.....	194	1,539	1,130	1,129	379	2,352	6	206	1,413
4	Number with no mortgage report.....	38	60	187	128	11	209	4	43	72
5	For farms consisting of owned land only:									
6	Number of farms reporting amount of debt.....	182	1,297	991	891	317	2,036	6	252	1,191
7	Value of land and buildings.....dollars..	790,000	7,877,910	7,283,545	6,186,511	1,016,180	13,079,467	33,100	1,080,525	9,127,795
8	Amount of mortgage debt.....dollars..	197,518	2,598,002	2,498,513	2,107,409	254,686	4,800,489	4,806	287,822	3,056,017
9	Ratio of debt to value.....per cent..	25.0	33.0	34.4	34.1	25.1	37.2	14.5	27.1	33.5
10	Average rate of interest paid.....per cent..	6.0	6.4	5.7	6.0	6.5	5.9	6.4	6.4	6.0
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>										
11	Labor:									
12	Farms reporting.....number..	304	1,976	1,914	1,688	424	2,576	27	287	2,075
13	Total expenditure.....dollars..	88,252	475,488	700,368	572,092	96,127	830,678	5,819	58,060	571,187
14	Amount in cash.....dollars..	69,774	366,865	522,796	441,525	82,341	634,228	4,859	47,258	406,077
15	Value of rent and board furnished.....dollars..	18,478	108,623	177,572	130,567	13,786	196,350	960	11,702	165,110
16	Fertilizer:									
17	Farms reporting.....number..	27	641	401	737	37	1,270	9	24	1,873
18	Amount expended.....dollars..	1,879	35,770	34,248	78,007	2,638	160,799	226	2,962	155,858
19	Feed:									
20	Farms reporting.....number..	418	1,483	2,270	2,100	604	3,774	52	423	1,680
21	Amount expended.....dollars..	74,411	178,867	550,384	469,708	114,124	754,135	8,953	89,629	233,609

		Leelanau.	Lenawee.	Livingston.	Luce.	Mackinac.	Macomb.	Manistee.	Marquette.	Mason.
<b>MORTGAGE DEBT REPORTS: 1920.</b>										
1	For all farms operated by owners:									
2	Number free from mortgage debt.....	645	1,584	899	104	238	1,394	631	400	582
3	Number with mortgage debt.....	483	1,648	971	74	139	1,348	677	216	1,055
4	Number with no mortgage report.....	91	241	204	5	70	103	58	133	114
5	For farms consisting of owned land only:									
6	Number of farms reporting amount of debt.....	423	1,374	839	69	126	1,189	553	207	906
7	Value of land and buildings.....dollars..	1,768,500	14,311,995	6,187,652	249,660	419,680	10,409,740	1,964,125	661,250	4,205,575
8	Amount of mortgage debt.....dollars..	621,570	5,174,384	2,147,011	73,650	125,975	3,638,238	637,843	206,227	1,543,222
9	Ratio of debt to value.....per cent..	35.1	36.2	34.7	29.5	30.0	35.0	32.5	29.8	36.7
10	Average rate of interest paid.....per cent..	6.1	5.7	5.4	6.5	6.2	5.8	6.1	6.0	6.1
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>										
11	Labor:									
12	Farms reporting.....number..	743	3,045	1,611	80	207	1,672	778	324	958
13	Total expenditure.....dollars..	219,828	949,680	544,955	34,053	50,266	902,742	192,309	63,022	265,988
14	Amount in cash.....dollars..	168,376	716,165	400,893	26,049	49,016	698,735	151,842	71,369	201,602
15	Value of rent and board furnished.....dollars..	51,452	233,515	144,062	8,004	9,350	204,007	40,467	21,653	65,386
16	Fertilizer:									
17	Farms reporting.....number..	377	3,017	382	5	6	2,672	57	57	99
18	Amount expended.....dollars..	21,895	204,829	30,524	500	692	330,618	4,364	3,519	6,446
19	Feed:									
20	Farms reporting.....number..	780	3,315	1,533	84	265	2,282	971	690	1,117
21	Amount expended.....dollars..	92,881	968,464	387,504	14,121	41,892	541,352	148,144	176,109	205,841

COUNTY TABLE V.—MORTGAGE DEBT, 1920; AND EXPENDITURES FOR LABOR, FERTILIZER, AND FEED, 1919—Contd.

	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.	Montcalm.	Montmorency.	Muskegon.	Newaygo.	Oakland.
<b>MORTGAGE DEBT REPORTS: 1920.</b>										
<b>For all farms operated by owners:</b>										
1 Number free from mortgage debt.....	907	741	710	393	1,489	1,554	162	874	993	1,299
2 Number with mortgage debt.....	1,252	1,136	1,003	758	1,520	1,899	217	815	1,289	1,134
3 Number with no mortgage report.....	53	141	60	38	219	191	9	73	131	355
<b>For farms consisting of owned land only:</b>										
4 Number of farms reporting amount of debt...	1,057	1,086	857	641	1,251	1,594	194	719	1,096	980
5 Value of land and buildings.....dollars..	4,264,440	4,807,270	4,180,730	2,784,370	10,490,731	8,407,718	732,370	3,049,375	4,708,448	9,694,072
6 Amount of mortgage debt.....dollars..	1,462,949	1,645,049	1,365,703	980,440	3,832,300	3,020,951	177,087	1,112,246	1,680,040	2,876,423
7 Ratio of debt to value.....per cent..	34.3	34.2	32.7	34.5	36.5	35.9	24.2	36.5	35.7	29.7
8 Average rate of interest paid.....per cent..	6.3	6.1	6.3	6.4	5.6	6.1	6.6	5.9	6.1	5.8
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>										
<b>Labor:</b>										
9 Farms reporting.....number..	1,310	806	959	615	1,892	2,433	188	806	1,170	3,163
10 Total expenditure.....dollars..	265,063	268,743	213,655	134,999	598,899	575,546	56,417	238,277	250,373	1,594,905
11 Amount in cash.....dollars..	204,770	215,683	165,570	100,812	444,949	444,912	44,735	190,084	197,485	1,241,684
12 Value of rent and board furnished.....dollars..	60,293	51,060	48,085	28,187	153,950	130,634	11,682	48,213	52,888	353,221
<b>Fertilizer:</b>										
13 Farms reporting.....number..	110	410	330	81	3,161	531	15	534	423	1,940
14 Amount expended.....dollars..	4,638	15,513	14,709	4,836	233,449	18,996	1,032	33,981	20,784	131,118
<b>Feed:</b>										
15 Farms reporting.....number..	1,313	1,199	1,007	848	2,236	2,331	179	1,438	1,047	2,558
16 Amount expended.....dollars..	201,105	183,404	90,218	124,488	359,640	303,480	26,710	370,023	208,049	877,017

	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Roscommon.	Saginaw.
<b>MORTGAGE DEBT REPORTS: 1920.</b>										
<b>For all farms operated by owners:</b>										
1 Number free from mortgage debt.....	830	364	344	875	101	238	1,776	540	132	1,920
2 Number with mortgage debt.....	976	716	521	1,052	138	266	1,984	422	95	2,215
3 Number with no mortgage report.....	147	21	25	97	14	9	84	56	2	265
<b>For farms consisting of owned land only:</b>										
4 Number of farms reporting amount of debt...	815	607	502	915	126	206	1,902	394	80	1,044
5 Value of land and buildings.....dollars..	3,856,870	2,039,475	1,799,730	3,335,545	531,660	646,690	11,014,615	1,203,335	251,970	13,120,338
6 Amount of mortgage debt.....dollars..	1,184,391	717,253	607,011	1,180,021	120,918	209,628	4,277,799	369,763	64,244	4,342,494
7 Ratio of debt to value.....per cent..	30.7	35.2	33.7	35.4	23.9	32.4	38.8	30.7	25.6	33.1
8 Average rate of interest paid.....per cent..	6.1	6.6	5.9	6.4	6.3	6.3	5.7	6.2	6.4	5.8
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>										
<b>Labor:</b>										
9 Farms reporting.....number..	1,313	646	454	1,152	112	338	1,593	281	75	2,796
10 Total expenditure.....dollars..	417,615	178,017	88,496	218,776	21,946	55,720	429,409	63,561	23,455	1,101,623
11 Amount in cash.....dollars..	343,485	153,232	73,899	181,271	16,699	49,333	315,197	52,638	17,956	854,282
12 Value of rent and board furnished.....dollars..	74,130	24,785	14,627	37,505	5,247	6,387	114,212	10,923	5,499	247,335
<b>Fertilizer:</b>										
13 Farms reporting.....number..	334	24	15	152	5	9	2,551	131	3	2,109
14 Amount expended.....dollars..	23,381	1,904	946	5,314	500	350	179,352	9,124	140	167,325
<b>Feed:</b>										
15 Farms reporting.....number..	1,662	461	654	1,316	186	403	3,570	359	169	2,212
16 Amount expended.....dollars..	266,015	102,208	105,582	168,527	49,409	75,575	1,016,854	33,196	25,761	325,214

	St. Clair.	St. Joseph.	Sanilac.	Schoolcraft.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.
<b>MORTGAGE DEBT REPORTS: 1920.</b>										
<b>For all farms operated by owners:</b>										
1 Number free from mortgage debt.....	1,926	917	1,831	134	1,325	1,674	1,865	1,807	1,347	665
2 Number with mortgage debt.....	1,432	627	2,207	183	1,086	2,003	1,730	1,248	1,127	703
3 Number with no mortgage report.....	50	132	156	39	97	134	91	161	203	46
<b>For farms consisting of owned land only:</b>										
4 Number of farms reporting amount of debt...	1,140	450	1,808	172	1,064	1,643	1,465	1,070	988	574
5 Value of land and buildings.....dollars..	3,198,090	3,369,935	12,031,195	734,375	9,218,040	11,804,950	8,270,267	9,802,531	9,671,283	1,587,000
6 Amount of mortgage debt.....dollars..	2,449,701	1,124,415	4,352,537	194,907	3,190,286	3,802,619	2,858,732	3,405,171	2,846,412	499,631
7 Ratio of debt to value.....per cent..	29.9	33.4	36.2	26.5	34.6	32.2	34.6	34.7	29.4	31.5
8 Average rate of interest paid.....per cent..	6.0	5.3	6.3	6.2	5.8	6.0	6.1	5.5	5.9	6.4
<b>FARM EXPENDITURES FOR LABOR, FERTILIZER, AND FEED: 1919.</b>										
<b>Labor:</b>										
9 Farms reporting.....number..	1,680	1,278	2,363	184	2,054	2,731	2,421	2,105	1,756	741
10 Total expenditure.....dollars..	419,502	332,824	531,898	57,562	612,623	984,002	845,503	1,090,421	808,073	102,862
11 Amount in cash.....dollars..	310,194	266,757	414,265	44,190	491,863	814,948	741,680	794,638	602,753	34,724
12 Value of rent and board furnished.....dollars..	109,308	66,067	117,633	13,372	120,760	169,054	103,823	295,783	205,320	18,138
<b>Fertilizer:</b>										
13 Farms reporting.....number..	2,987	478	2,987	71	1,758	2,945	1,049	2,050	2,625	91
14 Amount expended.....dollars..	182,151	44,699	156,185	5,046	112,370	182,638	98,113	244,841	222,310	1,819
<b>Feed:</b>										
15 Farms reporting.....number..	1,623	1,636	1,625	199	1,506	2,060	2,958	2,494	2,471	1,129
16 Amount expended.....dollars..	230,188	362,236	197,747	38,531	366,421	251,180	602,908	897,839	609,895	169,948

# DRAINAGE—MICHIGAN.

## INTRODUCTION.

The following pages present the statistics of drainage for Michigan collected at the census of 1920. The figures relate to conditions on January 1, 1920, except where indicated otherwise. Drainage work done by organized enterprises before 1897, when the present county drain law was enacted, is not included. No census of drainage has been taken heretofore, so there are no comparable figures for previous years. The data relate to the artificial drainage of land in farms, and of other land that ultimately will be used for agricultural purposes. The organized drainage enterprises may include areas of timber and other unim-

proved land not yet in farms. The statistics for drainage on farms were collected in the general census of agriculture, while the statistics for drainage enterprises were obtained in a special canvass of those enterprises. Since drainage on farms may be either inside or outside an organized enterprise, and the drains that each individual owner installs upon his own farm may be either supplemental to or entirely independent of the works installed by an enterprise, the figures for the two parts of the drainage census are presented separately.

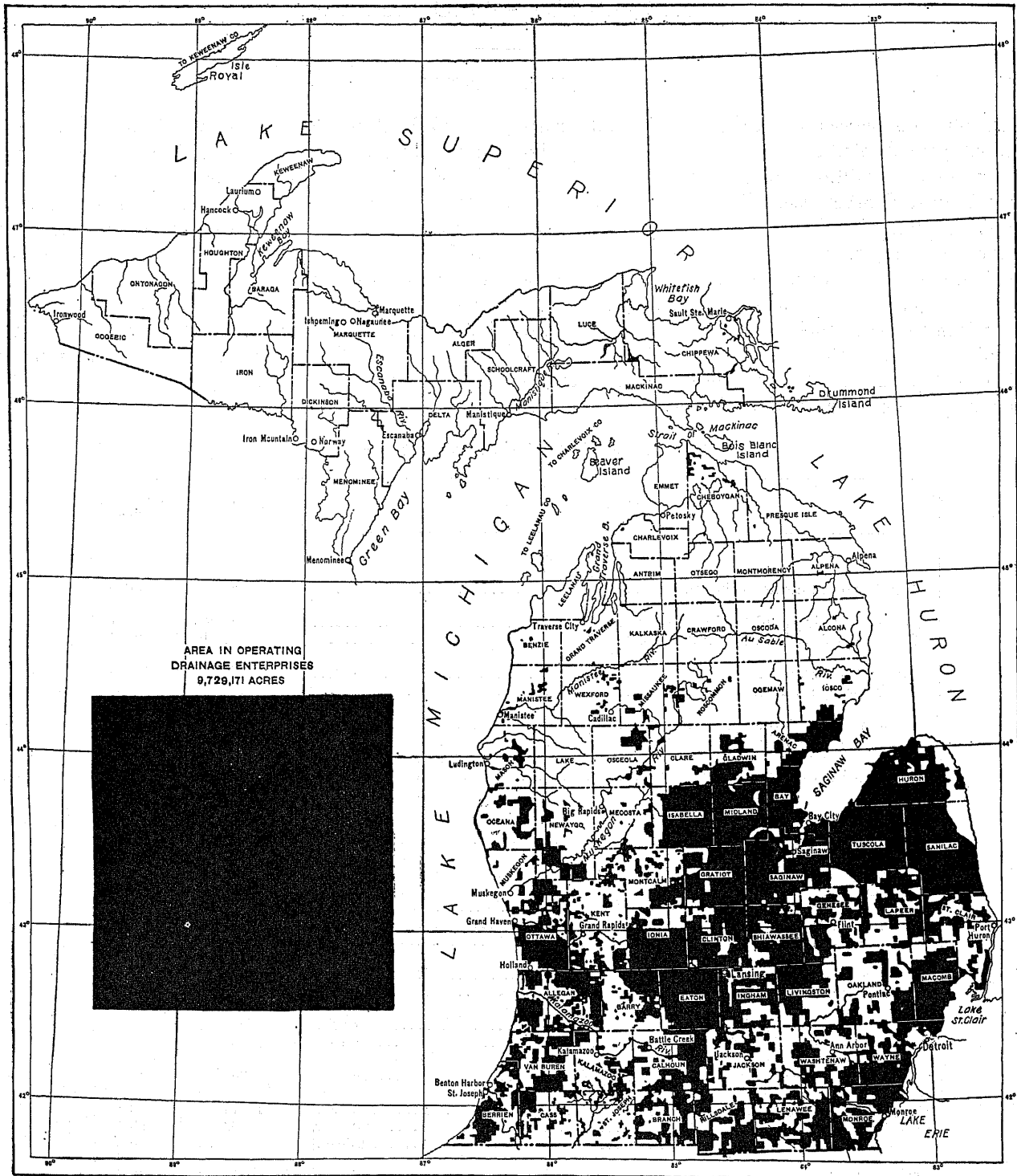
TABLE 1.—SUMMARY FOR THE STATE: 1920.

ITEM.	Amount.	Per cent of total.
<b>DRAINAGE ON FARMS.</b>		
Number of all farms in the state.....	196,447	100.0
Farms reporting land having drainage.....	66,948	34.1
Farms reporting land needing drainage.....	64,810	32.7
All land in farms.....acres..	19,032,961	100.0
Improved land in farms.....acres..	12,925,521	67.9
Farm land reported as provided with drainage.....acres..	3,156,632	16.6
Farm land reported as needing drainage.....acres..	2,070,387	10.9
Needing drainage only.....acres..	579,813	3.0
Needing drainage and clearing.....acres..	1,490,574	7.8
<b>DRAINAGE ENTERPRISES.</b>		
Approximate land area of the state.....acres..	36,787,200	100.0
All land in operating drainage enterprises.....acres..	9,729,171	26.4
Improved land.....acres..	7,182,352	19.5
Per cent of all improved land in farms.....	55.6	
Timber and cut-over land.....acres..	2,195,562	6.0
Other unimproved land.....acres..	351,257	1.0
Swampy, subject to overflow, seeped, or alkali.....acres..	1,020,207	2.8
Suffering a loss of crops from defective drainage.....acres..	692,224	1.9
Improved land prior to drainage.....acres..	2,046,613	5.6
Increase since drainage began.....acres..	5,135,739	14.0
Land in nonoperating enterprises.....acres..	25,508	( <sup>1</sup> )
Open ditches in operating enterprises.....miles..	16,142.2	100.0
Completed.....miles..	16,023.8	99.3
Additional under construction.....miles..	118.4	0.7
Tile drains in operating enterprises.....miles..	2,182.3	100.0
Completed.....miles..	2,173.9	99.6
Additional under construction.....miles..	8.4	0.4
Total capital invested in and required for completion of operating enterprises...	\$25,048,980	100.0
Capital invested in these enterprises to Dec. 31, 1919.....	24,683,715	98.5
Additional capital required to complete these enterprises.....	365,265	1.5
Average cost per acre when completed.....	2.57	

<sup>1</sup> Less than one-tenth of 1 per cent.

# MICHIGAN

APPROXIMATE LOCATION AND AREA OF OPERATING DRAINAGE ENTERPRISES.



## DRAINAGE ON FARMS.

**Explanation of terms.**—To secure uniformity in the returns relating to drainage on farms, the Bureau of the Census supplied its enumerators with certain definitions, which are substantially as follows:

**Drainage of agricultural land** was defined, for census purposes, as the act or process of drawing off an excess of water by underground conduits, pipes, or tiles, or by open or covered trenches in the surface of the ground, for the purpose of improving the condition of the soil and crops.

**The area provided with drainage**, in farms, is the acreage actually benefited or made of more value for agricultural purposes by artificial drainage, but does not include land on which only temporary work has been done, such as "bedding" the fields or laying out "dead furrows" to hasten the surface flow.

**The area needing drainage**, in farms, comprises the additional land not now suitable for crops which could be made available for cultivation (1) "by drainage only," which is the acreage needing no clearing or which is covered with grass, weeds, or other annual growth, and (2) "by drainage and clearing," which is the acreage covered with trees, stumps, or perennial woody shrubs.

**Improved land** in farms includes all land regularly tilled or mowed, land in pasture which has been cleared or tilled, land lying fallow, land in gardens, orchards, vineyards, and nurseries, and land occupied by farm buildings.

**Woodland** in farms includes all land covered with natural or planted forest trees which produce, or later may produce, firewood or other forest products.

**Farms in drainage and levee districts** are those for which the operators have answered affirmatively the question, "Has any part of this farm been afforded drainage or protection against overflow by a drainage or levee district, or by the state, the county, or a private company or individual." Levee districts, however, generally are not included in the enterprises for which data are given in this report (see definition of drainage enterprises, below).

**Farms and farm land.**—The acreage shown for drainage on farms represents land where drainage is actually in operation and which has actually become more fully available for growing crops by reason of the drainage. This is to be distinguished from the area merely provided with outlet facilities by organized drainage enterprises. Drainage on farms represents in most cases the result of work done by the farm owner, either independently or supplemental to the work done by a drainage enterprise, but the acreage would include also any farm land receiving similar benefits directly from the works of an enterprise.

## DRAINAGE ENTERPRISES.

**Explanation of terms.**—The more important terms used in connection with the census of drainage enterprises were defined as follows:

**Drainage enterprises** comprise public corporations and local improvement districts formed under state laws, commercial enterprises draining swamp or overflowed land for sale, other organizations that may be engaged in extensive land-drainage work, and also tracts of 500 acres or more drained by individual owners. Enterprises such as levee districts that have not authorized the construction of open ditches or tile drains are not included.

**Enterprises located in more than one county** were divided, for tabulation, and the part in each county treated as a separate enterprise, though the capacities of drainage pumping plants are given only in the counties in which the plants are located.

**Operating enterprises**, as designated in this bulletin, are those that had completed the drainage works authorized, or had at any rate begun actual construction work, on or before January 1, 1920; enterprises that had been established but had not begun construction are termed "nonoperating."

**Land in drainage enterprises** comprises the area that has been benefited or is to be benefited by the improvement works constructed by the enterprises. In the case of overlapping enterprises, deduction has been made for the amount of duplication.

All land in drainage enterprises is divided, without regard to drainage condition, into (a) improved land; (b) timber and cut-over land, which would require clearing to be thoroughly fit for cultivation; and (c) all other unimproved land, which would not require expensive clearing before cultivation.

**The assessed acreage** for any single enterprise is the same as the area in that enterprise. However, the total assessed acreage may be considerably greater than the total land in enterprises, for in summing up the assessed acreage in the county or state, deduction was not made for acreage assessed in more than one enterprise.

**Improved land** in drainage enterprises consists very largely of improved farm land, though it may include some other improved land receiving benefit from the works of the enterprises.

**Timber and cut-over land** includes farm woodland of natural or planted forest trees as well as other timber land or areas that would need clearing of trees, stumps, or perennial woody shrubs.

**Land designated as swampy or subject to overflow** includes all land permanently or generally too wet for cultivation, land subject to periodical inundation by stream floods, seeped and alkali land in irrigated regions, and all other land unfit for cultivation by reason of insufficient drainage. This classification is without respect to the conditions as to improvement or timber.

**The area suffering loss of crops** is intended to include only land devoted to planted crops which suffer damage, either partial or complete, because of defective drainage. Land which would be cultivated if drained or protected against overflow is not included.

**Capital invested**, for the purpose of this investigation, was defined as cost, including charges for engineering, organization, rights of way, construction of drainage works, damages, land and buildings except those held for sale or farming, and any other expenditures properly chargeable to drainage and paid by the enterprise.

**The drainage works** of an enterprise include all varieties of underground conduits, pipes, or lines of tile, or drains of stone, wood, or other material; also open ditches and canals, together with accessory levees, dikes, dams, weirs, pumping machinery, gates, and other devices for the draining away or control of surface and soil waters.

**Tile**, as the term is here used, includes pipes of earthenware, concrete, or other material buried beneath the surface in such a way as to permit the excess water to flow away. The size, if circular, is expressed by the inside diameter in inches.

**Ditches** include all open artificial trenches, usually with sloping sides. The width is that of the bottom.

**The type of drainage** shows whether the drainage water from an enterprise is discharged by gravity or by pumping.

**A pumping district** is one where all or a part of the water from the drains collecting at a low point must be raised by some form of machinery in order that it may be removed from the area.

**Drainage pumps** include all kinds of machinery and devices for lifting the drainage water.

**Pumping engines** include all kinds of engines and motors for operating the drainage pumps.

**Operating and nonoperating enterprises.**—In most of the tables that follow, statistics are given for operating enterprises only. These enterprises, as already defined, include both those which have completed their drainage works and those with such works under construction; among the latter may be some that had completed the original plan of reclamation several years ago but were constructing extensions or enlargements on January 1, 1920. The nonoperating enterprises have a legal existence. They may include those that on the census date had completed their plans, sold bonds to cover the cost of the undertaking, and let contracts for the construction work, and also others that had just been established and were still subject to considerable change in area, plan of drainage works, and cost.

TABLE 2.—LAND AND CAPITAL INVESTED IN ALL ENTERPRISES, CLASSIFIED AS BETWEEN OPERATING AND NONOPERATING ENTERPRISES: 1920.

CLASS.	LAND.		CAPITAL. <sup>1</sup>		
	Acreage.	Per cent of total.	To Dec. 31, 1919.		Additional required to complete.
			Amount.	Per cent of total.	
All organized enterprises.....	9,754,679	100.0	\$24,086,729	100.0	\$537,645
Operating enterprises.....	9,729,171	99.7	24,083,715	100.0	365,285
With works completed.....	9,511,555	97.5	24,100,929	97.6	.....
With works under construction.....	217,616	2.2	582,786	2.4	365,285
Nonoperating enterprises.....	25,508	0.3	3,014	(*)	172,380

<sup>1</sup> The inquiry asked for the "total cost of the enterprise to Dec. 31, 1919," and for an "estimate of additional investment to complete."

\* Less than one-tenth of 1 per cent.

**Location of enterprises.**—The drainage enterprises in Michigan are located almost entirely in the 47 southern counties which comprise approximately two-thirds of the southern peninsula. The division between the southern section in which a large part of the land has been included in drainage enterprises and the northern section where little drainage has been done is remarkably sharp, as shown by the map on page 2.

TABLE 3.—LAND AND CAPITAL INVESTED IN ALL ENTERPRISES, CLASSIFIED BY DRAINAGE BASIN: 1920.

DRAINAGE BASIN.	LAND.		CAPITAL.		
	Acreage.	Per cent of total.	To Dec. 31, 1919.		Additional required to complete.
			Amount.	Per cent of total.	
All organized enterprises.....	9,754,679	100.0	\$24,086,729	100.0	\$537,645
Operating enterprises.....	9,729,171	99.7	24,083,715	100.0	365,285
Lake Superior.....	18,424	0.2	66,731	0.3	.....
Lake Michigan.....	3,937,263	40.4	9,058,920	38.7	74,943
Lake Huron.....	4,133,145	42.4	11,948,569	48.4	221,174
Lake Erie.....	1,640,339	16.8	3,609,495	14.6	69,148
Nonoperating enterprises.....	25,508	0.3	3,014	( <sup>1</sup> )	172,380
Lake Michigan.....	17,755	0.2	2,532	( <sup>1</sup> )	80,620
Lake Huron.....	6,065	0.1	482	( <sup>1</sup> )	83,500
Lake Erie.....	1,688	( <sup>1</sup> )	.....	.....	8,260

<sup>1</sup> Less than one-tenth of 1 per cent.

**Condition of land in enterprises.**—The greater number of enterprises was reported as organized to reclaim or improve land that was swampy or too wet for profitable cultivation. The smaller number, located mainly in the southwestern part of the state, was reported as intended to secure relief for land subject to overflow by stream floods. Prior to undertaking the drainage improvements, approximately 21 per cent of the total area in drainage enterprises was improved land and 70 per cent timbered or cut-over, while about 49 per cent was reported as being then swampy, subject to overflow, or too wet for cultivation.

The usual purpose of an organized enterprise is merely to provide adequate outlets into which the landowners of the district may drain their farms and to afford relief from overflow for the district as a unit. Therefore, the fact that an enterprise which has completed the construction of the drainage works authorized contains land still swampy or subject to overflow, or land that suffers damage to crops, does not show that the drainage improvement works are inadequate.

TABLE 4.—LAND IN ALL ENTERPRISES, CLASSIFIED BY CONDITION: 1920.

CONDITION OF LAND.	OPERATING ENTERPRISES.				Non-operating enterprises (acres).
	Total.		Works completed (acres).	Works under construction (acres).	
	Acreage.	Per cent of all land.			
All land in enterprises.....	9,729,171	100.0	9,511,555	217,616	25,508
Improved land.....	7,182,352	73.8	7,015,644	166,708	8,245
Timber and cut-over land.....	2,195,592	22.6	2,149,652	45,910	15,039
Other unimproved land.....	351,227	3.6	346,259	4,998	2,224
Swampy or subject to overflow..	1,020,207	10.5	987,216	32,991	12,316
Suffering a loss of crops.....	692,224	7.1	676,337	15,887	1,458

**Size of enterprises.**—Presentation of the statistics by counties requires that an enterprise located in more than one county be divided and the part in each county be considered a separate enterprise. In this way 10,453 operating drainage enterprises are counted in Michigan, from 1897 to 1919, with an average area of 1,508 acres assessed. There are 4,196 of these enterprises embracing less than 500 acres each, 5,970 between 500 and 5,000 acres, and 287 of 5,000 acres or over.

The assessed acreage exceeds the land in enterprises by 6,037,307 acres, which is the amount of overlapping. The land in enterprises and the assessed acreage on each line of Table 5 refer to the same enterprises. From the total area of each enterprise, designated as the assessed acreage, deduction was made for the amount of overlapping with enterprises organized previously, to determine the acreage to be tabulated as land in enterprises.



TABLE 5.—LAND IN OPERATING ENTERPRISES, CLASSIFIED BY SIZE OF AREA ASSESSED: 1920.

SIZE GROUP.	Land in enterprises (acres).	ASSESSED AREA.	
		Acreage.	Per cent of total.
All operating enterprises.....	9,729,171	15,766,478	100.0
Less than 200 acres.....	109,423	155,089	1.0
200 to 499 acres.....	648,405	967,221	6.1
500 to 999 acres.....	1,232,901	1,849,136	11.7
1,000 to 4,999 acres.....	5,359,782	7,902,624	50.1
5,000 to 9,999 acres.....	2,059,229	3,251,318	20.6
10,000 to 49,999 acres.....	199,250	1,072,885	6.8
50,000 to 99,999 acres.....	120,170	568,205	3.6

**Character of enterprises.**—Nearly all the drainage enterprises in Michigan for which statistics are given, except the few commercial land developments and private undertakings by individual owners, are county drains established in accordance with the provisions of the general drainage law approved June 2, 1897 (act 254). That statute repealed all previous drainage laws of the state, but drains previously established under act 227 of 1885 might be completed under it.

The census did not undertake to secure information relating to the drains established before 1897, in Michigan, because the records regarding them were very fragmentary or entirely lacking, except in a few counties. The statistics do include, however, as shown by Table 6, figures for drains established in that year under the earlier law.

The drainage law of 1897, as amended, provides for a county drain commissioner to be elected every two years by the qualified electors, in every organized county in the state. This commissioner is to have jurisdiction over all drains within his county, but drains affecting land in more than one county are under joint jurisdiction of the commissioners of all those counties. Appointment of a special drain commissioner, in case the elected commissioner has an interest in the assessment of benefits, is authorized by statutes of 1901 (act 27) and 1917 (act 109).

An application for a drain must be signed by not less than one-half the freeholders through whose land the drain will pass. The necessity and public utility of the enterprise are determined by the township board or boards of the township or townships in which the drain is to be located, after public hearing. Upon favorable finding, a survey is made by the drain commissioner or a surveyor employed by him, and if the improvement is found practicable the commissioner issues a first order of determination establishing the location and dimensions of the drain. Appeal from this order may be taken to the probate court of the county, and an engineer appointed by the state highway commissioner investigates and decides the necessity and route for the drain. Land for right of way is secured by release or by condemnation proceedings before the probate court. Damages are

determined by three special commissioners appointed by the court or, upon demand, by a jury. Final order of determination is issued by the drain commissioner when right of way has been obtained, defining the special assessment district that shall bear the cost of the undertaking. The cost is apportioned according to benefits assessed by the drain commissioner and determined by him at public hearing. Any township may be assessed for benefits to public health and welfare or for benefits to highways. The assessments are subject to review by three disinterested freeholders appointed by the probate court. The award of damages to each landowner is deducted from his assessment of benefits. Contracts for construction are let by the drain commissioner. The number of installments in which the landowners shall pay their assessments is determined by the drain commissioner, who is authorized by an act of March 18, 1919 (No. 16), to issue bonds for not exceeding 10 years if the number of installments exceeds three. For a drain to be located or to affect land in more than one county, application may be filed with the drain commissioner of any county affected. Proceedings are similar to those for a drain in only one county, but are under the joint control of the drain commissioners of all the counties affected. Also, the necessity for the drain is determined by the drain commissioners instead of by the township boards; in case of disagreement, the state highway commissioner decides.

As originally enacted, the drainage law provided for appointment of the county drain commissioner by the county board of supervisors. The petition for a drain then required the signatures of 10 or more freeholders of the township or townships, including at least 3 liable to assessment for the drain.

Before 1909, the necessity for the drain was determined by the drain commissioner instead of by the township board, and appeals regarding apportionment of benefits were decided by that board.

A few other statutes relating to drainage have been enacted since 1897, which do not affect the character of enterprises as described.

A law of June 20, 1885 (act 227), provided for township and county drain commissioners, the former to be elected and the latter to be appointed by the county board of supervisors. The jurisdiction of the township commissioners was limited to drains located wholly within their respective townships and not affecting land in any other township. The county commissioners were given concurrent jurisdiction with township commissioners for drains wholly within one township, and jurisdiction over the other drains in the county. Drains were located upon petition from five or more freeholders, at least one of whom owned land liable to be assessed for benefits. The drain commissioner determined the necessity and

location for the drain, apportioned the cost, and let contracts for construction. Right of way was secured by voluntary release or by proceedings before the probate court. Drains located or benefiting land in more than one county were under the joint control of the drain commissioners for the counties affected. This act was repealed by the drainage law of 1897.

The first general drainage law of this state was enacted in 1839 (ch. 80), providing means for one landowner to secure drainage outlet across the land of an objecting owner through application to a justice of the peace and payment of damages assessed by a jury. An act of 1847 (No. 104) authorized each board of county commissioners to appoint three drainage commissioners to secure the drainage of the marshes and lowland of the county. The plans and estimates for each project must be approved by the county court. The cost was apportioned by the commissioners against the land to be benefited, subject to review by three appraisers and confirmation by the court. In 1859 it was provided (act 178) that the drainage commissioners should make surveys for drainage upon petition from 10 resident freeholders. These and other drainage laws were repealed by that of 1897.

TABLE 6.—LAND AND CAPITAL INVESTED IN ALL ENTERPRISES, CLASSIFIED BY CHARACTER OF ENTERPRISE: 1920.

CHARACTER OF ENTERPRISE.	LAND.		CAPITAL.			
	Acreage.	Per cent of total.	To Dec. 31, 1919.		Additional required to complete.	
			Amount.	Per cent of total.		
All organized enterprises..	9,754,679	100.0	\$24,686,729	100.0	\$537,045	
Operating enterprises.....	9,729,171	99.7	24,683,715	100.0	365,265	
County drains.....	9,706,891	99.5	24,434,715	99.0	365,265	
Laws of 1835, act 227.....	55,273	0.5	65,242	0.3		
Laws of 1897, act 254.....	9,049,302	98.9	24,303,240	98.7	361,765	
Not reported.....	4,316	( <sup>1</sup> )	6,227	( <sup>1</sup> )	3,500	
Commercial developments..	10,960	0.1	199,500	0.8		
Individual ownerships.....	11,320	0.1	49,500	0.2		
Nonoperating enterprises.....	25,508	0.3	3,014	( <sup>1</sup> )	172,380	
County drains, laws of 1897.	25,508	0.3	3,014	( <sup>1</sup> )	172,380	

<sup>1</sup> Less than one-tenth of 1 per cent.

**Drainage works.**—The total works completed by the drainage enterprises to December 31, 1919, comprised 16,023.8 miles of open ditches, 2,173.9 miles of tile drains, and 33.1 miles of accessory levees; the additional lengths under construction were 118.4 miles of ditches and 8.4 miles of tile drains. These figures do not include drains or levees installed by individual farm owners supplemental to the works of the enterprises, nor the works of flood protection or levee districts that had not undertaken the construction of ditches or tile drains. There are three pumping districts for land drainage among the enterprises in Michigan, which have completed con-

struction. The pumping plants are equipped with 7 centrifugal pumps of 62,000 gallons per minute total capacity and are operated by steam power.

TABLE 7.—LAND AND CAPITAL INVESTED IN OPERATING ENTERPRISES, CLASSIFIED BY KIND OF DRAINAGE WORKS: 1920.

KIND OF WORKS.	LAND.		CAPITAL.			
	Acreage.	Per cent of total.	To Dec. 31, 1919.		Additional required to complete.	
			Amount.	Per cent of total.		
All kinds.....	9,729,171	100.0	\$24,683,715	100.0	\$365,265	
Open ditches only.....	8,541,556	87.8	18,698,883	75.8	342,612	
Open ditches and levees.....	2,000	( <sup>1</sup> )	176,284	0.7		
Tile drains only.....	318,614	3.3	2,270,183	9.2	16,868	
Open ditches and tile drains....	867,101	8.9	3,538,360	14.3	5,785	

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 8.—LAND AND CAPITAL INVESTED IN OPERATING ENTERPRISES, CLASSIFIED BY TYPE OF DRAINAGE: 1920.

TYPE OF DRAINAGE.	LAND.		CAPITAL.			
	Acreage.	Per cent of total.	To Dec. 31, 1919.		Additional required to complete.	
			Amount.	Per cent of total.		
All operating enterprises.....	9,729,171	100.0	\$24,683,715	100.0	\$365,265	
Gravity drainage only.....	9,718,471	99.9	24,513,276	99.3	365,265	
All drainage by pumping.....	1,100	( <sup>1</sup> )	22,139	0.1		
Part gravity and part pumping..	9,600	0.1	148,300	0.6		
Total area served by pumps.....	10,100	0.1				

<sup>1</sup> Less than one-tenth of 1 per cent.

The average depth of the main or outlet ditch was reported for each enterprise. The maximum reported for any enterprise in the state and the maximum in each county are shown in line 15 of County Table II. The maximum length, width, and depth of outlet shown in that table for any county may not refer to the same enterprise.

In County Table II, line 16 shows the mean depth of branch ditches, which is a very crude indication of the depth of soil drainage that may be obtained in the enterprises as determined by the depth of outlet provided for farm drains. The mean depth was computed by giving each separate depth a weight in proportion to the acreage it serves. As most enterprises reported depths in whole numbers only, the occasional decimals were omitted in making these computations. Depths less than 3 feet and those 10 feet and over were omitted, as it seemed they did not represent so well the average depths of outlet provided for all the farms in those districts; to include both of these groups, computed as 3 feet and 10 feet, respectively, would show the mean depth for the state 4.2 instead of 4.3 feet.

TABLE 9.—LAND IN OPERATING ENTERPRISES, CLASSIFIED BY AVERAGE DEPTH OF BRANCH DITCHES: 1920.

DEPTH OF BRANCH DITCHES.	Acreage.	Per cent of total.
All operating enterprises.....	9,729,171	100.0
Less than 3 feet.....	89,345	0.9
3.0 to 3.9 feet.....	472,542	4.9
4.0 to 4.9 feet.....	773,674	8.0
5.0 to 5.9 feet.....	337,024	3.5
6.0 to 6.9 feet.....	125,383	1.3
7.0 to 7.9 feet.....	115,603	1.2
8.0 to 8.9 feet.....	15,500	0.2
9.0 to 9.9 feet.....	2,844	( <sup>1</sup> )
10 feet and more.....	1,280	( <sup>1</sup> )
Not reporting branches.....	7,795,976	80.1

<sup>1</sup> Less than one-tenth of 1 per cent.

**Maintenance of works.**—For cleaning out, deepening, widening, and straightening county drains in this state, proceedings are similar to those for securing construction of a new drain, the cost being paid by the land benefited by this work. The petition for cleaning out a drain requires only the signatures of five freeholders of the township or townships in which the drain is located, one or more of whom shall own land liable to be assessed. However, an act of May 10, 1917 (No. 316), provides that upon written request from one or more taxpayers on any drain the county drain commissioner, where he deems that an emergency exists threatening crops or property, may expend not more than 10 per cent of the original cost of the drain.

For cleaning out, deepening, widening, and extending a drain previously constructed in more than one county, application shall be made, according to a statute of May 3, 1919 (act 162), by freeholders numbering at least 10 per cent of those assessed for construction of the drain and who shall be owners of land that was assessed for the construction.

TABLE 10.—LAND AND CAPITAL INVESTED IN OPERATING ENTERPRISES, CLASSIFIED BY METHOD OF MAINTENANCE: 1920.

METHOD OF MAINTENANCE.	LAND.		CAPITAL.		
	Acreage.	Per cent of total.	To Dec. 31, 1919.		Additional required to complete.
			Amount.	Per cent of total.	
All operating enterprises.....	9,729,171	100.0	\$24,683,715	100.0	\$365,265
By district forces.....	3,200	( <sup>1</sup> )	44,261	0.2	1,790
By contract.....	1,872,052	19.2	4,768,980	19.3	38,964
By landowners.....	9,280	0.1	169,490	0.7	.....
No maintenance provided.....	7,243,624	74.5	18,781,212	76.1	288,893
Not reporting.....	601,015	6.2	910,772	3.7	38,118

<sup>1</sup> Less than one-tenth of 1 per cent.

**Date of organization.**—The progress in drainage development is shown only roughly by the dates of the organization of the enterprises, which are the dates when the drains were established by the county drain commissioners, since there may be a period of a year or more between the decree of establishment and the beginning of actual construction, and since the work

of construction may occupy several years in a large district. It was not practicable, however, for the census to secure data as to the time of the beginning or the completion of the drainage works. Under the date of organization are tabulated the entire area, works, and capital of each enterprise, even including any extensions made after the original plan of drainage was completed.

TABLE 11.—LAND IN OPERATING ENTERPRISES, CLASSIFIED BY DATE ENTERPRISE WAS ORGANIZED: 1920.

DATE OF ORGANIZATION.	LAND.		AREA ASSESSED.	
	Acreage.	Per cent of total.	Acreage.	Per cent of total.
All operating enterprises.....	9,729,171	100.0	15,766,478	100.0
1897 to 1899.....	1,151,668	11.8	1,463,231	9.3
1900 to 1904.....	2,763,584	28.4	3,846,251	24.4
1905 to 1909.....	2,358,660	24.2	3,886,383	24.6
1910 to 1914.....	1,900,100	19.5	3,499,884	22.2
1915 to 1919.....	1,635,174	16.8	3,043,271	19.3
Not reported.....	19,985	0.2	27,458	0.2

TABLE 12.—CAPITAL INVESTED IN OPERATING ENTERPRISES, CLASSIFIED BY DATE ENTERPRISE WAS ORGANIZED: 1920.

DATE OF ORGANIZATION.	CAPITAL.		
	To Dec. 31, 1919.		Additional required to complete.
	Amount.	Per cent of total.	
All operating enterprises.....	\$24,683,715	100.0	\$365,265
1897 to 1899.....	2,017,054	8.2	.....
1900 to 1904.....	5,724,176	23.2	.....
1905 to 1909.....	5,543,364	22.5	.....
1910 to 1914.....	5,315,603	21.5	.....
1915 to 1919.....	6,013,764	24.4	365,265
Not reported.....	69,754	0.3	.....

TABLE 13.—DRAINS AND LEVEES (COMPLETED AND UNDER CONSTRUCTION) IN OPERATING ENTERPRISES, CLASSIFIED BY DATE ENTERPRISE WAS ORGANIZED: 1920.

DATE OF ORGANIZATION.	DITCHES.		TILE.		LEVEES.	
	Miles.	Per cent of total.	Miles.	Per cent of total.	Miles.	Per cent of total.
All drains and levees.....	10,142.2	100.0	2,182.3	100.0	33.1	100.0
1897 to 1899.....	1,637.2	10.1	84.4	3.9	6.0	18.1
1900 to 1904.....	4,542.3	28.1	274.9	12.6	27.0	81.6
1905 to 1909.....	4,390.9	26.8	321.1	14.7	0.1	0.3
1910 to 1914.....	3,373.8	20.9	746.7	34.2	.....	.....
1915 to 1919.....	2,224.0	13.8	750.8	34.4	.....	.....
Not reported.....	84.0	0.2	4.4	0.2	.....	.....

**Crops.**—The principal crops grown upon the drained land in drainage enterprises are wheat, corn, and sugar beets. Data were not secured to show the part of each enterprise planted to any crop, so the enterprises have been classified according to the principal crop, and the total area of improved land is shown thus classified in County Table II. No data were secured at the general census of agriculture to separate the crops grown upon land drained artificially from those produced upon land drained naturally.

## DRAINAGE—MICHIGAN.

COUNTY TABLE I.—DRAINAGE ON FARMS: 1920.

		The State.	Alcona.	Allegan.	Alpena.	Arenac.	Barry.	Bay.	Berrien.	Branch.	
1	Number of all farms in the state or county.....	196,447	932	5,734	1,275	1,392	3,313	3,216	5,443	3,222	
2	Farms reporting land having drainage.....	66,948	26	982	39	195	168	1,854	469	1,333	
3	Farms reporting land needing drainage.....	64,310	228	889	541	299	170	1,270	174	1,309	
4	Farms in drainage and levee districts.....	23,356	4	369	3	29	7	458	95	566	
LAND AND FARM AREA.											
5	Approximate land area of the state or county.....acres..	36,787,200	437,760	533,120	373,760	239,360	355,840	283,520	364,160	318,080	
6	All land in farms.....acres..	19,032,961	131,388	436,616	153,729	135,334	332,369	227,932	326,690	308,805	
7	Improved land in farms.....acres..	12,925,521	49,577	327,395	63,237	72,851	245,983	167,998	262,917	227,781	
8	Woodland in farms.....acres..	3,217,000	32,998	46,849	50,243	49,220	42,617	43,725	32,633	27,123	
9	Other unimproved land in farms.....acres..	2,890,440	48,813	62,372	40,249	13,263	43,769	16,209	31,140	53,901	
10	Farm land reported as provided with drainage.....acres..	3,156,632	878	26,686	766	8,225	4,376	92,782	23,802	42,281	
11	Farm land reported as needing drainage.....acres..	2,070,387	16,399	19,738	28,770	14,199	2,765	37,434	2,656	32,687	
12	Drainage only.....acres..	679,813	1,582	6,004	7,864	3,888	1,126	7,948	855	18,649	
13	Drainage and clearing.....acres..	1,490,574	14,817	13,734	21,406	10,311	1,639	29,486	1,801	13,938	
		Calhoun.	Cass.	Cheboygan.	Chippewa.	Clare.	Clinton.	Delta.	Eaton.	Genesee.	
1	Number of all farms in the county.....	3,645	2,572	1,186	1,569	1,248	3,323	1,395	3,719	3,639	
2	Farms reporting land having drainage.....	928	82	37	73	187	1,932	139	2,621	2,801	
3	Farms reporting land needing drainage.....	1,067	158	253	578	823	1,407	531	1,674	2,020	
4	Farms in drainage and levee districts.....	477	43	1	2	25	944	31	1,028	513	
LAND AND FARM AREA.											
5	Approximate land area of the county.....acres..	443,520	315,520	464,000	1,006,720	372,480	365,440	748,160	365,440	419,200	
6	All land in farms.....acres..	407,968	286,991	127,197	185,202	186,581	343,965	142,137	342,500	368,520	
7	Improved land in farms.....acres..	301,566	219,426	55,937	105,870	65,801	275,734	53,021	263,959	291,624	
8	Woodland in farms.....acres..	38,449	38,302	38,921	68,783	67,610	47,496	53,821	32,351	38,336	
9	Other unimproved land in farms.....acres..	67,943	29,263	32,399	10,549	53,170	20,785	35,295	46,190	38,560	
10	Farm land reported as provided with drainage.....acres..	30,337	1,759	899	3,282	5,225	84,302	2,851	123,106	151,901	
11	Farm land reported as needing drainage.....acres..	28,105	3,803	13,581	28,840	69,183	31,584	22,939	37,343	54,353	
12	Drainage only.....acres..	14,328	1,933	323	1,398	2,144	12,828	2,859	16,049	18,474	
13	Drainage and clearing.....acres..	13,777	1,870	13,258	27,472	67,039	18,756	20,080	21,294	36,879	
		Gladwin.	Grand Traverse.	Gratiot.	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Isabella.
1	Number of all farms in the county.....	1,452	1,725	3,859	4,025	1,741	4,604	3,224	3,223	929	3,833
2	Farms reporting land having drainage.....	566	82	2,813	2,755	134	1,267	2,295	1,552	170	1,701
3	Farms reporting land needing drainage.....	843	332	2,287	1,974	225	1,419	1,541	1,403	429	1,995
4	Farms in drainage and levee districts.....	461	10	2,196	773	2	808	562	401	44	1,118
LAND AND FARM AREA.											
5	Approximate land area of the county.....acres..	332,160	298,880	370,560	382,080	652,160	546,560	353,920	370,560	364,800	366,080
6	All land in farms.....acres..	154,633	170,188	328,074	362,815	194,790	480,088	323,196	344,102	121,694	310,771
7	Improved land in farms.....acres..	73,001	113,852	251,326	283,071	56,798	383,584	238,492	266,698	49,673	211,812
8	Woodland in farms.....acres..	30,763	35,000	37,116	38,190	55,812	38,687	31,482	34,877	36,920	34,624
9	Other unimproved land in farms.....acres..	50,869	21,336	39,632	41,554	22,180	68,717	53,222	42,527	35,101	70,435
10	Farm land reported as provided with drainage.....acres..	28,697	1,001	127,510	127,028	3,654	83,953	98,700	63,963	5,890	62,330
11	Farm land reported as needing drainage.....acres..	49,127	5,494	79,440	38,048	18,396	43,456	48,840	29,905	27,324	62,680
12	Drainage only.....acres..	631	1,082	33,508	17,352	660	2,639	27,466	12,578	1,723	12,882
13	Drainage and clearing.....acres..	48,496	4,412	45,932	20,696	12,736	40,767	16,374	17,327	25,601	49,798
		Jackson.	Kalamazoo.	Kent.	Lapeer.	Leelanau.	Lena-wee.	Livingston.	Macomb.	Manistee.	Marquette.
1	Number of all farms in the county.....	3,544	3,161	5,605	3,614	1,347	5,080	2,632	3,570	1,499	846
2	Farms reporting land having drainage.....	1,103	543	1,424	1,897	28	4,136	1,119	2,510	149	49
3	Farms reporting land needing drainage.....	1,335	442	1,589	1,778	252	2,678	633	1,121	378	157
4	Farms in drainage and levee districts.....	253	143	285	587	.....	1,088	110	553	8	1
LAND AND FARM AREA.											
5	Approximate land area of the county.....acres..	452,480	359,680	550,400	426,240	216,320	475,520	363,520	302,080	359,680	1,196,800
6	All land in farms.....acres..	411,677	311,934	409,924	395,932	165,399	456,708	333,339	272,357	147,569	88,450
7	Improved land in farms.....acres..	295,871	247,905	352,740	291,706	90,825	370,047	231,346	221,453	85,292	27,944
8	Woodland in farms.....acres..	43,733	27,665	66,204	43,022	60,657	46,186	41,135	30,006	41,233	43,140
9	Other unimproved land in farms.....acres..	72,073	36,464	50,980	61,204	13,917	40,475	60,858	20,898	21,044	17,366
10	Farm land reported as provided with drainage.....acres..	31,241	12,991	32,156	86,678	639	240,797	40,228	129,008	1,877	899
11	Farm land reported as needing drainage.....acres..	35,968	13,099	33,485	52,005	14,799	60,930	20,053	21,332	9,915	8,459
12	Drainage only.....acres..	21,920	4,865	12,636	15,358	1,608	27,822	14,418	8,637	1,796	893
13	Drainage and clearing.....acres..	14,048	8,234	20,849	36,647	13,191	39,108	5,635	12,645	8,119	7,566

## DRAINAGE—MICHIGAN.

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COUNTY TABLE I.—DRAINAGE ON FARMS: 1920—Continued.

		Mason.	Mecosta.	Menominee.	Midland.	Missaukee.	Monroe.	Montcalm.	Montmorency.	Muskegon.	
1	Number of all farms in the county.....	2,011	2,676	2,106	2,163	1,359	4,108	4,493	421	2,036	
2	Farms reporting land having drainage.....	711	267	63	1,292	79	3,442	965	40	760	
3	Farms reporting land needing drainage.....	822	1,255	1,358	1,449	524	1,870	1,890	242	699	
4	Farms in drainage and levee districts.....	228	94	3	1,215	79	693	532	.....	354	
LAND AND FARM AREA.											
5	Approximate land area of the county.....acres..	316,100	365,440	675,840	338,560	372,480	366,720	463,360	359,040	322,560	
6	All land in farms.....acres..	183,428	281,574	222,353	202,927	168,710	318,845	396,333	55,212	173,518	
7	Improved land in farms.....acres..	108,180	165,492	85,305	108,762	78,386	271,485	269,145	22,801	107,679	
8	Woodland in farms.....acres..	46,145	51,011	68,063	29,809	20,030	30,245	54,681	26,811	38,830	
9	Other unimproved land in farms.....acres..	29,103	65,071	68,985	64,356	64,294	17,115	72,507	5,000	27,009	
10	Farm land reported as provided with drainage.....acres..	19,784	4,823	1,079	53,870	11,100	201,397	27,289	1,407	39,184	
11	Farm land reported as needing drainage.....acres..	28,640	40,111	53,321	72,019	34,942	48,840	45,515	17,277	23,492	
12	Drainage only.....acres..	2,807	5,601	1,979	13,591	1,486	28,999	11,139	917	3,794	
13	Drainage and clearing.....acres..	26,383	34,510	51,342	58,428	33,456	19,841	34,376	16,360	19,698	
		Newaygo.	Oakland.	Oceana.	Ogemaw.	Ontonagon.	Osceola.	Ottawa.	Roscommon.	Saginaw.	St. Clair.
1	Number of all farms in the county.....	2,836	4,035	2,357	1,281	917	2,310	4,296	267	5,143	4,159
2	Farms reporting land having drainage.....	681	1,757	188	19	30	292	1,738	13	1,634	1,659
3	Farms reporting land needing drainage.....	1,060	1,646	43	575	111	993	885	125	1,221	1,135
4	Farms in drainage and levee districts.....	250	301	22	6	.....	63	411	8	924	553
LAND AND FARM AREA.											
5	Approximate land area of the county.....acres..	544,640	567,040	347,520	371,200	853,120	369,280	361,600	344,320	520,920	454,400
6	All land in farms.....acres..	317,091	462,018	231,030	166,463	80,170	259,130	308,872	51,349	429,649	395,921
7	Improved land in farms.....acres..	187,569	340,567	150,118	97,052	25,025	147,382	238,248	10,419	317,270	311,491
8	Woodland in farms.....acres..	87,853	55,840	48,347	72,995	44,433	42,884	29,446	31,115	53,335	40,912
9	Other unimproved land in farms.....acres..	61,679	65,611	32,665	26,416	10,712	68,864	41,178	9,815	59,044	37,518
10	Farm land reported as provided with drainage.....acres..	25,834	66,741	5,176	2,177	510	7,354	71,682	586	90,120	126,976
11	Farm land reported as needing drainage.....acres..	34,215	38,074	773	32,925	3,012	31,451	17,069	32,048	48,759	31,810
12	Drainage only.....acres..	5,995	19,078	585	723	27	4,205	7,057	2,011	19,853	9,196
13	Drainage and clearing.....acres..	28,220	18,996	188	32,202	2,985	27,246	10,042	30,037	28,906	22,614
		St. Joseph.	Sanilac.	Shiawassee.	Tuscola.	Van Buren.	Washtenaw.	Wayne.	Wexford.	All other counties. <sup>1</sup>	
1	Number of all farms in the county.....	2,436	5,112	3,369	4,668	4,662	3,550	3,858	1,583	12,418	
2	Farms reporting land having drainage.....	108	2,148	2,107	2,407	872	1,210	2,378	37	252	
3	Farms reporting land needing drainage.....	161	1,242	1,555	1,979	594	954	1,038	511	2,171	
4	Farms in drainage and levee districts.....	17	729	740	871	238	237	742	21	21	
LAND AND FARM AREA.											
5	Approximate land area of the county.....acres..	321,920	624,640	356,480	529,280	394,880	450,560	396,800	369,280	8,873,600	
6	All land in farms.....acres..	292,033	549,639	320,616	445,260	341,089	421,211	282,294	146,712	1,314,855	
7	Improved land in farms.....acres..	234,521	454,204	258,781	335,519	268,009	313,748	213,443	88,408	569,409	
8	Woodland in farms.....acres..	23,981	39,759	26,810	43,913	40,312	46,286	30,333	29,109	485,917	
9	Other unimproved land in farms.....acres..	33,536	55,676	35,019	65,828	34,768	56,177	18,618	29,135	269,529	
10	Farm land reported as provided with drainage.....acres..	4,810	168,750	109,115	129,591	22,476	67,819	108,978	738	4,509	
11	Farm land reported as needing drainage.....acres..	3,543	37,324	40,414	59,606	14,193	23,636	30,909	17,636	95,709	
12	Drainage only.....acres..	1,866	9,196	25,794	20,313	3,954	13,271	20,029	504	8,017	
13	Drainage and clearing.....acres..	1,647	28,128	14,620	39,293	10,239	10,365	10,940	17,132	87,692	

<sup>1</sup> No drainage on farms reported in Lapeer County.

COUNTY TABLE II.—OPERATING DRAINAGE ENTERPRISES: 1920.

		THE STATE.	Allegan.	Arenac.	Barry.	Bay.	Berrien.	Branch.	Calhoun.	Cass.
<b>LAND AREA.</b>										
1	Approximate land area of the state or county.....	acres.. 36,787,200	533,120	239,360	355,840	283,520	364,180	318,080	443,520	315,520
2	All land in operating drainage enterprises.....	acres.. 9,729,171	312,915	143,734	143,508	241,501	122,877	148,460	252,397	64,027
3	Improved land.....	acres.. 7,182,352	298,843	158,380	116,347	100,748	97,743	77,102	191,570	44,870
4	Per cent of all improved land in farms.....	55.6	61.3	80.1	47.3	95.7	37.2	33.8	63.5	20.4
5	Timber and cut-over land.....	acres.. 2,195,592	14,072	85,348	16,729	79,740	1,093	7,449	30,550	5,074
6	Other unimproved land.....	acres.. 351,257			10,432	1,013	24,041	63,909	24,277	14,083
7	Swampy or subject to overflow, in enterprises.....	acres.. 1,020,207	6,324	17,893	10,410		225	322	38,350	3,213
8	Suffering a loss of crops from defective drainage.....	acres.. 692,224	3,932	3,051	10,290	1,854		225	26,555	
9	Assessed acreage.....	15,765,478	496,959	149,294	189,913	274,099	135,087	157,271	323,877	78,019
10	Excess over all land in operating enterprises.....	acres.. 6,037,307	184,044	5,560	46,405	32,598	12,210	8,811	70,980	13,992
<b>DRAINAGE WORKS.</b>										
11	Open ditches:									
12	Completed.....	miles.. 16,023.8	465.6	203.2	116.4	425.9	217.7	257.4	245.0	81.0
13	Additional under construction.....	miles.. 118.4	0.9	0.9						2.5
14	Maximum completed in any enterprise.....	miles.. 75.0	10.0	10.1	13.7	11.4	4.4	7.4	14.6	19.1
15	Maximum width at bottom of ditch.....	feet.. 70	40	30	22	60	10	18	16	30
16	Maximum of average depths of outlet ditches.....	feet.. 13.0	9.0	7.0	8.5	11.1	10.0	9.5	10.0	9.0
17	Mean depth of branch ditches.....	feet.. 4.3	4.1	4.0	4.0	4.2	5.5	3.2	5.0	3.0
18	Tile drains:									
19	Completed.....	miles.. 2,173.9	13.2	0.3	44.3	1.1	74.4	100.6	47.4	2.8
20	Additional under construction.....	miles.. 8.4	0.3		0.1					
21	Maximum completed in any enterprise.....	miles.. 10.5	1.3	0.3	10.5	0.7	10.0	4.9	2.5	0.9
22	Maximum size of tile.....	inches.. 48	18	12	24	20	36	28	20	18
23	Accessory levees and dikes:									
24	Completed.....	miles.. 33.1						0.1		
25	Additional under construction.....	miles..								
26	Pumping plants:									
27	Engine capacity.....	horsepower.. 1,065								
28	Pump capacity.....	gallons per minute.. 62,000								
29	Area served by pumps.....	acres.. 10,100								
30	Area drained by open ditches only.....	acres.. 8,541,556	301,173	142,614	119,129	237,501	93,862	90,909	226,105	60,542
31	Length of these ditches.....	miles.. 14,725.0	445.4	202.0	100.5	421.0	193.0	212.3	205.9	77.5
32	Average length per acre.....	feet.. 9.1	7.8	7.6	4.5	9.4	10.9	12.3	4.8	6.8
33	Area having open ditches and levees.....	acres.. 2,000						1,000		
34	Length of these ditches.....	miles.. 93.6						4.6		
35	Average length per acre.....	feet.. 24.3						0.1		
36	Length of accessory levees.....	miles.. 33.1								
37	Area drained by tile only.....	acres.. 318,514	2,281		8,460		15,292	22,955	6,971	320
38	Length of these tile.....	miles.. 1,303.7	5.2		17.4		52.9	68.6	28.9	0.5
39	Average length per acre.....	feet.. 21.6	12.0		10.9		18.3	15.8	21.9	8.3
40	Area drained by open ditches and tile.....	acres.. 867,101	9,461	1,120	15,919	4,000	13,723	33,596	19,321	3,165
41	Length of these drains.....	miles.. 2,202.2	29.4	2.4	42.9	6.0	40.2	72.5	57.6	8.3
42	Average length per acre.....	feet.. 13.4	16.4	11.3	14.2	7.9	17.8	11.4	15.7	13.8
<b>DEVELOPMENT OF LAND.</b>										
43	Improved land in operating enterprises, 1920.....	acres.. 7,182,352	298,843	158,386	116,347	100,748	97,743	77,102	191,570	44,870
44	Improved land prior to drainage.....	acres.. 2,046,613	236,165	147,975	60,524	148,293	61,291	38,830	2,277	36,411
45	Increase since drainage.....	acres.. 5,135,739	62,678	10,411	55,823	12,455	36,452	38,272	180,293	8,459
46	Per cent of increase.....	250.9	26.5	21.7	92.2	8.4	59.5	98.6		23.2
47	Per cent increase is of all improved land in farms, 1920.....	39.7	19.1	14.3	22.7	7.4	13.9	16.8	62.8	3.9
48	Timber and cut-over land, 1920.....	acres.. 2,195,592	14,072	85,348	16,729	79,740	1,093	7,449	36,550	5,074
49	Timber and cut-over land prior to drainage.....	acres.. 6,809,213	76,750	95,759	23,165	91,397	23,120	30,607	185,348	12,743
50	Decrease since drainage.....	acres.. 4,613,621	62,678	10,411	6,436	11,657	22,027	29,158	148,798	7,669
51	Per cent of decrease.....	67.8	81.7	10.9	27.8	12.8	95.3	79.7	80.3	60.2
52	Other unimproved land, 1920.....	acres.. 351,257			10,432	1,013	24,041	63,909	24,277	14,083
53	Other unimproved land prior to drainage.....	acres.. 873,345			59,819	1,811	38,466	73,023	64,772	14,873
54	Decrease since drainage.....	acres.. 522,088			49,387	798	14,425	9,114	40,495	790
55	Per cent of decrease.....	59.8			82.6	44.1	37.5	12.5	62.5	5.3
56	Swampy or subject to overflow, 1920.....	acres.. 1,020,207	6,324	17,893	10,410		225	322	38,350	3,213
57	Swampy or subject to overflow prior to drainage.....	acres.. 4,763,016	65,240	36,430	58,862	9,649	18,542	58,544	84,695	16,737
58	Decrease since drainage.....	acres.. 3,742,809	58,916	18,537	48,452	9,649	18,317	58,222	46,345	13,524
59	Per cent of decrease.....	78.6	90.3	50.8	82.3	100.0	98.8	99.4	54.7	80.8
<b>CAPITAL INVESTED AND COST PER ACRE.</b>										
60	Total capital invested in and required for completion of operating enterprises.....	dollars.. 25,048,980	416,121	475,212	198,350	500,910	315,540	515,941	421,011	158,793
61	Capital invested in these enterprises to Dec. 31, 1919.....	dollars.. 24,683,715	414,461	473,012	197,771	500,910	315,540	515,941	421,011	150,293
62	Additional capital required to complete these enterprises.....	dollars.. 365,265	1,660	2,200	579					8,500
63	Average cost per acre when completed.....	dollars.. 2.57	1.33	3.31	1.38	2.07	2.57	3.48	1.07	2.48
64	Enterprises constructing open ditches only.....	dollars.. 19,041,495	386,987	473,111	121,104	488,210	216,521	239,883	267,842	148,883
65	Average cost per acre when completed.....	dollars.. 2.23	1.28	3.32	1.02	2.06	2.31	2.64	1.18	2.46
66	Enterprises constructing open ditches and levees.....	dollars.. 176,284						7,984		
67	Average cost per acre when completed.....	dollars.. 83.14						7.98		
68	Enterprises constructing tile drains only.....	dollars.. 2,287,056	6,143		29,964		49,855	124,064	41,847	556
69	Average cost per acre when completed.....	dollars.. 7.18	2.69		3.54		3.26	5.40	6.00	1.74
70	Enterprises constructing open ditches and tile drains.....	dollars.. 3,544,145	22,991	2,101	47,282	12,700	49,164	144,010	111,322	9,554
71	Average cost per acre when completed.....	dollars.. 4.09	2.43	1.88	2.97	3.18	3.58	4.29	5.76	3.02
<b>CROPS.</b>										
72	Improved land in enterprises reporting—									
73	Wheat as principal crop on drained land.....	acres.. 2,669,222	5,889					6,252	189,824	
74	Corn as principal crop on drained land.....	acres.. 1,525,685	212,621		106,348			70,804	1,746	
75	Sugar beets as principal crop on drained land.....	acres.. 1,140,880					28,994			
76	Peas and beans (dried) as principal crops on drained land.....	acres.. 616,142		58,386		181,754				
77	Hay as principal crop on drained land.....	acres.. 456,601			7,783					
78	Vegetables as principal crop on drained land.....	acres.. 273,843								
79	Potatoes as principal crop on drained land.....	acres.. 119,909								
80	Oats as principal crop on drained land.....	acres.. 10,032	670		2,216			46		
81	Rye as principal crop on drained land.....	acres.. 7,516								
82	Other crops as principal ones on drained land.....	acres.. 351,835	8,977				97,743			44,870
83	Not reporting principal crop on drained land.....	acres.. 11,687	284							

<sup>1</sup> Office estimate; the reported figures exceed the improved acreage in all farms in the county as determined by the census of agriculture.

<sup>2</sup> When works under construction have been completed.

<sup>3</sup> Additional area reported under "open ditches only."

<sup>4</sup> The reported figures have been reduced by the same acreage as the improved land, 1920.

<sup>5</sup> Per cent not shown when more than 1,000.



## DRAINAGE—MICHIGAN.

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COUNTY TABLE II.—OPERATING DRAINAGE ENTERPRISES: 1920—Continued.

		Cheboy- gan.	Chippe- wa.	Clare.	Clinton.	Eaton.	Gencsee.	Gladwin.	Gratiot.	Hills- dale.
<b>LAND AREA.</b>										
1	Approximate land area of the county.....acres	464,000	1,006,720	372,480	365,440	365,440	419,200	332,160	370,560	382,080
2	All land in operating drainage enterprises.....acres	22,483	15,424	21,104	272,709	347,032	188,943	124,029	324,969	197,849
3	Improved land.....acres	13,915	5,508	13,215	187,269	261,989	136,149	68,182	249,338	185,366
4	Per cent of all improved land in farms.....	24.9	5.2	20.1	87.9	99.3	46.7	93.4	99.2	65.5
5	Timber and cut-over land.....acres	8,568	9,916	7,949	85,440	85,043	52,443	55,847	75,631	6,889
6	Other unimproved land.....acres						351			5,594
7	Swampy or subject to overflow, in enterprises.....acres	4,021	6,750	7,640	28,948	41,544	24,061	23,302	28,147	3,956
8	Suffering a loss of crops from defective drainage.....acres	490		3,864	27,219	41,997	23,461	17,762	17,416	2,892
9	Assessed acreage.....	26,403	15,424	21,104	818,623	949,278	315,400	124,584	793,808	204,390
10	Excess over all land in operating enterprises.....acres	3,920			546,914	602,240	126,457	505	468,839	6,541
<b>DRAINAGE WORKS.</b>										
11	Open ditches:									
12	Completed.....miles	29.8	15.7	43.0	546.7	447.5	342.6	224.4	798.5	174.1
13	Additional under construction.....miles	0.4					0.4			
14	Maximum completed in any enterprise.....miles	3.7	0.5	4.2	20.5	27.7	14.5	9.7	28.0	7.5
15	Maximum width at bottom of ditch <sup>1</sup> .....feet	14	18	8	45	30	30	10	60	30
16	Maximum of average depths of outlet ditches <sup>1</sup> .....feet	5.0	7.0	6.0	11.0	12.0	8.0	6.7	12.1	6.5
17	Mean depth of branch ditches <sup>1</sup> .....feet		7.0	3.6	3.8	4.9	4.5	4.2	4.8	3.8
18	Tile drains:									
19	Completed.....miles			3.8	97.1	185.7	106.9	0.9	174.3	178.8
20	Additional under construction.....miles					2.3				
21	Maximum completed in any enterprise.....miles			0.9	4.6	7.1	3.5	0.6	4.8	5.5
22	Maximum size of tile <sup>1</sup> .....inches			12	24	36	24	18	27	24
23	Accessory levees and dikes:									
24	Completed.....miles									
25	Additional under construction.....miles									
26	Pumping plants:									
27	Engine capacity.....horsepower									
28	Pump capacity.....gallons per minute									
29	Area served by pumps.....acres									
30	Area drained by open ditches only <sup>1</sup> .....acres	22,483	15,424	18,607	225,436	294,285	124,607	123,375	309,998	95,304
31	Length of these ditches.....miles	30.2	15.7	38.4	488.6	372.9	269.2	223.5	735.1	101.6
32	Average length per acre.....feet	7.1	5.4	10.9	11.4	6.7	11.4	9.6	12.5	5.6
33	Area having open ditches and levees <sup>1</sup> .....acres									
34	Length of these ditches.....miles									
35	Average length per acre.....feet									
36	Length of accessory levees.....miles									
37	Area drained by tile only <sup>1</sup> .....acres			919	11,033	14,116	15,420	59	2,830	33,863
38	Length of these tile.....miles			2.3	40.5	123.0	57.4	0.6	127.3	98.4
39	Average length per acre.....feet			13.2	19.4	46.0	19.7	53.7	237.5	15.3
40	Area drained by open ditches and tile <sup>1</sup> .....acres			1,638	36,240	38,631	48,916	595	12,141	68,682
41	Length of these drains.....miles			6.1	114.7	139.6	123.3	1.2	110.4	147.9
42	Average length per acre.....feet			19.7	16.7	19.1	12.3	10.6	48.0	11.4
<b>DEVELOPMENT OF LAND.</b>										
43	Improved land in operating enterprises, 1920.....acres	13,915	5,508	13,215	187,269	261,989	136,149	68,182	249,338	185,366
44	Improved land prior to drainage.....acres	7,116	1,827	7,520	268	622	39,925	35,982		95,427
45	Increase since drainage.....acres	6,799	3,681	5,695	187,001	261,367	96,224	32,200	249,338	89,939
46	Per cent of increase <sup>2</sup> .....	95.5	201.5	75.7			241.0	89.5		94.2
47	Per cent increase is of all improved land in farms, 1920.....	12.2	3.5	8.7	67.8	99.0	33.0	44.1	99.2	31.8
48	Timber and cut-over land, 1920.....acres	8,568	9,916	7,949	85,440	85,043	52,443	55,847	75,631	6,889
49	Timber and cut-over land prior to drainage.....acres	15,367	13,597	13,644	272,174	346,218	148,432	38,047	324,969	19,371
50	Decrease since drainage.....acres	6,799	3,681	5,695	186,734	261,175	95,989	32,200	249,338	12,482
51	Per cent of decrease.....	44.2	27.1	41.7	68.6	75.4	64.7	36.6	76.7	64.4
52	Other unimproved land, 1920.....acres						351			5,594
53	Other unimproved land prior to drainage.....acres				267	192	586			83,051
54	Decrease since drainage.....acres				267	192	285			77,457
55	Per cent of decrease.....				100.0	100.0	40.1			93.3
56	Swampy or subject to overflow, 1920.....acres	4,021	6,750	7,640	28,948	41,544	24,061	23,302	28,147	3,956
57	Swampy or subject to overflow prior to drainage.....acres	14,095	13,308	11,974	101,387	103,745	101,758	31,766	289,209	82,104
58	Decrease since drainage.....acres	10,074	6,558	4,334	72,439	62,201	77,697	8,464	261,062	78,208
59	Per cent of decrease.....	71.5	49.3	36.2	71.4	60.0	76.4	26.6	90.3	95.2
<b>CAPITAL INVESTED AND COST PER ACRE.</b>										
60	Total capital invested in and required for completion of operating enterprises.....dollars	23,994	36,731	66,261	1,026,932	1,065,948	705,917	366,320	1,506,847	587,573
61	Capital invested in these enterprises to Dec. 31, 1910.....dollars	23,594	36,731	66,261	1,026,932	1,058,638	704,672	366,320	1,506,847	587,573
62	Additional capital required to complete these enterprises.....dollars	400				7,310	1,245			
63	Average cost per acre when completed.....dollars	1.07	2.38	3.13	3.77	3.07	3.74	2.95	4.64	2.97
64	Enterprises constructing open ditches only.....dollars	23,994	36,731	54,626	759,416	604,811	292,735	382,051	1,055,290	197,868
65	Average cost per acre when completed.....dollars	1.07	2.38	2.94	3.37	2.06	2.35	2.93	3.40	2.08
66	Enterprises constructing open ditches and levees.....dollars									
67	Average cost per acre when completed.....dollars									
68	Enterprises constructing tile drains only.....dollars			3,889	66,380	187,730	148,707	929	243,043	162,785
69	Average cost per acre when completed.....dollars			4.23	6.02	13.30	9.64	15.76	85.88	4.81
70	Enterprises constructing open ditches and tile drains.....dollars			7,746	201,136	273,407	264,475	3,340	208,508	226,920
71	Average cost per acre when completed.....dollars			4.73	5.55	7.08	5.41	5.61	17.17	3.30
<b>CROPS.</b>										
72	Improved land in enterprises reporting—									
73	Wheat as principal crop on drained land.....acres		2,529		77,122	261,259	123,875			184,469
74	Corn as principal crop on drained land.....acres				461	618				
75	Sugar beets as principal crop on drained land.....acres				108,482				244,568	122
76	Peas and beans (dried) as principal crops on drained land.....acres			13,215			2,880			
77	Hay as principal crop on drained land.....acres	13,915	2,979			112		68,182	4,600	
78	Vegetables as principal crop on drained land.....acres									
79	Potatoes as principal crop on drained land.....acres									
80	Oats as principal crop on drained land.....acres									
81	Rye as principal crop on drained land.....acres									
82	Other crops as principal ones on drained land.....acres				84		9,394			
83	Not reporting principal crop on drained land.....acres				1,120				180	776

<sup>1</sup> When works under construction have been completed.<sup>2</sup> Per cent not shown when more than 1,000.

COUNTY TABLE II.—OPERATING DRAINAGE ENTERPRISES: 1920—Continued.

		Huron.	Ingham.	Ionia.	Iosco.	Isabella.	Jackson.	Kalamazoo.	Kent.	Lapeer.	
LAND AREA.											
1	Approximate land area of the county.....	acres..	540,500	353,920	370,560	364,800	366,080	452,480	359,680	550,400	426,240
2	All land in operating drainage enterprises.....	acres..	430,219	222,114	286,153	31,974	307,024	76,139	79,511	145,370	238,235
3	Improved land.....	acres..	1,357,924	177,928	228,743	14,348	1,201,061	61,747	61,329	143,084	168,308
4	Per cent of all improved land in farms.....	.....	93.3	74.6	85.8	28.9	94.9	20.9	24.7	40.6	57.7
5	Timber and cut-over land.....	acres..	72,295	9,905	43,188	14,731	105,963	4,273	10,653	55	69,638
6	Other unimproved land.....	acres..	34,281	14,222	2,895	.....	10,119	7,529	2,231	.....	289
7	Swampy or subject to overflow, in enterprises.....	acres..	5,939	33,929	28,618	13,450	63,895	9,437	5,715	1,572	25,258
8	Suffering a loss of crops from defective drainage.....	acres..	5,647	33,701	28,618	5,070	22,200	9,381	5,208	139	22,480
9	Assessed acreage.....	.....	709,772	694,839	807,072	43,444	319,071	82,190	107,421	250,397	365,038
10	Excess over all land in operating enterprises.....	acres..	279,553	472,725	20,919	11,470	12,047	6,051	27,910	105,027	126,803
DRAINAGE WORKS.											
Open ditches:											
11	Completed.....	miles..	651.1	322.1	243.4	32.1	289.5	112.6	145.5	206.2	372.2
12	Additional under construction.....	miles..	7.4	.....	.....	.....	.....	2.6	1.7	7.1	.....
13	Maximum completed in any enterprise.....	miles..	17.5	11.4	13.7	4.4	10.2	5.1	7.5	10.0	10.1
14	Maximum width at bottom of ditch <sup>1</sup> .....	feet..	35	25	30	20	20	8	30	30	40
15	Maximum of average depths of outlet ditches <sup>2</sup> .....	feet..	8.0	10.0	9.0	7.0	7.2	10.0	10.0	9.0	10.0
16	Mean depth of branch ditches <sup>2</sup> .....	feet..	5.1	4.2	4.5	3.0	4.3	4.0	5.4	3.5	4.1
Tile drains:											
17	Completed.....	miles..	.....	154.6	98.8	0.2	277.3	10.5	4.0	14.1	20.2
18	Additional under construction.....	miles..	.....	.....	.....	.....	.....	.....	.....	.....	0.2
19	Maximum completed in any enterprise.....	miles..	4.9	6.9	0.2	7.4	0.9	0.8	1.5	1.6	.....
20	Maximum size of tile <sup>2</sup> .....	inches..	.....	48	36	12	27	24	48	36	16
Accessory levees and dikes:											
21	Completed.....	miles..	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Additional under construction.....	miles..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pumping plants:											
23	Engine capacity.....	horsepower..	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	Pump capacity.....	gallons per minute..	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Area served by pumps.....	acres..	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Area drained by open ditches only <sup>2</sup> .....	acres..	430,219	160,423	221,038	31,214	135,417	57,371	73,064	128,721	224,100
27	Length of these ditches.....	miles..	658.5	243.8	204.4	31.0	137.3	94.9	135.8	180.0	362.2
28	Average length per acre.....	feet..	8.1	8.0	4.9	5.2	5.4	8.7	9.8	7.4	8.5
29	Area having open ditches and levees <sup>2</sup> .....	acres..	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Length of these ditches.....	miles..	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Average length per acre.....	feet..	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Length of accessory levees.....	miles..	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Area drained by tile only <sup>2</sup> .....	acres..	.....	13,970	32,346	.....	38,218	3,498	320	2,631	3,165
34	Length of these tile.....	miles..	.....	96.6	75.7	.....	146.8	5.3	0.2	5.9	12.4
35	Average length per acre.....	feet..	.....	36.5	12.4	.....	20.3	8.0	3.3	11.8	20.7
36	Area drained by open ditches and tile <sup>2</sup> .....	acres..	.....	47,721	32,769	760	133,389	15,270	6,127	14,018	10,970
37	Length of these drains.....	miles..	.....	136.3	62.1	1.3	282.7	22.9	16.1	36.1	25.1
38	Average length per acre.....	feet..	.....	15.1	10.0	9.0	11.2	7.9	13.9	13.6	12.1
DEVELOPMENT OF LAND.											
39	Improved land in operating enterprises, 1920.....	acres..	1,357,924	177,928	228,743	14,348	1,201,061	61,747	61,329	143,084	168,308
40	Improved land prior to drainage.....	acres..	.....	132,017	142,179	9,363	153,351	51,070	25,473	127,596	16,484
41	Increase since drainage.....	acres..	357,924	45,911	86,564	4,985	47,710	10,677	35,856	15,488	151,824
42	Per cent of increase.....	.....	.....	34.8	60.9	53.2	31.1	20.9	140.8	12.1	921.0
43	Per cent increase is of all improved land in farms, 1920.....	.....	93.3	19.3	32.5	10.0	22.5	3.6	14.5	4.4	52.0
44	Timber and cut-over land, 1920.....	acres..	72,295	9,905	43,188	14,731	105,963	4,273	10,653	55	69,638
45	Timber and cut-over land prior to drainage.....	acres..	430,219	27,001	129,762	18,672	153,673	8,029	15,661	55	220,904
46	Decrease since drainage.....	acres..	357,924	17,096	86,564	3,941	47,710	3,756	5,008	.....	151,266
47	Per cent of decrease.....	.....	83.2	63.3	66.7	21.1	31.0	46.8	32.0	.....	68.5
48	Other unimproved land, 1920.....	acres..	.....	34,281	14,222	2,895	.....	10,119	7,529	2,231	289
49	Other unimproved land prior to drainage.....	acres..	.....	63,096	14,222	3,939	.....	17,040	38,377	17,719	847
50	Decrease since drainage.....	acres..	.....	28,815	.....	1,044	.....	6,921	30,848	15,488	558
51	Per cent of decrease.....	.....	.....	45.7	.....	26.5	.....	40.6	80.4	87.4	65.9
52	Swampy or subject to overflow, 1920.....	acres..	5,939	33,929	28,618	13,450	63,895	9,437	5,715	1,572	25,258
53	Swampy or subject to overflow prior to drainage.....	acres..	335,752	66,544	114,196	19,179	126,126	17,077	35,857	20,711	124,366
54	Decrease since drainage.....	acres..	329,813	32,615	85,578	5,729	62,231	7,640	30,142	19,139	99,108
55	Per cent of decrease.....	.....	98.2	49.0	74.9	29.9	49.3	44.7	84.1	92.4	79.7
CAPITAL INVESTED AND COST PER ACRE.											
56	Total capital invested in and required for completion of operating enterprises.....	dollars..	1,211,974	875,515	539,859	65,428	785,943	115,338	178,098	271,543	573,742
57	Capital invested in these enterprises to Dec. 31, 1919.....	dollars..	1,180,924	875,515	539,859	65,428	785,943	115,338	167,351	241,543	566,317
58	Additional capital required to complete these enterprises.....	dollars..	31,050	.....	.....	.....	.....	.....	10,747	30,000	7,425
59	Average cost per acre when completed.....	dollars..	2.82	3.94	1.89	2.05	2.56	1.51	2.24	1.87	2.41
60	Enterprises constructing open ditches only.....	dollars..	1,211,974	322,084	336,709	52,694	163,750	84,201	155,330	204,778	521,372
61	Average cost per acre when completed.....	dollars..	2.82	2.01	1.52	1.69	1.21	1.47	2.13	1.59	2.33
62	Enterprises constructing open ditches and levees.....	dollars..	.....	.....	.....	.....	.....	.....	.....	.....	.....
63	Average cost per acre when completed.....	dollars..	.....	.....	.....	.....	.....	.....	.....	.....	.....
64	Enterprises constructing tile drains only.....	dollars..	.....	283,644	102,573	.....	197,453	9,447	604	34,947	18,455
65	Average cost per acre when completed.....	dollars..	.....	20.30	3.17	.....	5.17	2.70	1.89	13.28	5.83
66	Enterprises constructing open ditches and tile drains.....	dollars..	.....	269,787	100,577	12,734	424,740	21,690	22,164	31,818	33,915
67	Average cost per acre when completed.....	dollars..	.....	5.65	3.07	16.76	3.18	1.42	3.62	2.27	3.09
CROPS.											
Improved land in enterprises reporting—											
68	Wheat as principal crop on drained land.....	acres..	.....	10,411	1,440	.....	.....	1,390	539	.....	168,308
69	Corn as principal crop on drained land.....	acres..	.....	166,905	227,303	.....	.....	48,418	39,935	138,280	.....
70	Sugar beets as principal crop on drained land.....	acres..	357,924	.....	.....	.....	.....	.....	.....	.....	.....
71	Peas and beans (dried) as principal crops on drained land.....	acres..	.....	.....	.....	.....	200,984	.....	.....	.....	.....
72	Hay as principal crop on drained land.....	acres..	.....	612	.....	14,348	.....	9,588	6,567	1,689	.....
73	Vegetables as principal crop on drained land.....	acres..	.....	.....	.....	.....	.....	.....	1,794	1,180	.....
74	Potatoes as principal crop on drained land.....	acres..	.....	.....	.....	.....	77	2,351	140	.....	.....
75	Oats as principal crop on drained land.....	acres..	.....	.....	.....	.....	.....	.....	1,407	.....	.....
76	Rye as principal crop on drained land.....	acres..	.....	.....	.....	.....	.....	.....	.....	.....	.....
77	Other crops as principal ones on drained land.....	acres..	.....	.....	.....	.....	.....	.....	10,887	1,935	.....
78	Not reporting principal crop on drained land.....	acres..	.....	.....	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> Office estimate; the reported figures exceed the improved acreage in all farms in the county as determined by the census of agriculture.<sup>2</sup> When works under construction have been completed.<sup>3</sup> The reported figures have been reduced by the same acreage as the improved land, 1920.

## DRAINAGE—MICHIGAN.

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COUNTY TABLE II.—OPERATING DRAINAGE ENTERPRISES: 1920—Continued.

		Lena- wee.	Living- ston.	Macomb.	Manis- tee.	Mason.	Mecosta.	Midland.	Missau- kee.	Monroe.	Mont- calm.
<b>LAND AREA.</b>											
1	Approximate land area of the county..... acres..	475,520	363,520	302,080	359,680	316,180	305,440	338,560	372,480	366,720	463,360
2	All land in operating drainage enterprises..... acres..	275,535	213,481	250,359	12,128	26,333	23,590	326,090	26,802	251,387	153,513
3	Improved land..... acres..	245,775	173,083	208,052	6,885	18,431	21,563	101,210	10,388	215,029	110,816
4	Per cent of all improved land in farms.....	66.4	74.8	93.9	8.1	17.0	13.0	93.1	13.3	79.2	41.2
5	Timber and cut-over land..... acres..	29,760	17,853	48,101	5,243	7,878	2,027	225,480	16,414	32,314	39,894
6	Other unimproved land..... acres..	22,545	206	206	206	24			4,044	2,803	
7	Swampy or subject to overflow, in enterprises..... acres..	30,199	23,719	21,178	4,047	9,456	4,584	89,842	8,228	23,525	29,103
8	Suffering a loss of crops from defective drainage..... acres..	27,823	42,638	206	2,090	1,367	2,068	156	1,065	32,281	13,995
9	Assessed acreage.....	568,882	249,667	303,572	12,128	26,755	31,910	415,028	26,862	564,982	206,161
10	Excess over all land in operating enterprises..... acres..	293,347	86,186	47,213		422	8,320	88,938	60	313,595	51,648
<b>DRAINAGE WORKS.</b>											
11	Open ditches:										
12	Completed..... miles..	465.6	245.2	348.2	29.8	94.3	41.4	608.1	60.7	627.3	241.0
13	Additional under construction..... miles..	9.3		0.4	4.5			3.7	0.7	1.1	
14	Maximum completed in any enterprise..... miles..	10.9	10.9	10.2	7.6	9.4	4.2	16.4	17.0	18.9	21.5
15	Maximum width at bottom of ditch <sup>1</sup> ..... feet..	15	30	30	12	10	8	12	12	25	16
16	Maximum of average depths of outlet ditches <sup>2</sup> ..... feet..	10.0	9.0	8.0	4.0	5.5	7.8	8.2	5.0	10.0	7.5
17	Mean depth of branch ditches <sup>2</sup> ..... feet..	4.2	5.5	3.4	3.0	3.6	3.5	4.5	3.6		3.9
18	Tile drains:										
19	Completed..... miles..	233.3	65.2	12.1	0.3	0.4	1.7	58.0	0.2	24.1	10.7
20	Additional under construction..... miles..	1.9		0.3					1.4		
21	Maximum completed in any enterprise..... miles..	3.2	4.2	4.0	0.2	0.4	1.3	6.9	0.2	2.6	2.0
22	Maximum size of tile <sup>2</sup> ..... inches..	32	20	24	15		24	15	15	20	18
23	Accessory levees and dikes:										
24	Completed..... miles..										
25	Additional under construction..... miles..										
26	Pumping plants:										
27	Engine capacity..... horsepower..										
28	Pump capacity..... gallons per minute..										
29	Area served by pumps..... acres..										
30	Area drained by open ditches only <sup>2</sup> ..... acres..	198,117	153,527	216,800	11,352	26,292	22,258	286,514	26,205	243,887	129,880
31	Length of these ditches..... miles..	414.8	184.5	338.0	33.8	94.3	39.3	530.8	58.1	622.6	201.5
32	Average length per acre..... feet..	11.1	5.7	8.2	15.7	18.9	9.3	9.8	11.7	13.5	8.2
33	Area having open ditches and levees <sup>2</sup> ..... acres..										
34	Length of these ditches..... miles..										
35	Average length per acre..... feet..										
36	Length of accessory levees..... miles..										
37	Area drained by tile only <sup>2</sup> ..... acres..	34,158	6,021	4,611		41	480	6,185		4,890	2,028
38	Length of these tile..... miles..	170.7	19.6	4.2		0.4	1.3	35.9		20.4	2.2
39	Average length per acre..... feet..	26.4	17.2	4.8		51.5	14.3	30.6		22.0	5.7
40	Area drained by open ditches and tile <sup>2</sup> ..... acres..	43,260	53,933	34,948	776		852	33,991	597	2,610	21,607
41	Length of these drains..... miles..	124.6	126.3	18.8	0.8		2.5	103.1	4.9	9.5	48.0
42	Average length per acre..... feet..	15.2	12.4	2.8	5.4		15.5	16.0	43.3	19.2	11.7
<b>DEVELOPMENT OF LAND.</b>											
43	Improved land in operating enterprises, 1920..... acres..	245,775	173,083	208,052	6,885	18,431	21,563	101,210	10,388	215,029	110,816
44	Improved land prior to drainage..... acres..	916	633	800	2,946	5,269	20,138	49,429	4,751	1,910	42,631
45	Increase since drainage..... acres..	244,859	172,450	207,252	3,939	13,162	1,425	51,781	5,637	213,119	68,185
46	Per cent of increase <sup>3</sup> .....				133.7	249.8	7.1	104.8	118.6		169.9
47	Per cent increase is of all improved land in farms, 1920.....	66.2	74.5	93.6	4.6	12.2	0.9	47.6	7.2	78.5	25.3
48	Timber and cut-over land, 1920..... acres..	29,760	17,853	48,101	5,243	7,878	2,027	225,480	16,414	32,314	39,894
49	Timber and cut-over land prior to drainage..... acres..	254,249	134,160	254,993	9,182	21,040	3,462	277,281	22,051	189,383	108,079
50	Decrease since drainage..... acres..	224,489	116,307	206,892	3,039	13,162	1,425	51,781	5,637	187,069	68,185
51	Per cent of decrease.....	88.8	86.7	81.1	42.9	62.6	41.3	18.7	25.6	82.9	63.1
52	Other unimproved land, 1920..... acres..		22,545	206		24				4,044	2,803
53	Other unimproved land prior to drainage..... acres..	20,370	75,688	556		24				80,094	2,803
54	Decrease since drainage..... acres..	20,370	56,143	390						56,050	
55	Per cent of decrease.....	100.0	71.3	63.6						98.3	
56	Swampy or subject to overflow, 1920..... acres..	30,199	23,719	21,178	4,047	9,456	4,584	89,842	8,228	23,525	29,103
57	Swampy or subject to overflow prior to drainage..... acres..	195,491	59,688	141,109	9,182	14,989	11,384	228,063	18,630	209,472	119,008
58	Decrease since drainage..... acres..	165,292	35,969	119,931	5,135	5,533	6,800	138,221	10,402	185,947	89,905
59	Per cent of decrease.....	84.6	60.3	85.0	55.9	36.9	59.7	60.6	55.8	88.3	75.5
<b>CAPITAL INVESTED AND COST PER ACRE.</b>											
60	Total capital invested in and required for completion of operating enterprises..... dollars..	946,798	487,860	396,849	31,610	88,803	54,863	1,029,181	64,498	479,937	276,104
61	Capital invested in these enterprises to Dec. 31, 1919..... dollars..	923,653	487,860	396,849	23,610	88,803	54,863	994,187	61,698	479,737	276,104
62	Additional capital required to complete these enterprises..... dollars..	23,145		8,000				35,014	2,800	200	
63	Average cost per acre when completed..... dollars..	8.44	2.29	1.55	2.61	3.37	2.33	3.15	2.41	1.91	1.80
64	Enterprises constructing open ditches only..... dollars..	432,193	245,118	364,282	29,620	88,515	48,661	830,323	58,976	454,154	197,115
65	Average cost per acre when completed..... dollars..	2.43	1.60	1.68	2.61	3.37	2.19	2.90	2.25	1.86	1.52
66	Enterprises constructing open ditches and levees..... dollars..										
67	Average cost per acre when completed..... dollars..										
68	Enterprises constructing tile drains only..... dollars..	261,739	41,476	18,594		288	2,937	37,317		20,434	6,468
69	Average cost per acre when completed..... dollars..	7.66	6.89	4.03		7.02	6.22	6.03		4.18	3.19
70	Enterprises constructing open ditches and tile drains..... dollars..	202,866	201,271	13,973	1,990		3,215	161,541	5,522	5,349	72,521
71	Average cost per acre when completed..... dollars..	4.69	3.73	0.40	2.56		3.77	4.75	9.25	2.05	3.36
<b>CROPS.</b>											
72	Improved land in enterprises reporting—										
73	Wheat as principal crop on drained land..... acres..	107,848	172,256	147,778						169,910	4,792
74	Corn as principal crop on drained land..... acres..	91,464	827			312	12,448			15,788	28,731
75	Sugar beets as principal crop on drained land..... acres..	24,535		49,349							1,073
76	Peas and beans (dried) as principal crops on drained land..... acres..							101,210			21,310
77	Hay as principal crop on drained land..... acres..				6,885	13,112	9,115		9,785		20,922
78	Vegetables as principal crop on drained land..... acres..			720						14,210	4,189
79	Potatoes as principal crop on drained land..... acres..	21,928		10,205		7			623	15,121	17,014
80	Oats as principal crop on drained land..... acres..										
81	Rye as principal crop on drained land..... acres..										
82	Other crops as principal ones on drained land..... acres..										7,762
83	Not reporting principal crop on drained land..... acres..										8,023

<sup>1</sup> Office estimate; the reported figures exceed the improved acreage in all farms in the county as determined by the census of agriculture.<sup>2</sup> When works under construction have been completed.<sup>3</sup> Per cent not shown when more than 1,000.

COUNTY TABLE II.—OPERATING DRAINAGE ENTERPRISES: 1920—Continued.

		Muskegon.	Newaygo.	Oakland.	Oceana.	Osceola.	Ottawa.	Roscom- mon.	Saginaw.	St. Clair.
<b>LAND AREA.</b>										
1	Approximate land area of the county.....	acres.. 322,560	544,640	567,040	347,520	389,280	361,600	344,320	529,920	454,400
2	All land in operating drainage enterprises.....	acres.. 85,919	116,695	179,541	84,587	48,829	252,928	8,360	444,570	194,825
3	Improved land.....	acres.. 77,417	81,258	132,181	37,116	33,214	215,456	820	300,819	142,705
4	Per cent of all improved land in farms.....	71.9	48.5	38.8	24.7	22.5	90.4	7.9	94.8	45.8
5	Timber and cut-over land.....	acres.. 8,146	35,437	47,410	47,063	15,615	37,472	2,436	143,751	52,120
6	Other unimproved land.....	acres.. 366			408			5,104		
7	Swampy or subject to overflow, in enterprises.....	acres.. 4,371	45,072	19,137	9,067	16,912	13,796	3,504	48,229	11,809
8	Suffering a loss of crops from defective drainage.....	acres.. 3,306	6,575	244	1,743	7,075	1,516	120	40,241	1,022
9	Assessed acreage.....	88,689	116,695	213,739	85,903	48,829	389,808	8,360	998,819	200,383
10	Excess over all land in operating enterprises.....	acres.. 2,670		34,193	1,316		133,878		553,749	95,558
<b>DRAINAGE WORKS.</b>										
11	Open ditches:									
12	Completed.....	miles.. 146.8	157.8	249.8	79.5	78.7	388.9	14.4	975.9	410.3
13	Additional under construction.....	miles.. 0.7		3.7			0.1	3.2	5.4	3.1
14	Maximum completed in any enterprise.....	miles.. 10.6	9.7	16.9	8.1	10.1	8.2	4.5	76.0	8.0
15	Maximum width at bottom of ditch.....	feet.. 10	20	25	20	18	30	10	70	40
16	Maximum of average depths of outlet ditches.....	feet.. 5.0	8.0	6.0	6.0	5.5	7.0	5.0	10.0	10.0
17	Mean depth of branch ditches.....	feet.. 3.0	4.4	5.2	3.8	3.5	4.0	4.0	3.6	3.2
18	Tile drains:									
19	Completed.....	miles.. 2.5	6.1	17.4	3.5	0.3	1.5		8.2	
20	Additional under construction.....	miles.. 0.7	1.1	0.5					0.9	0.1
21	Maximum completed in any enterprise.....	miles.. 0.7	1.1	1.6	0.7	0.3	0.6		1.4	
22	Maximum size of tile.....	inches.. 18	20	30	24	8	24		18	6
23	Accessory levees and dikes:									
24	Completed.....	miles..							38.0	
25	Additional under construction.....	miles..								
26	Pumping plants:									
27	Engine capacity.....	horsepower..							1,060	
28	Pump capacity.....	gallons per minute..							60,000	
29	Area served by pumps.....	acres..							10,000	
30	Area drained by open ditches only.....	acres.. 83,946	109,212	147,416	81,923	48,650	250,404	8,360	443,440	103,885
31	Length of these ditches.....	miles.. 142.4	146.2	227.3	76.3	78.7	383.0	17.6	890.8	413.0
32	Average length per acre.....	feet.. 9.0	7.1	8.1	4.9	8.5	8.1	11.1	10.6	11.2
33	Area having open ditches and levees.....	acres..							1,000	
34	Length of these ditches.....	miles..							89.0	
35	Average length per acre.....	feet..								
36	Length of accessory levees.....	miles..							33.0	
37	Area drained by tile only.....	acres.. 80	1,763	13,093	154	170	230		8.55	
38	Length of these tile.....	miles.. 0.3	2.9	9.3	1.1	0.3	0.6		8.5	
39	Average length per acre.....	feet.. 19.8	8.7	3.8	37.7	9.3	13.8			
40	Area drained by open ditches and tile.....	acres.. 1,893	5,720	19,032	2,510		2,294		8.75	940
41	Length of these drains.....	miles.. 7.3	14.8	34.8	5.6		6.9		2.1	0.5
42	Average length per acre.....	feet.. 20.4	13.7	9.7	11.8		15.9			2.8
<b>DEVELOPMENT OF LAND.</b>										
43	Improved land in operating enterprises, 1920.....	acres.. 77,417	81,258	132,181	37,116	33,214	215,456	820	300,819	142,705
44	Improved land prior to drainage.....	acres.. 73,284	72,916	376	24,620	27,151	160,487			
45	Increase since drainage.....	acres.. 4,133	8,342	131,755	12,487	6,063	48,969	820	300,819	142,705
46	Per cent of increase.....	5.6	11.4		50.7	22.3	29.4			
47	Per cent increase is of all improved land in farms, 1920.....	3.8	5.0	38.7	8.3	4.1	20.6	7.9	94.8	45.8
48	Timber and cut-over land, 1920.....	acres.. 8,146	35,437	47,410	47,063	15,615	37,472	2,436	143,751	52,120
49	Timber and cut-over land prior to drainage.....	acres.. 12,208	43,779	179,165	59,450	21,678	80,441	2,776	443,570	104,825
50	Decrease since drainage.....	acres.. 4,062	8,342	131,755	12,387	6,063	48,969	340	209,819	142,705
51	Per cent of decrease.....	33.3	19.1	73.5	20.8	28.0	56.7	12.2	67.6	73.2
52	Other unimproved land, 1920.....	acres.. 366			408			5,104		
53	Other unimproved land prior to drainage.....	acres.. 427			508			5,584	1,000	
54	Decrease since drainage.....	acres.. 71			100			480	1,000	
55	Per cent of decrease.....	16.6			19.7			8.6		
56	Swampy or subject to overflow, 1920.....	acres.. 4,371	45,072	19,137	9,067	16,912	13,796	3,504	48,229	11,809
57	Swampy or subject to overflow prior to drainage.....	acres.. 22,203	75,246	59,664	26,184	25,356	148,585	8,784	242,367	102,040
58	Decrease since drainage.....	acres.. 17,832	30,174	37,527	17,097	8,444	134,789	5,280	194,138	90,231
59	Per cent of decrease.....	80.4	40.1	60.2	68.3	33.3	90.7	60.1	80.1	88.4
<b>CAPITAL INVESTED AND COST PER ACRE.</b>										
60	Total capital invested in and required for completion of operating enterprises.....	dollars.. 92,498	155,830	382,647	93,641	84,744	285,763	14,925	1,547,635	408,033
61	Capital invested in these enterprises to Dec. 31, 1919.....	dollars.. 90,748	155,830	371,331	93,641	84,744	285,666	11,425	1,525,615	395,198
62	Additional capital required to complete these enterprises.....	dollars.. 1,750		11,316			97	3,500	22,020	12,835
63	Average cost per acre when completed.....	dollars.. 1.08	1.34	2.13	1.11	1.74	1.13	1.79	8.48	2.09
64	Enterprises constructing open ditches only.....	dollars.. 87,185	140,046	269,032	85,022	84,485	281,641	14,925	1,353,465	406,733
65	Average cost per acre when completed.....	dollars.. 1.04	1.28	1.82	1.04	1.74	1.12	1.79	8.05	2.10
66	Enterprises constructing open ditches and levees.....	dollars..							168,300	
67	Average cost per acre when completed.....	dollars..								
68	Enterprises constructing tile drains only.....	dollars.. 227	4,568	37,403	349	259	290		23,189	
69	Average cost per acre when completed.....	dollars.. 2.84	2.59	2.86	2.27	1.52	1.26			
70	Enterprises constructing open ditches and tile drains.....	dollars.. 5,086	11,216	76,212	8,270	3,832	3,832		2,681	1,300
71	Average cost per acre when completed.....	dollars.. 2.69	1.96	4.00	3.29		1.67			1.38
<b>CROPS.</b>										
72	Improved land in enterprises reporting—									
73	Wheat as principal crop on drained land.....	acres..		65,095			20,696		73,713	
74	Corn as principal crop on drained land.....	acres.. 955	39,360		2,427		89,592		3,160	139,855
75	Sugar beets as principal crop on drained land.....	acres..				25,094			62,743	385
76	Peas and beans (dried) as principal crops on drained land.....	acres..				8,120			75,588	
77	Hay as principal crop on drained land.....	acres.. 76,462	38,940		34,934			820	55,012	
78	Vegetables as principal crop on drained land.....	acres..		49,305			85,095		29,541	2,405
79	Potatoes as principal crop on drained land.....	acres..		6,018	18				422	
80	Oats as principal crop on drained land.....	acres..								
81	Rye as principal crop on drained land.....	acres..					7,122			
82	Other crops as principal ones on drained land.....	acres..		11,713			3,951		640	
83	Not reporting principal crop on drained land.....	acres..								

<sup>1</sup> Office estimate; the reported figures exceed the improved acreage in all farms in the county as determined by the census of agriculture.

<sup>2</sup> When works under construction have been completed.

<sup>3</sup> Additional area reported under "open ditches only."

<sup>4</sup> Per cent not shown when more than 1,000.

COUNTY TABLE II.—OPERATING DRAINAGE ENTERPRISES: 1920—Continued.

		St. Joseph.	Sanilac.	Shia- wassee.	Tuscola.	Van Buren.	Wash- tenaw.	Wayne.	Wexford.	Other count- ies. <sup>1</sup>
<b>LAND AREA.</b>										
1	Approximate land area of the county.....acres..	321,920	624,040	358,480	529,280	394,880	450,560	396,800	366,280	2,907,520
2	All land in operating drainage enterprises.....acres..	31,151	540,607	281,166	487,423	173,508	191,596	259,667	10,254	10,967
3	Improved land.....acres..	21,426	436,414	199,941	331,924	137,308	104,291	162,850	7,787	7,231
4	Per cent of all improved land in farms.....	9.1	99.1	77.3	98.9	51.0	51.5	76.3	8.8	1.6
5	Timber and cut-over land.....acres..	7,730	103,128	80,925	143,874	4,561	26,615	47,167	734	1,932
6	Other unimproved land.....acres..	1,995	1,065	300	11,625	31,639	690	49,650	1,733	1,804
7	Swampy or subject to overflow, in enterprises.....acres..	3,452	27,752	29,752	18,981	390	16,385	72,546	261	1,991
8	Suffering a loss of crops from defective drainage.....acres..	3,440	27,695	21,176	48,996	.....	45,731	46,243	.....	367
9	Assessed acreage.....acres..	39,977	843,961	554,026	837,194	182,686	268,899	383,322	14,489	11,487
10	Excess over all land in operating enterprises.....acres..	8,826	303,354	302,860	340,771	9,178	77,303	128,655	4,235	500
<b>DRAINAGE WORKS.</b>										
11	Open ditches:									
12	Completed.....miles.....	104.8	1,156.0	501.4	738.0	266.7	267.3	644.8	33.3	39.7
13	Additional under construction.....miles.....	.....	2.1	.....	42.2	.....	3.9	10.4	.....	.....
14	Maximum completed in any enterprise.....miles.....	9.8	25.6	14.9	23.2	25.2	10.0	20.5	9.7	13.1
15	Maximum width at bottom of ditch.....feet.....	16	25	40	70	30	30	30	12	14
16	Maximum of average depths of outlet ditches.....feet.....	9.5	8.0	10.0	13.0	10.0	8.0	8.0	3.0	7.0
17	Mean depth of branch ditches.....feet.....	5.2	3.9	3.3	5.1	3.9	4.1	.....	3.0	6.1
18	Tile drains:									
19	Completed.....miles.....	6.5	0.5	64.1	2.0	10.8	28.8	8.8	0.1	0.5
20	Additional under construction.....miles.....	0.4	.....	.....	.....	.....	.....	.....	.....	.....
21	Maximum completed in any enterprise.....miles.....	1.1	0.5	3.5	0.9	1.1	2.7	2.8	0.1	0.3
22	Maximum size of tile.....inches.....	24	12	24	18	24	27	30	.....	10
23	Accessory levees and dikes:									
24	Completed.....miles.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Additional under construction.....miles.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Pumping plants:									
27	Engine capacity.....horsepower.....	.....	.....	.....	.....	.....	.....	5	.....	.....
28	Pump capacity.....gallons per minute.....	.....	.....	.....	.....	.....	.....	2,000	.....	.....
29	Area served by pumps.....acres.....	.....	.....	.....	.....	.....	.....	100	.....	.....
30	Area drained by open ditches only.....acres.....	24,831	540,502	249,737	485,853	159,872	168,420	246,347	10,154	10,842
31	Length of these ditches.....miles.....	83.9	1,159.0	441.7	778.2	250.0	253.7	632.5	32.8	39.5
32	Average length per acre.....feet.....	17.8	11.3	9.3	8.5	8.3	8.0	13.6	17.1	19.2
33	Area having open ditches and levees.....acres.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Length of these ditches.....miles.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Average length per acre.....feet.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Length of accessory levees.....miles.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Area drained by tile only.....acres.....	161	105	6,066	1,570	1,969	4,813	1,136	.....	100
38	Length of these tile.....miles.....	1.2	0.5	31.0	2.0	4.3	16.8	4.0	.....	0.3
39	Average length per acre.....feet.....	39.4	25.1	27.1	6.7	11.5	18.4	18.6	.....	15.8
40	Area drained by open ditches and tile.....acres.....	6,159	.....	25,393	.....	11,667	18,363	12,184	100	25
41	Length of these drains.....miles.....	26.6	.....	92.8	.....	23.2	29.5	27.5	0.6	0.4
42	Average length per acre.....feet.....	22.8	.....	19.3	.....	10.5	8.5	11.9	31.7	84.5
<b>DEVELOPMENT OF LAND.</b>										
43	Improved land in operating enterprises, 1920.....acres.....	21,426	436,414	199,941	331,924	137,308	164,291	162,850	7,787	7,231
44	Improved land prior to drainage.....acres.....	3,534	.....	1,759	.....	62,700	552	2,975	1,339	1,502
45	Increase since drainage.....acres.....	17,892	436,414	198,182	331,924	74,608	163,739	159,875	6,448	5,729
46	Per cent of increase.....	506.3	.....	.....	.....	119.0	.....	.....	481.6	381.4
47	Per cent increase is of all improved land in farms, 1920.....	7.6	96.1	76.6	98.9	28.0	51.4	74.9	7.3	1.2
48	Timber and cut-over land, 1920.....acres.....	7,730	103,128	80,925	143,874	4,561	26,615	47,167	734	1,932
49	Timber and cut-over land prior to drainage.....acres.....	25,408	539,340	278,672	475,798	50,998	189,346	135,835	734	5,560
50	Decrease since drainage.....acres.....	17,678	436,212	197,747	331,924	46,537	162,731	88,668	.....	3,634
51	Per cent of decrease.....	69.6	80.9	71.0	69.8	90.9	85.9	65.3	.....	65.3
52	Other unimproved land, 1920.....acres.....	1,995	1,065	300	11,625	31,639	690	49,650	1,733	1,804
53	Other unimproved land prior to drainage.....acres.....	2,209	1,267	735	11,625	60,710	1,698	120,857	8,181	3,559
54	Decrease since drainage.....acres.....	214	202	435	.....	29,071	1,008	71,207	6,448	2,086
55	Per cent of decrease.....	9.7	15.9	59.2	.....	47.9	59.4	58.9	78.8	53.7
56	Swampy or subject to overflow, 1920.....acres.....	3,452	27,752	29,752	18,981	390	16,385	72,546	261	1,991
57	Swampy or subject to overflow prior to drainage.....acres.....	21,620	400,351	88,739	302,199	28,332	34,068	199,269	8,236	7,775
58	Decrease since drainage.....acres.....	18,177	372,599	58,987	283,218	27,942	17,683	126,723	8,025	5,784
59	Per cent of decrease.....	84.0	93.1	66.5	93.7	98.6	51.0	63.6	96.9	74.4
<b>CAPITAL INVESTED AND COST PER ACRE.</b>										
60	Total capital invested in and required for completion of operating enterprises.....dollars.....	149,348	1,374,641	917,107	1,428,963	380,957	394,502	411,151	18,295	45,956
61	Capital invested in these enterprises to Dec. 31, 1919.....dollars.....	149,348	1,372,961	917,107	1,301,398	380,957	383,280	408,146	18,295	45,956
62	Additional capital required to complete these enterprises.....dollars.....	.....	1,680	.....	127,565	.....	11,222	3,005	.....	.....
63	Average cost per acre when completed.....dollars.....	4.79	2.54	3.26	2.93	2.20	2.06	1.68	1.78	4.19
64	Enterprises constructing open ditches only.....dollars.....	128,756	1,373,241	708,764	1,425,277	351,910	307,444	378,957	17,862	45,037
65	Average cost per acre when completed.....dollars.....	5.19	2.54	2.84	2.93	2.20	1.83	1.54	1.76	4.15
66	Enterprises constructing open ditches and levees.....dollars.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
67	Average cost per acre when completed.....dollars.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
68	Enterprises constructing tile drains only.....dollars.....	1,273	1,400	57,219	3,686	9,291	33,496	11,229	.....	859
69	Average cost per acre when completed.....dollars.....	7.91	13.33	9.48	2.35	4.72	6.96	9.88	.....	8.59
70	Enterprises constructing open ditches and tile drains.....dollars.....	19,319	.....	151,124	.....	19,756	53,592	20,965	433	60
71	Average cost per acre when completed.....dollars.....	3.14	.....	5.95	.....	1.09	2.92	1.72	4.33	2.40
<b>CROPS.</b>										
72	Improved land in enterprises reporting—									
73	Wheat as principal crop on drained land.....acres.....	6,187	436,142	794	149,241	.....	164,003	108,480	.....	.....
74	Corn as principal crop on drained land.....acres.....	7,069	.....	80,258	.....	.....	.....	.....	.....	.....
75	Sugar beets as principal crop on drained land.....acres.....	.....	272	118,889	118,172	.....	288	.....	.....	.....
76	Peas and beans (dried) as principal crops on drained land.....acres.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
77	Hay as principal crop on drained land.....acres.....	.....	.....	.....	.....	.....	.....	.....	7,600	4,831
78	Vegetables as principal crop on drained land.....acres.....	.....	.....	.....	.....	5,460	.....	51,210	.....	.....
79	Potatoes as principal crop on drained land.....acres.....	3,329	.....	.....	42,674	.....	.....	.....	.....	.....
80	Oats as principal crop on drained land.....acres.....	4,341	.....	.....	.....	.....	.....	1,374	.....	.....
81	Rye as principal crop on drained land.....acres.....	394	.....	.....	.....	.....	.....	.....	.....	.....
82	Other crops as principal ones on drained land.....acres.....	126	.....	.....	21,837	181,848	.....	68	.....	.....
83	Not reporting principal crop on drained land.....acres.....	.....	.....	.....	.....	.....	.....	1,718	187	2,400

<sup>1</sup> Includes only Alcona, Alpena, Benzie, Charlevoix, Emmet, Grand Traverse, Lapeer, and Presque Isle Counties.<sup>2</sup> Office estimate; the reported figures exceed the improved acreage in all farms in the county as determined by the census of agriculture.<sup>3</sup> When works under construction have been completed.<sup>4</sup> Per cent not shown when more than 1,000.

# MANUFACTURES—MICHIGAN.

## EXPLANATION OF TERMS.

**Scope of census.**—Census statistics of manufactures are compiled primarily for the purpose of showing the absolute and relative magnitude of the different branches of industry covered and their growth or decline. Incidentally, the effort is made to present data throwing light upon character of ownership, size of establishments, and similar subjects. When use is made of the statistics for these purposes it is imperative that due attention be given to their limitations, particularly in connection with any attempt to derive from them figures purporting to show average wages, cost of production, or profits.

The census did not cover establishments which were idle during the entire year or for which products were valued at less than \$500, or the manufacturing done in educational, eleemosynary, and penal institutions.

**Period covered.**—The returns relate to the calendar year 1919, or the business year which corresponded most nearly to that calendar year, and cover a year's operations, except for establishments which began or discontinued business during the year.

**The establishment.**—As a rule, the term "establishment" represents a single plant or factory, but in some cases it represents two or more plants which were operated under a common ownership or for which one set of books of account was kept. If, however, the plants constituting an establishment as thus defined were not all located within the same city, county, or state, separate reports were secured in order that the figures for each plant might be included in the statistics for the city, county, or state in which it was located. In some instances separate reports were secured for different industries carried on in the same establishment.

**Classification by industries.**—The establishments were assigned to the several classes of industries according to their products of chief value. The products reported for a given industry may thus, on the one hand, include minor products different from those covered by the class designation, and, on the other hand, may not represent the total product covered by this designation, because some of this class of product may be made in establishments in which it is not the product of chief value.

As a rule, the same designation is used for the industry wherever it appears, although all of the products indicated by this designation were not manufactured in the state or city for which these statistics are presented. In some instances the wording is changed so as to more correctly describe the products represented. For a number of industries subclasses are shown which indicate more definitely the kind of products.

**Selected industries.**—The general tables at the end of this section give the principal facts separately for the industries of the state. A selection has been made of certain leading industries of the state for more detailed consideration. Sometimes an industry of great importance has to be omitted because it comprises so few establishments that a detailed presentation would reveal the operations of individual concerns.

**Comparisons with previous censuses.**—Owing to changes in industrial conditions it is not always possible to classify establishments by industries in such a way as to permit accurate comparison with preceding censuses. At the census of 1909 the figures for kindred industries were combined. This practice has been followed in compiling the statistics for 1919 and 1914 when placed in com-

parison with those for 1909 and prior years. The comparative summary for 1919, 1914, and 1909, therefore, does not show separately all the industries given for 1919 in the detailed statement for the state.

**Influence of increased prices.**—In comparing figures for cost of materials, value of products, and value added by manufacture in 1919 with the corresponding figures for earlier censuses, account should be taken of the general increase in the prices of commodities during recent years. To the extent to which this factor has been influential the figures fail to afford an exact measure of the increase in the volume of business.

**Persons engaged in the industry.**—The following general classes of persons engaged in the manufacturing industries were distinguished: (1) Proprietors and firm members, (2) salaried officers of corporations, (3) superintendents and managers, (4) clerks (including other subordinate salaried employees), and (5) wage earners. In the reports for the censuses of 1904 and 1899 these five classes were shown according to the three main groups: (1) Proprietors and firm members, (2) salaried officials, clerks, etc., and (3) wage earners. In comparative tables covering the census of 1904 it is of course necessary to group the figures according to the classification that was employed at the earlier censuses.

The number of persons engaged in each industry, segregated by sex, and, in the case of wage earners, also by age (whether under 16 or 16 and over), was reported for a single representative day. The 15th of December was selected as representing for most industries normal conditions of employment, but where this date was not a representative day an earlier date was chosen.

In the case of employees other than wage earners the number thus reported for the representative date has been treated as equivalent to the average for the year, since the number of employees of this class does not ordinarily vary much from month to month. In the case of wage earners the average has been obtained in the manner explained in the next paragraph.

In addition to the more detailed report by sex and age of the number of wage earners on the representative date, a report was obtained of the number employed on the 15th of each month, by sex, without distinction of age. From these figures the average number of wage earners for the year has been calculated by dividing the sum of the numbers reported for the several months by 12. The importance of the industry as an employer of labor is believed to be more accurately measured by this average than by the number employed at any one time or on a given day.

The number of wage earners reported for the representative day, though given in certain tables for each separate industry, is not totaled for all industries combined for any state, because, in view of the variations of date, such a total is not believed to be significant. It would involve more or less duplication of persons working in different industries at different times, would not represent the total number employed in all industries at any one time, and would give an undue weight to seasonal industries as compared with industries in continual operation. This total, however, is shown for the different cities, because the limited area and greater regularity of employment largely overcame the objection incident to its publication for the separate states or the United States.



In order to determine as nearly as possible the age distribution of the average number of wage earners for a given state as a whole, the per cent distribution by age of the wage earners in each industry for December 15, or the nearest representative day, has been calculated from the actual numbers reported for that date. The percentages thus obtained have been applied to the average number of wage earners for the year in that industry to determine the average numbers 16 years and over, and under 16, employed. These calculated averages for the several industries have been added to give the average distribution for each state as a whole and for the entire country.

**Salaries and wages.**—Under these heads are given the total payments during the year for salaries and wages, respectively. The Census Bureau has not undertaken to calculate the average annual earnings of either salaried employees or wage earners. Such averages would possess little real value, because they would be based on the earnings of employees of both sexes, of all ages, and of widely varying degrees of skill. Furthermore, so far as wage earners are concerned, it would be impossible to calculate accurately even so simple an average as this, since the number of wage earners fluctuates from month to month in every industry, and in some cases to a very great extent. The Census Bureau's figures for wage earners, as already explained, are averages based on the number employed on the 15th of each month, and while representing the number according to the pay rolls to whom wages were paid on that date, no doubt represent a larger number than would be required to perform the work in any industry if all were continuously employed during the year.

**Prevailing hours of labor.**—No attempt was made to ascertain the number of wage earners working a given number of hours per week. The inquiry called merely for the prevailing practice followed in each establishment. Occasional variations in hours in an establishment from one part of the year to another were disregarded, and no attention was paid to the fact that a few wage earners might have hours differing from those of the majority. All the wage earners of each establishment are therefore counted in the class within which the establishment itself falls. In most establishments, however, practically all the wage earners work the same number of hours, so that the figures give a substantially correct representation of the hours of labor.

**Capital.**—The instructions on the schedule for securing data relating to capital were as follows:

"The answer should show the total amount of capital, both owned and borrowed, on the last day of the business year reported. All the items of fixed and live capital may be taken at the amounts carried on the books. If land or buildings are rented, that fact should be stated and no value given. If a part of the land or buildings is owned, the remainder being rented, that fact should be so stated and only the value of the owned property given. Do not include securities and loans representing investments in other enterprises."

These instructions were identical with those employed at the censuses of 1914 and 1909. The data compiled in respect to capital, however, at both censuses, as well as at all preceding censuses of manufactures, have been so defective as to be of little value except

as indicating very general conditions. In fact, it has been repeatedly recommended by the census authorities that this inquiry be omitted from the schedule. While there are some establishments whose accounting systems are such that an accurate return for capital could be made, this is not true of the great majority, and the figures therefore do not show the actual amount of capital invested.

**Materials.**—The statistics as to cost of materials relate to the materials used during the year, which may be more or less than the materials purchased during the year. The term "materials" covers fuel, rent of power and heat, mill supplies, and containers, as well as materials which form a constituent part of the product.

**Rent and taxes.**—The taxes include certain Federal taxes and state, county, and local taxes. Under "Federal taxes" there are included the internal-revenue tax on manufactures (tobacco, beverages, etc.), excise taxes when included in values reported for products, corporation capital stock tax, and corporation income tax, but not the income tax for individuals and partners.

**Value of products.**—The amounts given under this heading represent the selling value or price at the factory of all products manufactured during the year, which may differ from the value of the products sold.

**Value added by manufacture.** The value of products is not always a satisfactory measure of either the absolute or the relative importance of a given industry, because only a part of this value is actually created by the manufacturing processes carried on in the industry itself. Another part, and often by far the larger one, represents the value of the materials used. For many purposes, therefore, the best measure of the importance of an industry, from a manufacturing standpoint, is the value created by the manufacturing operations carried on within the industry. This value is calculated by deducting the cost of the materials used from the value of the products. The figure thus obtained is termed in the census reports "value added by manufacture."

**Cost of manufacture and profits.**—The census data do not show the entire cost of manufacture, and consequently can not be used for the calculation of profits. No account has been taken of depreciation or interest, rent of offices and buildings other than factory or works, insurance, ordinary repairs, advertising, and other sundry expenses.

**Primary horsepower.**—This item represents the total primary power generated by the manufacturing establishments plus the amount of power, principally electric, rented from other concerns. It does not cover the power of electric motors taking their current from dynamos driven by primary power machines operated by the same establishment, because the inclusion of such power would obviously result in duplication. The figures for primary horsepower represent the rated capacity of the engines, motors, etc., and not the amount of power in actual daily use.

**Fuel.**—Statistics of the quantity of fuel used are shown only for anthracite and bituminous coal, coke, fuel oils, gasoline and other volatile oils, and gas—natural and manufactured—and represent the quantity used during the year. As only the principal kinds of fuel are shown, comparison as to the total cost of all fuel is impracticable. A comparison, however, of the total quantities of the several kinds of fuel used in 1919 and 1914 is given.

## GENERAL STATISTICS.

**General character of the state.**—Michigan has a gross area of 57,980 square miles, of which 57,480 represent land surface. The inhabitants of the state in 1900 numbered 2,420,982; in 1910, 2,810,173; and in 1920, 3,668,412. In total population Michigan ranked seventh among the states in 1920. The number of inhabitants per square mile in 1910 was 48.9, the corresponding figure for 1920 being 63.8.

In 1920 there were 28 cities in the state (see Table 6) having more than 10,000 inhabitants. The statistics for Hamtramck and Highland Park, however, can not be shown separately without the possibility of disclosing the operations of individual establishments. The combined population of these 28 cities in 1920 was 1,894,612, which formed 51.6 per cent of the total population of the state. In 1919 these cities reported 81.8 per cent of the value of the state's manufactured products.

**Importance and growth of manufactures** (Table 1).—The large increases in salaries and wages, cost of materials, and value of products from 1914 to 1919, as presented in Table 1, are largely due to the change in industrial conditions brought about by the World War, and therefore can not properly be used to measure the growth of manufactures during the census period 1914 to 1919. The increases shown, however, in average number of wage earners and horsepower are indicative of a decided growth in the manufacturing activities of the state. The addition of the Federal income tax since 1914 will account for the large increase in "Rent and taxes."

**Statistics for the state, by counties** (Table 2).—Figures are not available for comparison of county totals for 1919 with those of prior censuses. Of the 83 counties in the state, Wayne and Kent, which include the cities of Detroit and Grand Rapids, reported 60.5 per cent of the total value of products in the state in 1919 and 59.8 per cent of the average number of wage earners.

**Principal industries, ranked by value of products** (Table 3).—The ranking of industries by value of products is often misleading as to their real importance from a manufacturing standpoint. Their ranking would change materially if based upon the average number of wage earners or value added by manufacture.

**Persons engaged in manufacturing industries** (Table 4).—The age classification of the average number of wage earners in this and other tables is an estimate obtained by the method described in the "Explanation of terms." The classification by sex for 1919 was reported separately, but for 1914 and 1909 was

obtained in the same manner as the distribution by age. Figures for individual industries will be found in Table 36.

**Average number of wage earners for selected industries** (Table 5).—The industries covered by this table are those which employed more than 2,000 wage earners in 1919, and for which statistics can be shown without the possibility of disclosing the operations of individual establishments.

**Average number of wage earners, by sex and age, and value of products for cities of 10,000 inhabitants or more** (Table 6).—This table shows increases from 1914 to 1919 in practically all details for the cities for which comparative figures are available.

**Wage earners, by months** (Table 7).—The statistics for wage earners in this table are intended to show the steadiness of employment, or the reverse, in accordance with the industrial conditions existing during the several census years.

**Wage earners, by months, for selected industries and for cities** (Table 8).—In addition to the number of wage earners employed by months for selected industries, this table gives similar data for males and females for all industries combined for the state and for cities of 10,000 inhabitants or more, and also the number of females for industries in which a large number of females were employed. There were a number of industries in the state in 1919 in which the number of female wage earners predominated.

**Prevailing hours of labor** (Table 9).—Since 1914 there has been a marked shortening of the working day in Michigan. In that year 11.6 per cent of the wage earners were included in the group "48 and under," as against 35.1 per cent in 1919. In 1914 the "60" and "Over 60" groups constituted 27.6 per cent of the total wage earners, as compared with 8.3 per cent in 1919.

**Size of establishments, by average number of wage earners, for selected industries and for cities** (Table 10).—The predominance of the number of small establishments, when based on the number of wage earners employed, is evidenced in this table by the fact that of the total number of establishments in the state, 91.4 per cent were in the several classes having fewer than 101 wage earners, while such establishments employed but 17.9 per cent of the total number of wage earners. On the other hand, the establishments employing an average of more than 100 wage earners represented only 8.6 per cent of the total number of manufacturing establishments in the state, but reported 82.1 per cent of the total number of wage earners.

**Size of establishments, by value of products** (Table 11).—At the censuses of 1909 and 1914 establishments with products valued at "\$100,000 to \$1,000,000" constituted one group, but at the census of 1919 this group was subdivided into "\$100,000 to \$500,000" and "\$500,000 to \$1,000,000." Separate figures for the number of establishments and value of products have been compiled, however, from the returns for 1914. The table, therefore, gives combined figures for these two groups for all items for 1909 and for the average number of wage earners and value added by manufacture for 1914.

**Size of establishments, by value of products, for selected industries** (Table 12).—In the preparation of this table it was necessary in several instances to combine the establishments of one group of the industry with those of some other group of that industry to avoid the possibility of disclosing the operations of individual establishments.

**Size of establishments, by value of products, for cities of 10,000 inhabitants or more** (Table 13).—This table strikingly illustrates the fact that the number of establishments of itself is no real index of manufacturing activities.

**Character of ownership** (Table 14).—The preponderance of corporate ownership is clearly brought out in this table. Although corporations owned but 39.1 per cent of the number of establishments in the state in 1919, they reported 94.3 per cent of the average number of wage earners and 95.2 per cent of the total value of products. During the five-year period 1914 to

1919 the average number of wage earners in corporations increased 202,687, or 83.8 per cent, and the value of products \$2,312,599,775, or 234.4 per cent.

**Manufactures, by population groups, in cities of 10,000 inhabitants or more** (Table 15).—This table shows that the combined number of establishments in the 28 cities in 1919 represented 57.7 per cent of the total in the state. They reported in that year 79.8 per cent of the average number of wage earners and 81.8 per cent of the value of products.

**Principal industries in Detroit, Flint, Grand Rapids, Lansing, and Saginaw, with per cent of total for state** (Table 16).—This table includes the principal industries in each of the 5 cities in the state having 50,000 inhabitants or more in 1920, figures being given for those which can be shown without disclosing the operations of individual establishments.

**Number and horsepower of types of prime movers** (Table 17).—The total horsepower reported in 1919, as compared with that for 1914, shows an increase of 471,745 horsepower, or 64.6 per cent. This increase, however, is chiefly due to the gain of 356,868 horsepower, or 185.6 per cent, in rented power. The owned power increased 114,877 horsepower, or 21.3 per cent, during the five-year period.

**Fuel consumed** (Table 18).—This table shows the principal kinds of fuel used by the manufacturing plants in the state in 1919 and 1914 and gives separately for 1919 the amounts used by a number of industries which are large consumers of fuel.

TABLE 1.—COMPARATIVE SUMMARY: 1919, 1914, 1909, 1904, AND 1899.

	1919	1914	1909	1904	1899	PER CENT OF INCREASE. <sup>1</sup>			
						1914-1919	1909-1914	1904-1909	1899-1904
Number of establishments.....	8,305	8,724	9,159	7,446	7,310	-4.8	-4.7	23.0	1.9
Persons engaged.....	549,069	320,611	271,071	200,196	( <sup>2</sup> )	71.3	18.3	35.4	.....
Proprietors and firm members.....	6,762	7,725	8,965	7,732	( <sup>2</sup> )	-12.5	-13.8	15.9	.....
Salaried employees.....	71,065	41,796	30,607	17,235	13,350	70.0	36.6	77.6	29.1
Wage earners (average number).....	471,242	271,090	231,499	175,229	155,800	73.8	17.1	32.1	12.5
Primary horsepower.....	1,202,128	730,383	598,288	440,890	368,497	64.6	27.7	35.7	19.6
Capital.....	\$2,340,954,312	\$869,143,114	\$583,946,965	\$337,894,102	\$246,996,529	168.3	48.8	72.8	36.8
Salaries and wages.....	788,743,091	238,524,979	153,838,044	98,749,270	74,867,786	230.7	55.0	55.8	31.9
Salaries.....	140,034,998	50,272,695	34,870,214	17,470,433	12,335,974	164.8	61.4	99.6	41.6
Wages.....	639,708,093	182,252,284	118,967,830	81,278,837	62,531,812	251.0	53.2	46.4	30.0
Paid for contract work.....	3,232,883	7,973,706	3,397,011	4,475,054	( <sup>2</sup> )	3.3	134.7	-24.1	.....
Rent and taxes.....	170,170,376	18,481,171	11,757,437	4,072,474	( <sup>2</sup> )	820.8	57.2	.....	.....
Cost of materials.....	1,919,243,243	592,801,004	368,612,022	230,080,931	175,966,128	223.8	60.8	60.2	30.8
Value of products.....	3,466,188,483	1,085,162,432	685,109,169	429,120,060	319,991,850	219.1	58.5	50.7	34.2
Value added by manufacture.....	1,546,945,240	493,361,368	310,497,147	199,039,129	143,725,728	213.6	55.9	59.0	38.5

<sup>1</sup> A minus sign (—) denotes decrease.<sup>2</sup> Figures not available.<sup>3</sup> Exclusive of internal revenue.<sup>4</sup> Value of products less cost of materials.

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TABLE 2.—STATISTICS FOR THE STATE, BY COUNTIES: 1919.

COUNTY.	Number of establishments.	WAGE EARNERS.		Rent and taxes.	Cost of materials.	Value of products.	Value added by manufacture.	Primary horsepower.
		Average number.	Wages.					
The state.....	8,305	471,242	\$639,708,093	\$170,170,376	\$1,919,243,243	\$3,466,188,483	\$1,546,945,240	1,202,128
Alcona.....	8	24	13,120	624	120,557	164,840	44,292	177
Alger.....	15	1,421	1,590,669	175,747	2,304,070	5,710,430	3,406,360	7,146
Allegan.....	105	1,567	1,659,208	659,400	3,028,057	12,244,890	4,216,933	11,241
Alpena.....	39	1,378	1,533,224	840,033	4,887,750	9,361,640	4,473,890	19,548
Antrim.....	18	364	346,062	66,039	1,469,635	2,771,329	1,311,694	1,215
Arenac.....	12	29	29,895	2,011	203,109	285,764	82,655	230
Baraga.....	30	694	715,796	50,177	2,534,071	2,098,235	2,098,235	2,086
Barry.....	51	1,045	1,059,365	147,269	2,810,522	5,451,217	2,640,695	2,998
Bay.....	132	5,822	6,217,587	1,737,938	19,952,846	36,039,756	16,086,910	32,812
Benzie.....	12	97	77,326	17,953	453,827	637,489	183,662	222
Berrien.....	206	6,473	6,846,463	1,869,425	18,735,563	36,431,623	17,696,060	13,603
Branch.....	66	1,081	838,615	115,237	4,694,405	7,817,604	2,623,199	8,038
Calhoun.....	203	9,989	12,590,800	3,409,194	36,721,861	73,217,755	36,495,894	31,003
Cass.....	48	1,160	1,299,271	350,009	2,716,206	6,358,266	3,642,060	4,099
Charlevoix.....	35	1,427	1,420,894	369,761	3,840,490	8,119,186	4,278,696	5,522
Cheboygan.....	26	607	594,589	254,187	3,356,968	5,095,039	1,738,071	5,187
Chippewa.....	65	1,916	2,197,143	598,429	7,489,351	12,720,989	5,231,638	8,280
Clare.....	10	24	19,118	2,882	186,610	260,943	74,338	151
Clinton.....	47	446	482,875	20,825	1,694,159	3,022,596	1,328,437	2,098
Crawford.....	16	489	624,048	84,063	812,546	2,041,895	1,229,349	1,893
Delta.....	89	3,002	3,851,081	493,369	6,127,069	12,937,399	6,810,330	16,513
Dickinson.....	49	612	732,835	41,251	878,588	2,192,823	1,314,235	2,260
Easton.....	68	1,371	1,304,102	142,556	4,762,076	8,461,023	3,698,947	5,747
Emmet.....	39	978	919,885	64,541	2,070,786	4,123,847	2,053,061	5,503
Genesee.....	151	24,884	38,589,156	12,345,743	174,420,503	278,321,516	103,900,963	38,998
Gladwin.....	13	24	23,600	4,469	292,007	350,355	58,348	290
Gogebie.....	49	642	771,324	38,807	1,076,792	2,134,104	1,057,312	1,740
Grand Traverse.....	63	991	871,185	108,225	2,321,874	4,234,083	1,912,209	3,538
Gratiot.....	61	1,700	2,261,171	632,994	21,162,890	27,165,994	6,003,104	6,973
Hillsdale.....	63	791	771,627	87,098	6,915,230	9,377,918	2,462,688	2,793
Houghton.....	123	2,038	2,144,489	216,581	28,597,364	38,585,922	9,988,558	6,167
Huron.....	45	480	535,277	192,541	4,601,873	6,154,760	1,652,887	3,856
Ingham.....	180	12,441	14,065,615	4,044,735	65,874,887	105,985,903	40,111,016	24,362
Ionia.....	82	3,144	3,089,449	389,777	9,503,730	16,420,508	6,925,778	7,641
Iosco.....	18	228	324,675	19,556	394,761	1,044,389	649,638	1,380
Iron.....	53	328	351,173	13,175	580,624	1,265,147	684,523	707
Isabella.....	30	400	397,888	69,788	3,111,274	4,577,862	1,466,588	1,353
Jackson.....	193	10,073	11,714,343	740,950	31,221,013	52,065,986	20,844,973	20,660
Kalamazoo.....	224	10,228	11,361,862	2,314,850	37,700,972	67,086,766	29,385,794	50,024
Kalkaska.....	10	62	59,615	2,876	77,737	202,961	125,224	398
Kent.....	700	25,640	28,395,218	4,141,176	58,729,590	122,065,487	63,335,897	61,549
Lake.....	7	10	8,401	479	65,018	79,645	14,627	50
Lapeer.....	44	277	275,205	14,298	1,147,473	1,735,724	588,251	1,282
Leelanau.....	17	61	45,758	1,291	226,941	393,504	166,563	746
Lenawee.....	131	3,009	3,049,761	503,218	19,159,576	27,521,091	8,361,515	10,198
Livingston.....	42	274	305,538	35,419	2,652,711	3,405,099	752,388	1,102
Luce.....	12	745	845,584	95,107	2,255,682	3,737,408	1,481,726	2,589
MacKinnac.....	23	256	228,602	13,422	267,395	768,053	500,658	728
Macomb.....	93	692	920,544	101,666	2,843,850	5,158,151	2,314,301	2,891
Manistee.....	51	2,076	1,717,315	324,652	3,953,197	8,174,701	4,221,504	9,196
Marquette.....	82	1,960	2,219,738	145,008	5,470,944	9,256,186	3,785,242	8,033
Mason.....	12	1,719	1,467,552	444,586	3,545,194	7,616,702	4,071,508	4,117
Mecosta.....	34	481	354,030	29,875	1,549,694	2,423,898	874,204	2,050
Menominee.....	59	2,094	2,192,327	511,512	4,837,382	10,128,286	5,290,904	13,375
Midland.....	17	1,121	1,545,743	355,223	2,905,292	5,827,562	2,922,270	12,044
Missaukee.....	12	589	388,676	152,886	467,526	1,367,225	899,699	1,447
Monroe.....	60	3,187	3,674,451	709,188	9,129,733	17,661,031	8,531,298	18,664
Montcalm.....	57	852	620,374	84,549	3,183,089	4,636,383	1,463,294	1,715
Montmorency.....	12	51	40,127	901	143,926	204,217	60,291	168
Muskegon.....	203	12,664	14,950,232	3,699,818	33,927,112	72,169,248	38,242,136	31,097
Newaygo.....	46	508	461,738	69,620	2,402,979	3,568,433	1,165,454	2,895
Oakland.....	164	8,125	11,383,621	5,367,954	68,903,199	108,195,982	39,292,783	15,996
Oceana.....	44	439	284,972	26,174	1,669,816	2,362,915	693,090	1,164
Ogemaw.....	6	41	47,494	1,302	88,700	199,002	110,302	214
Ontonagon.....	27	863	708,656	85,810	598,629	2,140,277	1,541,048	2,653
Osceola.....	23	294	301,737	37,083	1,954,010	2,543,674	580,664	1,882
Otsego.....	11	353	276,695	41,586	1,258,382	4,976,490	783,048	1,009
Ottawa.....	105	5,588	5,399,169	976,221	22,192,115	37,002,265	14,810,160	11,049
Presque Isle.....	19	765	875,445	57,632	1,900,729	3,492,235	1,591,506	2,002
Saginaw.....	262	12,319	13,571,961	1,512,642	27,009,517	56,525,989	29,516,472	61,331
St. Clair.....	157	4,819	5,542,821	594,867	12,287,522	23,952,075	11,634,553	14,240
St. Joseph.....	86	3,050	3,084,445	394,281	6,104,948	13,496,165	7,391,217	7,473
Sanilac.....	39	333	266,267	106,229	2,911,490	3,768,671	857,181	2,178
Schoolcraft.....	27	989	1,023,802	247,210	3,735,866	5,804,866	2,069,000	13,069
Shiawassee.....	67	1,867	2,316,769	522,434	6,806,352	11,842,842	4,976,490	4,691
Tuscola.....	44	313	351,946	128,732	3,244,727	4,310,850	1,066,120	2,664
Van Buren.....	99	1,128	1,077,748	163,458	4,541,993	7,289,038	2,747,045	3,189
Washtenaw.....	148	2,610	3,206,904	523,295	8,829,273	15,451,733	6,622,480	10,698
Wayne.....	2,377	256,144	390,184,190	115,229,410	1,058,452,030	1,975,599,670	917,147,634	483,538
Wexford.....	43	1,835	1,746,132	478,317	5,999,267	10,313,888	4,814,621	18,003
All other counties <sup>1</sup> .....	7	51	54,015	6,764	134,948	254,222	119,274	409

<sup>1</sup>All other counties comprise Keweenaw, Oscoda, and Roscommon.

TABLE 3.—PRINCIPAL INDUSTRIES, RANKED BY VALUE OF PRODUCTS: 1919.

INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
		Average number.	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.			Average number.	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.
All industries.....	8,305	471,242	100.0	\$3,466,188	100.0	\$1,546,945	100.0	Wood distillation.....	16	1,586	0.3	\$10,651	0.3	\$4,868	0.3
Automobiles.....	68	128,937	26.9	1,332,076	38.4	522,872	33.8	Patent medicines and compounds.....	70	1,392	0.3	9,948	0.3	5,736	0.4
Automobile bodies and parts.....	203	49,048	10.4	288,307	8.3	137,744	8.9	Cement.....	11	1,387	0.3	9,643	0.3	5,081	0.4
Foundry and machine-shop products.....	523	39,430	8.4	169,462	4.9	100,662	6.5	Tobacco, chewing and smoking, and snuff.....	14	816	0.2	9,574	0.3	4,751	0.3
Engines, steam, gas, and water.....	35	14,258	3.0	101,089	2.9	44,939	2.9	Clothing, men's.....	31	1,750	0.4	9,189	0.3	3,643	0.2
Shipbuilding, steel, new vessels and small boats.....	7	15,996	3.4	83,124	2.4	48,078	3.1	Hardware.....	30	2,174	0.5	8,761	0.3	5,569	0.4
Furniture.....	171	18,496	3.9	69,497	2.0	41,187	2.7	Iron and steel, forgings, not made in steel works or rolling mills.....	15	1,596	0.3	8,559	0.3	3,097	0.2
Paper and wood pulp.....	39	9,561	2.0	66,300	1.9	25,046	1.7	Springs, steel, car and carriage, not made in steel works or rolling mills.....	6	1,870	0.4	8,472	0.2	3,046	0.2
Brass, bronze, and copper products.....	60	10,306	2.2	62,708	1.8	23,859	1.5	Iron and steel, steel works and rolling mills.....	7	1,455	0.3	8,345	0.2	5,443	0.4
Slaughtering and meat packing.....	24	1,712	0.4	59,585	1.7	9,810	0.6	Screws, machine.....	20	1,624	0.3	7,936	0.2	4,313	0.3
Rubber tires, tubes, and rubber goods, not elsewhere specified.....	7	5,044	1.1	50,318	1.5	29,139	1.9	Stamped ware, not elsewhere specified.....	21	1,185	0.3	7,636	0.2	3,793	0.3
Lumber and timber products.....	380	14,923	3.2	46,044	1.3	30,350	2.0	Stoves, gas and oil.....	7	1,001	0.2	7,497	0.2	4,504	0.3
Leather, tanned, curried, and finished.....	28	3,464	0.7	45,801	1.3	13,349	0.9	Corsets.....	12	1,629	0.3	7,298	0.2	4,385	0.3
Bread and other bakery products.....	944	5,088	1.1	44,923	1.3	16,808	1.1	Refrigerators.....	12	1,655	0.4	6,718	0.2	3,513	0.2
Flour-mill and gristmill products.....	345	1,128	0.2	44,144	1.3	5,959	0.4	Boots and shoes.....	15	1,120	0.2	6,046	0.2	1,862	0.1
Lumber, planing-mill products, not including planing mills connected with sawmills.....	192	5,250	1.1	37,869	1.1	13,860	0.9	Lamps and reflectors.....	8	924	0.2	5,564	0.2	3,472	0.2
Chemicals.....	36	5,712	1.2	37,851	1.1	22,107	1.4	Mineral and soda waters.....	131	602	0.1	5,467	0.2	2,602	0.2
Food preparations, not elsewhere specified.....	37	2,483	0.5	35,702	1.0	16,889	1.1	Musical instruments, pianos.....	8	1,122	0.2	5,897	0.2	2,574	0.2
Butter.....	231	984	0.2	33,385	1.0	3,805	0.3	Liquors, malt.....	25	779	0.2	5,276	0.2	3,249	0.2
Smelting and refining, copper.....	4	700	0.2	32,725	0.9	6,980	0.5	Boxes, wooden packing, except cigar boxes.....	46	1,481	0.3	4,978	0.1	2,231	0.1
Condensed milk.....	32	1,064	0.2	27,738	0.8	4,631	0.3	Pickles, preserves, and sauces.....	44	483	0.1	4,836	0.1	1,827	0.1
Sugar, beet.....	16	1,836	0.4	26,379	0.8	9,697	0.6	Tinware, not elsewhere specified.....	6	918	0.2	4,631	0.1	1,966	0.1
Electrical machinery, apparatus, and supplies.....	54	4,190	0.9	25,026	0.7	15,990	1.0	Woolen goods.....	9	812	0.2	4,572	0.1	1,601	0.1
Printing and publishing, newspapers and periodicals.....	565	3,176	0.7	24,930	0.7	17,234	1.1	Photographs and graphophones.....	10	798	0.2	4,230	0.1	2,558	0.2
Druggists' preparations.....	16	3,219	0.7	23,904	0.7	13,908	0.9	Automobile repairing.....	259	968	0.2	4,227	0.1	2,364	0.2
Stoves and hot-air furnaces.....	21	4,240	0.9	20,489	0.6	14,200	0.9	Varnishes.....	6	193	(1)	4,082	0.1	1,948	0.1
Tobacco, cigars and cigarettes.....	349	5,456	1.2	18,119	0.5	9,728	0.6	Clothing, women's.....	33	1,036	0.2	3,923	0.1	1,650	0.1
Gas, illuminating and heating.....	59	2,846	0.6	17,993	0.5	9,723	0.6	Cars and general shop construction and repairs by electric-railroad companies.....	15	1,401	0.3	3,828	0.1	2,203	0.2
Printing and publishing, book and job.....	436	3,717	0.8	17,676	0.5	11,204	0.7	Copper, tin, and sheet-iron work.....	115	604	0.1	3,791	0.1	2,069	0.1
Cars and general shop construction and repairs by steam-railroad companies.....	36	7,025	1.5	17,223	0.5	10,995	0.7	Paper goods, not elsewhere specified.....	10	451	0.1	3,748	0.1	1,452	0.1
Structural ironwork, not made in steel works or rolling mills.....	34	2,313	0.5	17,124	0.5	6,109	0.4	Cheese.....	55	146	(1)	3,663	0.1	445	(1)
Wirework, not elsewhere specified.....	38	2,516	0.5	17,065	0.5	6,262	0.4	Cleansing and polishing preparations.....	20	138	(1)	3,599	0.1	1,798	0.1
Paints.....	24	1,019	0.2	16,435	0.5	6,871	0.4	Wall plaster and composition flooring.....	10	585	0.1	3,591	0.1	2,101	0.1
Salt.....	12	2,063	0.4	14,064	0.4	7,715	0.5	Carriages and sleds, children's.....	10	799	0.2	3,410	0.1	2,013	0.1
Iron and steel, blast furnaces.....	11	1,101	0.2	13,534	0.4	3,235	0.2	Brick and tile, terra-cotta, and fire-clay products.....	48	852	0.2	3,339	0.1	2,521	0.2
Machine tools.....	31	3,186	0.7	12,656	0.4	8,684	0.6	Plumbers' supplies, not elsewhere specified.....	11	837	0.2	3,300	0.1	1,765	0.1
Confectionery and ice cream.....	184	1,746	0.4	12,627	0.4	5,458	0.4	Models and patterns, not including paper patterns.....	52	861	0.2	3,280	0.1	2,840	0.2
Knit goods.....	31	3,170	0.7	12,039	0.3	5,249	0.3	Wooden goods, not elsewhere specified.....	18	984	0.2	3,225	0.1	1,716	0.1
Tools, not elsewhere specified.....	89	3,261	0.7	11,899	0.3	8,350	0.5	Steam fittings and steam and hot-water heating apparatus.....	15	762	0.2	3,063	0.1	1,490	0.1
Canning and preserving, fruits and vegetables.....	52	2,109	0.4	11,172	0.3	3,201	0.2	All other industries <sup>2</sup> .....	1,565	35,634	7.6	218,966	6.3	125,291	8.1
Agricultural implements.....	23	2,708	0.6	11,091	0.3	6,048	0.4								
Boxes, paper and other, not elsewhere specified.....	22	2,386	0.5	10,935	0.3	5,649	0.4								

<sup>1</sup> Less than one-tenth of 1 per cent.<sup>2</sup> Among the industries for which statistics can not be shown separately without the possibility of disclosing the operations of individual establishments are six having products in excess of some for which figures are shown in the table. These industries are as follows: "Billiard tables and accessories"; "cars, steam-railroad, not including operations of railroad companies"; "cash registers and calculating machines"; "coke, not including gas-house coke"; "silk goods"; and "stationery goods, not elsewhere specified."

TABLE 4.—PERSONS ENGAGED IN MANUFACTURING INDUSTRIES: 1919, 1914, AND 1909.

CLASS.	Cen- sus year.	Total.	Male.	Fe- male.	PER CENT OF TOTAL.		CLASS.	Cen- sus year.	Total.	Male.	Fe- male.	PER CENT OF TOTAL.	
					Male.	Fe- male.						Male.	Fe- male.
All classes.....	1919	549,039	475,246	73,823	86.6	13.4	Clerks and other subordinate sala- ried employees.....	1919	50,063	31,258	18,805	61.7	38.3
	1914	320,611	278,229	42,382	86.8	13.2		1914	32,058	22,928	9,130	71.5	28.5
	1909	271,071	231,915	39,156	85.6	14.4		1909	22,576	16,183	6,393	71.7	28.3
Proprietors and officials.....	1919	27,164	26,280	884	96.7	3.3	Wage earners (average number)....	1919	471,242	417,708	53,534	88.6	11.4
	1914	17,403	16,900	503	96.8	3.2		1914	271,090	238,401	32,689	87.9	12.1
	1909	10,906	10,434	472	96.7	3.3		1909	231,499	199,298	32,201	86.1	13.9
Proprietors and firm members.....	1919	6,762	6,456	306	95.5	4.5	16 years of age and over.....	1919	469,750	416,616	53,134	83.7	11.3
	1914	7,725	7,335	390	95.0	5.0		1914	269,519	237,496	32,023	88.1	11.9
	1909	8,965	8,504	461	95.5	4.5		1909	228,982	197,777	31,205	86.4	13.6
Salaried officers of corporations.....	1919	5,266	5,108	158	97.0	3.0	Under 16 years of age.....	1919	1,492	1,092	400	73.2	26.8
	1914	3,572	3,471	101	97.2	2.8		1914	1,571	1,005	566	67.6	32.4
	1909	3,089	3,026	63	98.0	2.0		1909	2,517	1,521	996	60.4	39.6
Superintendents and managers.....	1919	15,136	14,716	420	97.2	2.8							
	1914	6,166	6,094	72	98.8	1.2							
	1909	4,942	4,844	98	98.0	2.0							

TABLE 5.—AVERAGE NUMBER OF WAGE EARNERS FOR SELECTED INDUSTRIES, WITH PER CENT, BY SEX AND AGE: 1919 AND 1914.

INDUSTRY.	Cen- sus year.	Wage earners (average num- ber).	PER CENT OF TOTAL.			INDUSTRY.	Cen- sus year.	Wage earners (average num- ber).	PER CENT OF TOTAL.		
			16 years of age and over.		Un- der 16 years of age.				16 years of age and over.		Un- der 16 years of age.
			Male.	Fe- male.					Male.	Fe- male.	
All industries.....	1919	471,242	88.4	11.3	0.3	Hardware.....	1919	2,174	77.0	22.3	0.7
	1914	271,090	87.6	11.8	0.6		1914	742	89.8	9.8	0.4
	1909	231,499	85.4	13.5	1.1	Knit goods .....	1919	3,170	23.8	74.2	2.0
Agricultural implements.....	1919	2,708	97.5	2.4	(1)		1914	2,714	24.4	74.1	1.5
	1914	2,143	99.6	.....	0.4	Leather, tanned, curried, and finished.....	1919	3,464	95.9	4.1	.....
Automobile bodies and parts.....	1919	49,048	94.6	5.3	0.1		1914	2,773	90.9	(1)	(1)
	1914	24,736	97.7	2.1	0.2	Lumber and timber products.....	1919	14,623	98.7	1.2	0.1
Automobiles.....	1919	126,937	95.8	4.1	0.1		1914	21,488	90.7	0.2	0.2
	1914	42,802	97.9	2.0	0.1	Lumber, planing-mill products, not includ- ing planing mills connected with saw- mills.	1919	5,256	93.8	5.3	0.9
Boxes, paper and other, not elsewhere speci- fied.	1919	2,336	32.4	66.5	1.1		1914	4,944	98.0	1.3	0.7
	1914	1,461	66.3	31.7	2.0	Paper and wood pulp .....	1919	9,561	86.7	13.3	(1)
Brass, bronze, and copper products.....	1919	10,306	91.7	8.2	(1)		1914	6,051	84.7	15.3	(1)
	1914	4,731	94.5	5.5	1.8	Printing and publishing, book and job.....	1919	3,717	68.9	29.8	1.3
Bread and other bakery products.....	1919	5,088	74.7	24.3	1.0		1914	3,860	74.1	24.4	1.5
	1914	4,014	79.6	19.6	0.7	Printing and publishing, newspapers and periodicals.	1919	3,176	80.1	17.7	2.2
Canning and preserving, fruits and vege- tables.	1919	2,109	44.2	50.5	5.3		1914	3,270	83.4	14.5	2.1
	1914	1,687	42.5	57.0	0.5	Rubber tires, tubes, and rubber goods, not elsewhere specified.*	1919	5,044	91.8	8.2	0.1
Cars and general shop construction and re- pairs by steam-railroad companies.	1919	7,025	98.7	1.3	(1)						
	1914	5,803	100.0	.....	.....	Salt.....	1919	2,063	93.2	6.4	0.4
Chemicals.....	1919	5,712	98.3	1.5	0.1		1914	1,434	93.2	6.8	.....
	1914	4,509	99.3	0.6	0.1	Shipbuilding, steel, new vessels and small boats.	1919	15,996	99.6	0.4	(1)
Druggists' preparations.....	1919	3,219	43.3	56.7	.....		1914	935	100.0	.....	.....
	1914	2,175	52.6	46.9	0.6	Stoves and hot-air furnaces.....	1919	4,240	99.0	0.8	0.2
Electrical machinery, apparatus, and sup- plies.	1919	4,190	60.9	39.0	0.1		1914	3,832	99.0	0.2	0.8
	1914	1,144	71.2	28.4	0.4	Structural ironwork, not made in steel works or rolling mills.	1919	2,313	96.8	3.2	(1)
Engines, steam, gas, and water.....	1919	14,258	95.8	4.2	(1)		1914	1,371	99.4	.....	0.6
	1914	4,427	99.7	0.2	(1)	Tobacco, cigars and cigarettes .....	1919	5,456	16.6	83.1	0.3
Food preparations, not elsewhere specified..	1919	2,483	62.6	37.4	.....		1914	7,295	19.7	76.2	4.1
	1914	1,683	71.2	28.8	0.1	Tools, not elsewhere specified.....	1919	3,261	84.8	15.1	0.1
Foundry and machine-shop products <sup>2</sup> .....	1919	42,745	93.9	6.0	0.1		1914	372	97.0	1.3	1.6
	1914	17,608	97.2	2.7	0.1	Wirework, not elsewhere specified.....	1919	2,516	77.6	21.7	0.7
Furniture.....	1919	18,496	85.9	13.2	0.9		1914	1,314	92.6	6.7	0.7
	1914	14,706	95.8	3.7	0.5	All other industries.....	1919	85,406	78.6	20.8	0.6
Gas, illuminating and heating.....	1919	2,846	99.8	0.2	.....		1914	72,717	78.4	20.7	0.8
	1914	2,349	99.8	0.2	.....						

<sup>1</sup> Less than one-tenth of 1 per cent.<sup>2</sup> Includes "iron and steel, tempering and welding" and "machine tools."<sup>3</sup> Not shown separately in 1914.

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TABLE 6.—AVERAGE NUMBER OF WAGE EARNERS, BY SEX AND AGE, AND VALUE OF PRODUCTS FOR CITIES OF 10,000 INHABITANTS OR MORE: 1919, 1914, AND 1909.

CITY.	AVERAGE NUMBER OF WAGE EARNERS IN MANUFACTURING INDUSTRIES.												VALUE OF PRODUCTS.		
	Total.			16 years of age and over.						Under 16 years of age.					
				Male.			Female.								
	1919	1914	1909	1919	1914	1909	1919	1914	1909	1919	1914	1909	1919	1914	1909
Adrian .....	1,870	1,256	1,059	1,473	1,002	924	388	249	118	9	5	17	\$14,549,031	\$5,442,338	\$6,085,126
Alpena .....	1,372	1,494	1,432	1,288	1,460	1,403	84	33	27	.....	1	2	9,356,190	4,101,935	3,903,823
Ann Arbor .....	1,612	842	573	1,440	747	535	172	93	38	.....	2	.....	9,793,696	2,603,379	1,865,894
Battle Creek .....	6,680	4,599	4,175	5,503	3,999	3,415	1,170	599	752	7	1	8	56,139,953	23,248,420	20,174,016
Bay City .....	5,057	3,771	4,737	3,979	3,355	4,263	1,062	386	441	16	30	33	28,214,525	11,119,286	10,293,747
Benton Harbor .....	2,328	1,285	.....	2,030	1,098	.....	290	187	.....	8	.....	.....	11,345,034	3,021,552	.....
Detroit .....	167,016	99,003	81,011	145,179	82,012	64,138	21,379	16,598	15,061	458	993	1,812	1,234,519,842	400,347,912	252,939,342
Escanaba .....	842	777	720	637	615	595	204	159	122	1	3	3	3,017,912	1,506,526	1,074,109
Flint .....	24,603	8,722	7,088	22,190	8,349	6,775	2,405	366	312	8	7	1	275,779,638	53,375,039	24,118,007
Grand Rapids .....	23,548	17,427	17,590	19,146	14,622	15,157	4,163	2,748	2,320	239	57	113	109,135,055	49,792,200	42,230,675
Holland .....	2,748	2,165	2,162	2,250	1,877	1,951	464	270	186	34	18	25	17,711,095	8,683,835	5,802,043
Ironwood .....	399	516	201	375	511	197	14	5	4	10	.....	.....	1,381,290	793,247	377,416
Ishpeming .....	107	79	66	99	75	59	7	3	6	1	1	1	1,007,432	228,643	132,374
Jackson .....	9,620	4,906	4,788	8,116	4,019	3,754	1,485	867	1,023	19	20	11	49,517,712	16,809,846	13,984,121
Kalamazoo .....	7,629	5,525	6,272	5,922	4,253	4,390	1,654	1,233	1,844	53	39	38	46,254,917	20,214,314	17,903,560
Lansing .....	12,349	6,231	5,285	11,360	5,903	5,043	972	327	239	17	1	3	104,722,115	26,984,496	10,567,093
Marquette .....	1,415	589	509	1,370	572	500	33	14	9	12	3	.....	7,210,375	1,394,587	1,277,828
Monroe .....	2,904	.....	.....	1,828	.....	.....	1,074	.....	.....	2	.....	.....	16,052,331	.....	.....
Muskegon .....	9,716	4,646	4,522	8,258	3,960	3,871	1,427	640	615	31	46	36	55,969,347	11,147,605	9,647,823
Owosso .....	1,781	1,231	.....	1,594	1,120	.....	177	110	.....	10	1	.....	9,948,736	3,468,534	.....
Pontiac .....	7,682	2,409	1,739	7,071	2,336	1,629	611	73	106	.....	.....	4	104,990,133	15,102,463	5,893,961
Port Huron .....	2,231	1,296	1,580	1,887	1,045	1,435	334	251	142	10	.....	3	9,545,578	4,090,323	3,588,272
Saginaw .....	9,472	6,342	5,368	7,791	5,479	4,637	1,637	847	706	44	16	25	43,146,125	19,008,670	14,192,054
Sault Ste. Marie .....	1,248	938	825	1,151	863	775	96	74	50	1	1	.....	10,699,767	3,821,464	3,729,117
Traverse City .....	960	956	1,220	757	712	1,102	200	242	117	3	2	1	4,099,960	2,251,484	2,289,150
Wyandotte .....	6,214	.....	.....	5,958	.....	.....	252	.....	.....	4	.....	.....	33,382,791	.....	.....
All other cities <sup>1</sup> .....	64,629	.....	.....	63,268	.....	.....	1,358	.....	.....	3	.....	.....	569,208,377	.....	.....

<sup>1</sup> All other cities comprise Hamtramck and Highland Park.

TABLE 7.—WAGE EARNERS, BY MONTHS: 1919, 1914, AND 1909.

MONTH.	NUMBER. <sup>1</sup>			PER CENT OF MAXIMUM.			MONTH.	NUMBER. <sup>1</sup>			PER CENT OF MAXIMUM.		
	1919	1914	1909	1919	1914	1909		1919	1914	1909	1919	1914	1909
January.....	<b>421,493</b>	273,067	<b>211,679</b>	80.6	96.8	84.6	July.....	480,152	268,399	232,023	91.8	95.1	92.8
February.....	425,205	277,824	218,230	81.3	98.5	87.3	August.....	497,915	274,164	235,804	95.2	97.2	94.3
March.....	428,121	282,176	223,087	81.9	100.0	89.2	September.....	507,050	273,866	240,310	97.0	97.1	96.1
April.....	431,021	281,040	222,273	82.4	99.6	88.9	October.....	515,805	270,454	241,912	98.6	95.8	96.7
May.....	442,925	278,103	226,811	84.7	98.6	90.7	November.....	522,876	254,678	246,729	100.0	90.3	98.7
June.....	461,718	269,532	229,058	83.3	95.5	91.6	December.....	520,623	<b>249,777</b>	<b>250,078</b>	99.6	88.5	100.0

<sup>1</sup> The figures represent the number employed on the 15th of each month or the nearest representative day. Maximum number indicated by bold-faced figures, minimum by *italic* figures.



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TABLE 8.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919.

[The month of maximum employment for each industry is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

INDUSTRY AND CITY.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
All industries.....	471,242	<i>421,493</i>	425,205	428,121	431,021	442,925	461,718	480,152	497,015	507,050	515,805	<b>522,876</b>	520,023	80.6
Males.....	417,708	<i>371,376</i>	376,532	379,596	381,814	392,827	409,526	424,915	441,386	449,561	457,033	<b>464,243</b>	463,687	80.0
Females.....	53,534	50,117	48,673	<i>48,525</i>	49,207	50,098	52,192	55,237	55,629	57,489	58,772	58,633	56,930	82.6
Agricultural implements.....	2,708	<i>2,644</i>	2,043	3,111	<b>3,113</b>	2,913	2,818	2,668	2,683	<i>2,110</i>	2,273	2,468	2,752	67.8
Automobile bodies and parts.....	49,048	<i>36,649</i>	38,293	40,972	42,780	43,619	45,763	49,581	53,044	56,469	60,218	<b>61,438</b>	59,780	59.7
Automobiles.....	126,937	<i>89,563</i>	103,345	107,479	114,432	121,185	128,064	133,493	138,077	142,977	144,191	<b>145,197</b>	145,241	68.6
Boxes, paper and other, not elsewhere specified.....	2,336	2,257	2,313	2,274	2,253	<i>2,246</i>	<i>2,246</i>	2,335	2,391	2,336	2,414	<b>2,515</b>	2,452	89.3
Brass, bronze, and copper products.....	10,306	9,759	9,357	9,121	9,170	9,270	9,696	10,852	10,402	11,437	12,402	<b>12,454</b>	11,232	71.6
Bread and other bakery products.....	5,088	4,748	<i>4,698</i>	4,851	4,954	4,975	5,141	5,177	5,311	5,195	5,278	<b>5,365</b>	5,363	87.6
Canning and preserving, fruits and vegetables.....	2,109	860	418	<i>400</i>	541	781	3,533	<b>5,019</b>	4,180	4,186	3,151	1,581	658	8.0
Cars and general shop construction and repairs by steam-railroad companies.	7,025	7,038	7,044	6,975	<i>6,910</i>	6,954	6,938	6,960	6,978	6,928	7,064	7,243	7,268	95.1
Chemicals.....	5,712	7,494	6,897	5,788	5,042	<i>4,980</i>	5,077	5,083	5,123	5,482	5,720	5,962	6,116	60.5
Druggists' preparations.....	3,219	3,183	3,221	3,208	<i>3,145</i>	3,179	3,171	3,247	3,210	3,282	3,212	<b>3,317</b>	3,303	94.8
Electrical machinery, apparatus, and supplies.....	4,190	3,847	3,853	3,845	<i>3,775</i>	3,854	3,928	4,050	4,369	4,493	4,697	<b>4,908</b>	4,001	70.9
Engines, steam, gas, and water.....	14,258	16,691	13,638	13,755	<i>10,460</i>	10,782	13,210	14,413	15,213	15,305	15,531	16,746	16,346	62.7
Food preparations, not elsewhere specified.....	2,483	<i>1,778</i>	1,917	1,883	2,119	2,583	2,728	3,083	3,354	3,108	2,621	2,282	2,340	53.0
Foundry and machine-shop products.....	39,430	<i>35,593</i>	36,114	37,103	36,438	36,690	37,229	39,169	39,750	41,065	43,457	<b>45,982</b>	45,154	78.4
Furniture.....	18,496	<i>15,908</i>	16,248	16,795	17,055	17,406	17,966	18,843	19,487	19,777	20,191	<b>20,913</b>	21,365	74.5
Gas, illuminating and heating.....	2,846	2,557	2,387	2,478	2,569	2,670	2,754	3,032	3,018	3,018	3,274	<b>3,145</b>	3,275	72.9
Hardware.....	2,174	<i>1,753</i>	1,816	1,807	1,894	1,992	2,044	2,223	2,336	2,427	2,586	<b>2,627</b>	2,583	66.7
Knit goods.....	3,170	3,201	3,175	3,058	3,115	3,001	<i>2,971</i>	3,097	3,188	3,121	3,352	<b>3,345</b>	3,416	87.0
Leather, tanned, curried, and finished.....	3,464	<i>3,302</i>	3,366	3,303	3,547	3,406	3,392	3,527	3,622	3,511	3,518	<b>3,525</b>	3,549	91.2
Lumber and timber products.....	14,923	16,355	16,875	15,656	13,787	13,797	<i>13,649</i>	13,957	14,051	14,536	14,783	15,364	16,666	82.3
Lumber, planing-mill products, not including planing mills connected with sawmills.....	5,256	<i>4,251</i>	4,301	4,334	4,690	5,047	5,276	5,708	5,890	5,898	5,851	5,908	<b>5,953</b>	71.4
Machine tools.....	3,196	3,314	3,214	3,066	3,044	3,055	<i>3,030</i>	3,057	3,165	3,263	3,324	<b>3,438</b>	3,384	88.2
Paper and wood pulp.....	9,561	9,223	9,185	<i>9,065</i>	9,110	9,294	9,505	9,765	9,941	9,866	9,905	<b>9,988</b>	9,879	90.7
Printing and publishing, book and job.....	3,717	<i>3,535</i>	3,621	3,613	3,600	3,576	3,619	3,621	3,734	3,844	3,916	3,908	4,017	88.0
Printing and publishing, newspapers and periodicals.....	3,176	<i>3,032</i>	3,054	3,075	3,111	3,143	3,137	3,192	3,153	3,236	3,273	3,341	3,365	90.1
Rubber tires, tubes, and rubber goods, not elsewhere specified.....	5,044	<i>4,184</i>	4,620	4,828	4,587	4,810	4,786	4,983	5,164	5,279	5,505	5,814	<b>5,968</b>	70.1
Salt.....	2,063	2,017	1,964	<i>1,923</i>	1,981	1,925	2,016	2,060	2,178	2,125	2,143	2,169	2,255	85.3
Shipbuilding, steel, new vessels and small boats.....	15,996	17,333	18,855	<b>20,269</b>	19,133	18,904	19,728	15,998	16,370	13,893	11,592	10,449	<i>9,480</i>	46.7
Stoves and hot-air furnaces.....	4,240	<i>3,815</i>	4,160	4,159	4,065	4,133	4,070	3,975	4,306	4,429	4,609	<b>4,879</b>	4,450	81.5
Structural ironwork, not made in steel works or rolling mills.....	2,313	2,125	1,969	1,965	1,980	<i>1,932</i>	2,098	2,384	2,592	2,641	2,668	2,075	<b>2,727</b>	70.8
Tobacco, cigars and cigarettes.....	5,456	5,238	5,504	5,428	5,400	<i>5,465</i>	5,281	5,459	5,516	5,730	5,847	<b>5,918</b>	5,918	78.7
Tools, not elsewhere specified.....	3,261	2,890	<i>2,810</i>	2,923	2,994	2,987	3,076	3,094	3,328	3,574	3,740	<b>3,823</b>	3,813	71.6
Wirework, not elsewhere specified.....	2,516	<i>1,889</i>	2,242	2,608	2,398	2,509	2,758	2,712	2,638	2,638	2,704	2,638	2,598	72.1
All other industries.....	85,525	83,397	82,290	<i>77,266</i>	77,819	79,843	82,415	85,674	89,788	90,175	90,912	<b>93,306</b>	93,416	82.7
<i>Industries showing large proportion of females.</i>														
Boxes, paper and other, not elsewhere specified.....	1,571	1,557	1,582	1,514	1,511	1,487	<i>1,484</i>	1,549	1,565	1,548	1,633	1,734	1,688	85.6
Bread and other bakery products.....	1,255	1,228	<i>1,180</i>	1,226	1,237	1,238	<i>1,250</i>	1,298	1,302	1,215	1,255	1,329	1,336	83.8
Canning and preserving, fruits and vegetables.....	1,139	377	129	<i>97</i>	139	235	2,034	<b>2,829</b>	2,487	2,466	1,926	745	204	3.4
Druggists' preparations.....	1,824	1,872	1,880	1,851	1,808	1,834	1,821	1,835	1,767	1,797	1,831	1,831	1,832	93.5
Electrical machinery, apparatus, and supplies.....	1,638	1,482	1,488	1,502	<i>1,481</i>	1,512	1,529	1,559	1,719	1,776	1,848	2,027	1,783	70.6
Food preparations, not elsewhere specified.....	928	<i>525</i>	608	639	850	1,108	1,171	1,329	1,388	1,242	861	688	727	37.8
Hardware.....	485	<i>356</i>	388	386	387	421	430	528	540	551	594	616	595	62.5
Knit goods.....	2,999	2,434	2,339	2,302	2,367	2,273	<i>2,246</i>	2,362	2,409	2,354	2,549	2,528	2,575	87.2
Printing and publishing, book and job.....	1,112	1,065	1,087	1,084	1,071	<i>1,041</i>	1,070	1,065	1,104	1,154	1,175	1,187	1,231	84.6
Tobacco, cigars and cigarettes.....	4,548	<i>4,362</i>	4,596	4,521	4,491	4,528	<i>4,538</i>	4,394	4,554	4,599	4,795	4,901	<b>4,939</b>	77.7
Wirework, not elsewhere specified.....	552	<i>556</i>	458	452	514	570	626	628	617	601	590	588	596	66.7
Total for cities.....	376,032	<i>330,601</i>	333,217	335,523	344,776	355,475	367,611	384,337	397,195	408,026	416,590	<b>419,976</b>	419,057	78.7
Males.....	332,700	<i>289,511</i>	293,253	295,713	304,357	314,435	325,799	340,677	352,332	361,860	369,379	<b>372,486</b>	372,798	77.6
Females.....	43,332	<i>41,090</i>	39,964	<i>39,810</i>	40,419	41,040	41,812	43,660	44,863	46,166	47,211	<b>47,490</b>	46,259	83.8
ADRIAN.....	1,870	1,748	1,827	1,811	1,763	<i>1,715</i>	1,766	1,789	1,902	1,918	2,082	2,055	2,064	82.4
Males.....	1,482	1,373	1,454	1,460	1,387	<i>1,362</i>	1,397	1,397	1,500	1,520	1,675	1,629	1,630	81.3
Females.....	388	375	373	<i>351</i>	376	353	369	392	402	398	407	426	434	80.9
ALPENA.....	1,372	1,224	<i>1,218</i>	1,236	1,332	1,247	1,278	1,325	1,360	1,539	1,590	1,576	1,539	76.6
Males.....	1,288	1,175	<i>1,170</i>	1,186	1,277	1,186	1,222	1,262	1,294	1,469	1,435	1,409	1,371	79.6
Females.....	84	49	<i>48</i>	50	55	61	56	63	66	70	155	167	168	28.6
ANN ARBOR.....	1,612	1,555	1,615	1,686	<i>1,608</i>	1,638	1,588	1,711	1,529	1,604	1,638	1,652	1,626	87.8
Males.....	1,440	1,379	1,460	1,509	<i>1,388</i>	1,481	1,445	1,513	1,341	1,419	1,466	1,470	1,453	88.4
Females.....	172	176	149	177	164	157	<i>143</i>	198	188	185	172	182	173	72.2
BATTLE CREEK.....	6,680	<i>5,898</i>	6,267	6,356	6,667	7,009	7,145	7,374	7,554	6,693	6,267	6,342	6,618	77.7
Males.....	5,606	<i>5,015</i>	5,375	5,414	5,547	5,658	5,725	5,793	5,956	5,259	5,195	5,437	5,668	84.7
Females.....	1,174	<i>883</i>	892	942	1,120	1,351	1,420	1,581	1,598	1,434	1,072	905	950	51.5

## MANUFACTURES—MICHIGAN.

TABLE 8.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919—Continued.

INDUSTRY AND CITY.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Percent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
BAY CITY.....	5,057	5,036	4,956	4,902	4,983	4,762	4,983	5,130	4,305	4,362	5,590	5,548	6,127	70.3
Males.....	3,995	4,037	3,926	3,904	3,950	3,829	4,009	4,112	3,169	3,340	4,485	4,485	5,030	62.8
Females.....	1,062	999	1,030	998	1,033	933	974	1,018	1,146	1,203	1,250	1,063	1,097	74.6
BENTON HARBOR.....	2,328	2,493	2,253	2,201	2,174	2,092	2,354	2,375	2,264	2,380	2,439	2,404	2,507	83.4
Males.....	2,038	2,106	2,030	1,980	1,967	1,879	1,867	2,056	2,009	2,040	2,057	2,173	2,232	83.0
Females.....	290	267	223	221	207	213	487	319	255	340	382	291	275	42.5
DETROIT.....	167,016	154,228	153,741	151,248	152,357	155,800	158,252	167,766	175,163	181,300	185,542	185,910	182,835	81.4
Males.....	145,555	132,821	133,256	131,083	132,224	135,415	138,266	146,659	153,791	158,050	162,250	162,236	160,120	80.8
Females.....	21,451	21,407	20,485	20,165	20,133	20,445	19,986	21,097	21,372	22,650	23,292	23,674	22,706	84.4
ESCANABA.....	842	873	882	873	869	857	811	799	774	811	839	850	860	87.8
Males.....	638	653	655	643	652	640	620	620	608	623	638	646	658	92.4
Females.....	204	220	227	230	217	217	191	179	166	188	201	204	208	72.2
FLINT.....	24,603	18,366	20,161	21,174	22,430	24,113	25,214	25,782	27,335	27,244	26,688	27,325	29,414	62.4
Males.....	22,198	16,364	18,155	18,995	20,049	21,666	22,717	23,231	24,771	24,648	24,087	24,670	27,033	60.5
Females.....	2,405	1,992	2,006	2,179	2,381	2,457	2,497	2,551	2,564	2,596	2,601	2,655	2,381	75.0
GRAND RAPIDS.....	23,548	20,724	21,044	21,326	21,687	21,749	22,676	23,923	24,898	25,183	25,985	26,463	26,918	77.0
Males.....	19,305	17,015	17,324	17,627	17,830	17,857	18,520	19,510	20,193	20,576	21,166	21,783	22,259	76.4
Females.....	4,243	3,709	3,720	3,699	3,857	3,892	4,156	4,413	4,705	4,607	4,819	4,680	4,659	76.8
HOLLAND.....	2,748	2,432	2,477	2,493	2,456	2,507	2,746	2,870	3,036	3,089	2,964	2,916	2,990	78.7
Males.....	2,268	1,989	2,028	2,052	2,049	2,101	2,264	2,376	2,521	2,527	2,372	2,427	2,510	78.6
Females.....	480	443	449	441	407	406	482	494	515	562	592	489	480	68.7
IRONWOOD.....	399	406	409	419	281	271	405	420	412	439	450	425	451	60.1
Males.....	385	393	399	409	267	267	339	405	395	425	438	408	434	58.9
Females.....	14	13	10	10	14	14	16	15	14	14	14	17	17	58.8
ISHPEMING.....	107	74	61	63	66	74	75	78	152	162	164	159	156	37.2
Males.....	100	70	67	69	62	70	71	73	144	155	149	146	144	36.8
Females.....	7	4	4	4	4	4	4	5	8	7	15	13	12	26.7
JACKSON.....	9,620	8,145	8,491	8,889	9,015	8,802	9,194	9,506	10,316	10,359	10,782	11,075	10,776	73.5
Males.....	8,132	6,854	7,135	7,494	7,590	7,412	7,741	8,107	8,768	8,707	9,141	9,415	9,160	72.6
Females.....	1,488	1,311	1,356	1,395	1,425	1,390	1,453	1,489	1,568	1,562	1,641	1,660	1,616	70.0
KALAMAZOO.....	7,629	7,229	7,299	7,229	7,268	7,080	7,230	7,577	7,819	7,888	8,178	8,027	8,724	81.2
Males.....	5,952	5,566	5,659	5,618	5,631	5,499	5,638	5,915	6,147	6,272	6,477	6,166	6,836	80.4
Females.....	1,677	1,663	1,640	1,611	1,637	1,581	1,592	1,662	1,672	1,616	1,701	1,861	1,888	83.7
LANSING.....	12,349	10,185	10,951	11,550	11,725	12,115	12,503	13,098	13,194	12,076	13,622	13,712	12,767	74.3
Males.....	11,376	9,884	10,107	10,605	10,745	11,052	11,502	11,991	12,128	11,702	12,688	12,755	11,793	73.0
Females.....	973	801	844	945	980	1,063	1,091	1,107	1,066	914	934	957	974	72.4
MARQUETTE.....	1,415	1,439	1,437	1,421	1,417	1,469	1,266	1,400	1,418	1,373	1,427	1,438	1,466	80.2
Males.....	1,382	1,403	1,404	1,388	1,384	1,435	1,259	1,382	1,391	1,341	1,390	1,401	1,420	83.3
Females.....	33	36	33	33	33	34	27	27	27	32	37	37	40	67.5
MONROE.....	2,904	2,678	2,692	2,699	2,746	2,845	2,875	2,988	2,996	3,073	3,030	3,091	3,135	85.4
Males.....	1,829	1,656	1,661	1,680	1,720	1,795	1,814	1,914	1,935	1,933	1,913	1,939	1,989	83.0
Females.....	1,075	1,022	1,041	1,019	1,026	1,050	1,061	1,074	1,061	1,140	1,117	1,152	1,146	87.7
MUSKEGON.....	9,716	9,051	8,976	8,669	8,872	9,063	9,401	9,624	10,147	10,211	10,254	10,731	10,993	78.0
Males.....	8,271	8,106	7,617	7,379	7,630	7,810	7,995	8,261	8,618	8,600	8,692	9,088	9,358	78.0
Females.....	1,445	1,545	1,359	1,290	1,242	1,253	1,406	1,359	1,529	1,512	1,562	1,643	1,635	75.4
OWosso.....	1,781	1,820	1,488	1,579	1,659	1,671	1,739	1,775	1,818	1,804	1,856	2,042	2,121	70.2
Males.....	1,604	1,678	1,360	1,432	1,488	1,505	1,565	1,595	1,630	1,613	1,651	1,826	1,900	70.7
Females.....	177	142	138	147	171	166	174	180	182	191	205	216	212	63.9
PONTIAC.....	7,682	5,622	5,919	6,817	6,824	7,042	7,278	8,028	8,388	8,830	8,978	9,345	9,113	60.2
Males.....	7,071	5,120	5,396	6,256	6,224	6,440	6,680	7,414	7,713	8,164	8,339	8,676	8,430	59.0
Females.....	611	502	523	561	600	602	598	614	675	666	639	669	683	73.5
PORT HURON.....	2,231	1,717	1,771	1,847	1,950	2,047	2,303	2,417	2,345	2,683	2,767	2,535	2,390	62.1
Males.....	1,896	1,385	1,460	1,544	1,650	1,742	2,002	2,090	2,015	2,350	2,396	2,135	1,969	57.8
Females.....	335	332	311	303	300	305	301	318	330	327	372	400	421	71.3
SAGINAW.....	9,472	7,990	8,023	8,093	8,294	8,742	9,029	9,748	10,085	10,288	10,711	11,379	11,282	70.2
Males.....	7,834	6,429	6,623	6,678	6,929	7,327	7,500	8,070	8,291	8,465	8,850	9,448	9,389	68.0
Females.....	1,638	1,561	1,400	1,415	1,365	1,415	1,520	1,678	1,794	1,823	1,861	1,931	1,893	70.7
SAULT STE. MARIE.....	1,248	1,182	1,221	1,170	1,187	1,236	1,270	1,254	1,248	1,278	1,298	1,325	1,307	88.3
Males.....	1,152	1,069	1,131	1,089	1,093	1,139	1,171	1,159	1,153	1,185	1,197	1,216	1,195	80.3
Females.....	96	83	90	84	94	97	99	95	95	93	101	109	112	74.1
TRAVERSE CITY.....	960	843	874	880	874	883	900	942	1,025	1,074	1,055	1,094	1,076	77.1
Males.....	760	664	681	702	706	710	719	710	793	839	848	882	866	75.3
Females.....	200	179	193	178	168	173	181	232	232	235	207	212	210	71.5
WYANDOTTE.....	6,214	6,957	6,953	6,539	6,558	6,547	6,605	4,729	5,132	5,909	6,065	6,071	6,503	68.0
Males.....	5,962	6,060	6,686	6,324	6,558	6,348	6,386	4,475	4,898	5,627	5,782	5,775	6,214	66.9
Females.....	252	297	267	215	189	199	219	254	234	282	283	296	289	63.6
ALL OTHER CITIES <sup>1</sup> .....	64,629	50,186	50,211	52,353	57,820	62,039	66,635	69,820	70,580	73,856	74,329	74,426	73,293	67.4
Males.....	63,271	48,847	49,058	51,197	56,599	60,830	65,326	68,574	69,171	72,337	72,750	72,850	71,713	67.1
Females.....	1,358	1,339	1,153	1,156	1,221	1,209	1,309	1,246	1,409	1,519	1,579	1,576	1,580	73.0

<sup>1</sup> All other cities comprise Hamtramck and Highland Park.

TABLE 9.—AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919 AND 1914.

INDUSTRY AND CITY.	Census year.	Total.	IN ESTABLISHMENTS WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—							
			44 and under.	Between 44 and 48.	48. <sup>1</sup>	Between 48 and 54.	54.	Between 54 and 60.	60.	Over 60.
All industries.....	1919	471,242	8,654	8,234	148,486	166,318	48,624	51,744	33,281	5,901
	1914	271,090	( <sup>2</sup> )	( <sup>2</sup> )	31,326	31,353	57,614	75,878	84,851	10,058
	1909	231,499	( <sup>2</sup> )	( <sup>2</sup> )	11,174	6,612	38,449	51,552	113,782	9,950
Agricultural implements.....	1919	2,708			2	219	120	2,266	101	
	1914	2,143	( <sup>2</sup> )	( <sup>2</sup> )	199	411	788	411	334	
Automobile bodies and parts.....	1919	49,048	198	1,909	18,717	20,920	2,805	4,176	323	
	1914	24,736	( <sup>2</sup> )	( <sup>2</sup> )	88	2,127	2,557	16,740	3,224	
Automobiles.....	1919	126,937	526		59,573	58,559	7,043	1,196	40	
	1914	42,802	( <sup>2</sup> )	( <sup>2</sup> )	12,376	7,232	971	10,908	5,315	
Boxes, paper and other, not elsewhere specified.....	1919	2,336			874	635	448	355	24	
	1914	1,461	( <sup>2</sup> )	( <sup>2</sup> )	36	75	213	907	230	
Brass, bronze, and copper products.....	1919	10,308	497	524	26	5,324	124	2,924	377	
	1914	4,731	( <sup>2</sup> )	( <sup>2</sup> )	14	143	1,360	1,977	1,237	
Bread and other bakery products.....	1919	5,088	423	324	1,138	668	1,944	89	447	55
	1914	4,014	( <sup>2</sup> )	( <sup>2</sup> )	425	561	1,394	598	966	70
Canning and preserving, fruits and vegetables.....	1919	2,109	23		156		201	273	953	498
	1914	1,687	( <sup>2</sup> )	( <sup>2</sup> )	24	6	522	311	796	29
Cars and general shop construction and repairs by steam-railroad companies.....	1919	7,025		57	6,194	206	42	452	74	
	1914	5,893	( <sup>2</sup> )	( <sup>2</sup> )	382	1,589	3,108	67	553	14
Chemicals.....	1919	5,712		3	1,737	719	117	2,609	479	48
	1914	4,509	( <sup>2</sup> )	( <sup>2</sup> )	29	18	20	2,040	1,741	661
Druggists' preparations.....	1919	3,219	40	2,631	20	422	18	60	28	
	1914	2,175				1,925	183	66	1	
Electrical machinery, apparatus, and supplies.....	1919	4,190	16	47	453	2,461	370	515	123	200
	1914	1,144	( <sup>2</sup> )	( <sup>2</sup> )	73	118	471	277	205	
Engines, steam, gas, and water.....	1919	14,268	390		3,208	4,013	917	5,716	14	
	1914	4,427				97	1,547	2,267	516	
Food preparations, not elsewhere specified.....	1919	2,483	5		87	135	25	62	1,948	221
	1914	1,683	( <sup>2</sup> )	( <sup>2</sup> )	553	67	122	61	797	83
Foundry and machine-shop products <sup>3</sup> .....	1919	42,745	1,257	15	4,063	18,802	5,316	9,726	2,666	
	1914	17,608	( <sup>2</sup> )	( <sup>2</sup> )	670	1,766	4,637	8,727	1,808	
Furniture.....	1919	18,496	41	38	210	12,339	3,282	2,416	170	
	1914	14,706	( <sup>2</sup> )	( <sup>2</sup> )	645	2,080	5,502	2,344	4,135	
Gas, illuminating and heating.....	1919	2,846		3	1,203	5	6	667	852	110
	1914	2,349					109	907	270	1,003
Hardware.....	1919	2,174			381	1,194	557	24	18	
	1914	742	( <sup>2</sup> )	( <sup>2</sup> )	1	129	168	358	86	
Knit goods.....	1919	3,170	34	13	921	1,431	771			
	1914	2,714	( <sup>2</sup> )	( <sup>2</sup> )	26	201	2,315	172		
Leather, tanned, curried, and finished.....	1919	3,464			674	1,021	1,641		128	
	1914	2,773				11	972	563	1,227	
Lumber and timber products.....	1919	14,923	28	6	168	133	337	808	13,443	
	1914	21,488	( <sup>2</sup> )	( <sup>2</sup> )	84	547	427	325	20,105	
Lumber, planing-mill products, not including planing mills connected with sawmills.....	1919	5,256	260		23	1,896	814	1,676	1,087	
	1914	4,944	( <sup>2</sup> )	( <sup>2</sup> )	171	314	1,470	1,256	1,704	29
Paper and wood pulp.....	1919	9,561			5,310	1,904	2,011	226	9	101
	1914	6,051				278	1,016	623	1,482	2,652
Printing and publishing, book and job.....	1919	3,717	42	36	3,277	297	42	1	20	2
	1914	3,860	( <sup>2</sup> )	( <sup>2</sup> )	2,748	555	500	32	25	
Printing and publishing, newspapers and periodicals.....	1919	3,176	133	87	2,295	202	206	57	105	1
	1914	3,270	( <sup>2</sup> )	( <sup>2</sup> )	2,059	209	682	190	106	24
Rubber tires, tubes, and rubber goods, not elsewhere specified <sup>4</sup> .....	1919	5,044	17		4,845	48	2	132		
Salt.....	1919	2,063		2	541		411	587	428	94
	1914	1,434	( <sup>2</sup> )	( <sup>2</sup> )	12		40	565	536	281
Shipbuilding, steel, new vessels and small boats.....	1919	15,996			15,994			2		
	1914	935	( <sup>2</sup> )	( <sup>2</sup> )	89		659		187	
Stoves and hot-air furnaces.....	1919	4,240		201	67	1,611	1,569	692	100	
	1914	3,832	( <sup>2</sup> )	( <sup>2</sup> )	5	724	2,209	275	619	
Structural ironwork, not made in steel works or rolling mills.....	1919	2,313			265	1,016	102	764	100	
	1914	1,371	( <sup>2</sup> )	( <sup>2</sup> )	156	47	304	843	16	
Tobacco, cigars and cigarettes.....	1919	5,456	884	530	796	1,185	2,002	4	55	
	1914	7,295	( <sup>2</sup> )	( <sup>2</sup> )	3,466	1,751	2,049	6	23	
Tools, not elsewhere specified.....	1919	3,261	66	38	188	2,566	193	207	3	
	1914	372	( <sup>2</sup> )	( <sup>2</sup> )	1	1	39	288	43	
Wirework, not elsewhere specified.....	1919	2,516	78		416	563	245	1,080	43	91
	1914	1,314	( <sup>2</sup> )	( <sup>2</sup> )	3	12	129	701	469	
All other industries.....	1919	85,406	3,696	1,770	13,764	25,814	14,853	11,982	9,047	4,480
	1914	72,717	( <sup>2</sup> )	( <sup>2</sup> )	6,991	8,359	21,041	15,008	16,106	5,212

<sup>1</sup> Includes 48 and under for 1914 and 1909.<sup>2</sup> Corresponding figures not available.<sup>3</sup> Includes "iron and steel, tempering and welding" and "machine tools."<sup>4</sup> Not shown separately in 1914.

TABLE 9.—AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919 AND 1914—Continued.

INDUSTRY AND CITY.	Census year.	Total.	IN ESTABLISHMENTS WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—							
			44 and under.	Between 44 and 48.	48.1	Between 48 and 54.	54.	Between 54 and 60.	60.	Over 60.
Total for cities.....	1919 1914	376,032 177,605	7,405 (2)	7,935 (2)	122,704 16,389	153,330 28,851	37,412 45,136	35,310 57,509	10,546 26,619	1,390 3,101
ADRIAN.....	1919 1914	1,870 1,256	2 (2)	2 (2)	26 28	379 31	356 179	817 279	232 695	6 44
ALPENA.....	1919 1914	1,372 1,494	— (2)	— (2)	348 33	30 —	77 42	423 310	494 848	— 261
ANN ARBOR.....	1919 1914	1,612 842	78 (2)	10 (2)	118 189	417 6	272 237	697 316	16 80	4 14
BATTLE CREEK.....	1919 1914	6,680 4,599	40 (2)	31 (2)	733 870	185 492	423 1,478	3,003 709	2,051 1,042	214 8
BAY CITY.....	1919 1914	5,057 3,771	69 (2)	20 (2)	1,944 237	882 184	497 1,240	760 497	883 1,462	2 142
BENTON HARBOR.....	1919 1914	2,328 1,285	9 (2)	2 (2)	196 11	3 19	550 133	1,807 554	228 558	33 —
DETROIT.....	1919 1914	167,016 99,603	5,460 (2)	7,019 (2)	53,344 9,702	71,132 20,735	12,788 20,248	15,159 35,419	1,547 12,804	567 695
ESCANABA.....	1919 1914	842 777	29 (2)	— (2)	264 67	9 12	287 224	36 343	214 127	3 4
FLINT.....	1919 1914	24,603 8,722	76 (2)	— (2)	181 157	22,597 341	597 406	709 7,568	439 146	4 104
GRAND RAPIDS.....	1919 1914	23,548 17,427	323 (2)	445 (2)	4,338 1,721	15,448 2,484	1,867 9,048	936 1,997	177 1,911	14 266
HOLLAND.....	1919 1914	2,748 2,165	4 (2)	6 (2)	223 232	826 27	967 939	619 409	15 490	88 63
IRONWOOD.....	1919 1914	399 516	1 (2)	— (2)	23 7	6 9	19 10	— —	350 480	— 10
ISHPEMING.....	1919 1914	107 79	— (2)	3 (2)	17 14	— 3	58 10	13 —	16 52	— —
JACKSON.....	1919 1914	9,620 4,906	13 (2)	5 (2)	1,144 413	5,421 900	928 1,568	1,016 1,411	187 403	6 211
KALAMAZOO.....	1919 1914	7,629 5,525	519 (2)	300 (2)	1,442 251	3,230 682	1,068 2,392	930 861	125 1,102	15 237
LANSING.....	1919 1914	12,349 6,231	8 (2)	9 (2)	350 484	3,534 2,175	7,000 634	670 2,474	85 389	93 75
MARQUETTE.....	1919 1914	1,415 589	4 (2)	— (2)	480 291	60 7	35 92	26 14	800 185	1 —
MONROE.....	1919	2,904	1	—	1,922	175	505	120	115	6
MUSKEGON.....	1919 1914	9,716 4,646	345 (2)	3 (2)	716 581	228 301	3,777 2,587	4,239 378	296 444	112 355
OWOSSO.....	1919 1914	1,781 1,231	— (2)	— (2)	72 70	25 —	506 71	952 345	71 625	155 120
PONTIAC.....	1919 1914	7,682 2,409	6 (2)	— (2)	2,540 58	4,473 14	29 257	74 1,785	527 214	33 81
PORT HURON.....	1919 1914	2,231 1,296	290 (2)	21 (2)	957 279	144 185	155 185	507 91	144 327	13 229
SAGINAW.....	1919 1914	9,472 6,342	110 (2)	52 (2)	1,905 607	4,251 236	1,013 2,982	870 586	343 1,767	19 164
SAULT STE. MARIE.....	1919 1914	1,248 938	3 (2)	1 (2)	28 33	602 2	448 124	15 592	59 178	2 9
TRAVERSE CITY.....	1919 1914	960 956	— (2)	— (2)	101 54	89 6	167 41	279 561	324 280	— 4
WYANDOTTE.....	1919	6,214	2	—	5,037	662	23	22	468	—
ALL OTHER CITIES <sup>2</sup> .....	1919	64,629	13	6	44,246	18,432	1,440	202	290	—

<sup>1</sup> Includes 48 and under for 1914 and 1909.<sup>2</sup> Corresponding figures not available.<sup>3</sup> All other cities comprise Hamtramck and Highland Park.

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TABLE 10.—SIZE OF ESTABLISHMENTS, BY AVERAGE NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919.

INDUSTRY AND CITY.	TOTAL.		ESTABLISHMENTS EMPLOYING—																
	Establishments.	Wage earners (average number).	No wage earners.	1 to 5 wage earners, inclusive.		6 to 20 wage earners, inclusive.		21 to 50 wage earners, inclusive.		51 to 100 wage earners, inclusive.		101 to 250 wage earners, inclusive.		251 to 500 wage earners, inclusive.		501 to 1,000 wage earners, inclusive.		Over 1,000 wage earners.	
			Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	
All industries.....	8,305	471,242	1,085	3,800	5,573	1,404	16,748	747	25,050	456	33,945	414	66,285	167	57,771	78	53,182	55	209,688
Agricultural implements.....	23	2,708	.....	6	19	4	59	6	234	3	202	1	208	2	944	.....	.....	1	1,042
Automobile bodies and parts.....	203	49,048	9	48	104	39	470	21	904	26	2,088	20	3,210	17	6,170	13	9,329	10	26,983
Automobiles.....	68	120,937	1	4	10	7	88	13	459	8	614	11	1,857	5	1,401	2	1,751	17	120,067
Boxes, paper and other, not elsewhere specified.....	22	2,336	1	.....	.....	6	86	5	185	5	334	3	591	1	294	1	846	.....	.....
Brass, bronze, and copper products.....	80	10,306	2	14	39	23	281	12	397	9	649	5	862	9	3,114	5	3,432	1	1,532
Bread and other bakery products.....	944	5,088	190	606	1,306	112	1,040	23	758	6	427	4	659	3	898	.....	.....	.....	.....
Canning and preserving, fruits and vegetables.....	52	2,109	1	8	28	16	205	15	515	6	467	6	894	.....	.....	.....	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	36	7,025	.....	2	2	4	42	7	202	10	761	6	987	1	411	5	3,616	1	1,004
Chemicals.....	36	5,712	5	14	25	4	64	7	223	1	90	.....	.....	1	340	1	692	3	4,278
Druggists' preparations.....	16	3,219	3	1	2	5	54	2	50	3	196	.....	.....	1	286	.....	.....	1	2,631
Electrical machinery, apparatus, and supplies.....	54	4,190	2	15	42	13	171	6	254	7	573	8	1,250	2	658	.....	.....	1	1,242
Engines, steam, gas, and water.....	35	14,253	1	5	18	3	46	6	215	6	483	7	1,315	2	854	1	700	4	10,627
Food preparations, not elsewhere specified.....	37	2,483	5	17	32	6	47	4	142	2	152	1	213	.....	.....	1	771	1	1,126
Foundry and machine-shop products.....	523	39,430	23	143	385	102	1,194	107	3,565	52	3,715	55	8,790	27	9,370	10	6,549	4	5,862
Furniture.....	171	18,496	4	21	62	27	357	32	1,051	36	2,767	33	5,340	10	3,601	8	5,318	.....	.....
Gas, illuminating and heating.....	59	2,846	.....	15	59	26	278	7	220	5	352	5	748	.....	.....	.....	.....	1	1,189
Hardware.....	30	2,174	.....	7	15	5	48	5	129	7	562	4	672	2	748	.....	.....	.....	.....
Knit goods.....	31	3,170	1	3	6	7	93	6	224	7	554	3	432	2	826	2	1,035	.....	.....
Leather, tanned, curried, and finished.....	28	3,464	1	.....	.....	2	18	3	95	8	611	12	2,010	2	730	.....	.....	.....	.....
Lumber and timber products.....	880	14,923	9	176	389	87	1,005	38	1,810	29	2,170	25	3,790	12	3,694	4	2,565	.....	.....
Lumber, planing-mill products, not including planing mills connected with sawmills.....	192	5,256	6	74	186	55	673	31	1,066	12	878	11	1,624	3	829	.....	.....	.....	.....
Machine tools.....	31	3,196	.....	3	10	7	81	4	144	8	590	7	1,005	.....	.....	2	1,366	.....	.....
Paper and wood pulp.....	39	9,561	.....	2	6	3	23	2	63	4	280	13	2,305	11	3,718	3	2,036	1	1,130
Printing and publishing, book and job.....	436	3,717	93	203	470	92	961	31	1,000	16	1,110	1	176	.....	.....	.....	.....	.....	.....
Printing and publishing, newspapers and periodicals.....	565	3,176	141	320	691	78	832	20	649	3	223	2	379	1	402	.....	.....	.....	.....
Rubber tires, tubes, and rubber goods, not elsewhere specified.....	7	5,044	.....	2	3	2	25	1	47	.....	.....	1	124	.....	.....	.....	.....	1	4,845
Salt.....	12	2,063	.....	1	3	.....	.....	.....	.....	4	326	4	662	3	1,072	.....	.....	.....	.....
Shipbuilding, steel, new vessels and small boats.....	7	15,996	.....	1	2	.....	.....	.....	.....	1	84	.....	.....	.....	.....	.....	.....	5	15,010
Stoves and hot-air furnaces.....	21	4,240	.....	3	11	.....	.....	5	176	3	250	6	1,020	.....	.....	4	2,783	.....	.....
Structural ironwork, not made in steel works or rolling mills.....	34	2,313	1	5	16	14	143	7	226	1	77	4	741	1	368	1	742	.....	.....
Tobacco, cigars and cigarettes.....	349	5,456	116	153	315	42	420	14	471	9	689	9	1,310	5	1,754	1	508	.....	.....
Tools, not elsewhere specified.....	89	3,261	4	24	76	23	317	28	992	7	478	1	120	.....	.....	2	1,278	.....	.....
Wirework, not elsewhere specified.....	38	2,516	.....	12	34	6	66	9	360	4	325	4	782	3	949	.....	.....	.....	.....
All other industries.....	3,657	85,525	466	1,901	4,207	674	7,552	270	8,934	148	10,888	142	22,208	41	14,250	12	7,865	3	9,620
Total for cities.....	4,792	376,032	576	1,855	4,591	1,051	11,830	520	17,245	293	21,541	265	43,227	120	41,553	65	44,535	47	191,510
ADRIAN.....	62	1,870	13	22	61	9	108	8	263	4	289	5	817	1	332	.....	.....	.....	.....
ALPENA.....	38	1,372	8	11	24	8	92	6	179	.....	.....	3	357	2	720	.....	.....	.....	.....
ANN ARBOR.....	78	1,612	24	28	61	16	212	4	135	4	260	.....	.....	1	349	1	595	.....	.....
BATTLE CREEK.....	118	6,680	18	53	126	21	238	10	332	3	196	6	1,155	3	1,118	2	1,347	2	2,168
BAY CITY.....	108	5,067	14	36	100	24	276	12	415	9	666	10	1,596	1	281	1	521	1	1,202
BENTON HARBOR.....	65	2,328	9	24	46	15	172	4	110	8	554	2	288	2	603	1	555	.....	.....
DETROIT.....	2,176	167,016	251	770	1,895	504	5,716	280	9,219	133	9,715	123	19,590	56	19,097	36	24,194	23	77,590
ESCANABA.....	45	842	2	26	60	12	98	1	23	2	140	1	284	1	287	.....	.....	.....	.....
FLINT.....	107	24,603	14	42	124	30	299	6	222	4	283	3	476	4	1,435	.....	.....	4	21,764
GRAND RAPIDS.....	611	23,548	90	240	580	117	1,393	63	2,036	51	3,783	27	4,588	14	5,087	9	6,081	.....	.....
HOLLAND.....	64	2,748	5	24	61	8	73	14	489	3	207	9	1,528	1	390	.....	.....	.....	.....
IRONWOOD.....	28	399	6	14	37	7	60	.....	.....	.....	.....	1	302	.....	.....	.....	.....	.....	.....
ISHPEMING.....	21	107	.....	16	35	4	27	1	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
JACKSON.....	156	9,620	8	70	186	37	428	17	588	8	608	7	1,166	3	1,163	4	2,648	2	2,828
KALAMAZOO.....	185	7,629	20	71	176	47	543	14	521	12	840	16	3,035	4	1,384	.....	.....	1	1,130
LANSING.....	147	12,349	9	62	151	41	465	12	434	8	661	5	884	6	2,111	2	1,766	2	5,877
MARQUETTE.....	34	1,415	2	13	28	7	86	4	96	1	69	6	854	1	282	.....	.....	.....	.....
MONROE.....	41	2,904	3	20	54	5	50	5	184	4	303	1	250	1	400	2	1,663	.....	.....
MUSKEGON.....	141	9,716	23	61	139	19	226	12	423	11	792	7	1,090	5	1,715	1	513	2	4,818
OWOSSO.....	40	1,781	6	17	48	6	64	3	109	1	61	4	568	3	931	.....	.....	.....	.....
PONTIAC.....	78	7,682	5	40	98	17	165	6	203	2	186	3	409	1	315	2	1,734	2	4,572
PORT HURON.....	83	2,231	14	39	108	11	108	9	269	4	270	4	680	2	796	.....	.....	.....	.....
SAGINAW.....	208	9,472	17	88	218	50	574	19	647	12	945	19	2,992	1	438	2	1,260	2	2,398
SAULT STE. MARIE.....	26	1,248	2	14	43	6	56	1	32	1	60	.....	.....	1	366	1	691	.....	.....
TRAVERSE CITY.....	56	980	1	27	70	15	149	7	215	6	526	.....	.....	.....	.....	.....	.....	.....	.....
WYANDOTTE.....	26	6,214	3	12	23	3	37	.....	.....	1	67	3	471	2	650	.....	.....	2	4,966
ALL OTHER CITIES <sup>1</sup> .....	50	64,629	9	17	39	12	115	2	56	1	60	1	199	3	896	1	967	4	62,197

<sup>1</sup> All other cities comprise Hamtramck and Highland Park.

## MANUFACTURES—MICHIGAN.

TABLE 11.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS: 1919, 1914, AND 1909.

VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			VALUE ADDED BY MANUFACTURE.		
	1919	1914	1909	1919	1914	1909	1919	1914	1909	1919	1914	1909
All classes.....	8,305	8,724	9,159	471,242	271,090	231,499	\$3,466,188,483	\$1,086,162,432	\$685,109,169	\$1,546,945,240	\$493,361,308	\$316,497,147
Less than \$5,000.....	1,539	2,976	3,372	916	3,154	3,906	3,960,695	7,254,892	7,821,323	2,444,262	4,561,300	4,914,698
\$5,000 to \$20,000.....	2,278	2,566	2,665	5,545	10,556	12,382	24,871,038	26,702,525	27,383,330	13,404,814	14,339,602	14,559,126
\$20,000 to \$100,000.....	2,361	1,914	1,999	20,716	30,078	35,706	109,296,336	87,746,430	90,330,115	51,878,594	40,538,674	41,918,104
\$100,000 to \$500,000.....	1,341	933	1,035	61,795	117,227	123,279	306,923,542	206,598,783	301,233,306	150,101,597	157,753,189	146,842,096
\$500,000 to \$1,000,000.....	327	175		43,253			232,661,055	123,370,371		112,651,519		
\$1,000,000 and over.....	459	160	88	339,042	110,075	56,226	2,788,475,817	634,489,431	258,341,090	1,216,404,454	276,168,543	108,263,253
PER CENT DISTRIBUTION.												
All classes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than \$5,000.....	18.5	34.1	36.8	0.2	1.2	1.7	0.1	0.7	1.1	0.2	0.9	1.6
\$5,000 to \$20,000.....	27.4	29.4	29.1	1.2	3.9	5.3	0.7	2.5	4.0	0.9	2.9	4.6
\$20,000 to \$100,000.....	28.4	21.9	21.8	4.4	11.1	15.4	3.2	8.1	13.2	3.3	8.2	13.2
\$100,000 to \$500,000.....	16.2	10.7	11.3	13.1	43.2	53.3	8.9	19.0	44.0	7.7	32.0	46.4
\$500,000 to \$1,000,000.....	3.9	2.0		9.2			6.7	11.4		7.3		
\$1,000,000 and over.....	5.5	1.8	1.0	71.9	40.6	24.3	80.4	58.4	37.7	78.6	56.0	34.2

TABLE 12.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS, FOR SELECTED INDUSTRIES: 1919 AND 1914.

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			VALUE ADDED BY MANUFACTURE.		
	1919	1914	Per cent distribution.	1919	1914	Per cent distribution.	1919	1914	Per cent distribution.	1919	1914	Per cent distribution.
AUTOMOBILE BODIES AND PARTS.....	203	140	100.0	49,048	24,736	100.0	\$288,306,858	\$71,540,077	100.0	\$137,744,416	\$33,146,818	100.0
Less than \$5,000.....	15	17	7.4	15	21	(1)	40,755	49,299	(1)	11,867	30,145	(1)
\$5,000 to \$20,000.....	35	19	17.2	82	85	0.2	344,792	213,984	0.1	220,586	131,642	0.2
\$20,000 to \$100,000.....	49	29	24.1	611	676	1.2	2,416,890	1,774,733	0.8	1,549,952	1,033,860	1.1
\$100,000 to \$500,000.....	43	41	21.2	2,820	* 7,313	5.7	10,218,891	9,024,150	3.5	5,763,097	* 9,291,442	4.2
\$500,000 to \$1,000,000.....	11	14	5.4	1,443		2.9	7,308,239	10,060,025	2.5	3,325,317		2.4
\$1,000,000 and over.....	50	20	14.3	44,077	16,641	89.9	267,977,291	50,417,886	93.0	126,864,597	22,659,729	92.1
AUTOMOBILES.....	68	65	100.0	126,937	42,802	100.0	1,332,076,498	326,748,945	100.0	522,871,509	145,926,809	100.0
Less than \$20,000.....	4	8	5.9	7	64	(1)	56,560	154,115	(1)	24,560	43,345	(1)
\$20,000 to \$100,000.....	5	17	7.4	41	207	(1)	275,515	892,089	(1)	145,102	828,809	(1)
\$100,000 to \$500,000.....	16	* 10	23.5	649	* 2,479	0.5	4,232,927	* 3,693,087	0.3	1,775,511	* 897,474	0.3
\$500,000 to \$1,000,000.....	5		7.4	373		0.3	3,416,158		0.3	1,055,984		0.2
\$1,000,000 and over.....	38	30	55.9	125,867	42,052	99.2	1,324,095,329	322,009,664	99.4	519,870,352	144,657,481	99.4
BRASS, BRONZE, AND COPPER PRODUCTS.....	80	64	100.0	10,306	4,731	100.0	62,708,335	16,868,725	100.0	23,859,357	5,395,258	100.0
Less than \$5,000.....	4	13	5.0	4	17	(1)	12,966	40,675	(1)	9,368	23,344	(1)
\$5,000 to \$20,000.....	6	12	7.5	15	55	0.1	77,330	126,482	0.1	30,252	67,429	0.2
\$20,000 to \$100,000.....	25	19	31.2	240	415	2.3	1,350,390	1,000,854	2.2	672,376	529,306	2.8
\$100,000 to \$500,000.....	23	* 17	28.8	1,341	* 2,510	13.0	4,943,450	* 5,828,771	7.9	2,544,230	* 2,894,331	10.7
\$500,000 to \$1,000,000.....	8		10.0	1,219		11.8	5,659,642		9.0	2,688,575		11.3
\$1,000,000 and over.....	14	3	17.5	7,487	1,734	72.7	50,664,557	9,871,943	80.8	17,905,556	1,880,848	75.0
BREAD AND OTHER BAKERY PRODUCTS.....	944	922	100.0	5,088	4,014	100.0	44,923,454	16,000,068	100.0	16,807,665	6,691,971	100.0
Less than \$5,000.....	108	311	11.4	20	209	0.4	316,168	949,157	0.7	131,011	434,466	0.8
\$5,000 to \$20,000.....	422	474	44.7	500	1,164	9.8	4,993,088	4,632,088	11.1	1,784,664	1,974,466	10.6
\$20,000 to \$100,000.....	349	118	37.0	1,466	1,207	28.8	13,728,983	4,768,750	30.6	4,715,292	1,880,774	28.1
\$100,000 to \$500,000.....	* 57	14	6.0	* 1,522	* 1,434	29.9	* 12,516,291	* 2,503,515	27.9	* 4,691,725	* 2,402,266	27.9
\$500,000 to \$1,000,000.....	8	* 5	0.5	1,580		31.1	13,368,924	* 3,146,548	29.8	5,484,973		32.6
\$1,000,000 and over.....												
BUTTER.....	231	270	100.0	984	769	100.0	33,385,420	13,479,297	100.0	3,804,528	1,813,195	100.0
Less than \$5,000.....	23	13	4.8	14	8	1.0	39,870		0.3	7,298		0.4
\$5,000 to \$20,000.....	126	66	10.0	279	425	11.6	* 263,335	920,821	0.8	* 38,962	134,980	1.0
\$20,000 to \$100,000.....	71	* 20	54.5	419	* 247	55.3	7,267,408	7,566,258	21.7	801,608	954,931	21.1
\$100,000 to \$500,000.....	6		30.7	113		32.1	13,936,776	* 4,952,848	41.7	1,516,773	* 715,986	39.0
\$500,000 to \$1,000,000.....	5		2.6	159		11.5	4,345,919		13.0	510,426		13.4
\$1,000,000 and over.....			2.2			16.2	7,581,982		22.7	936,759		24.6
CHEMICALS.....	36	36	100.0	5,712	4,509	100.0	37,850,834	13,891,415	100.0	22,106,759	7,517,930	100.0
Less than \$5,000.....	13	16	36.1	6	21	0.1	28,973	32,486	0.1	16,942	23,280	0.1
\$5,000 to \$20,000.....	3	4	8.3	6	14	0.1	25,194	43,254	0.1	9,297	17,034	0.2
\$20,000 to \$100,000.....	6	3	16.7	72	41	1.3	406,534	181,760	1.1	223,038	80,695	1.0
\$100,000 to \$500,000.....	* 9	* 8	25.0	* 318	* 325	5.6	* 3,477,438	* 1,972,986	9.2	* 1,833,454	* 871,812	8.3
\$500,000 to \$1,000,000.....	5	5	13.9	5,310	4,108	93.0	33,912,665	11,660,929	89.6	20,024,028	6,525,609	90.6
\$1,000,000 and over.....												
ELECTRICAL MACHINERY, APPARATUS, AND SUPPLIES.....	54	35	100.0	4,190	1,144	100.0	25,025,528	3,415,500	100.0	15,990,472	1,675,952	100.0
Less than \$5,000.....	4	7	7.4	2	8	(1)	7,341	17,340	(1)	4,537	9,452	(1)
\$5,000 to \$20,000.....	9	9	16.7	26	40	0.6	124,907	95,090	0.5	56,957	44,552	0.4
\$20,000 to \$100,000.....	15	8	27.8	209	161	5.0	830,296	394,114	3.3	416,268	203,027	2.6
\$100,000 to \$500,000.....	12	* 11	22.2	595	* 935	14.2	2,561,111	* 2,908,956	10.2	1,289,149	* 1,418,921	8.1
\$500,000 to \$1,000,000.....	7		13.0	884		20.6	5,173,350		20.7	3,139,654		19.6
\$1,000,000 and over.....				2,494		59.5	16,328,523		65.2	11,083,907		60.3

\* Less than one-tenth of 1 per cent.

\* Includes the group "\$500,000 to \$1,000,000."

\* Includes the groups "\$500,000 to \$1,000,000" and "\$1,000,000 and over."

\* Includes the group "\$1,000,000 and over."

\* Includes the group "Less than \$5,000."

## MANUFACTURES—MICHIGAN.

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TABLE 12.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS, FOR SELECTED INDUSTRIES: 1919 AND 1914—Continued.

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.				AVERAGE NUMBER OF WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.			
	1919	1914	Per cent distribution.		1919	1914	Per cent distribution.		1919	1914	Per cent distribution.		1919	1914	Per cent distribution.	
			1919	1914			1919	1914			1919	1914			1919	1914
ENGINES, STEAM, GAS, AND WATER.	35	48	100.0	100.0	14,258	4,427	100.0	100.0	\$101,989,440	\$12,369,172	100.0	100.0	\$44,938,747	\$6,407,540	100.0	100.0
Less than \$5,000.....	14	5	10.4	10.4	19	3	0.1	0.1	127,068	8,538	0.1	0.1	19,008	4,780	0.1	0.1
\$5,000 to \$20,000.....	5	11	11.4	20.8	87	326	0.6	7.4	217,285	113,416	0.2	0.9	66,551	66,551	1.0	1.0
\$20,000 to \$100,000.....	12	19	34.3	39.6	762	1,494	5.3	33.7	3,663,968	4,319,955	3.6	34.9	125,322	316,962	0.3	4.9
\$100,000 to \$500,000.....	6	8	17.1	6.2	974	2,539	6.8	57.4	4,059,521	7,284,348	4.0	58.9	1,515,252	2,157,357	3.4	33.7
\$500,000 and over.....	8	3	22.9	6.2	12,426	2,539	87.2	57.4	94,021,598	7,284,348	92.2	58.9	2,516,726	3,861,890	5.6	60.3
FLOUR-MILL AND GRIST-MILL PRODUCTS.....	345	427	100.0	100.0	1,128	1,370	100.0	100.0	44,144,434	27,381,474	100.0	100.0	5,959,339	4,082,363	100.0	100.0
Less than \$5,000.....	14	45	4.1	10.5	2	27	0.2	2.0	47,243	134,169	0.1	0.5	8,829	30,535	0.1	0.7
\$5,000 to \$20,000.....	75	147	21.7	34.4	40	173	3.6	12.6	900,117	1,714,408	2.0	6.3	173,478	344,981	2.9	8.4
\$20,000 to \$100,000.....	185	188	53.6	44.0	278	457	24.6	33.4	8,508,510	7,787,676	19.3	28.4	1,346,759	1,294,361	22.6	31.7
\$100,000 to \$500,000.....	59	39	17.1	9.1	322	397	28.5	29.0	12,191,285	7,541,907	27.6	27.5	1,660,762	1,433,149	27.0	35.1
\$500,000 to \$1,000,000.....	6	3	1.7	0.7	155	316	13.7	23.1	4,047,740	1,730,062	9.2	6.3	529,492	979,267	8.9	24.0
\$1,000,000 and over.....	6	5	1.7	1.2	331	316	29.3	23.1	18,449,539	8,473,352	41.8	30.9	2,240,010	979,267	37.6	24.0
FOUNDRY AND MACHINE-SHOP PRODUCTS.....	580	502	100.0	100.0	42,745	17,608	100.0	100.0	\$182,735,316	\$39,428,783	100.0	100.0	\$109,796,788	\$23,630,250	100.0	100.0
Less than \$5,000.....	55	119	9.5	23.7	29	151	0.1	0.9	145,151	350,179	0.1	0.9	105,189	253,378	0.1	1.1
\$5,000 to \$20,000.....	128	139	22.1	27.7	425	747	1.0	4.2	1,450,860	1,418,515	0.8	3.6	994,652	930,460	0.9	3.9
\$20,000 to \$100,000.....	149	153	25.7	30.5	2,229	3,281	5.2	18.6	7,932,791	6,993,489	4.3	17.7	5,142,485	4,461,659	4.7	18.9
\$100,000 to \$500,000.....	159	73	27.4	14.5	9,719	11,702	22.7	67.0	36,751,189	15,784,096	20.1	40.0	23,026,021	14,793,677	21.0	62.6
\$500,000 to \$1,000,000.....	40	14	6.9	2.8	6,320	12,607	14.8	86.3	27,933,202	10,021,704	15.0	25.4	17,193,471	8,938,963	15.7	21.8
\$1,000,000 and over.....	49	4	8.4	0.8	24,023	1,637	56.2	9.3	109,122,123	4,860,800	50.7	12.3	63,334,970	2,188,076	57.7	13.5
FURNITURE.....	171	192	100.0	100.0	18,496	14,706	100.0	100.0	69,497,237	30,184,542	100.0	100.0	41,187,025	17,665,105	100.0	100.0
Less than \$5,000.....	10	25	5.8	13.0	12	42	0.1	0.3	22,740	61,788	0.2	0.2	14,963	39,320	0.2	0.2
\$5,000 to \$20,000.....	15	31	8.8	16.1	67	158	0.4	1.1	168,087	311,825	0.2	1.0	96,957	173,853	0.2	1.1
\$20,000 to \$100,000.....	35	55	20.5	28.6	604	1,809	3.3	12.3	1,045,200	3,063,818	2.8	10.2	1,057,503	1,735,214	2.6	9.8
\$100,000 to \$500,000.....	72	68	42.1	35.4	5,219	12,607	28.2	86.3	19,463,209	15,965,483	28.0	52.9	11,371,767	15,696,188	27.6	88.9
\$500,000 to \$1,000,000.....	20	13	11.7	6.8	3,839	1,637	20.8	9.3	14,493,187	10,781,630	20.9	35.7	8,938,963	2,188,076	21.8	13.5
\$1,000,000 and over.....	19	4	11.1	2.8	8,755	1,637	47.3	9.3	33,414,814	4,860,800	48.1	12.3	19,651,882	2,188,076	47.7	13.5
LUMBER AND TIMBER PRODUCTS.....	380	477	100.0	100.0	14,923	21,488	100.0	100.0	46,043,855	33,873,367	100.0	100.0	30,350,299	19,764,708	100.0	100.0
Less than \$5,000.....	102	174	26.8	36.5	110	333	0.7	1.5	223,849	370,639	0.5	1.1	165,075	296,740	0.5	1.3
\$5,000 to \$20,000.....	97	119	25.5	24.9	467	880	3.1	4.1	1,057,950	1,295,673	2.3	3.8	727,410	834,213	2.4	4.1
\$20,000 to \$100,000.....	88	98	23.2	20.5	1,392	3,402	9.3	15.8	3,874,769	4,537,400	8.4	13.4	2,381,654	2,963,598	7.8	15.0
\$100,000 to \$500,000.....	65	73	17.1	15.3	4,937	16,873	33.1	78.5	14,799,729	16,898,555	32.1	49.9	9,463,705	15,720,157	31.2	79.5
\$500,000 to \$1,000,000.....	19	13	5.0	2.7	4,819	1,637	31.0	9.3	13,958,108	10,771,100	30.3	31.8	9,601,437	2,188,076	31.6	13.5
\$1,000,000 and over.....	9	4	2.4	0.8	3,398	1,637	22.8	9.3	12,120,460	4,860,800	26.3	12.3	8,011,018	2,188,076	26.4	13.5
LUMBER, PLANING-MILL PRODUCTS, NOT INCLUDING PLANING MILLS CONNECTED WITH SAWMILLS.	192	217	100.0	100.0	5,256	4,944	100.0	100.0	37,899,230	19,767,965	100.0	100.0	13,859,522	7,559,766	100.0	100.0
Less than \$5,000.....	21	49	10.9	22.6	21	65	0.4	1.3	63,227	149,258	0.2	0.8	38,040	72,200	0.3	1.0
\$5,000 to \$20,000.....	36	41	18.7	18.9	96	203	1.8	4.1	883,236	459,004	1.0	2.5	185,835	270,298	1.3	3.6
\$20,000 to \$100,000.....	59	75	30.7	34.6	546	1,295	10.4	28.2	2,860,420	3,558,126	7.8	18.0	1,362,472	1,540,139	9.8	20.4
\$100,000 to \$500,000.....	57	43	29.7	19.8	1,901	3,831	37.3	68.4	13,272,037	8,390,300	35.0	42.3	4,901,519	5,677,129	35.4	75.1
\$500,000 to \$1,000,000.....	11	9	5.7	4.1	1,094	1,637	20.8	9.3	8,042,384	7,214,217	21.2	30.5	3,113,418	2,188,076	22.5	13.5
\$1,000,000 and over.....	8	4	4.2	0.8	1,539	1,637	29.3	9.3	13,138,976	4,860,800	34.7	12.3	4,258,538	2,188,076	30.7	13.5
PATENT MEDICINES AND COMPOUNDS.....	70	102	100.0	100.0	1,392	1,029	100.0	100.0	9,948,329	3,871,014	100.0	100.0	5,735,523	2,395,160	100.0	100.0
Less than \$5,000.....	27	54	38.6	52.9	9	27	0.6	2.6	63,831	106,811	0.6	2.8	37,520	73,069	0.7	3.1
\$5,000 to \$20,000.....	14	27	20.0	26.5	13	75	0.9	7.3	152,531	308,397	1.5	8.0	98,036	222,212	1.7	9.3
\$20,000 to \$100,000.....	21	16	30.0	15.7	148	96	10.6	9.3	904,172	875,678	9.1	22.6	575,214	612,278	10.0	25.6
\$100,000 to \$500,000.....	4	6	5.7	4.9	38	831	2.7	80.8	854,843	2,580,128	8.6	66.7	332,454	1,486,701	5.8	62.1
\$500,000 and over.....	4	4	5.7	0.6	1,184	1,637	85.1	9.3	7,672,952	4,860,800	80.1	12.3	4,681,299	2,188,076	81.8	13.5
PRINTING AND PUBLISHING, BOOK AND JOB.....	436	404	100.0	100.0	3,717	3,860	100.0	100.0	17,675,025	9,380,560	100.0	100.0	11,204,129	6,296,771	100.0	100.0
Less than \$5,000.....	119	174	27.3	43.1	51	177	1.4	4.6	302,163	418,638	1.7	4.5	200,255	304,710	1.8	4.8
\$5,000 to \$20,000.....	156	144	35.8	35.6	401	640	10.8	16.6	1,676,145	1,426,943	9.5	15.2	1,091,259	975,630	9.7	15.5
\$20,000 to \$100,000.....	121	63	27.8	15.6	1,288	1,270	34.7	32.9	5,524,410	2,837,439	31.3	30.2	3,663,087	1,926,072	32.7	30.6
\$100,000 and over.....	40	23	9.2	5.7	1,977	1,773	53.2	45.9	10,173,207	4,697,540	57.6	50.1	6,249,528	3,090,359	55.8	49.1
PRINTING AND PUBLISHING, NEWSPAPERS AND PERIODICALS.....	565	660	100.0	100.0	3,176	3,270	100.0	100.0	24,930,421	12,290,227	100.0	100.0	17,234,276	8,946,668	100.0	100.0
Less than \$5,000.....	236	372	41.8	56.4	207	479	6.5	14.6	657,309	965,112	2.6	7.9	500,674	731,277	2.9	8.7
\$5,000 to \$20,000.....	216	210	38.2	31.8	541	449	17.0	26.0	2,072,024	1,849,666	8.3	15.0	1,565,933	1,513,307	9.1	16.9
\$20,000 to \$100,000.....	80	58	14.2	8.8	714	697	22.5	21.3	3,171,906	2,468,886	12.7	20.0	2,422,047	1,987,718	14.1	22.2
\$100,000 to \$500,000.....	27	16	4.8	2.4	821	1,245	25.9	38.1	6,042,325	2,542,263	24.2	20.7	4,594,172	4,664,366	26.7	52.1
\$500,000 and over.....	6	4	1.1	0.6	893	1,637	28.1	9.3	12,986,857	4,474,300	52.1	36.4	8,151,400	2,188,076	47.3	13.5
TOBACCO, CIGARS AND CIGARETTES.....	349	609	100.0	100.0	5,456	7,295	100.0	100.0	18,118,556	12,121,362	100.0	100.0	9,728,277	6,658,818	100.0	100.0
Less than \$5,000.....	181	404	51.9	66.3	73	319	1.3	4.4	412,561	791,826	2.3	6.5	221,448	482,252	2.3	7.2
\$5,000 to \$20,000.....	93	152	26.6	25.0	298	835	5.5	11.4	916,540	1,398,653	5.1	11.5	522,934	880,840	5.4	12.8
\$20,000 to \$100,000.....	45	37	12.9	6.1	663	780	12.2	10.7	1,753,402	1,329,779	9.7	11.0	935,291	745,390	9.6	11.2
\$100,000 to \$500,000.....	21	10	6.0	1.6	1,643	2,624	30.1	36.1	5,741,384	2,444,049	31.7	20.2	3,269,855	2,372,777	33.6	35.6
\$500,000 to \$1,000,000.....	5	3	1.4	0.5	1,133	208	2.0	2.4	3,934,114	2,016,939	21.7	16.6	2,071,608	2,188,076	21.3	21.3



TABLE 13.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS, FOR CITIES OF 10,000 INHABITANTS OR MORE: 1919.

CITY AND VALUE OF PRODUCT.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		CITY AND VALUE OF PRODUCT.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
		Average number.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.			Average number.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.
ADRIAN.....	62	1,870	100.0	\$14,549,031	100.0	\$4,396,103	100.0	ISHPEMING.....	21	107	100.0	\$1,007,432	100.0	\$524,734	100.0
Less than \$5,000.....	15	6	0.3	32,793	0.2	20,892	0.5	Less than \$5,000.....	5	4	3.7	16,746	1.7	6,772	1.3
\$5,000 to \$20,000.....	11	25	1.3	96,759	0.7	63,417	1.4	\$5,000 to \$20,000.....	7	17	15.9	62,423	6.2	32,523	6.2
\$20,000 to \$100,000.....	18	158	8.4	818,690	5.6	427,696	9.7	\$20,000 to \$100,000.....	6	30	28.0	192,434	19.1	93,549	17.8
\$100,000 to \$500,000.....	10	549	29.4	1,770,132	12.2	914,662	20.8	\$100,000 to \$500,000.....	3	56	52.3	735,824	73.0	391,890	74.7
\$500,000 to \$1,000,000.....	4	485	25.9	2,417,927	16.6	1,069,804	24.3								
\$1,000,000 and over.....	4	647	34.6	9,412,730	64.7	1,899,572	43.2	JACKSON.....	156	9,620	100.0	40,517,712	100.0	19,529,000	100.0
ALPENA.....	38	1,372	100.0	9,356,190	100.0	4,468,715	100.0	Less than \$5,000.....	19	15	0.2	57,579	0.1	36,317	0.2
Less than \$5,000.....	11	5	0.4	27,770	0.3	15,471	0.3	\$5,000 to \$20,000.....	37	101	1.0	421,232	0.9	242,875	1.2
\$5,000 to \$20,000.....	4	7	0.5	53,779	0.6	21,352	0.5	\$20,000 to \$100,000.....	48	411	4.3	2,058,498	4.2	1,072,120	5.5
\$20,000 to \$100,000.....	14	182	13.3	603,182	6.4	290,612	6.5	\$100,000 to \$500,000.....	35	1,334	13.9	7,214,940	14.6	3,807,048	19.5
\$100,000 to \$500,000.....	6	330	24.1	1,016,937	10.9	504,635	13.3	\$500,000 to \$1,000,000.....	6	869	9.0	4,994,618	10.1	1,781,085	9.1
\$1,000,000 and over.....	3	848	61.8	7,654,516	81.8	3,540,045	79.4	\$1,000,000 and over.....	11	6,890	71.6	34,770,845	70.2	12,588,946	64.6
ANN ARBOR.....	78	1,612	100.0	9,793,696	100.0	4,417,049	100.0	KALAMAZOO.....	185	7,029	100.0	46,254,917	100.0	22,018,574	100.0
Less than \$5,000.....	26	9	0.6	66,282	0.7	46,415	1.0	Less than \$5,000.....	28	14	0.2	75,575	0.2	48,936	0.2
\$5,000 to \$20,000.....	18	41	2.5	219,797	2.2	127,330	2.9	\$5,000 to \$20,000.....	46	145	1.9	534,397	1.2	315,182	1.4
\$20,000 to \$100,000.....	21	191	11.8	899,399	9.2	541,407	12.3	\$20,000 to \$100,000.....	55	449	5.9	2,396,200	5.2	1,158,303	5.3
\$100,000 and over.....	13	1,371	85.0	8,608,218	87.9	3,701,897	83.8	\$100,000 to \$500,000.....	33	1,720	22.5	7,585,457	16.4	4,054,231	18.4
BATTLE CREEK.....	118	6,680	100.0	56,139,953	100.0	28,151,062	100.0	\$500,000 to \$1,000,000.....	13	1,877	24.6	9,133,862	19.7	4,948,480	22.5
Less than \$5,000.....	16	5	(1)	36,975	(1)	25,793	(1)	\$1,000,000 and over.....	10	3,424	44.9	26,529,426	57.4	11,493,442	52.2
\$5,000 to \$20,000.....	37	72	1.1	452,376	0.8	254,689	0.9	LANSING.....	147	12,349	100.0	104,722,115	100.0	39,740,775	100.0
\$20,000 to \$100,000.....	38	309	4.6	1,628,624	2.9	846,715	3.0	Less than \$5,000.....	20	13	0.1	59,751	(1)	41,220	0.1
\$100,000 to \$500,000.....	12	372	5.6	2,471,275	4.4	1,313,006	4.7	\$5,000 to \$20,000.....	36	100	0.8	428,570	0.4	255,247	0.6
\$500,000 to \$1,000,000.....	4	430	6.4	2,479,117	4.4	1,344,695	4.8	\$20,000 to \$100,000.....	41	357	2.9	1,683,454	1.6	831,223	2.1
\$1,000,000 and over.....	11	5,492	82.2	49,071,586	87.4	24,365,564	86.6	\$100,000 to \$500,000.....	32	1,324	10.7	8,498,717	8.1	3,307,403	8.3
BAY CITY.....	108	5,057	100.0	28,214,525	100.0	12,952,929	100.0	\$500,000 to \$1,000,000.....	5	635	5.1	3,340,004	3.2	1,532,487	3.9
Less than \$5,000.....	16	7	0.1	45,901	0.2	22,294	0.2	\$1,000,000 and over.....	13	9,920	80.3	90,743,619	86.7	33,773,100	85.0
\$5,000 to \$20,000.....	25	84	1.7	286,935	1.0	133,848	1.0	MARQUETTE.....	34	1,415	100.0	7,210,375	100.0	2,545,079	100.0
\$20,000 to \$100,000.....	26	247	4.9	1,462,341	5.2	522,797	4.0	Less than \$5,000.....	4	2	0.1	10,494	0.1	5,775	0.2
\$100,000 to \$500,000.....	20	1,587	31.4	6,963,304	24.7	3,363,971	26.0	\$5,000 to \$20,000.....	8	26	1.8	97,367	1.4	54,497	2.1
\$500,000 to \$1,000,000.....	5	548	10.8	3,495,313	12.4	1,151,675	8.9	\$20,000 to \$100,000.....	11	122	8.6	404,310	6.9	254,881	10.0
\$1,000,000 and over.....	7	2,584	51.1	15,961,731	56.6	7,768,344	59.9	\$100,000 to \$500,000.....	7	532	37.6	1,606,065	22.3	760,870	29.9
BENTON HARBOR.....	65	2,328	100.0	11,345,034	100.0	6,713,511	100.0	\$500,000 and over.....	4	733	51.8	5,002,139	69.4	1,469,056	57.7
Less than \$5,000.....	13	5	0.2	31,702	0.3	15,873	0.2	MONROE.....	41	2,904	100.0	16,052,331	100.0	7,691,204	100.0
\$5,000 to \$20,000.....	15	33	1.4	185,040	1.6	97,466	1.5	Less than \$5,000.....	5	3	0.1	9,521	(1)	6,143	0.1
\$20,000 to \$100,000.....	22	269	11.6	1,117,631	9.9	621,494	9.3	\$5,000 to \$20,000.....	11	29	1.0	128,373	0.8	70,041	0.9
\$100,000 to \$500,000.....	9	492	21.1	2,231,414	19.7	1,350,382	20.1	\$20,000 to \$100,000.....	10	54	1.9	382,368	2.4	159,830	2.1
\$500,000 to \$1,000,000.....	3	371	15.9	1,783,541	15.7	832,200	12.4	\$100,000 to \$500,000.....	9	396	13.6	2,109,024	13.1	872,659	11.3
\$1,000,000 and over.....	3	1,158	49.7	6,996,706	52.8	3,796,156	56.5	\$500,000 to \$1,000,000.....	3	509	17.5	2,205,272	13.7	904,693	12.6
DETROIT.....	2,176	167,016	100.0	1,234,519,842	100.0	578,606,379	100.0	\$1,000,000 and over.....	3	1,913	65.9	11,218,668	69.9	5,617,829	73.0
Less than \$5,000.....	235	96	(1)	625,055	(1)	404,936	0.1	MUSKEGON.....	141	9,716	100.0	55,960,347	100.0	30,293,618	100.0
\$5,000 to \$20,000.....	532	1,097	0.7	5,987,366	0.5	3,539,111	0.6	Less than \$5,000.....	34	10	0.1	78,839	0.1	41,588	0.1
\$20,000 to \$100,000.....	696	6,571	3.9	33,038,658	2.7	19,806,155	3.4	\$5,000 to \$20,000.....	33	75	0.8	334,290	0.6	180,366	0.6
\$100,000 to \$500,000.....	447	19,500	11.7	101,906,552	8.3	55,412,137	9.6	\$20,000 to \$100,000.....	35	315	3.2	1,563,760	2.8	757,567	2.5
\$500,000 to \$1,000,000.....	96	12,131	7.3	67,551,141	5.5	34,732,264	6.0	\$100,000 to \$500,000.....	21	1,224	12.6	4,563,779	8.1	2,635,514	8.7
\$1,000,000 and over.....	170	127,621	76.4	1,025,411,070	83.1	494,661,776	80.3	\$500,000 to \$1,000,000.....	9	857	8.8	6,541,053	11.7	2,379,301	7.9
ESCANABA.....	45	842	100.0	3,017,912	100.0	1,864,981	100.0	\$1,000,000 and over.....	9	7,235	74.5	42,897,626	76.6	24,296,292	80.2
Less than \$5,000.....	5	3	0.4	15,340	0.5	8,552	0.5	OWOSSO.....	40	1,781	100.0	9,948,736	100.0	4,739,646	100.0
\$5,000 to \$20,000.....	19	44	5.2	223,998	7.4	99,762	5.3	Less than \$5,000.....	5	.....	.....	10,899	0.1	6,836	0.1
\$20,000 to \$100,000.....	17	134	15.9	694,300	23.0	321,664	17.2	\$5,000 to \$20,000.....	14	35	2.0	153,170	1.5	67,537	1.4
\$100,000 and over.....	4	661	78.5	2,084,274	69.1	1,435,063	76.9	\$20,000 to \$100,000.....	10	94	5.3	519,315	5.2	260,487	5.5
FLINT.....	107	24,603	100.0	275,779,638	100.0	102,955,874	100.0	\$100,000 to \$500,000.....	6	372	20.9	1,820,920	18.3	1,032,141	21.8
Less than \$5,000.....	12	4	(1)	26,244	(1)	15,851	(1)	\$500,000 and over.....	5	1,280	71.9	7,444,423	74.8	3,372,645	71.2
\$5,000 to \$20,000.....	23	54	0.2	274,797	0.1	147,405	0.1	PONTIAC.....	78	7,682	100.0	104,990,133	100.0	38,203,971	100.0
\$20,000 to \$100,000.....	43	291	1.2	2,073,579	0.8	995,189	1.0	Less than \$5,000.....	5	.....	.....	11,522	(1)	6,605	(1)
\$100,000 to \$500,000.....	15	473	1.9	3,629,712	1.3	1,367,012	1.3	\$5,000 to \$20,000.....	25	65	0.8	285,895	0.3	173,831	0.5
\$500,000 and over.....	14	23,781	96.7	269,770,006	97.8	100,430,420	97.5	\$20,000 to \$100,000.....	26	174	2.3	1,118,439	1.1	441,542	1.2
GRAND RAPIDS.....	611	23,548	100.0	109,135,055	10										

## MANUFACTURES—MICHIGAN.

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TABLE 13.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS, FOR CITIES OF 10,000 INHABITANTS OR MORE: 1919—Continued.

CITY AND VALUE OF PRODUCT.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		CITY AND VALUE OF PRODUCT.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
		Average number.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.			Average number.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.
TRAVERSE CITY.....	56	960	100.0	\$4,099,960	100.0	\$1,817,979	100.0	WYANDOTTE—Contd.							
Less than \$5,000.....	5	5	0.5	14,832	0.4	7,542	0.4	\$500,000 to \$1,000,000....	3	660	10.6	\$2,378,441	7.1	\$1,327,808	6.7
\$5,000 to \$20,000.....	24	83	8.6	252,036	6.1	145,534	8.0	\$1,000,000 and over.....	4	5,427	87.3	30,252,126	90.0	18,233,943	91.4
\$20,000 to \$100,000.....	13	154	16.0	595,975	14.5	279,459	15.4	ALL OTHER CITIES <sup>1</sup>	50	64,629	100.0	569,208,377	100.0	260,138,240	100.0
\$100,000 to \$500,000.....	14	718	74.8	3,237,117	79.0	1,385,444	76.2	Less than \$5,000.....	4	.....	.....	9,643	(?)	5,574	(?)
WYANDOTTE.....	26	6,214	100.0	33,382,791	100.0	19,942,807	100.0	\$5,000 to \$20,000.....	10	.....	.....	93,815	(?)	41,286	(?)
Less than \$20,000.....	12	16	0.3	121,150	0.4	55,857	0.3	\$20,000 to \$100,000.....	20	93	0.1	838,916	0.1	343,724	0.1
\$20,000 to \$100,000.....	4	14	0.2	140,373	0.4	61,552	0.3	\$100,000 and over.....	16	64,527	99.9	568,266,003	99.9	259,747,715	99.9
\$100,000 to \$500,000.....	3	97	1.6	490,701	1.5	263,637	1.3								

<sup>1</sup> All other cities comprise Hamtramck and Highland Park.<sup>2</sup> Less than one-tenth of 1 per cent.

TABLE 14.—CHARACTER OF OWNERSHIP, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919 AND 1914.

INDUSTRY AND CITY.	Cen- sus year.	NUMBER OF ESTABLISH- MENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.								
					Total.	In establishments owned by—			Per cent of total.			Total.	Of establishments owned by—			Per cent of total.						
		Indi- vid- uals.	Cor- pora- tions.	All oth- ers.		Indi- vid- uals.	Cor- pora- tions.	All oth- ers.	Indi- vid- uals.	Cor- pora- tions.	All oth- ers.		Indi- vid- uals.	Corpora- tions.	All oth- ers.	Indi- vid- uals.	Corpora- tions.	All oth- ers.				
All industries.....	1919	3,572	3,249	1,484	471,242	14,730	444,516	11,996	3.1	94.3	2.5	\$3,466,188,483	\$92,181,144	\$3,299,255,802	\$74,751,837	2.7	95.2	2.1				
	1914	4,282	2,900	1,542	271,000	16,674	241,820	12,587	6.2	89.2	4.6	1,086,162,432	50,886,390	986,655,727	48,620,315	4.7	90.8	4.5				
	1909	4,567	2,638	1,054	231,469	20,564	193,139	17,796	8.9	83.4	7.7	685,109,169	57,662,930	571,102,107	66,364,132	8.4	83.4	8.2				
Agricultural implements..	1919	6	16	1	2,708	195	2,613	.....	3.5	96.5	.....	11,090,669	1,274,717	10,815,952	.....	2.5	97.5	.....				
	1914	8	18	4	2,143	96	2,027	20	4.5	94.6	0.9	7,731,217	273,131	7,390,617	67,469	3.5	95.6	0.9				
Automobile bodies and parts.	1919	46	137	20	49,048	653	48,284	111	1.3	98.4	0.2	288,308,858	3,802,539	284,010,487	493,832	1.3	98.5	0.2				
	1914	28	106	6	24,736	130	24,497	109	0.5	99.0	0.4	71,540,077	395,118	70,816,683	328,276	0.6	99.0	0.5				
Boxes, paper and other, not elsewhere specified.	1919	1	17	4	2,336	.....	2,165	<sup>2</sup> 171	.....	92.7	7.3	10,934,722	.....	10,483,458	<sup>2</sup> 451,264	.....	35.9	4.1				
	1914	4	13	6	1,461	40	1,088	333	2.7	74.5	22.8	3,747,876	48,545	2,782,318	917,013	1.3	74.2	24.5				
Brass, bronze, and copper products.	1919	16	55	9	10,306	94	10,129	83	0.9	98.3	0.8	62,708,335	590,193	61,421,195	690,947	1.0	97.9	1.1				
	1914	14	40	10	4,731	187	4,492	52	4.0	94.9	1.1	16,868,725	607,450	15,928,399	332,876	3.0	94.4	2.0				
Bread and other bakery products.	1919	713	58	173	5,088	1,714	2,724	650	33.7	53.5	12.8	44,923,454	16,391,071	22,002,561	6,520,822	36.5	49.0	14.5				
	1914	755	29	138	4,014	2,041	1,492	481	50.8	37.2	12.0	8,017,664	8,017,664	5,936,037	2,040,367	50.1	37.1	12.8				
Butter.....	1919	67	71	93	984	171	548	265	17.4	55.7	26.9	33,385,420	6,308,839	18,090,976	8,979,605	18.9	54.2	26.9				
	1914	80	96	94	769	147	408	214	19.1	53.1	27.8	13,479,297	2,453,497	7,414,866	3,610,934	18.2	55.0	26.8				
Canning and preserving, fruits and vegetables.	1919	13	30	9	2,109	242	1,649	218	11.5	78.2	10.3	11,172,169	1,314,935	8,537,037	1,320,197	11.8	76.4	11.8				
	1914	14	26	9	1,687	216	1,361	110	12.8	80.7	6.5	4,421,946	464,821	3,767,687	189,438	10.5	85.2	4.3				
Chemicals.....	1919	9	25	2	5,712	4	5,708	.....	0.1	99.9	.....	37,850,834	<sup>1</sup> 25,170	37,825,664	.....	0.1	99.9	.....				
	1914	11	21	4	4,509	12	4,493	4	0.3	99.6	(?)	13,801,415	26,300	13,855,241	6,874	0.2	99.8	(?)				
Confectionery and ice cream.	1919	90	30	64	1,746	344	905	497	19.7	51.8	28.5	12,626,501	2,493,155	7,264,640	2,808,697	19.7	57.5	22.7				
	1914	73	22	20	1,187	341	661	185	28.7	55.7	15.6	4,842,501	1,272,964	2,773,017	796,820	26.3	57.3	16.5				
Druggists' preparations...	1919	7	9	.....	3,219	38	3,181	.....	1.2	98.8	.....	23,903,856	321,744	23,582,112	.....	1.3	98.7	.....				
	1914	4	10	1	2,175	47	2,128	.....	2.2	97.8	.....	11,738,662	1,102,203	11,636,469	.....	0.9	99.1	.....				
Electrical machinery, ap- paratus, and supplies.	1919	9	40	5	4,190	84	4,062	14	2.0	97.7	0.3	25,025,628	275,840	24,660,021	89,667	1.1	98.5	0.4				
	1914	7	26	2	1,144	50	1,094	.....	4.4	95.6	.....	1,99,993	1,99,993	3,315,507	.....	2.9	97.1	.....				
Engines, steam, gas, and water.	1919	2	32	1	14,258	17	14,251	.....	(?)	99.9	.....	101,989,440	<sup>1</sup> 30,800	101,958,580	.....	(?)	99.9	.....				
	1914	10	35	3	4,427	35	4,261	131	0.8	96.3	3.0	12,869,172	74,470	12,074,084	220,618	0.6	97.6	1.8				
Flour-mill and gristmill products.	1919	146	85	114	1,128	203	746	179	18.0	66.1	15.9	44,144,434	6,572,213	30,150,339	7,421,882	14.9	68.3	16.8				
	1914	203	83	141	1,370	332	731	307	24.2	53.4	22.4	27,381,474	5,609,028	16,384,336	5,388,110	20.5	59.8	19.7				
Food preparations, not elsewhere specified.	1919	8	25	4	2,483	8	2,457	18	0.3	99.0	0.7	35,701,760	166,897	35,323,175	211,688	0.5	98.9	0.6				
	1914	14	32	10	1,683	39	1,023	621	2.3	60.8	36.9	10,005,282	137,801	7,824,892	8,042,019	0.9	48.9	50.2				
Foundry and machine- shop products. <sup>4</sup>	1919	145	369	66	42,745	1,393	40,266	1,086	3.2	94.2	2.5	182,735,316	4,877,479	172,726,316	5,131,025	2.7	94.5	2.8				
	1914	148	271	83	17,608	1,039	15,947	622	5.9	90.6	3.5	39,428,783	2,161,547	35,960,167	1,307,069	5.5	91.2	3.3				
Furniture.....	1919	26	128	17	18,496	374	17,907	215	2.0	96.8	1.2	69,497,237	1,401,032	67,168,769	927,436	2.0	96.6	1.3				
	1914	34	138	20	14,706	460	13,950	296	3.1	94.9	2.0	30,184,542	879,875	28,816,498	488,169	2.9	95.5	1.6				
Knit goods.....	1919	6	24	1	3,170	168	3,104	.....	2.1	97.9	.....	12,039,377	<sup>1</sup> 183,968	11,855,409	.....	1.5	98.5	.....				
	1914	3	26	3	2,711	68	2,598	45	2.5	95.8	1.7	5,228,035	67,766	4,960,691	200,178	1.3	94.9	3.8				
Lumber and timber prod- ucts.	1919	192	96	92	14,923	2,008	10,072	2,843	13.5	67.5	19.1	46,043,855	7,930,838	30,685,694	7,418,323	17.2	66.6	10.1				
	1914	238	129	110	21,488	2,061	16,985	2,452	9.5	79.0	11.4	33,873,367	8,074,477	26,710,809	4,088,081	9.1	78.9	12.1				
Lumber, planing-mill products, not including planing mills connected with sawmills.	1919	40	110	42	5,256	312	4,315	629	5.9	82.1	12.0	37,869,230	2,123,263	32,059,340	3,686,597	5.6	84.7	9.7				
	1914	67	103	47	4,944	940	3,412	592	19.0	69.0	12.0	19,767,965	2,890,984	14,757,226	2,119,785	14.6	74.7	10.7				
Paper and wood pulp.....	1919	3	36	.....	9,561	18	9,543	.....	0.2	99.8	.....	66,299,513	74,092	66,225,421	.....	0.1	99.9	.....				
	1914	2	34	1	6,061	120	6,031	.....	0.3	99.7	.....	22,049,990	<sup>1</sup> 45,336	22,004,654	.....	0.2	99.8	.....				
Printing and publishing, book and job.	1919	234	118	84	3,717	657	2,732	328	17.7	73.5	8.8	17,675,925	2,799,018	12,778,967	2,068,040	15.8	72.3	11.9				
	1914	229	106	69	3,860	715	2,820	325	18.5	73.1	8.4	9,380,560	1,722,291	6,881,312	776,967	18.4	73.4	8.3				

<sup>1</sup> Includes the group "All others."  
<sup>2</sup> Includes the group "Individuals."<sup>3</sup> Less than one-tenth of 1 per cent.<sup>4</sup> Includes "Iron and steel, tempering and welding" and "machine tools."

TABLE 14.—CHARACTER OF OWNERSHIP, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919 AND 1914—Continued.

INDUSTRY AND CITY.	Cen- sus year.	NUMBER OF ESTABLISH- MENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.								
		Indi- vid- uals.	Cor- pora- tions.	All oth- ers.	Total.	In establishments owned by—			Per cent of total.			Total.	Of establishments owned by—			Per cent of total.						
						Indi- vid- uals.	Cor- pora- tions.	All oth- ers.	Indi- vid- uals.	Cor- pora- tions.	All oth- ers.		Indi- vid- uals.	Cor- pora- tions.	All oth- ers.							
Printing and publishing, newspapers and period- icals.	1919	303	149	113	3,176	558	2,251	367	17.6	70.9	11.6	\$24,930,421	\$2,009,647	\$21,313,661	\$1,607,113	8.1	85.5	6.4				
	1914	387	165	108	3,270	860	2,090	320	26.3	63.9	9.8	12,290,227	1,777,613	9,605,334	907,280	14.5	78.2	7.4				
Slaughtering and meat packing.	1919	11	10	3	1,712	47	1,653	12	2.7	96.6	0.7	59,584,740	1,729,966	57,427,123	427,651	2.9	96.4	0.7				
	1914	9	7	1	1,112	23	1,089	.....	2.1	97.9	.....	20,665,737	1,572,504	20,093,233	.....	2.8	97.2	.....				
Structural ironwork, not made in steel works or rolling mills.	1919	9	20	5	2,313	78	2,189	46	3.4	94.6	2.0	17,124,120	476,946	16,403,714	243,460	2.8	95.8	1.4				
	1914	9	19	3	1,371	91	1,252	28	6.6	91.3	2.0	4,918,366	296,708	4,544,832	76,826	6.0	92.4	1.6				
Tobacco, cigars and cig- arettes.	1919	282	35	32	5,456	1,114	3,933	409	20.4	72.1	7.5	18,118,556	4,217,478	12,663,365	1,237,713	23.3	69.9	6.8				
	1914	515	26	68	7,295	1,504	4,555	1,236	20.6	62.5	16.9	12,121,862	3,154,556	6,753,778	2,213,530	26.0	55.7	18.3				
Tools, not elsewhere spec- ified.	1919	21	54	14	3,261	287	2,790	184	8.8	85.6	5.6	11,898,853	1,128,036	10,072,676	698,141	9.5	84.7	5.9				
	1914	8	11	5	372	40	297	35	10.8	79.8	9.4	859,144	76,189	719,430	93,525	8.9	83.7	7.4				
Wirework, not elsewhere specified.	1919	3	29	6	2,516	44	2,442	30	1.7	97.1	1.2	17,065,225	260,165	16,650,288	154,772	1.5	97.6	0.9				
	1914	6	23	4	1,314	61	1,233	20	4.6	93.8	1.5	5,891,274	130,477	5,680,910	79,878	2.2	96.4	1.4				
Total for cities.....	1919	1,850	2,205	737	376,032	8,709	361,101	6,222	2.3	96.0	1.7	2,836,698,957	54,033,779	2,744,216,497	38,448,681	1.9	96.7	1.4				
	1914	2,069	1,815	727	177,605	9,763	160,364	7,478	5.5	90.3	4.2	688,558,088	28,585,266	629,113,585	30,879,237	4.1	91.4	4.5				
ADRIAN.....	1919	26	22	14	1,870	92	1,616	162	4.9	86.4	8.7	14,549,031	508,970	13,005,832	1,034,229	3.5	89.4	7.1				
	1914	34	21	13	1,256	102	1,001	153	8.1	79.7	12.2	5,442,338	349,498	4,734,595	358,245	6.4	87.0	6.6				
ALPENA.....	1919	16	16	6	1,372	145	1,200	27	10.6	87.5	2.0	9,356,190	336,062	8,806,110	214,018	3.6	94.1	2.3				
	1914	28	17	9	1,494	73	1,390	31	4.9	93.0	2.1	4,101,935	126,258	3,867,843	107,834	3.1	94.3	2.6				
ANN ARBOR.....	1919	35	26	17	1,612	135	1,433	44	8.4	88.9	2.7	9,793,696	783,953	8,725,961	283,782	8.0	89.1	2.9				
	1914	38	19	18	842	134	593	115	15.9	70.4	13.7	2,603,379	352,540	1,761,742	489,097	13.5	67.7	18.8				
BATTLE CREEK.....	1919	55	48	15	6,680	151	6,493	36	2.3	97.2	0.5	56,139,953	277,860	54,533,778	328,315	2.3	97.1	0.6				
	1914	64	52	19	4,599	180	3,523	896	3.9	76.6	16.5	23,248,420	630,058	13,734,003	8,884,359	2.7	59.1	38.2				
BAY CITY.....	1919	45	50	13	5,057	205	4,725	127	4.1	93.4	2.5	28,214,525	1,987,472	25,282,167	944,886	7.0	89.6	3.3				
	1914	76	46	20	3,771	462	3,036	273	12.3	80.5	7.2	11,119,286	1,270,219	8,619,281	929,786	11.4	80.2	8.4				
BENTON HARBOR.....	1919	24	32	9	2,328	45	2,210	73	1.9	94.9	3.1	11,345,034	309,469	10,531,096	504,469	2.7	92.8	4.4				
	1914	25	22	15	1,285	132	1,029	124	10.3	80.1	9.6	3,021,552	515,895	2,317,335	188,322	17.1	76.7	6.2				
DETROIT.....	1919	772	1,085	319	167,016	4,025	159,884	3,107	2.4	95.7	1.9	1,234,519,842	27,422,084	1,188,067,496	19,030,262	2.2	96.2	1.5				
	1914	882	860	294	99,603	4,397	91,737	3,449	4.4	92.1	3.5	400,347,912	13,557,847	376,187,763	10,602,302	3.4	94.0	2.6				
ESCANABA.....	1919	29	11	5	842	77	737	28	9.1	87.5	3.3	3,017,912	460,709	2,396,633	160,670	15.3	79.4	5.3				
	1914	23	13	9	777	53	680	44	6.8	87.5	5.7	1,506,526	111,140	1,303,913	91,473	7.4	86.5	6.1				
FLINT.....	1919	49	39	19	24,603	237	24,185	181	1.0	98.3	0.7	275,779,638	1,726,465	272,855,259	1,197,914	0.6	98.9	0.4				
	1914	40	34	20	8,722	160	8,416	146	1.8	96.5	1.7	53,376,039	373,390	52,389,060	612,589	0.7	98.2	1.1				
GRAND RAPIDS.....	1919	266	259	86	23,548	1,077	21,517	954	4.6	91.4	4.1	109,135,055	5,272,883	99,195,660	4,666,512	4.8	90.9	4.3				
	1914	267	231	96	17,427	1,431	15,207	789	8.2	87.3	4.5	49,792,200	3,871,624	43,765,942	2,154,634	7.8	87.9	4.3				
HOLLAND.....	1919	14	40	10	2,748	51	2,651	46	1.9	96.5	1.7	17,711,095	162,903	17,124,013	424,179	0.9	96.7	2.4				
	1914	16	34	11	2,165	55	2,067	53	2.5	95.0	2.4	8,683,835	130,243	8,281,748	271,844	1.5	95.4	3.1				
IRONWOOD.....	1919	16	6	6	399	39	329	31	9.8	82.5	7.8	1,381,290	352,590	816,387	212,313	25.5	59.1	15.4				
	1914	13	6	5	516	39	443	34	7.6	85.9	6.6	793,247	153,662	545,045	94,540	19.4	68.7	11.9				
ISHPEMING.....	1919	15	4	2	107	149	58	.....	45.8	54.2	.....	1,007,432	1,358,090	649,342	.....	35.5	64.5	.....				
	1914	13	2	4	79	31	148	.....	39.2	60.8	.....	228,643	67,757	160,886	.....	29.6	70.4	.....				
JACKSON.....	1919	59	73	24	9,620	400	9,030	190	4.2	93.9	2.0	49,517,712	1,681,622	46,658,431	1,177,659	3.4	94.2	2.4				
	1914	56	67	24	4,906	257	4,498	151	5.2	91.7	3.1	16,809,846	770,961	15,629,622	409,263	4.6	93.0	2.4				
KALAMAZOO.....	1919	66	94	25	7,629	428	7,076	125	5.6	92.8	1.6	46,254,917	1,957,136	43,717,000	580,781	4.2	94.5	1.3				
	1914	96	84	33	5,525	420	4,948	157	7.0	89.6	2.8	20,214,314	1,048,046	18,785,086	381,182	5.2	92.9	1.9				
LANSING.....	1919	54	70	23	12,349	223	12,022	104	1.8	97.4	0.8	104,722,115	1,764,930	101,618,932	1,338,253	1.7	97.0	1.3				
	1914	79	75	26	6,231	254	5,837	140	4.1	93.7	2.2	26,984,496	1,072,797	25,111,441	800,258	4.0	93.1	3.0				
MARQUETTE.....	1919	12	19	3	1,415	40	1,370	5	2.8	96.8	0.4	7,210,375	212,673	6,943,449	54,253	2.9	96.3	0.8				
	1914	21	10	3	589	77	487	25	13.1	82.7	4.2	1,394,587	146,318	1,176,671	71,598	10.5	84.4	5.1				
MONROE.....	1919	12	25	4	2,904	25	2,869	10	0.9	98.8	0.3	16,052,331	158,276	15,581,801	312,254	1.0	97.1	1.9				
MUSKEGON.....	1919	52	66	23	9,716	175	9,415	126	1.8	96.9	1.3	55,969,347	1,218,060	54,129,103	622,184	2.2	96.7	1.1				
	1914	47	44	12	4,646	328	4,281	37	7.1	92.1	0.8	11,147,605	1,007,375	10,050,450	89,780	9.0	90.2	0.8				
OWOSSO.....	1919	20	16	4	1,781	318	1,438	25	17.9	80.7	1.4	9,948,736	1,023,238	8,746,218	179,280	10.3	87.9	1.8				
	1914	24	16	5	1,231	113	1,094	24	9.2	88.9	1.9	3,468,534	298,615	3,078,016	91,903	8.6	88.7	2.6				
PONTIAC.....	1919	22	28	30	7,682	69	7,453	100	0.9	97.0	2.1	104,990,133	538,419	102,991,503	1,460,211	0.5	98.1	1.4				
	1914	14	20	12	2,409	49	2,286	74	2.0	94.0	3.1	15,102,453	324,293	14,471,015	307,145	2.1	95.8	2.0				

TABLE 15.—MANUFACTURES, BY POPULATION GROUPS, IN CITIES OF 10,000 INHABITANTS OR MORE: 1919, 1914, AND 1909.

	Census year.	Aggregate.	CITIES HAVING A POPULATION OF 10,000 OR OVER.								THE STATE OUTSIDE OF CITIES HAVING A POPULATION OF 10,000 OR OVER.	
			Total. <sup>1</sup>		10,000 to 25,000. <sup>1</sup>		25,000 to 100,000.		100,000 and over.			
			Number or amount.	Per cent of aggre- gate.	Number or amount.	Per cent of aggre- gate.	Number or amount.	Per cent of aggre- gate.	Number or amount.	Per cent of aggre- gate.	Number or amount.	Per cent of aggre- gate.
Number of places.....	1919		28		14		12		2			
	1914		26		16		8		2			
	1909		24		15		7		2			
Population <sup>2</sup> .....	1920	3,068,412	1,894,612	51.6	179,901	4.9	583,309	15.9	1,131,312	30.8	1,773,800	48.4
	1915	2,976,030	1,194,360	40.1	211,887	7.1	321,596	10.8	660,877	22.2	1,781,670	59.9
	1910	2,810,173	1,043,746	37.1	203,817	7.3	261,592	9.3	578,337	20.6	1,766,427	62.9
Number of establishments.....	1919	8,305	4,792	57.7	624	7.5	1,381	16.6	2,787	33.6	3,513	42.3
	1914	8,724	4,710	54.0	825	9.5	1,255	14.4	2,630	30.1	4,014	46.0
	1909	9,159	4,500	49.1	817	8.9	1,123	12.3	2,560	27.9	4,659	50.9
Average number of wage earners...	1919	471,242	376,032	79.8	25,800	5.5	159,668	33.9	190,564	40.4	95,210	20.2
	1914	271,090	181,445	66.9	19,674	7.3	44,742	16.5	117,030	43.2	89,844	33.1
	1909	231,499	156,747	67.7	20,433	8.8	37,713	16.3	98,601	42.6	74,752	32.3
Value of products.....	1919	\$3,466,188,483	\$2,836,698,957	81.8	\$149,555,640	4.3	\$1,343,438,420	38.8	\$1,343,654,897	38.8	\$629,489,526	18.2
	1914	1,086,162,432	697,694,182	64.2	65,646,394	6.0	181,907,676	16.7	450,149,112	41.4	338,498,250	35.8
	1909	685,109,169	466,201,235	67.9	52,798,619	7.7	117,232,598	17.1	295,170,018	43.1	219,907,934	32.1
Value added by manufacture.....	1919	1,546,945,240	1,288,383,086	83.3	71,374,377	4.6	580,429,036	37.5	636,579,673	41.2	258,562,154	16.7
	1914	493,361,368	313,194,451	63.5	26,621,691	5.4	82,670,454	16.8	203,896,306	41.3	180,166,917	36.5
	1909	316,497,147	225,647,404	71.3	23,980,450	7.6	56,450,253	17.8	145,216,761	45.9	90,849,683	28.7

<sup>1</sup> Includes Manistee and Menominee in 1914 and 1909; population less than 10,000 in 1920.<sup>2</sup> Population of 1920, as of Jan. 1, 1920; 1915, estimated population as of July 1, 1914 (per reports census of manufactures, 1914); 1910, as of Apr. 15, 1910.

TABLE 16.—PRINCIPAL INDUSTRIES IN CITIES OF 50,000 INHABITANTS OR MORE, WITH PER CENT OF TOTAL FOR STATE: 1919.

CITY AND INDUSTRY.	VALUE OF PRODUCTS.				CITY AND INDUSTRY.	VALUE OF PRODUCTS.			
	Amount, 1919.	Per cent of total for the state.	Increase <sup>1</sup> over 1914.			Amount, 1919.	Per cent of total for the state.	Increase <sup>1</sup> over 1914.	
			Amount.	Per cent.				Amount.	Per cent.
DETROIT.					GRAND RAPIDS—Continued.				
Automobiles.....	\$348,772,599	28.2	\$223,165,629	177.7	Printing and publishing, newspapers and periodicals.....	\$2,343,763	9.4	\$900,639	62.4
Automobile bodies and parts.....	201,456,182	69.9	162,986,208	423.7	Lumber, planing-mill products, not including planing mills connected with sawmills.....	2,015,250	5.3	337,607	20.1
Foundry and machine-shop products <sup>2</sup> .....	67,161,666	36.8	49,976,198	290.8	Phonographs and graphophones.....	1,996,429	47.2	( <sup>3</sup> )	.....
Slaughtering and meat packing.....	57,648,125	96.7	37,570,977	187.1	Tobacco, cigars and cigarettes.....	1,982,897	10.9	689,837	53.3
Brass, bronze, and copper products.....	49,239,768	78.5	34,610,017	236.6	Leather, tanned, curried, and finished.....	1,885,337	4.1	390,968	20.2
Engines, steam, gas, and water.....	38,611,142	35.0	29,455,124	411.6	Printing and publishing, book and job.....	1,775,419	10.0	620,430	53.7
Bread and other bakery products.....	22,631,347	50.4	15,142,526	202.2	Butter.....	1,647,484	4.9	900,300	120.5
Printing and publishing, newspapers and periodicals.....	14,017,463	56.2	8,238,099	142.5	Automobiles.....	1,254,478	0.1	1,108,049	766.7
Electrical machinery, apparatus, and supplies.....	12,970,284	51.8	10,729,879	478.9	Cars and general shop construction and repairs by steam-railroad companies.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Tobacco, cigars and cigarettes.....	11,606,301	64.1	3,102,462	36.5	Gas, illuminating and heating.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Printing and publishing, book and job.....	11,430,857	64.7	6,000,845	112.9	House-furnishing goods, not elsewhere specified.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Chemicals.....	11,356,383	30.0	7,480,855	193.1	Paper and wood pulp.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Structural ironwork, not made in steel works or rolling mills.....	11,271,015	65.8	9,141,473	429.3	Plumbers' supplies, not elsewhere specified.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Stoves and hot-air furnaces.....	10,144,806	49.5	( <sup>3</sup> )	.....	Roofing materials.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Tools, not elsewhere specified.....	9,216,733	77.5	( <sup>3</sup> )	.....	LANSING.				
Lumber, planing-mill products, not including planing mills connected with sawmills.....	9,114,453	24.1	3,547,943	63.7	Automobile bodies and parts.....	9,229,855	3.2	7,238,722	363.5
Leather, tanned, curried, and finished.....	8,624,215	18.8	6,809,198	375.2	Foundry and machine-shop products <sup>2</sup> .....	4,581,448	2.7	2,258,336	97.2
Patent medicines and compounds.....	8,091,447	81.3	4,224,304	109.2	Iron and steel forgings, not made in steel works or rolling mills.....	4,174,718	48.8	( <sup>3</sup> )	.....
Cars, steam-railroad, not including operations of railroad companies.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Engines, steam, gas, and water.....	3,227,820	3.2	1,795,476	125.4
Cash registers and calculating machines.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Lumber, planing-mill products, not including planing mills connected with sawmills.....	2,223,531	5.9	1,438,135	182.4
Druggists' preparations.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Flour-mill and gristmill products.....	846,933	1.9	305,888	56.5
Flour-mill and gristmill products.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Bread and other bakery products.....	840,135	1.9	500,624	200.8
Lamps and reflectors.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Automobiles.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Rubber tires, tubes, and rubber goods, not elsewhere specified.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Condensed milk.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Stoves, gas and oil.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Screws, machine.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Tobacco, chewing and smoking, and snuff.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Sugar, beet.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
FLINT.					SAGINAW.				
Automobile bodies and parts.....	8,637,634	2.0	( <sup>3</sup> )	.....	Foundry and machine-shop products <sup>2</sup> .....	13,609,661	8.0	11,560,559	564.2
Foundry and machine-shop products.....	2,148,759	1.3	501,644	30.5	Lumber, planing-mill products, not including planing mills connected with sawmills.....	2,474,337	6.5	-28,466	-1.1
Bread and other bakery products.....	1,621,915	3.6	1,321,790	440.4	Bread and other bakery products.....	1,479,984	3.3	878,213	145.9
Automobiles.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Automobile bodies and parts.....	695,137	0.2	( <sup>3</sup> )	.....
Electrical machinery, apparatus, and supplies.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Butter.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Flour-mill and gristmill products.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Cars and general shop construction and repairs by steam-railroad companies.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Gas, illuminating and heating.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Corsets.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Paints.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Engines, steam, gas, and water.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Printing and publishing, newspapers and periodicals.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Flour-mill and gristmill products.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Springs, steel, automobile.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	Furniture.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
GRAND RAPIDS.					Graphite, ground and refined.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Furniture.....	34,962,294	50.3	20,137,084	135.8	Leather, tanned, curried, and finished.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Automobile bodies and parts.....	6,656,674	2.0	5,553,421	5,378.5	Tools, not elsewhere specified.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Flour-mill and gristmill products.....	5,453,586	12.4	2,311,850	73.6	Wooden goods, not elsewhere specified.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Foundry and machine-shop products <sup>4</sup> .....	4,505,759	2.5	2,015,087	70.9					
Bread and other bakery products.....	3,605,027	8.0	1,922,829	114.3					
Hardware.....	2,802,248	32.0	2,322,543	434.2					
Knit goods.....	2,478,656	20.6	1,414,871	133.0					
Confectionery and ice cream.....	2,344,979	18.6	1,701,027	264.2					

<sup>1</sup> A minus sign (—) denotes decrease.<sup>2</sup> Includes "iron and steel, tempering and welding" and "machine tools."<sup>3</sup> Figures can not be shown without disclosing individual operations.<sup>4</sup> Includes "machine tools" and "textile machinery and parts."<sup>5</sup> Includes "iron and steel, welding."

## MANUFACTURES—MICHIGAN.

TABLE 17.—NUMBER AND HORSEPOWER OF TYPES OF PRIME MOVERS: 1919, 1914, AND 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
	1919	1914	1909	Amount.			Per cent distribution.		
				1919	1914	1909	1919	1914	1909
Primary power, total.....	58,208	25,680	15,527	1,202,128	730,383	598,288	100.0	100.0	100.0
Owned.....	4,582	5,700	6,907	652,952	538,075	521,543	54.3	73.7	87.2
Steam.....	3,411	4,177	5,066	592,911	486,771	465,536	49.3	66.6	77.8
Engines.....	3,200	(2)	(2)	440,130	(2)	(2)	36.0	—	—
Turbines.....	211	(2)	(2)	152,781	(2)	(2)	12.7	—	—
Internal-combustion engines.....	776	1,062	1,107	10,695	19,593	13,988	1.0	2.7	2.3
Water.....	395	551	734	40,346	31,711	42,019	3.4	4.3	7.0
Water wheels and turbines.....	288	486	700	40,329	30,424	41,442	3.4	4.2	6.9
Water motors.....	7	65	34	17	1,287	577	(3)	0.2	0.1
Rented.....	53,626	19,896	8,590	549,176	192,308	76,745	45.7	26.3	12.8
Electric.....	53,626	19,896	8,590	540,757	188,702	74,270	45.0	25.8	12.4
Other.....	—	—	—	8,419	3,606	2,475	0.7	0.5	0.4
Electric.....	76,678	28,992	12,917	818,271	311,966	133,064	100.0	100.0	100.0
Rented.....	53,626	19,896	8,590	540,757	188,702	74,270	66.1	60.5	55.8
Generated by establishments reporting.....	23,052	9,096	4,327	277,514	123,264	58,794	33.9	39.5	44.2

<sup>1</sup> Figures for horsepower include for 1909 the amount reported under the head of "Other" owned power.<sup>3</sup> Less than one-tenth of 1 per cent.<sup>2</sup> Not reported separately.

TABLE 18.—FUEL CONSUMED, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919.

INDUSTRY AND CITY.	COAL.		Coke (tons, 2,000 pounds).	Fuel oils (barrels).	Gasoline and other volatile oils (barrels).	Gas (1,000 cubic feet).
	Anthracite (tons, 2,240 pounds).	Bituminous (tons, 2,000 pounds).				
All industries.....	50,516	8,241,877	812,041	1,741,030	150,419	2,105,985
1919.....	95,815	5,974,604	460,122	781,212	(1)	2,455,572
Per cent of increase.....	—47.3	37.9	78.5	142.1	(1)	—14.2
Agricultural implements.....	82	23,040	4,882	4,465	112	1,722
Automobile bodies and parts.....	781	238,666	10,862	73,256	7,969	100,320
Automobiles.....	1,062	648,913	69,096	555,839	70,550	913,381
Brass, bronze, and copper products.....	2,629	75,527	83,500	127,470	1,596	195,154
Bread and other bakery products.....	13,422	36,107	25,342	449	1,801	59,011
Brick and tile, terra-cotta, and fire-clay products.....	94	82,933	30	114,122	183	—
Butter.....	2,281	27,851	265	232	280	1,532
Cars and general shop construction and repairs by steam-railroad companies.....	42	100,880	369	6,700	29	562
Chemicals.....	190	967,341	161,828	14,228	205	—
Confectionery and ice cream.....	473	9,123	370	6	141	49,730
Copper, tin, and sheet-iron work.....	72	1,509	57	7	139	1,222
Electrical machinery, apparatus, and supplies.....	41	10,210	140	16	761	38,846
Electroplating.....	93	722	13	240	11	2,109
Engines, steam, gas, and water.....	208	74,910	10,625	52,752	15,475	40,788
Flour-mill and gristmill products.....	407	46,841	104	2,386	1,875	—
Foundry and machine-shop products.....	2,788	311,049	135,797	99,533	8,263	231,574
Furniture.....	947	126,244	1,422	25	599	11,327
Gas, illuminating and heating.....	45	834,391	3,832	411,562	—	598
Hardware.....	371	6,167	753	555	23	4,406
Iron and steel, steel works and rolling mills.....	—	30,481	6,038	32,208	1,095	1,022
Iron and steel, bolts, nuts, washers, and rivets, not made in rolling mills.....	4	2,386	211	10,475	5	50
Iron and steel, forgings, not made in steel works or rolling mills.....	—	38,448	437	40,152	10	6,000
Iron and steel, tempering and welding.....	27	2,004	78	1,755	11	11,175
Lime.....	886	4,161	7,092	7,135	2,895	—
Liquors, malt.....	1,400	96,944	3,013	2,950	254	475
Machine tools.....	7	9,491	—	4,244	6,050	102,948
Marble and stone work.....	124	559	66	51	1,044	460
Mineral and soda waters.....	154	5,877	148	42	146	1,228
Pottery.....	—	16,008	—	6,785	—	49,189
Printing and publishing, book and job.....	237	6,651	77	10	130	8,624
Printing and publishing, newspapers and periodicals.....	769	6,928	245	1,137	1,101	26,705
Screws, machine.....	360	4,300	25	2,900	100	6,100
Shipbuilding, steel, new vessels and small boats.....	—	78,564	2,685	30,456	1,186	—
Springs, steel, car and carriage, not made in steel works or rolling mills.....	—	2,007	25	49,295	5,701	18,930
Stamped ware, not elsewhere specified.....	18	6,824	28	164	65	1,250
Stoves and hot-air furnaces.....	167	32,754	15,561	8	389	9,298
Structural ironwork, not made in steel works or rolling mills.....	66	12,491	1,557	30,336	655	2,808
Tools, not elsewhere specified.....	114	5,768	240	1,086	2,881	11,687
Wirework, not elsewhere specified.....	17	10,140	251	945	2,186	4,061
All other industries.....	20,138	4,246,768	314,917	49,062	14,503	132,703

<sup>1</sup> Included in figures for fuel oils.<sup>2</sup> A minus sign (—) denotes decrease.

TABLE 18.—FUEL CONSUMED, FOR SELECTED INDUSTRIES AND FOR CITIES: 1919—Continued.

INDUSTRY AND CITY.	COAL.		Coke (tons, 2,000 pounds).	Fuel oils (barrels).	Gasoline and other volatile oils (barrels).	Gas (1,000 cubic feet).
	Anthracite (tons, 2,240 pounds).	Bituminous (tons, 2,000 pounds).				
Total for cities.....	28,594	4,708,982	469,818	1,544,277	129,404	1,892,978
ADRIAN.....	7	25,554	882	24	1,860	874
ALPENA.....	2	177,649	404	3	241	30
ANN ARBOR.....	285	36,023	254	4,233	238	119,184
BATTLE CREEK.....	5,015	179,255	7,037	8,095	324	3,908
BAY CITY.....	1,200	52,399	8,851	1,066	2,850	3,251
BENTON HARBOR.....	263	39,204	1,709	20,875	2,527	932
DETROIT.....	15,747	1,626,226	178,236	795,769	64,946	896,139
ESCANABA.....	9	8,704	1,180	4,365	12	.....
FLINT.....	130	190,275	8,464	128,725	9,595	253,533
GRAND RAPIDS.....	2,523	280,937	15,319	37,793	1,104	25,803
HOLLAND.....	9	40,612	1,179	30	28	50,215
IRONWOOD.....	34	1,828	522	2,154	.....	331
ISHPEMING.....	52	5,346	.....	3	10	294
JACKSON.....	166	83,582	1,703	55,795	3,343	34,412
KALAMAZOO.....	437	240,434	5,703	12,031	2,337	3,689
LANSING.....	206	115,911	6,988	68,360	14,413	114,606
MARQUETTE.....	12	21,407	639	108	4	1,404
MONROE.....	15	184,550	659	205	107	876
MUSKEGON.....	558	116,705	10,187	17,202	5,321	12,253
OWOSSO.....	84	56,249	2,006	54	239	7,093
PONTIAC.....	98	63,745	15,596	49,637	6,637	26,116
PORT HURON.....	329	61,714	5,176	12,079	286	780
SAGINAW.....	378	103,769	5,511	10,422	585	31,664
SAULT STE. MARIE.....	15	113,950	63,493	877	0	9,528
TRAVERSE CITY.....	515	6,425	62	.....	23	1,087
WYANDOTTE.....	155	563,442	61,347	.....	6	1,641
ALL OTHER CITIES <sup>1</sup> .....	344	313,078	66,695	314,372	12,783	293,330

<sup>1</sup> All other cities comprise Hamtramck and Highland Park.

## SPECIAL STATISTICS.

For a number of important industries the Census Bureau collects, by means of special schedules, certain details which do not appear on the general schedule. Data for 11 of these industries in Michigan are here presented.

**Automobiles, including bodies and parts (Table 19).**—This table shows the number and value of the different classes of automobiles manufactured, as reported at the censuses of 1919, 1914, and 1909.

Although the figures in the table show large increases in the number of the different classes of automobiles manufactured in 1919 as compared with preceding censuses, they are somewhat misleading owing to a change in the character of operations of one large establishment. In 1914 and 1909 this plant reported a large number of completed automobiles, while in 1919 the greater part of its production was reported as "bodies and parts," the completed machines being reported by assembling plants owned by the same company and located at various places throughout the United States.

Of the total number of automobiles produced in Michigan in 1919, 364,184, or over one-half, were rated as having 20 but less than 30 horsepower. In 1914 the corresponding figures were 313,395 out of a total of 443,072. The remainder was distributed in groups according to horsepower ratings as follows: Three hundred and fifty-seven were of less than 10 horsepower in 1919, as compared with 1,937 in 1914; 163,948 were of 10 but less than 20 horsepower, against 39,250; and 160,681 were of 30 to 50 horsepower, as compared with 79,254. In 1919 no automobiles were reported as having a horsepower rating of 50 and over, while in 1914 there were 9,236 classified in this group.

TABLE 19.—AUTOMOBILES, INCLUDING BODIES AND PARTS: 1919, 1914, AND 1909.

	1919		1914		1909	
	Num-ber.	Value.	Num-ber.	Value.	Num-ber.	Value.
Total value.....		Dollars.		Dollars.		Dollars.
		1,020,383,356		398,289,022		96,651,451
Automobiles, total.....	689,170	727,004,358	443,072	303,774,254	64,800	70,359,749
Pleasure vehicles.....	620,853	642,925,814	437,083	295,553,172	63,883	68,756,909
Touring cars.....	509,830	483,103,496	367,092	251,809,056	43,855	51,365,984
Closed cars.....	54,573	89,900,677	6,610	10,636,264	1,539	3,803,616
Roadsters, runabouts, and all other.....	62,450	60,921,638	63,381	33,307,852	18,439	13,587,309
Business vehicles.....	62,317	84,078,544	5,989	8,221,082	917	1,602,840
Delivery wagons.....	12,912	11,284,203	1,295	970,509	401	319,071
Trucks.....	47,442	70,169,104	4,694	7,220,321	372	994,311
All other.....	1,963	2,615,237	10	30,192	144	289,458
Chassis.....	41,247	51,624,485	(1)	(1)	(1)	(1)
Trailers.....	5,451	1,737,338	(1)	(1)	(1)	(1)
All other products, including bodies and parts and repairs.....		840,017,175		94,514,768		20,291,702

<sup>1</sup> Not reported separately.

**Shipbuilding, including boat building (Tables 20 and 21).**—This industry includes the building and

repairing of steel and wooden vessels, as well as small craft, and the manufacture of masts, spars, oars, and the rigging of vessels. Comparisons of the 1919 figures for this industry, unlike those for any other for which tables are presented, are made with those of the special census for shipbuilding, taken in 1916.

TABLE 20.—SHIPBUILDING, INCLUDING BOAT BUILDING—NUMBER AND TONNAGE: 1919 AND 1916.

	1919		1916	
	Num-ber.	Gross tonnage.	Num-ber.	Gross tonnage.
Vessels, 5 gross tons and over, launched during the year.....	131	208,602	20	38,340
Steel.....	126	206,912	19	37,906
Steam.....	121	206,162	12	35,618
Motor.....				
Unrigged.....	5	750	7	2,288
Wooden.....	5	1,690	10	434
Steam.....	5	1,690	1	327
Motor.....			9	107
Unrigged.....				
Power boats, less than 5 gross tons.....	50		172	

The gross tonnage of iron and steel vessels launched, which was 37,906 in 1916, increased to 206,912 in 1919. Forty-three steel vessels, with a total of 97,249 gross tons, were launched at Detroit; 29 vessels, with 71,567 gross tons, at River Rouge; 6 vessels, with 14,096 gross tons, at Saginaw; and 48 vessels, with 24,000 gross tons, at Dearborn. Of the 126 vessels launched, 73, with 182,162 gross tonnage, were for ocean freight service; 5, aggregating 750 gross tons, were coal barges for the United States Navy; and 48, with 24,000 gross tonnage, were Eagle patrol boats.

The value of work done upon vessels of all kinds during 1919 and 1916 is shown in Table 21.

TABLE 21.—SHIPBUILDING, INCLUDING BOAT BUILDING—VALUE: 1919 AND 1916.

	1919	1916
Total value of work.....	\$85,154,702	\$5,637,103
Work done during the year on new vessels, 5 gross tons and over.....	82,508,048	3,371,750
Steel.....	81,454,048	3,255,904
Wood.....	1,054,000	115,855
Boats of less than 5 tons.....	171,852	156,043
Power boats of all kinds.....	103,259	130,184
Sailboats, rowboats, etc.....	68,593	25,850
Repair work.....	1,567,132	1,455,258
Steel.....	828,595	890,602
Wood.....	738,537	564,656
All other products.....	907,670	654,043

**Paper and wood pulp (Table 22).**—This table shows the quantity and cost of the principal materials used, the quantity and value of the various products, and detailed information regarding equipment, for 1919, 1914, and 1909.

Michigan ranked fifth among the states in the manufacture of paper and wood pulp in 1919. Of the 39 paper and pulp mills in the state in 1919, 4 were



engaged exclusively in the manufacture of wood pulp, 27 made paper only, and 8 produced both pulp and paper.

TABLE 22.—PAPER AND WOOD PULP: 1919, 1914, AND 1909.

	1919	1914	1909
<b>MATERIALS.</b>			
Total cost.....	\$40,353,447	\$14,544,945	\$9,024,595
Pulp wood:			
Cords.....	207,234	182,314	132,846
Cost.....	\$2,580,808	\$1,270,466	\$858,230
Wood pulp purchased:			
Tons.....	106,918	78,488	60,750
Cost.....	\$9,617,530	\$3,160,096	\$2,405,975
Ground—			
Tons.....	9,918	17,511	15,320
Cost.....	\$341,842	\$357,006	\$334,489
Soda fiber—			
Tons.....	13,030	12,833	16,300
Cost.....	\$1,185,726	\$581,101	\$601,514
Sulphite fiber—			
Tons.....	67,781	42,765	29,070
Cost.....	\$6,906,262	\$2,022,035	\$1,329,972
Sulphate fiber—			
Tons.....	12,894	4,098	(?)
Cost.....	\$1,073,344	\$170,028	(?)
Screenings, mechanical and chemical—			
Tons.....	3,295	1,281	(?)
Cost.....	\$110,366	\$29,926	(?)
Rags, including cotton and flax waste and sweepings:			
Tons.....	9,675	16,006	11,939
Cost.....	\$1,202,231	\$425,935	\$383,836
Paper stock, including high-grade shavings and old and waste paper:			
Tons.....	300,908	200,370	114,497
Cost.....	\$9,084,955	\$3,419,791	\$2,193,302
China clay, domestic and foreign:			
Tons.....	24,375	(?)	(?)
Cost.....	\$633,265	(?)	(?)
Bleaching powder:			
Tons.....	5,631	(?)	(?)
Cost.....	\$246,299	(?)	(?)
Fuel and rent of power, cost.....	\$3,925,143	\$1,467,013	\$953,147
All other materials, cost <sup>1</sup> .....	\$13,058,216	\$4,801,044	\$2,225,055
<b>PRODUCTS.</b>			
Total value.....	\$66,200,513	\$22,049,990	\$13,922,124
Book, cover, plate, and coated paper:			
Tons.....	156,596	118,991	85,048
Value.....	\$25,690,000	\$10,075,238	\$6,499,865
Fine paper:			
Tons.....	26,332	17,463	5,032
Value.....	\$6,617,961	\$1,880,801	\$705,772
Wrapping paper:			
Tons.....	53,643	59,873	50,323
Value.....	\$6,893,109	\$3,427,732	\$2,799,583
Boards:			
Tons.....	215,553	109,360	56,342
Value.....	\$15,000,415	\$3,633,395	\$1,866,436
All other paper:			
Tons.....	29,383	26,935	36,411
Value.....	\$6,394,483	\$1,692,933	\$1,709,006
Wood pulp made for sale or for consumption in mills other than where produced:			
Tons.....	31,378	16,464	8,199
Value.....	\$2,249,301	\$549,031	\$300,948
Wood pulp produced (including that used in mills where manufactured), total tons.....	106,497	81,451	65,331
Ground, tons.....	16,980	17,280	12,273
Sulphite fiber, tons.....	71,959	53,358	53,058
Other chemical fiber, tons.....	17,558	10,813	—
All other products, value.....	\$3,454,244	\$790,860	\$40,514
<b>EQUIPMENT.</b>			
Paper machines:			
Total number.....	83	81	68
Capacity, yearly, tons.....	578,380	430,077	301,345
Fourdrinier—			
Number.....	55	55	43
Capacity per 24 hours, tons.....	923	809	573
Cylinder—			
Number.....	28	26	25
Capacity per 24 hours, tons.....	902	619	321
Pulp equipment:			
Grinders, number.....	19	19	17
Digesters, number.....	36	29	27
Capacity, yearly, tons of pulp, total.....	139,878	93,186	74,932
Mechanical, tons.....	35,974	24,510	18,303
Chemical, tons.....	103,904	68,676	50,629

<sup>1</sup> Reported as "Other chemical fiber" in 1914 and 1909.

<sup>2</sup> Not reported separately.

<sup>3</sup> Reported as "Old and waste paper" in 1914 and 1909.

<sup>4</sup> Includes sizing, chemicals, sulphur, dyestuffs, and mill supplies.

Book paper was the principal product of the industry at each census, forming 38.8 per cent of the total value of products in 1919. Boards was the next product in importance, representing 22.6 per cent of the total value. To avoid disclosing the data of individual establishments, it was necessary to include the value of tissue paper, tag stock, and various other grades in the item "All other products."

Butter, cheese, and condensed milk (Table 23).—This table shows the quantity and value of the several products of the industry for 1919, 1914, and 1909.

Michigan was the fourth state in 1919 in the production of butter, cheese, and condensed-milk factory products. The states that exceeded it in the total value of these products were Wisconsin, New York, and Minnesota, in the order given. Michigan was the seventh state in the production of butter, fourth in the production of cheese, and fifth in the production of condensed milk.

Of the total value of products, butter formed 44.8 per cent; cheese, 5.3 per cent; and condensed milk, 37.7 per cent. The total value of products increased \$43,237,001, or 200.6 per cent, during the five-year period 1914 to 1919. Values increased to such a degree, influenced largely by industrial conditions brought about by the World War, that they can not properly be used to measure the growth of manufactures between the industrial censuses of 1914 and 1919.

TABLE 23.—BUTTER, CHEESE, AND CONDENSED MILK: 1919, 1914, AND 1909.

	1919	1914	1909
Total value <sup>1</sup> .....	\$64,786,598	\$21,549,597	\$14,287,499
Butter:			
Pounds.....	55,842,680	43,220,077	35,511,760
Value.....	\$29,041,657	\$12,416,504	\$10,048,137
Packed solid—			
Pounds.....	29,358,134	32,925,588	30,328,760
Value.....	\$16,650,919	\$9,365,152	\$8,586,270
Prints or rolls—			
Pounds.....	26,484,546	10,294,489	5,183,000
Value.....	\$12,390,738	\$3,051,352	\$1,456,867
Cream sold:			
Pounds.....	6,173,016	7,604,889	2,572,764
Value.....	\$1,476,030	\$901,054	\$249,276
Cheese:			
Pounds.....	12,857,230	13,267,145	13,382,160
Value.....	\$3,454,423	\$1,773,576	\$1,911,875
Full-cream—			
Pounds.....	9,201,576	11,045,713	13,028,317
Value.....	\$2,928,357	\$1,588,658	\$1,860,879
Other kinds—			
Pounds.....	3,655,654	2,221,432	353,843
Value.....	\$526,066	\$184,920	\$50,996
Condensed and evaporated milk:			
Pounds.....	181,700,256	76,514,655	32,404,944
Value.....	\$24,422,946	\$5,200,640	\$1,924,621
Sweetened—			
Pounds.....	63,915,861	37,057,100	27,695,866
Value.....	\$10,442,798	\$2,030,008	\$1,693,030
Unsweetened—			
Pounds.....	117,784,395	39,457,555	4,709,078
Value.....	\$13,980,148	\$2,270,634	\$231,591
All other butter, cheese, and condensed-milk factory products, value.....	\$5,551,485	\$650,716	\$105,378
All other products, value.....	\$941,057	\$607,107	\$53,212

<sup>1</sup> In addition, in 1919, butter valued at \$59,175 was manufactured in establishments engaged primarily in the manufacture of products other than those covered by the industry designation.

A consideration of quantity production will give a unit of measure for comparative purposes. During

the five-year period 1914 to 1919 butter increased in quantity 12,622,603 pounds, or 29.2 per cent; cheese decreased 409,915 pounds, or 3.1 per cent; and condensed milk increased 105,185,601 pounds, or 137.5 per cent. The remarkable growth of the condensed-milk industry was due largely to the increased production of unsweetened condensed milk, the output of which in 1919 formed 64.8 per cent of the total condensed and evaporated milk reported.

**Slaughtering and meat packing (Table 24).**—This table presents detailed statistics for materials and products for the census years 1919, 1914, and 1909.

TABLE 24.—SLAUGHTERING AND MEAT PACKING: 1919, 1914, AND 1909.

	1919	1914	1909
<b>MATERIALS.</b>			
Total cost.....	\$40,774,348	\$18,813,865	\$11,253,120
Animals slaughtered, cost.....	\$45,783,152	\$17,054,123	\$9,408,922
Beefes—			
Number.....	100,975	62,035	50,157
Cost.....	\$8,652,036	\$3,715,884	\$2,072,350
Calves—			
Number.....	74,242	24,505	27,284
Cost.....	\$1,876,206	\$368,055	\$288,412
Sheep and lambs—			
Number.....	193,345	125,537	88,285
Cost.....	\$2,010,375	\$644,913	\$404,087
Hogs—			
Number.....	881,030	761,380	444,756
Cost.....	\$33,244,535	\$12,325,271	\$6,734,073
All other materials, cost.....	\$3,991,196	\$1,759,742	\$1,754,198
<b>PRODUCTS.</b>			
Total value.....	\$59,584,740	\$20,665,737	\$12,842,201
Fresh meat, value.....	\$31,010,401	\$9,883,613	\$4,656,040
Beef—			
Pounds.....	44,582,288	28,050,744	24,090,494
Value.....	\$7,069,893	\$3,517,274	\$1,931,128
Veal—			
Pounds.....	7,215,770	2,800,785	2,603,074
Value.....	\$1,808,948	\$408,809	\$309,568
Mutton and lamb—			
Pounds.....	6,757,427	4,782,158	3,509,894
Value.....	\$1,767,650	\$608,761	\$363,474
Pork—			
Pounds.....	74,392,478	30,382,616	16,479,567
Value.....	\$19,111,083	\$5,232,513	\$2,014,770
Edible offal and other fresh meat—			
Pounds.....	5,272,424	1,278,456	631,000
Value.....	\$652,857	\$110,256	\$37,100
Pork, pickled and other cured:			
Pounds.....	53,360,220	43,017,100	36,145,040
Value.....	\$13,762,791	\$5,697,111	\$4,707,180
Sausage:			
Pounds.....	10,753,438	8,409,965	8,174,244
Value.....	\$2,582,906	\$1,103,762	\$804,620
Tallow:			
Pounds.....	3,041,759	1,496,222	751,470
Value.....	\$449,496	\$106,308	\$38,531
Lard:			
Pounds.....	26,271,409	27,342,302	13,351,255
Value.....	\$7,078,212	\$2,744,866	\$1,869,703
Grease and soap stock:			
Pounds.....	5,326,001	2,766,045	( <sup>1</sup> )
Value.....	\$809,048	\$155,617	( <sup>1</sup> )
Fertilizers and fertilizer materials:			
Tons.....	8,527	( <sup>1</sup> )	( <sup>1</sup> )
Value.....	\$505,787	( <sup>1</sup> )	( <sup>1</sup> )
Hides and pelts:			
Cattle—			
Number.....	106,975	62,035	
Pounds.....	5,393,013	3,457,996	
Value.....	\$1,839,138	\$531,873	57,635
Calf—			
Number.....	37,137	9,716	2,982,942
Pounds.....	452,770	118,825	\$365,080
Value.....	\$265,807	\$20,772	
Sheep—			
Number.....	192,998	125,534	88,285
Value.....	\$619,420	\$128,392	\$94,862
All other products, value.....	\$661,734	\$283,423	\$316,185

<sup>1</sup> Not reported separately.

<sup>2</sup> Included in "All other products" to avoid disclosing individual operations.

"All other materials" includes the cost of poultry, dressed meat purchased for curing, cottonseed oil, refrigeration, curing materials, seasoning, fuel, rent of power, containers, mill supplies, and freight; and "All other products" includes the value of beef, pickled and other cured, compound lard, casings, and hog and cattle hair.

The industry made a substantial growth in the last census period, as indicated by the increase of 282,135, or 29 per cent, in the total number of animals slaughtered. This was not as rapid as that from 1909 to 1914, when the increase in the number slaughtered was 362,975, or 59.4 per cent. The increase in the cost of animals slaughtered, however, from 1914 to 1919, was \$28,729,029, or 167.3 per cent.

The industry is centered in Detroit, with a production of \$57,648,125, or 96.7 per cent of the entire product of the state.

**Leather, tanned, curried, and finished (Table 25).**—This table gives for 1919, 1914, and 1909 the quantity and cost of materials used and the quantity and value of the principal products.

The number of cattle hides treated decreased by 439,211, or 25.7 per cent, in 1919 as compared with 1914; and by 161,144, or 11.3 per cent, as compared with 1909. Despite this decrease the total cost of the hides was considerably greater than at previous censuses. All other raw stock, which consisted principally of horsehides, and calf, kip, and sheep skins, showed an increase of 798 per cent for the census period 1914 to 1919. Fuel, rent of power, and all other materials also showed substantial increases for the same period.

TABLE 25.—LEATHER, TANNED, CURRIED, AND FINISHED: 1919, 1914, AND 1909.

	1919	1914	1909
<b>MATERIALS.</b>			
Total cost.....	\$32,451,798	\$20,982,247	\$12,120,971
Cattle hides:			
Number.....	1,269,741	1,708,952	1,430,885
Cost.....	\$17,295,185	\$15,807,830	\$8,022,645
All other raw stock, cost.....	\$6,532,693	\$727,828	\$1,055,188
Fuel and rent of power, cost.....	\$766,723	\$290,913	\$194,423
All other materials, cost.....	\$7,857,197	\$4,155,876	\$2,848,715
<b>PRODUCTS.</b>			
Total value.....	\$45,800,786	\$25,503,573	\$15,331,104
Leather:			
Sole—			
Sides.....	1,149,381	1,871,940	1,603,512
Value.....	\$11,646,441	\$12,641,509	\$7,326,276
Upper (other than patent), value.....	\$14,873,789	\$4,323,597	\$3,087,868
Upholstery (automobile, furniture, and carriage), value.....	\$4,405,467	\$1,395,076	\$5,722
Harness—			
Sides.....	239,588	403,346	214,879
Value.....	\$3,285,618	\$2,580,213	\$1,210,132
All other, value.....	\$4,366,514	\$3,493,485	\$3,311,402
All other products, value.....	\$905,385	\$451,361	\$225,619
Work on materials for others, value.....	\$6,818,572	\$618,327	\$164,025

<sup>1</sup> Does not include upper leather made from skins.

The total value of products increased in 1919 by \$20,297,213, or 79.6 per cent, as compared with 1914. Upper leather (other than patent), with an increase of \$10,550,192, or 244 per cent, made the greatest gain. Upholstery and harness leather showed greater values in 1919 than 1914, but sole leather showed a lesser value. Both sole and harness leather fell off in production, the former especially, showing a decrease of 722,559 sides, or 38.6 per cent. "All other leather" covers case, bag, and strap, glove, horse, finished splits, bookbinders' leather, etc.

"All other products," consisting of wool, hair, etc., has doubled since 1914, and the amount received for tanning, currying, and finishing for others was more than ten times as great in 1919 as it was in 1914.

**Flour-mill and gristmill products** (Table 26).—This table presents the quantity and value of the principal kinds of products of flour mills and gristmills for the census years 1919, 1914, and 1909.

Although there was a general decrease in quantities in 1919 for all important products of this industry, as compared with 1914, it was still one of the leading industries in the state. This decrease was probably due to the decrease in acreage and the scarcity of labor for agricultural purposes.

Wheat flour, the product of greatest value in the industry, formed 64.3 per cent of the total value of products in 1919 and 58.6 per cent in 1914.

TABLE 26.—FLOUR-MILL AND GRISTMILL PRODUCTS (MERCHANT MILLS): 1919, 1914, AND 1909.

	1919	1914	1909
Products, total value.....	\$44,144,434	\$27,381,474	\$34,880,803
Wheat flour:			
Barrels.....	2,537,386	3,056,744	3,447,800
Value.....	\$28,366,273	\$16,056,643	\$18,833,591
Rye flour:			
Barrels.....	137,750	74,062	61,963
Value.....	\$1,248,024	\$377,707	\$266,698
Corn meal and corn flour:			
Barrels.....	94,175	131,646	177,169
Value.....	\$812,361	\$461,630	\$906,706
Buckwheat flour:			
Pounds.....	7,981,873	15,773,491	20,161,026
Value.....	\$596,503	\$447,545	\$547,024
Bran and middlings:			
Tons.....	103,752	149,893	
Value.....	\$4,548,649	\$3,298,041	520,810
Feed and offal:			
Tons.....	135,199	216,760	\$13,970,486
Value.....	\$8,342,228	\$6,360,156	
All other cereal products, value.....	\$212,861	\$201,053	\$319,937
All other products, value.....	\$17,535	\$98,699	\$311,361

**Beet sugar** (Table 27).—This table shows the quantity of domestic sugar beets used in the production of beet sugar during 1919, 1914, and 1909, and the quantity and value of the different products made from sugar beets.

In 1914 Michigan ranked third in value of products among the states producing beet sugar, being exceeded by California and Colorado while in 1919 its rank was second, being exceeded only by Colorado.

TABLE 27.—BEET SUGAR: 1919, 1914, AND 1909.

	1919	1914	1909
Beets used, tons.....	992,938	862,053	816,609
Products, total value.....	\$26,378,870	\$11,023,058	\$10,476,876
Sugar:			
Granulated—			
Tons.....	122,539	111,570	103,894
Value.....	\$23,887,805	\$9,944,717	\$9,756,587
Raw—			
Tons.....	169	305	551
Value.....	\$12,505	\$22,239	\$41,404
Molasses:			
Gallons.....	3,435,572	4,133,121	5,016,748
Value.....	\$504,445	\$277,266	\$337,200
Pulp, value.....	\$1,860,475	\$778,836	\$339,025
All other products, value.....	\$113,640		\$2,660

**Chemicals** (Table 28).—This table presents the statistics of products for the chemical industries in 1919. The production includes all products reported by 40 establishments engaged primarily in the manufacture of chemicals, including those of coal-tar origin, and subsidiary chemicals to the value of \$3,194,793 manufactured by establishments included under other industry classifications.

In 1914 there were 36 establishments with products valued at \$13,891,415 and in 1909; 36 establishments with products of \$12,890,000 in value, these figures being comparable with the 40 establishments and the products of the classified industries, valued at \$38,667,887 in 1919. The increase in value of products for the period 1914 to 1919 was at the rate of 201 per cent, and for 1909 to 1914, 8 per cent.

A considerable portion of the production was made with the aid of electricity. The value of the chemicals made by electrochemical or electrometallurgical methods was \$10,284,831, equal to 27.2 per cent of all chemicals for the state, and 14.2 per cent of all electrochemical and electrometallurgical chemicals in the United States.

TABLE 28.—CHEMICALS: 1919.

	1919
Products, total value.....	\$41,872,200
The classified industries:	
Chemicals.....	37,850,834
Coal-tar products.....	817,058
Subsidiary chemical products from other industries.....	3,204,318
Acids.....	942,011
Sodas, sodium, and compounds.....	22,131,154
Potash.....	588,834
Bleaching compounds.....	1,267,678
Compressed and liquefied gases.....	1,527,723
Other chemicals.....	13,437,065
All other products, value.....	1,977,792

**Printing and publishing** (Table 29).—This table shows the number and aggregate circulation per issue for all publications reported in Michigan for the census years 1919, 1914, and 1909.

Although the total number of publications decreased during the five-year period 1914 to 1919 there was

an increase of 564,842, or 15.6 per cent, in their aggregate circulation. The increase in the circulation of dailies was 131,668, or 14.8 per cent. Of these dailies, 17 were published in the morning, reporting a circulation of 274,911, and 56, with a circulation of 745,738, were published in the afternoon. These increases in circulation were 12.3 and 15.8 per cent, respectively, over the figures reported for 1914.

During the five years the circulation of weekly newspapers and periodicals increased 310,846, or 9.2 per cent.

The foreign-language publications numbered 39 with an aggregate circulation of 201,509, as compared with 53 in 1914 with a circulation of 169,612. The great increase in circulation was principally in publications printed in Polish. In 1914 there were reported for this language 3 dailies, 1 Sunday, 1 weekly, 1 semi-weekly, and 1 monthly publication, the total circulation being 43,793. In 1919 there were 3 dailies, 1 Sunday, and 4 weeklies with a total circulation of 92,409. Other foreign-language publications were 1 daily and 1 Sunday in German; 1 daily and 1 Sunday in Yiddish; 1 weekly in Croatian; 4 weeklies, 1 triweekly, and 2 monthlies in Dutch; 2 weeklies, 2 triweeklies, 3 monthlies, 1 semimonthly, and 1 quarterly in Finnish; 1 weekly and 1 monthly in Hungarian; 2 weeklies and 1 triweekly in Italian; 1 weekly each in Flemish, Slovenian, Swedish, and English and German; and 1 monthly in Magyar.

TABLE 29.—PRINTING AND PUBLISHING: 1919, 1914, AND 1909.

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1919	1914	1909	1919	1914	1909
Total.....	630	736	747	4,192,771	3,627,929	2,766,282
Daily.....	73	80	87	1,020,649	888,931	681,919
Sunday.....	14	14	15	507,916	342,163	256,583
Semiweekly.....	6	21	23	6,854	33,080	66,560
Triweekly.....	5	7	6	18,150	12,803	16,080
Weekly.....	443	517	526	1,104,022	793,176	750,298
Semimonthly.....	4	7	4	14,200	106,437	13,991
Monthly.....	72	84	73	1,464,830	1,428,889	927,601
Quarterly.....	13	6	8	56,150	22,400	53,250

<sup>1</sup> Includes in 1919, 2 bimonthlies; in 1914, 1 bimonthly and 1 semiannual; and in 1909, 2 bimonthly and 2 "All other" publications.

Lumber and timber products (Table 30).—This table presents statistics pertaining to the chief products of the lumber industry for 1919, 1914, and 1909. Michigan has been prominent in the lumber industry in the United States for the past 80 years, and was the leading state in the production of lumber in 1869, 1879, and 1889. In 1899 it occupied second place. The

state's rank in production has decreased rapidly, and in 1909 it ranked tenth; in 1914, thirteenth; and in 1919, fourteenth.

Until 1904 the cut consisted principally of white pine. This wood has been largely cut out, and in 1919 60 per cent of the total cut of the state was from hard woods, the principal species being maple. In the production of lumber from this wood the state ranked first. In 1919 the cut from all woods decreased 27.9 per cent compared with that for 1914, and 53.7 per cent compared with that for 1909.

The lumber cut from the principal species in 1919 was reported as follows: Maple 321,409,000 feet, or 36.7 per cent of the total cut from all species in the state; hemlock 267,824,000 feet, or 30.6 per cent; birch 63,533,000 feet, or 7.3 per cent; white pine 57,501,000 feet, or 6.6 per cent; beech 49,125,000 feet, or 5.6 per cent; basswood 33,532,000 feet, or 3.8 per cent; and elm 30,745,000 feet, or 3.5 per cent. Among other woods sawed into lumber in considerable quantities were oak, larch, and spruce.

TABLE 30.—LUMBER, LATH, AND SHINGLES: 1919, 1914, AND 1909.

PRODUCT.	QUANTITY. <sup>1</sup>		
	1919	1914	1909
Lumber.....M feet b. m..	875,891	1,214,435	1,889,724
Lath.....thousands..	51,469	(2)	213,308
Shingles.....thousands..	144,173	(2)	801,649

<sup>1</sup> The output of custom mills is included in 1919 and 1909, but not in 1914.

<sup>2</sup> Not reported.

Laundries (Table 31).—Statistics for power laundries are not included in the general tables nor in the totals for manufacturing industries. Table 31, however, summarizes the statistics for such laundries in Michigan for 1919 and 1914.

TABLE 31.—POWER LAUNDRIES: 1919 AND 1914.

	NUMBER OR AMOUNT.		Percent of increase, <sup>1</sup> 1914-1919
	1919	1914	
Number of establishments.....	197	234	-15.8
Persons engaged.....	5,746	5,637	1.9
Proprietors and firm members.....	218	270	-19.3
Salaried employees.....	615	465	32.3
Wage earners (average number).....	4,913	4,902	0.2
Primary horsepower.....	7,151	6,457	10.7
Capital.....	\$5,421,984	\$3,172,343	70.9
Salaries and wages.....	4,725,134	2,619,264	80.4
Salaries.....	935,955	468,146	104.3
Wages.....	3,789,179	2,161,118	75.3
Paid for contract work.....	26,372	675	3,807.0
Rent and taxes.....	210,054	151,940	38.2
Cost of materials.....	2,192,476	928,502	136.1
Amount received for work done.....	9,416,373	5,115,286	84.1

<sup>1</sup> A minus sign (—) denotes decrease.

**Dyeing and cleaning (Table 32).**—Statistics for dyeing and cleaning establishments that were operated by mechanical power in 1919 are presented in this table. Statistics for such establishments are not included in the general tables nor in the totals for manufacturing industries for censuses since 1900. This presentation is the first of its kind that has been made since the census statistics were confined to manufacturing industries as distinguished from the hand trades, household industries, etc.

TABLE 32.—DYEING AND CLEANING: 1919.

	Number or amount.
Number of establishments.....	73
Persons engaged.....	895
Proprietors and firm members.....	79
Salaried employees.....	135
Wage earners (average number).....	681
Primary horsepower.....	714
Capital.....	\$1,240,651
Salaries and wages.....	956,798
Salaries.....	164,490
Wages.....	792,308
Paid for contract work.....	10,328
Rent and taxes.....	83,311
Cost of materials.....	445,540
Amount received for work done.....	2,043,559

Custom sawmills and custom gristmills (Tables 33 and 34).—Statistics for custom sawmills and custom gristmills are not included in the general tables nor in the totals for manufacturing industries. Data for these custom mills were not collected in 1914. Tables 33 and 34, however, summarize the statistics for such mills for 1919 and 1909. The value of products for custom sawmills represents the amount charged for

the work performed, and that for custom gristmills the selling value of the grain milled.

TABLE 33.—CUSTOM SAWMILLS: 1919 AND 1909.

	NUMBER OR AMOUNT.		Per cent of increase, <sup>1</sup> 1909-1919.
	1919	1909	
Number of establishments.....	103	197	-47.7
Persons engaged.....	199	580	-65.7
Proprietors and firm members.....	128	271	-52.8
Salaried employees.....	3	3	.....
Wage earners (average number).....	71	308	-76.8
Primary horsepower.....	2,576	4,894	-47.4
Capital.....	\$148,240	\$322,255	-54.0
Salaries and wages.....	44,986	103,029	-56.3
Salaries.....	.....	370	.....
Wages.....	44,986	102,659	-56.2
Rent and taxes.....	1,665	2,004	-19.3
Cost of materials.....	8,665	4,051	113.9
Amount received for work done.....	94,317	236,209	-60.1

<sup>1</sup> A minus sign (—) denotes decrease.

TABLE 34.—CUSTOM GRISTMILLS: 1919 AND 1909.

	NUMBER OR AMOUNT.		Per cent of increase, <sup>1</sup> 1909-1919.
	1919	1909	
Number of establishments.....	185	208	-11.1
Persons engaged.....	813	357	-12.3
Proprietors and firm members.....	183	256	-28.5
Salaried employees.....	24	3	.....
Wage earners (average number).....	106	93	.....
Primary horsepower.....	8,898	7,172	-3.8
Capital.....	\$1,538,117	\$722,877	119.7
Salaries and wages.....	151,911	39,798	281.7
Salaries.....	28,159	3,260	783.8
Wages.....	123,752	36,538	238.7
Rent and taxes.....	23,301	6,947	236.7
Cost of materials <sup>2</sup> .....	4,523,400	1,792,317	152.4
Value of products <sup>2</sup> .....	5,302,793	2,140,461	147.7

<sup>1</sup> A minus sign (—) denotes decrease; percentages are omitted where base is less than 100.

<sup>2</sup> Includes estimate of all grain ground.

## GENERAL TABLES.

Table 35 gives, for 1919, 1914, and 1909, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products for selected industries in the state and in the cities of Detroit, Grand Rapids, and Saginaw; and for Flint and Lansing and each of the cities in the state having from 10,000 to 50,000 inhabitants, for which comparative figures are available, similar data for all industries combined.

Table 36 presents, for 1919, for the state as a whole and for each city having a population of more than 50,000, statistics in detail for each industry for which figures can be shown without disclosing the operations of individual establishments; and the statistics for all industries combined for each of the cities in the state having from 10,000 to 50,000 inhabitants, for which figures can be given without disclosing the operations of individual establishments.

TABLE 35.—COMPARATIVE SUMMARY FOR SELECTED INDUSTRIES AND FOR CITIES: 1919, 1914, AND 1909.

INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments	Wage earners (aver- age num- ber).	Primary horse- power.	Wages.	Cost of mater- ials.	Value of prod- ucts.	INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments	Wage earners (aver- age num- ber).	Primary horse- power.	Wages.	Cost of mater- ials.	Value of prod- ucts.
					Expressed in thousands of dollars.								Expressed in thousands of dollars.		
THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.															
All industries.....	1919	8,305	471,242	1,202,128	639,708	1,919,243	3,466,188	Coffins, burial cases, and undertakers' goods.	1919	24	416	1,087	379	1,340	2,522
	1914	8,724	271,090	730,383	182,252	592,801	1,089,162		1914	23	540	1,077	315	648	1,365
	1909	9,159	231,499	598,288	118,968	368,612	688,109		1909	18	439	711	208	493	1,085
Agricultural implements..	1919	23	2,708	6,197	3,003	5,048	11,091	Confectionery and ice cream. <sup>2</sup>	1919	184	1,746	3,738	1,462	7,168	12,627
	1914	30	2,143	5,941	1,456	2,640	7,731		1914	124	1,187	2,774	555	2,853	4,843
	1909	32	2,369	5,195	1,261	2,890	9,273	Cooperage and wooden goods, not elsewhere specified.	1919	53	1,067	4,553	765	1,970	3,880
Artificial stone products..	1919	191	480	834	612	980	2,434		1914	82	1,967	7,316	912	2,063	3,839
	1914	217	453	1,258	306	400	1,060		1909	101	2,642	8,500	1,016	2,004	3,989
	1909	191	514	634	255	349	908	Copper, tin, and sheet- iron products. <sup>3</sup>	1919	142	2,767	2,781	3,270	8,230	16,058
Automobiles, including bodies and parts.	1919	271	175,985	284,127	272,989	959,767	1,620,383		1914	162	2,397	2,789	1,437	2,807	5,650
	1914	205	67,838	79,379	57,792	210,215	398,289		1909	152	2,386	1,875	1,122	2,545	4,929
	1909	113	25,444	25,938	16,491	53,882	96,051	Corsets.....	1919	12	1,529	724	1,031	2,913	7,298
Awnings, tents, and sails.	1919	22	190	117	213	920	1,845		1914	16	2,149	959	873	1,899	4,982
	1914	24	154	45	104	261	502		1909	14	2,461	734	835	1,877	4,368
	1909	17	129	44	67	199	349	Cutlery and tools, not elsewhere specified.	1919	94	3,352	3,662	4,810	3,597	12,078
Baskets, and rattan and willow ware.	1919	9	296	263	216	198	539		1914	28	453	1,194	320	387	965
	1914	13	238	574	113	285	537		1909	37	668	1,379	307	384	1,124
	1909	18	373	900	159	174	480	Electrical machinery, ap- paratus, and supplies.	1919	54	4,190	5,659	4,685	9,035	25,026
Boots and shoes.....	1919	15	1,120	660	921	4,184	6,046		1914	35	1,144	1,584	666	1,740	3,416
	1914	24	2,065	1,596	932	3,181	5,357		1909	40	1,218	1,355	494	1,030	2,327
	1909	23	2,455	786	936	3,311	5,256	Flour-mill and gristmill products.	1919	345	1,128	29,928	1,257	38,185	44,144
Boxes, paper and other, not elsewhere specified.	1919	22	2,336	5,226	2,161	5,286	10,935		1914	427	1,370	35,321	800	23,299	27,381
	1914	23	1,461	5,935	748	2,131	3,748		1909	520	1,530	38,991	806	29,359	34,861
	1909	19	1,326	1,564	447	1,618	2,653	Food preparations, not elsewhere specified.	1919	37	2,483	12,157	3,108	18,813	35,702
Brass, bronze, and copper products.	1919	80	10,306	27,912	14,679	38,849	62,708		1914	56	1,683	9,760	1,110	7,099	16,005
	1914	64	4,731	14,251	3,030	11,473	16,869		1909	49	1,303	8,983	724	4,750	11,402
	1909	60	4,771	11,622	2,450	8,969	13,890	Foundry and machine- shop products. <sup>4</sup>	1919	975	64,623	134,422	88,511	150,126	324,354
Bread and other bakery products.	1919	944	5,088	6,339	5,895	28,116	44,923		1914	703	26,497	52,085	18,992	27,120	64,576
	1914	922	4,014	8,479	2,459	9,308	16,000		1909	654	21,049	34,152	12,344	18,711	45,399
	1909	816	2,637	1,953	1,444	6,071	11,082	Fur goods.....	1919	31	426	117	412	1,282	2,444
Brick, tile, pottery, and other clay products. <sup>1</sup>	1919	61	1,666	7,741	2,179	1,579	5,983		1914	35	380	503	183	818	1,680
	1914	102	2,194	11,505	1,245	1,058	3,174		1909	31	619	232	267	984	2,284
	1909	131	1,771	8,772	892	649	2,293	Furniture and refrigera- tors.	1919	183	20,151	32,415	21,236	31,516	76,216
Butter, cheese, and con- densed milk.	1919	318	2,194	9,136	2,483	55,906	64,787		1914	202	16,267	28,204	9,488	14,961	33,857
	1914	364	1,367	6,059	803	18,463	21,550		1909	202	16,610	27,485	8,300	11,718	28,642
	1909	435	1,073	4,776	554	12,377	14,287	Gas and electric fixtures and lamps and reflec- tors.	1919	21	1,042	1,847	1,519	2,910	6,981
Canning and preserving, fruits and vegetables.	1919	52	2,109	4,185	1,135	7,971	11,172		1914	13	597	993	445	936	2,094
	1914	49	1,687	3,712	583	2,640	4,422		1909	20	395	386	219	642	1,546
	1909	72	1,311	2,216	391	1,442	2,368	Gas, illuminating and heating.	1919	59	2,846	13,593	3,965	8,270	17,993
Carriages and wagons and materials.	1919	46	367	1,134	389	714	1,523		1914	59	2,349	4,935	1,584	3,356	10,441
	1914	177	1,417	2,739	982	1,928	3,775		1909	55	1,771	6,055	1,096	2,129	6,748
	1909	212	4,034	6,362	2,240	5,202	10,159	Ice, manufactured.....	1919	18	742	8,137	1,186	717	2,822
Carriages and sleds, chil- dren's.	1919	10	799	609	737	1,367	3,410		1914	11	443	4,433	389	128	765
	1914	8	462	598	224	443	970		1909	5	87	1,959	77	40	199
	1909	9	555	484	214	257	682	Iron and steel, blast fur- naces.	1919	11	1,001	6,367	1,719	10,298	13,534
Cars and general shop con- struction and repairs by electric-railroad com- panies.	1919	15	1,401	849	2,088	1,625	3,828		1914	12	991	14,045	782	3,877	5,450
	1914	18	885	413	629	632	1,325		1909	11	1,016	17,403	632	4,224	5,824
	1909	16	574	1,704	318	949	1,301	Iron and steel, steel works and rolling mills.	1919	7	1,455	9,142	2,471	2,902	8,345
Cars and general shop con- struction and repairs by steam-railroad com- panies.	1919	36	7,025	11,079	6,862	6,229	17,223		1914	9	1,718	4,088	498	871	1,716
	1914	26	5,803	8,595	3,905	3,264	7,569		1909	8	1,183	4,290	661	1,593	2,070
	1909	32	5,401	5,742	3,500	2,916	6,838	Iron and steel, forgings, not made in steel works or rolling mills.	1919	15	1,596	6,757	2,387	4,862	8,559
Cement.....	1919	11	1,387	35,470	1,730	3,963	9,643		1914	11	552	1,582	476	807	1,493
	1914	11	1,340	24,158	975	2,408	4,529		1909	4	307	483	182	240	602
	1909	18	1,306	21,773	826	1,403	2,915	Knit goods.....	1919	31	3,170	3,073	2,114	6,790	12,039
Chemicals.....	1919	36	5,712	74,943	8,050	15,744	37,851		1914	34	2,714	3,373	1,006	2,610	5,233
	1914	36	4,509	45,944	3,405	6,373	13,891		1909	35	2,545	3,291	769	2,047	4,029
	1909	36	3,174	26,594	2,012	5,072	12,890	Leather goods <sup>5</sup> .....	1919	75	625	463	603	2,309	4,181
Clothing, men's, includ- ing shirts.	1919	41	2,227	1,102	1,616	6,632	10,916		1914	103	675	462	379	1,413	2,426
	1914	39	2,502	1,075	1,094	2,996	5,306		1909	57	834	760	434	1,458	2,560
	1909	40	3,580	1,161	1,221	3,389	6,532	Leather, tanned, curried, and finished.	1919	28	3,464	12,243	4,163	32,452	45,801
Clothing, women's.....	1919	33	1,036	262	760	2,273	3,923		1914	23	2,773	6,787	1,739	20,982	25,504
	1914	32	1,672	552	715	1,194	2,661		1909	24	2,291	6,719	1,133	12,121	15,331
	1909	52	2,194	581	745	1,710	3,587	Liquors, malt.....	1919	25	779	6,658	1,052	2,027	5,276
Coffee, roasting and grind- ing.	1919	19	99	461	74	2,133	2,514		1914	70	2,097	13,039	1,703	4,328	15,041
	1914	16	88	205	50	1,316	1,618		1909	79	1,527	9,219	1,073	2,421	9,840
	1909	12	76	278	40	680	938								

<sup>1</sup> Includes "sand-lime brick" in 1919 and 1914.<sup>2</sup> Includes "chewing gum" in 1914.<sup>3</sup> Includes "stamped ware, not elsewhere specified" and "tinware, not elsewhere specified."<sup>4</sup> Includes "automobile repairing"; "engines, steam, gas, and water"; "gas machines and gas and water meters"; "hardware"; "iron and steel, tempering and welding"; "machine tools"; "plumbers' supplies, not elsewhere specified"; "pumps, steam and other power"; "steam fittings and steam and hot-water heating apparatus"; "steel barrels, drums, and tanks"; "structural ironwork, not made in steel works or rolling mills"; and "textile machinery and parts" in all years; and "hard-ware, saddlery" in 1919 and 1914.<sup>5</sup> Includes "saddlery and harness" and "trunks and valises."

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TABLE 25.—COMPARATIVE SUMMARY FOR SELECTED INDUSTRIES AND FOR CITIES: 1919, 1914, AND 1909—Contd.

INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments	Wage earn- ers (aver- age num- ber).	Primary horse- power.	Wages.	Cost of mate- rials.	Value of prod- ucts.	INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments	Wage earn- ers (aver- age num- ber).	Primary horse- power.	Wages.	Cost of mate- rials.	Value of prod- ucts.
					Expressed in thousands of dollars.								Expressed in thousands of dollars.		
THE STATE--ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES--Continued.															
Lumber and timber prod- ucts. <sup>1</sup>	1919 1914 1909	633 748 1,180	21,979 28,527 35,627	114,319 112,584 133,739	22,021 15,195 10,298	43,313 29,350 20,042	90,607 58,523 61,514	Slaughtering and meat packing. <sup>2</sup>	1919 1914 1909	53 36 45	1,871 1,181 902	5,522 3,275 3,404	2,503 815 481	52,088 19,283 11,066	62,515 21,267 13,435
Marble and stone work...	1919 1914 1909	103 111 113	365 461 551	2,098 1,644 1,570	547 390 393	1,021 637 592	2,580 1,561 1,504	Springs, steel, car and car- riage, not made in steel works or rolling mills.	1919 1914 1909	6 6 5	1,870 638 588	1,786 1,000 908	2,242 472 309	5,426 1,183 558	8,472 2,175 1,308
Mattresses and spring beds, not elsewhere specified.	1919 1914 1909	16 23 14	171 278 306	487 517 508	196 162 140	785 519 407	1,369 877 689	Stoves and furnaces, in- cluding gas and oil stoves.	1919 1914 1909	28 27 33	5,241 4,074 4,482	9,382 5,916 5,910	6,959 2,988 2,832	9,281 3,715 2,816	27,986 10,757 9,123
Mineral and soda waters.	1919 1914 1909	131 120 97	602 391 252	1,921 814 500	772 246 138	2,895 819 368	5,467 1,096 910	Sugar, beet.....	1919 1914 1909	16 10 11	1,836 1,326 1,460	20,550 10,306 8,854	2,765 932 910	16,682 6,244 6,228	26,379 11,023 10,477
Musical instruments, pianos.	1919 1914 1909	8 12 14	1,122 925 1,611	1,767 1,481 2,303	1,170 587 983	2,823 1,128 1,882	5,397 2,416 3,944	Tobacco manufactures....	1919 1914 1909	363 628 729	6,272 9,075 7,876	1,184 1,343 937	4,915 3,779 3,076	13,213 8,963 7,208	27,693 20,667 16,179
Oil, essential.....	1919 1914 1909	29 53 23	62 88 54	715 619 365	57 17 17	669 226 415	951 492 486	Toys and games.....	1919 1914 1909	12 7 8	361 251 279	632 108 994	362 149 135	393 240 174	1,010 529 432
Paper and wood pulp....	1919 1914 1909	39 37 32	9,561 6,051 4,327	95,729 62,528 48,700	11,177 3,559 2,142	40,353 14,545 9,025	66,800 22,050 13,922	Wall plaster and compo- sition flooring.	1919 1914 1909	10 13 16	585 631 746	4,924 4,295 3,029	726 421 276	1,491 743 412	3,591 2,074 1,421
Paper goods, not else- where specified. <sup>3</sup>	1919 1914 1909	14 14 18	556 750 1,181	603 2,009 2,580	577 402 483	2,513 2,252 1,953	4,203 3,538 3,551	Window shades and fix- tures.	1919 1914 1909	5 8 7	766 702 636	1,057 1,149 1,238	633 295 261	865 983 807	2,884 1,755 1,266
Patent medicines and compounds and drug- gists' preparations. <sup>4</sup>	1919 1914 1909	107 142 159	4,751 3,369 3,249	2,642 2,694 2,270	4,151 1,994 1,509	14,690 7,003 4,941	34,945 16,434 18,475	Wirework, not else- where specified.	1919 1914 1909	38 33 37	2,516 1,814 909	3,822 2,269 1,900	2,721 788 428	10,803 3,918 5,446	17,065 5,891 5,285
Printing and publishing <sup>4</sup>	1919 1914 1909	1,045 1,113 1,045	7,880 8,166 7,219	11,587 13,033 7,651	9,590 5,602 4,000	15,536 7,498 4,935	46,829 24,953 17,348	Wood distillation.....	1919 1914 1909	16 10 12	1,586 645 806	5,985 2,644 5,012	1,988 415 504	5,703 1,708 1,155	10,651 2,678 2,399
Salt.....	1919 1914 1909	12 15 27	2,063 1,434 1,363	10,321 8,316 6,628	2,539 991 745	6,339 2,067 1,643	14,054 4,421 3,653	Wood, turned and carved.	1919 1914 1909	34 45 58	622 578 1,137	1,997 2,901 4,695	615 318 548	837 339 634	1,998 950 1,703
Scales and balances.....	1919 1914 1909	3 3 4	420 276 228	380 298 310	516 200 137	513 208 229	2,340 612 524	Woolen goods.....	1919 1914 1909	9 9 15	812 477 554	1,502 1,311 1,900	719 230 235	2,881 793 863	4,572 1,215 1,571
Shipbuilding, including boat building.	1919 1914 1909	33 62 91	16,541 1,261 2,344	31,153 7,605 6,485	28,921 1,040 1,380	36,121 1,259 2,490	85,155 2,823 5,034	All other industries.....	1919 1914 1909	857 795 874	35,311 21,207 21,672	91,119 62,363 37,710	45,325 13,681 10,912	134,243 60,747 56,914	288,080 104,104 92,648
Show cases.....	1919 1914 1909	6 6 11	261 410 823	685 845 1,403	305 272 459	482 403 796	1,158 1,035 1,860								

## CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

<b>DETROIT.....</b>	1919 1914 1909	2,176 2,036 2,036	167,016 99,603 81,011	308,250 176,808 114,190	245,434 69,447 43,007	655,913 222,249 130,218	1,234,520 400,348 252,939	<b>DETROIT—Contd.</b>	1919 1914 1909	234 275 265	2,338 1,850 1,108	3,258 1,827 1,112	3,121 1,200 638	13,542 4,363 2,897	22,631 7,489 4,826
All industries.								Bread and other bakery products.							
Artificial stone products..	1919 1914 1909	13 16 13	98 77 104	119 98 25	157 49 48	207 50 51	526 151 142	Brick, tile, pottery, and other clay products. <sup>5</sup>	1919 1914 1909	7 9 13	141 160 220	619 884 625	251 110 129	285 95 90	795 259 329
Automobiles, including bodies and parts.	1919 1914 1909	186 122 68	65,090 33,439 15,675	90,141 39,458 14,666	104,091 26,368 9,621	328,733 101,382 31,363	550,228 164,076 69,536	Butter.....	1919 1914 1909	10 5 3	199 56 12	1,395 180 91	821 40 4	6,758 896 57	7,777 1,107 72
Awnings, tents, and sails.	1919 1914 1909	10 8 7	141 114 100	87 22 20	174 80 54	761 172 133	1,380 336 238	Chemicals.....	1919 1914 1909	10 7 5	1,708 1,489 1,198	20,339 13,899 9,504	2,756 1,106 769	3,561 1,633 1,938	11,355 3,875 5,012
Boots and shoes.....	1919 1914 1909	4 6 8	164 965 1,327	129 531 362	180 430 491	552 1,014 1,702	932 2,255 2,744	Clothing, men's, including shirts.	1919 1914 1909	21 20 22	1,251 1,682 2,786	840 812 951	1,037 765 993	4,531 2,278 2,352	7,301 3,897 4,701
Boxes, paper and other, not elsewhere specified.	1919 1914 1909	8 11 7	289 352 366	156 193 142	221 144 115	436 189 148	987 491 382	Clothing, women's.....	1919 1914 1909	13 19 27	395 1,070 921	96 229 154	354 484 357	827 595 661	1,559 1,406 1,494
Brass, bronze, and copper products.	1919 1914 1909	50 38 37	8,664 3,880 4,032	24,866 13,074 10,651	12,429 2,485 2,049	29,292 10,296 8,273	49,240 14,630 12,297	Coffee, roasting and grind- ing.	1919 1914 1909	10 5 6	61 40 186	390 143 186	57 29 452	1,698 791 452	2,004 965 617

<sup>1</sup> Includes "boxes, wooden packing, except cigar boxes"; "lumber, planing-mill products, not including planing mills connected with sawmills"; and "window and door screens and weather strips."

<sup>2</sup> Includes "envelopes."

<sup>3</sup> Includes "perfumery and cosmetics."

<sup>4</sup> Includes "bookbinding and blank-book making"; "engraving, steel and copper plate, including plate printing"; and "lithographing."

<sup>5</sup> Includes "sausage, not made in slaughtering and meat-packing establishments."

<sup>6</sup> Includes "sand-lime brick."



TABLE 35.—COMPARATIVE SUMMARY FOR SELECTED INDUSTRIES AND FOR CITIES: 1919, 1914, AND 1909—Contd.

INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments	Wage earners (aver- age num- ber).	Primary horse- power.	Wages.	Cost of mate- rials.	Value of prod- ucts.	INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments	Wage earners (aver- age num- ber).	Primary horse- power.	Wages.	Cost of mate- rials.	Value of prod- ucts.
Expressed in thousands of dollars.								Expressed in thousands of dollars.							
CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES—Continued.															
DETROIT—Contd.	1919	8	105	189	123	336	775	FLINT	1919	107	24,603	33,610	38,093	172,824	275,780
Coffins, burial cases, and undertakers' goods.	1914	7	102	170	67	128	275	All industries. <sup>6</sup>	1914	94	8,722	10,576	7,235	34,333	53,375
	1909	5	95	148	56	117	268		1909	104	7,088	8,240	4,429	13,971	24,118
Copper, tin, and sheet-iron products. <sup>1</sup>	1919	60	1,419	1,473	1,639	4,346	9,017	GRAND RAPIDS	1919	611	23,548	44,048	26,170	51,162	109,135
	1914	68	1,957	2,106	1,163	2,108	4,369	All industries.	1914	594	17,427	30,393	10,296	28,995	49,792
	1909	72	1,932	1,453	851	1,932	3,534		1909	524	17,590	27,076	9,217	19,736	42,231
Electrical machinery, apparatus, and supplies.	1919	29	1,894	3,084	2,094	4,584	12,970	Automobiles, including bodies and parts.	1919	22	1,232	2,131	1,750	3,251	6,911
	1914	20	591	1,097	334	1,223	2,240		1914	8	87	94	61	114	250
	1909	23	541	575	226	493	1,148		1909	3	86	110	58	147	369
Foundry and machine-shop products. <sup>2</sup>	1919	286	25,563	47,566	38,459	50,512	123,665	Brass and bronze products.	1919	4	316	478	329	325	911
	1914	221	11,250	20,210	8,558	12,351	29,465		1914	7	432	560	257	281	707
	1909	215	8,694	10,336	4,828	7,614	18,243		1909	5	405	401	209	243	680
Fur goods.....	1919	17	310	46	329	1,064	2,032	Bread and other bakery products.	1919	74	588	424	442	2,228	3,005
	1914	18	207	190	155	626	1,102		1914	67	441	244	227	943	1,682
	1909	19	371	24	181	707	1,738		1909	66	361	185	185	872	1,476
Iron and steel, forgings, not made in steel works or rolling mills.	1919	6	638	2,979	979	1,219	2,416	Butter.....	1919	5	57	234	70	1,434	1,647
	1914	7	399	1,268	329	583	1,012		1914	6	27	126	19	621	747
Jewelry.....	1919	19	109	72	152	418	938		1909	4	16	134	12	216	249
	1914	18	133	57	101	154	386	Clothing, men's, including shirts.	1919	6	70	26	66	188	404
	1909	9	92	28	68	43	204		1914	8	199	45	66	192	397
Knit goods.....	1919	8	236	316	194	620	1,103		1909	6	239	70	84	220	513
	1914	9	280	245	102	365	615	Coffins, burial cases, and undertakers' goods.	1919	6	78	238	67	282	537
	1909	9	334	214	91	326	559		1914	4	58	206	37	137	305
Leather goods. <sup>3</sup> .....	1919	17	169	127	158	699	1,137	Confectionery and ice cream.	1919	23	287	426	183	1,285	2,345
	1914	32	239	228	145	534	913		1914	12	203	326	95	406	644
	1909	22	403	530	211	819	1,396		1909	6	193	115	71	477	694
Leather, tanned, curried, and finished.	1919	3	349	1,072	603	6,212	8,624	Flour-mill and gristmill products.	1919	9	124	1,037	143	4,052	5,464
	1914	3	301	765	203	1,282	1,715		1914	9	107	1,537	78	2,652	3,142
Liquors, malt.....	1919	9	504	3,905	755	1,424	3,763		1909	8	118	1,510	72	3,045	3,781
	1914	19	1,165	6,088	1,020	2,523	9,410	Foundry and machine-shop products. <sup>7</sup>	1919	66	2,764	4,940	3,181	4,011	10,013
	1909	18	646	3,886	495	1,185	4,942		1914	61	1,532	2,831	980	1,086	3,023
Lumber, planing-mill products, not including planing mills connected with sawmills.	1919	32	1,232	5,895	1,754	5,717	9,114		1909	49	1,532	2,107	825	1,134	2,740
	1914	34	1,410	5,503	989	3,357	5,587	Knit goods.....	1919	4	526	290	440	1,270	2,479
	1909	46	1,607	3,499	809	3,414	5,346		1914	4	422	251	148	565	1,064
Marble and stone work...	1919	22	205	1,309	316	434	1,186		1909	4	216	109	74	393	647
	1914	19	202	650	178	203	522	Leather, tanned, curried, and finished.	1919	4	208	963	220	945	1,585
	1909	19	194	560	131	172	413		1914	3	177	920	115	1,031	1,394
Mineral and soda waters..	1919	28	282	803	406	1,059	2,384		1909	3	98	437	56	545	705
	1914	19	166	143	117	240	539	Liquors, malt.....	1919	3	77	936	96	143	490
	1909	13	81	85	45	113	266		1914	3	174	1,328	123	315	1,261
Models and patterns, not including paper patterns	1919	29	693	438	1,484	312	2,703		1909	3	136	725	94	168	912
	1914	15	201	149	180	43	306	Lumber and timber products. <sup>8</sup>	1919	11	438	2,530	466	1,133	2,269
	1909	17	188	95	125	24	238		1914	16	539	2,469	345	1,240	1,925
Photo-engraving.....	1919	12	144	117	271	101	851		1909	20	594	2,604	343	907	1,097
	1914	9	104	61	105	35	282	Printing and publishing. <sup>4</sup>	1919	81	906	1,302	1,145	1,404	4,051
	1909	7	153	116	116	60	351		1914	84	942	1,145	673	888	2,886
Pickles, preserves, and sauces.	1919	12	111	100	112	488	893		1909	68	832	781	489	587	2,067
	1914	13	460	417	198	1,379	1,074	Tobacco, cigars.....	1919	25	678	27	507	793	1,983
	1909	9	408	549	157	855	1,568		1914	32	667	4	261	712	1,293
Printing and publishing. <sup>4</sup>	1919	281	3,806	5,736	5,202	10,138	27,940		1909	36	458	5	188	302	725
	1914	265	3,472	7,098	2,629	4,044	13,168	Wood, turned and carved.	1919	10	116	288	138	99	342
	1909	224	2,519	2,602	1,570	2,044	7,291		1914	10	47	204	31	17	77
Slaughtering and meat packing. <sup>5</sup>	1919	20	1,707	4,678	2,291	49,502	59,341		1909	8	128	246	65	57	184
	1914	13	1,102	3,047	761	18,489	20,321	All other industries.....	1919	258	15,083	26,878	16,977	27,419	63,209
	1909	29	811	3,092	433	11,221	12,850		1914	260	11,373	18,408	6,771	12,795	28,995
Tobacco, cigars and cigar-ettes.	1919	73	3,421	123	2,821	5,557	11,606		1909	235	12,178	18,237	6,392	10,423	24,782
	1914	143	5,352	156	2,105	3,811	8,504	LANSING	1919	147	12,349	23,602	13,957	64,981	104,722
	1909	187	4,354	99	1,586	2,730	6,490	All industries. <sup>6</sup>	1914	180	6,231	12,614	4,373	13,887	26,984
Wirework, not elsewhere specified.	1919	17	790	1,104	994	1,357	2,930		1909	169	5,285	8,720	2,707	8,802	16,567
	1914	10	206	177	108	166	424								
	1909	12	207	175	81	127	357								
All other industries.....	1919	612	42,790	84,683	59,149	118,683	292,417								
	1914	533	25,130	55,648	16,544	44,856	96,292								
	1909	457	29,491	47,578	15,694	46,105	92,287								
<sup>1</sup> Includes "stamped ware, not elsewhere specified" in all years and (414) in 1914.															

<sup>1</sup> Includes "stamped ware, not elsewhere specified," in all years and "tinware, not elsewhere specified," in 1914 and 1909.  
<sup>2</sup> Includes "automobile repairing"; "engines, steam, gas, and water"; "hardware"; "iron and steel, tempering and welding"; "machine tools"; "plumbers' supplies, not elsewhere specified"; "steam fittings and steam and hot-water heating apparatus"; and "structural ironwork, not made in steel works or rolling mills" in all years; and "gas machines and gas and water meters"; and "pumps, steam and other power" in 1914 and 1909.  
<sup>3</sup> Includes "trunks and valises," in all years, and "saddlery and harness" in 1914 and 1909.  
<sup>4</sup> Includes "bookbinding and blank-book making"; "engraving, steel and copper plate, including plate printing"; and "lithography."  
<sup>5</sup> Includes "sausage, not made in slaughtering and meat-packing establishments."  
<sup>6</sup> Comparative statistics by industries for 1914 and 1909 not available.  
<sup>7</sup> Includes "automobile repairing"; "hardware"; "machine tools"; "plumbers' supplies, not elsewhere specified"; "steam fittings and steam and hot-water heating apparatus"; "structural ironwork, not made in steel works or rolling mills"; and "textile machinery and parts" in all years; "gas machines and gas and water meters," in 1919, and "engines, steam, gas, and water," in 1914.  
<sup>8</sup> Includes "lumber, planing-mill products, not including planing mills connected with sawmills," and "window and door screens and weather strips" in all years; and "boxes, wooden packing, except cigar boxes" in 1919.

TABLE 35.—COMPARATIVE SUMMARY FOR SELECTED INDUSTRIES AND FOR CITIES: 1919, 1914, AND 1909—Contd.

INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments	Wage earners (aver- age num- ber).	Primary horse- power.	Wages.	Cost of mate- rials.	Value of prod- ucts.	INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments	Wage earners (aver- age num- ber).	Primary horse- power.	Wages.	Cost of mate- rials.	Value of prod- ucts.
					Expressed in thousands of dollars.								Expressed in thousands of dollars.		
CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES—Continued.															
SAGINAW..... All industries.	1919	208	9,472	31,402	9,963	21,316	43,146	SAGINAW—Contd. Liquors, malt.....	1919	3	70	246	47	80	166
	1914	241	6,842	15,959	3,671	10,656	19,009		1914	5	84	808	71	125	499
	1909	202	5,368	11,867	2,750	7,634	14,192		1909	5	74	170	58	110	393
Bread and other bakery products.	1919	18	240	291	170	914	1,480	Lumber and timber prod- ucts. <sup>2</sup>	1919	14	496	4,692	400	1,676	2,886
	1914	18	149	135	90	378	602		1914	11	652	4,162	367	1,868	2,503
	1909	9	83	76	42	223	328		1909	12	696	2,682	335	1,629	2,404
Confectionery and ice cream.	1919	7	29	107	27	185	310	Patent medicines and compounds.	1919	4	12	21	14	58	113
	1914	7	51	39	21	116	170		1914	4	6	28	5	37	61
Copper, tin, and sheet- iron work.	1919	10	24	18	24	59	118	Printing and publishing <sup>3</sup> .	1919	19	148	327	159	299	872
	1914	14	42	15	29	51	120		1914	22	150	316	120	207	542
	1909	3	44	41	40	76	154		1909	22	164	411	100	127	428
Foundry and machine- shop products. <sup>1</sup>	1919	28	3,356	15,664	3,771	7,019	15,901	All other industries.....	1919	105	5,097	10,036	5,351	11,026	21,300
	1914	18	792	2,082	565	932	2,265		1914	142	4,407	8,374	2,403	6,942	12,247
	1909	23	698	1,674	432	788	1,838		1909	128	3,609	6,813	1,743	4,681	8,647

## CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

<b>ADRIAN</b> .....	1919	62	1,870	3,317	1,714	10,153	14,549	<b>JACKSON</b> .....	1919	156	9,620	18,744	10,899	29,989	49,618
	1914	68	1,256	2,840	998	3,783	5,442		1914	147	4,806	9,740	3,263	9,529	16,810
	1909	80	1,059	3,211	540	4,160	6,085		1909	168	4,788	6,355	2,487	8,156	13,994
<b>ALPENA</b> .....	1919	38	1,372	23,318	1,528	4,887	9,356	<b>KALAMAZOO</b> .....	1919	185	7,629	26,147	8,162	24,236	46,255
	1914	54	1,494	11,537	895	2,398	4,102		1914	213	5,525	19,548	3,284	10,947	20,214
	1909	58	1,432	10,670	711	2,301	3,964		1909	193	6,272	14,449	3,149	9,505	17,904
<b>ANN ARBOR</b> .....	1919	78	1,612	3,629	2,102	5,377	9,794	<b>MARQUETTE</b> .....	1919	34	1,415	6,138	1,593	4,665	7,210
	1914	75	842	2,370	510	1,302	2,603		1914	34	589	2,156	378	678	1,395
	1909	63	573	1,458	287	1,010	1,866		1909	35	509	1,575	313	565	1,278
<b>BATTLE CREEK</b> .....	1919	118	6,680	22,432	8,668	27,989	56,140	<b>MUSKEGON</b> .....	1919	141	9,716	24,026	10,853	25,676	55,969
	1914	135	4,599	17,049	3,191	8,158	23,248		1914	103	4,646	12,409	2,641	5,317	11,143
	1909	105	4,175	14,923	2,354	7,068	20,174		1909	101	4,522	10,436	2,107	4,938	9,648
<b>BAY CITY</b> .....	1919	108	5,057	14,540	5,393	15,262	28,215	<b>OWOSSO</b> .....	1919	40	1,781	4,220	2,221	5,209	9,949
	1914	142	3,771	15,911	2,120	6,403	11,119		1914	45	1,231	4,266	724	1,851	3,469
	1909	182	4,737	17,872	2,118	5,647	10,294	<b>PONTIAC</b> .....	1919	78	7,682	12,841	10,881	66,786	104,090
<b>BENTON HARBOR</b> .....	1919	65	2,328	3,374	2,563	4,632	11,345		1914	46	2,409	3,111	2,010	10,449	15,102
	1914	62	1,285	2,245	723	1,210	3,022		1909	42	1,739	2,854	1,087	3,241	5,894
<b>ESCANABA</b> .....	1919	45	842	2,201	876	1,153	3,018	<b>PORT HURON</b> .....	1919	88	2,231	5,884	2,482	4,981	9,546
	1914	45	777	2,591	469	636	1,507		1914	89	1,296	4,400	735	2,227	4,090
	1909	39	720	1,416	405	364	1,074		1909	82	1,580	3,130	791	1,950	3,588
<b>HOLLAND</b> .....	1919	64	2,748	4,937	2,709	10,225	17,711	<b>SAULT STE. MARIE</b> .....	1919	26	1,248	5,598	1,533	6,760	10,700
	1914	61	2,185	3,696	1,162	5,843	8,684		1914	44	938	2,326	621	2,352	3,821
	1909	61	2,162	3,446	1,069	3,478	5,802		1909	46	825	2,949	432	2,441	3,729
<b>IRONWOOD</b> .....	1919	28	399	725	587	554	1,381	<b>TRAVERSE CITY</b> .....	1919	56	960	3,131	847	2,282	4,100
	1914	24	510	641	305	414	793		1914	60	956	4,553	499	1,087	2,251
	1909	14	201	521	88	201	377		1909	61	1,220	4,231	444	1,183	2,289
<b>ISHPEMING</b> .....	1919	21	107	370	124	483	1,007								
	1914	19	79	280	46	136	229								
	1909	19	66	73	37	52	132								

<sup>1</sup> Includes "automobile repairing"; engines, steam, gas, and water"; "iron and steel, welding"; "machine tools"; and "structural ironwork, not made in steel works or rolling mills."<sup>2</sup> Includes "lumber, planing-mill products, not including planing mills connected with sawmills," in all years; and "window and door screens and weather strips" in 1919.<sup>3</sup> Includes "bookbinding and blank-book making" in 1919 and 1909 and "engraving, steel and copper plate, including plate printing," in 1919.

## MANUFACTURES—MICHIGAN.

TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.		Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.							WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.							Capital.
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			
						Male.	Female.	Average number.	Number, 15th day of—			Male.	Female.	Male.	Female.		
									Maximum month.*	Minimum month.							
1	All industries.....	8,305	549,069	6,762	20,402	31,258	19,405	471,242	No 522,876	Ja 421,493	(*)	(*)	(*)	(*)	(*)	Dollars. 2,340,954,312	
2	Agricultural implements.....	23	3,259	8	138	273	132	2,708	Ap 3,113	Se 2,110	2,727	2,665	61	1	.....	14,405,102	
3	Aluminum manufactures.....	6	328	7	16	6	2	297	Se 363	Ja 201	405	395	10	.....	.....	700,683	
4	Artificial limbs.....	9	23	8	2	1	10	Jy 11	Ja 8	13	12	1	.....	.....	31,041		
5	Artificial stone products.....	191	790	218	51	25	10	480	Se 676	Ja 226	608	607	1	.....	.....	1,693,206	
6	Automobile bodies and parts.....	203	54,905	91	1,696	2,672	1,398	49,048	No 61,438	Ja 36,649	60,175	57,016	3,107	52	.....	186,318,075	
7	Automobiles.....	68	142,976	4	8,084	8,120	4,831	126,937	De 145,241	Ja 99,563	145,578	140,810	4,590	178	.....	800,195,593	
8	Automobile repairing.....	259	1,454	322	48	50	66	968	Au 1,064	Ja 774	1,047	1,032	11	4	.....	2,904,686	
9	Awnings, tents, and sails.....	22	289	20	25	33	21	190	Jy 248	Fe 135	180	99	81	.....	.....	626,659	
10	Bags, other than paper, not including bags made in textile mills.	5	25	5	3	.....	2	15	Ja 25	Je 9	12	2	10	.....	.....	127,632	
11	Baskets, and rattan and willow ware.	9	326	9	10	8	3	296	My 341	Ja 103	327	232	95	.....	.....	335,133	
12	Belting, leather.....	3	141	3	9	7	9	113	Au 135	Je 98	133	116	17	.....	.....	1,088,702	
13	Bookbinding and blank-book making.	24	687	19	43	81	62	482	De 556	Je 445	557	268	270	8	2	1,422,432	
14	Boot and shoe findings.....	3	15	6	1	.....	8	.....	Oc 13	Ap 3	13	10	3	.....	.....	41,009	
15	Boots and shoes.....	15	1,314	6	60	78	50	1,120	De 1,192	Ja 1,061	1,193	663	503	18	9	2,871,813	
16	Boxes, cigar.....	9	326	4	13	3	5	301	De 328	Ja 262	327	78	246	3	.....	239,910	
17	Boxes, paper and other, not elsewhere specified.	22	2,521	10	90	41	44	2,336	.....	.....	2,448	752	1,668	8	20	6,511,322	
18	Shipping containers.....	9	1,876	.....	60	30	31	1,755	No 1,811	Ja 1,700	1,793	610	1,177	1	5	5,761,743	
19	All other.....	13	645	10	30	11	13	581	No 704	Je 500	655	142	491	7	15	749,579	
20	Boxes, wooden packing, except cigar boxes.	46	1,650	44	78	20	27	1,481	Au 1,670	Mh 1,285	1,741	1,540	180	21	.....	3,727,416	
21	Brass, bronze, and copper products.....	80	11,630	36	392	582	314	10,306	.....	.....	11,307	10,402	900	5	.....	40,284,256	
22	Brass and bronze products.....	74	9,844	36	371	545	289	8,603	Oc 10,459	Mh 7,353	9,580	8,737	838	5	.....	30,709,734	
23	Copper and other products.....	6	1,786	.....	21	37	25	1,703	No 2,010	Jy 1,268	1,727	1,665	62	.....	.....	9,574,522	
24	Bread and other bakery products.....	944	7,714	1,112	222	827	465	5,088	.....	.....	5,504	4,088	1,364	32	20	17,064,978	
25	Biscuit and crackers.....	6	1,084	5	21	154	43	861	No 962	Fe 764	926	396	531	.....	.....	2,492,564	
26	Bakery products, other than biscuit and crackers.	938	6,630	1,107	201	673	422	4,227	De 4,436	Fe 3,934	4,678	3,693	833	32	20	14,572,414	
27	Brick and tile, terra-cotta, and fire-clay products.	48	972	43	48	14	15	852	.....	.....	973	963	1	9	.....	4,359,383	
28	Building brick.....	22	652	17	31	9	12	583	Ja 749	Ja 320	674	674	.....	.....	.....	3,093,637	
29	Sewer pipe, drain tile, and terra-cotta products.	26	320	26	17	5	3	269	Au 338	Ja 178	299	289	1	9	.....	1,265,746	
30	Brooms, from broom corn.....	21	120	25	3	5	3	84	De 98	Ap 72	91	62	29	.....	.....	239,439	
31	Brushes.....	10	212	14	4	11	7	176	Ja 193	Se 162	171	91	80	.....	.....	618,575	
32	Butter.....	231	1,509	135	144	114	132	984	Jy 1,161	Fe 826	954	815	138	1	.....	9,147,141	
33	Canning and preserving, fruits and vegetables.	52	2,366	32	149	34	42	2,109	.....	.....	3,462	1,892	1,870	02	129	6,010,871	
34	Canned vegetables.....	25	1,187	9	84	14	19	1,061	Jy 2,440	Mh 250	1,379	801	553	2	23	3,037,862	
35	Canned and dried fruits.....	27	1,179	23	65	20	23	1,048	Jy 2,579	Fe 143	2,083	591	1,326	60	106	2,973,009	
36	Carpets, rag.....	10	36	13	.....	1	1	21	Je 27	Ja 14	24	16	5	2	1	24,437	
37	Carriage and wagon materials.....	7	149	4	6	4	135	.....	De 160	Jy 106	160	159	1	.....	.....	474,879	
38	Carriages and sleds, children's.....	10	981	3	49	74	56	799	De 972	Ja 657	972	795	177	.....	.....	2,636,992	
39	Carriages and wagons, including repairs.	39	303	47	12	5	7	232	.....	.....	211	208	3	.....	.....	914,069	
40	Carriages and wagons.....	27	250	32	12	4	7	195	Ja 228	My 176	179	176	3	.....	.....	820,752	
41	Repair work only.....	12	53	15	.....	1	.....	37	Se 38	No 35	32	32	.....	.....	.....	93,317	
42	Cars and general shop construction and repairs by electric-railroad companies.	15	1,513	.....	18	84	10	1,401	My 1,433	Je 1,318	1,381	1,377	2	2	.....	3,139,419	
43	Cars and general shop construction and repairs by steam-railroad companies.	36	7,579	.....	297	170	87	7,025	De 7,268	Ap 6,910	7,280	7,214	65	1	.....	14,479,362	
44	Cement.....	11	1,506	1	78	81	19	1,387	Se 1,047	Ja 958	1,294	1,277	17	.....	.....	10,540,992	
45	Cheese.....	55	212	31	13	12	10	146	No 153	Ja 125	161	146	15	.....	.....	760,562	
46	Chemicals.....	36	0,721	14	314	492	189	5,712	Ja 7,494	My 4,980	5,999	5,938	53	8	.....	62,841,234	
47	Cleansing and polishing preparations.	20	463	15	23	197	90	138	.....	.....	162	136	26	.....	.....	1,604,052	
48	Cleansing preparations.....	12	435	10	16	196	88	126	Se 141	Mh 99	144	128	16	.....	.....	1,565,317	
49	Metal and other polishing preparations.	8	28	5	7	2	2	12	De 17	Ja 10	18	8	10	.....	.....	38,785	
50	Clothing, men's.....	31	2,041	24	51	112	104	1,750	.....	.....	2,068	300	1,763	2	3	6,125,030	
51	Regular factory products.....	23	1,987	13	51	112	104	1,707	.....	.....	2,021	292	1,729	.....	.....	6,105,205	
52	Men's and youths'.....	6	710	3	17	58	28	613	De 735	Mh 545	735	552	.....	.....	.....	2,660,318	
53	All other.....	17	1,268	10	34	54	76	1,064	De 1,276	My 972	1,289	189	1,147	.....	.....	3,438,887	
54	Contract work.....	8	54	11	.....	.....	43	.....	Mh 48	Ja 38	47	8	34	2	3	19,825	
55	Clothing, women's.....	33	1,188	20	69	32	31	1,036	.....	.....	1,230	102	1,128	.....	.....	1,810,718	
56	Regular factory products.....	30	1,128	19	65	32	30	982	.....	.....	1,146	97	1,049	.....	.....	1,789,158	
57	Shirt waists and dresses, except house dresses.	9	641	1	39	15	13	573	Se 627	Je 518	653	56	597	.....	.....	832,002	
58	Wrappers and house dresses.	4	78	.....	9	9	1	59	Jy 67	Ja 53	72	4	68	.....	.....	103,790	
59	All other.....	17	409	18	17	8	16	350	No 426	Ja 273	421	37	384	.....	.....	853,866	
60	Contract work.....	3	60	1	4	.....	1	54	Au 95	Fe 4	84	5	79	.....	.....	21,660	
61	Coal-tar products.....	4	131	.....	9	7	2	113	Je 138	Oc 85	134	133	1	.....	.....	1,296,864	
62	Coffee, roasting and grinding.....	19	173	21	12	17	24	99	Jy 110	De 93	102	39	63	.....	.....	969,175	
63	Coffins, burial cases, and undertakers' goods.	24	538	17	32	48	25	416	Fe 449	Jy 384	426	333	92	1	.....	1,519,185	
64	Condensed milk.....	32	1,270	3	81	56	66	1,064	Je 1,143	Ja 972	1,035	914	110	2	.....	11,224,584	
65	Confectionery and ice cream.....	184	2,308	239	113	117	93	1,746	.....	.....	2,091	903	1,183	3	2	5,725,391	
66	Confectionery.....	92	1,599	114	69	92	40	1,284	No 1,687	Ja 1,013	1,612	485	1,125	.....	.....	3,372,272	
67	Ice cream.....	92	709	125	44	25	53	462	Jy 634	Ja 341	479	418	58	3	.....	2,355,119	

\* Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).

\* Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

## COMBINED AND SPECIFIED INDUSTRIES: 1919.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.					
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric power generated in establishments reporting.
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials. <sup>#</sup>	Fuel and rent of power.			Total.	Owned.				
									Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power. <sup>1</sup>	Rent. <sup>2</sup>		

## THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
79,454,081	69,580,917	639,708,093	8,232,883	5,291,962	164,878,414	1,852,900,090	66,337,153	3,466,188,483	1,546,945,240	1,202,128	440,130	152,781	19,695	40,346	549,176	277,514	1
404,968	504,629	3,003,362	427	2,061	442,721	4,837,772	210,196	11,090,669	6,042,701	6,197	2,993	50	3,154	332	2	3	2
47,828	10,044	276,850	4,760	3,067	10,428	915,064	38,849	1,377,584	423,671	383	30	16	363	16	4	5	3
4,940	4,160	12,895	519,854	4,760	129	11,670	755	63,149	50,724	16	115	216	503	503	6	6	4
88,349	37,420	611,561	20,110	20,729	950,856	29,569	2,434,213	1,453,788	137,744,416	834	1,470	8,421	18	78,597	4,634	7	5
6,640,391	5,150,127	75,221,256	388,957	285,253	9,084,787	147,613,334	2,949,108	288,306,858	522,871,509	103,425	14,919	22,620	146	100,229	79,625	8	6
21,406,794	17,128,611	107,708,186	100	642,476	83,140,040	801,202,501	8,002,488	1,332,076,498	2,363,750	180,702	2,363,750	1,362	2	1,178	1,177	9	5
98,485	114,589	1,288,441	15,982	27,963	48,883	913,430	82,461	4,226,691	725,151	117	2	182	59	59	10	10	8
88,388	66,684	213,004	1,883	496	280,606	6,376	307,434	307,434	26,092	59							9
5,625	2,230	10,080															10
14,050	15,067	215,063	2,359	16,475	194,314	4,129	538,969	340,526	263	225	194	4	34	34	11	11	12
40,585	22,321	127,198	799	56,775	1,015,535	17,909	1,595,982	502,538	585	330			255	255	12	12	13
138,076	222,144	405,144	693	20,805	140,367	531,725	11,823	2,091,826	1,548,278	174			174	174	13	13	
1,500	8,801	8,801	168	288	22,232	1,750	40,455	16,473	22				22	22	14	14	
155,988	280,588	920,703	19,435	70,978	4,153,194	30,787	6,046,310	1,862,329	660	132			528	70	15	15	
36,807	8,487	213,624	4,477	7,234	250,412	6,823	600,088	342,853	219				119	119	16	16	
319,460	123,110	2,161,400	3,025	23,987	653,118	4,976,235	309,810	10,934,722	5,648,677	5,228	3,900	35	1,291	8	17	17	
229,598	101,610	1,782,649	5,015	617,807	4,435,006	296,881	9,632,246	4,899,459	5,005	3,900			1,105	1,105	18	18	
89,862	21,500	378,751	3,025	18,972	35,311	640,329	12,929	749,218	221				180	8	19	19	
197,020	54,356	1,331,974	7,512	21,702	65,855	2,695,658	50,134	4,977,500	2,231,468	6,772	4,871	85	1,804	360	20	20	
1,814,967	1,405,332	14,578,780	16,608	72,722	1,075,233	37,357,127	1,491,851	62,708,335	23,859,357	27,912	7,880	1,000	230	18,802	671	21	
1,631,567	1,319,603	12,323,394	16,974	68,162	880,063	28,210,616	1,117,013	48,393,780	19,066,251	14,909	2,680	230	11,939	671	22	22	
183,990	85,729	2,255,386	634	4,560	195,170	9,146,611	374,838	14,314,555	4,793,106	13,003	5,200	1,000	6,803	184	23	23	
712,522	1,930,301	5,895,407	22,868	389,282	392,870	27,202,941	852,848	44,923,454	16,807,665	6,330	395	163	5,781	184	24	24	
50,810	412,877	506,877	15,030	42,164	2,031,262	42,164	102,102	3,841,637	1,768,153	393	305		88	150	25	25	
661,912	1,517,424	5,388,530	22,868	374,262	350,706	25,231,649	810,056	41,081,817	15,039,512	5,946	90	163	5,693	34	26	26	
159,029	36,256	1,180,743	9,010	3,619	87,031	189,406	628,508	3,339,381	2,521,467	6,047	5,884	90	78	7	27	27	
138,320	27,965	879,594	9,010	3,599	52,304	122,172	446,107	2,530,064	1,961,605	3,887	3,838	16	33	7	28	28	
22,709	8,291	301,149	20	34,727	67,234	182,311	809,317	559,772	2,160	2,046	74		40		29	29	
6,437	10,267	74,864	2,580	2,927	290,248	2,675	487,873	188,950	89			0	83		30	30	
14,400	25,347	156,507	269	3,146	331,984	8,174	668,828	328,670	171				171		31	31	
287,013	276,978	1,173,610	19,667	31,978	143,126	29,346,329	234,503	33,385,420	3,804,528	4,943	1,883	192	2,701	60	32	32	
302,658	95,678	1,135,224	2,576	8,575	97,460	121,541	121,541	11,172,169	3,201,227	4,185	3,451	38	696	183	33	33	
134,865	54,102	498,014	2,576	629	51,434	3,192,569	62,902	4,889,666	1,634,195	2,406	2,032	5	369	145	34	34	
167,793	41,576	637,210	7,046	46,026	4,656,832	58,639	6,282,603	1,567,032	1,779	1,419	33		327	38	35	35	
23,113	1,390	19,315	126	2,675	9,531	1,782	59,219	47,906	53				53		36	36	
101,035	4,516	136,893	48	10,036	268,344	9,709	505,937	227,884	569	350	10	25	184		37	37	
23,291	77,406	736,711	300	153,824	1,865,263	31,410	3,410,374	2,013,374	609	250			359	41	38	38	
23,291	11,992	252,379	1,515	5,406	21,945	419,839	15,991	1,016,954	581,124	565	125	2	413		39	39	
23,291	11,042	206,042	1,515	3,990	20,306	383,374	14,136	902,545	505,035	502	125		367		40	40	
35,956	960	45,437	1,416	1,679	30,465	1,855	10,409	76,089	63		15	2	46		41	41	
763,239	309,385	9,862,344	905	66,485	5,751,556	477,086	17,223,189	10,994,547	11,079	3,250	260	33	7,536	955	43	43	
203,492	155,121	1,738,993	814	38,537	204,450	2,094,766	1,867,821	9,643,454	5,680,867	35,470	15,105	15,600	305	2,460	19,398	44	
21,946	32,043	171,563	200	3,227	6,256	3,161,993	50,288	3,663,131	444,860	668	530	21	82	5	45	45	
1,121,081	957,786	8,949,577	1,940	20,950	2,599,240	9,292,641	6,451,534	37,850,834	22,106,759	74,949	22,710	37,237	22	14,874	20,541	46	
163,948	455,207	181,667	5,198	127,130	1,789,023	11,481	3,598,761	1,707,647	312	150			154	120	47	47	
152,785	452,274	171,630	1,755	126,676	1,745,784	10,370	3,445,039	1,680,285	302	150			144	120	48	48	
11,163	2,933	10,037	3,440	455	43,839	611	152,812	108,962	10				10		49	49	
318,376	522,938	1,379,564	24,100	38,537	132,451	5,608,057	38,102	9,180,112	3,642,953	1,034	750		284	370	50	50	
318,376	522,938	1,338,102	23,340	36,058	131,802	5,507,592	30,738	9,054,507	3,610,267	1,022	750		272	370	51	51	
136,797	175,339	499,951	8,475	12,533	1,699,099	11,689	2,870,989	1,189,380	491	375			116	5	52	52	
181,579	347,599	844,151	27,583	59,329	3,837,503	25,149	6,183,680	2,820,887	631	375			156	365	53	53	
220,862	110,001	750,422	760	2,479	689	1,364	134,005	132,686	12				12		54	54	
214,282	109,281	717,040	1,528	32,259	60,939	2,255,644	17,359	3,923,300	1,650,297	262	15		247		55	55	
121,306	65,714	431,215	412	12,221	46,751	922,076	6,183	1,801,695	933,436	118			118		56	56	
22,906	16,385	30,956	10	3,612	1,811	121,104	1,096	233,348	111,148	22			22		58	58	
70,046	27,181	254,589	300	13,576	12,904	1,210,764	9,404	1,770,337	550,169	109	15		94		59	59	
6,580	720	33,382	806	2,850	73	1,700	676	57,920	55,544	13			13		60	60	
25,011	11,994	163,801	46,748	10,682	406,470	53,272	817,053	357,311	521	312			209	220	61	61	
43,560	42,636	73,968	21,050	7,139	2,117,703	15,730	2,514,184	380,751	461				461		62	62	
186,568	164,921	379,320	999	8,610	87,671	1,319,676	20,519	2,522,213	1,182,118	1,087	134		426	527	63	63	
259,256	167,739	1,138,158	148	4,472	204,068	22,673,459	433,699	27,738,047	4,630,879	3,525	2,987		518	968	64	64	
323,849	373,206	1,462,128	1,285	200,787	549,910	7,015,984	152,412	12,635,051	5,458,105	3,738	500		3,209	257	65	65	
222,706	288,447	866,558	150	172,141	490,851	3,810,7											

<sup>1</sup> No figures given for reasons stated under "Explanations of terms."<sup>2</sup> Same number reported for one or more other months.

## MANUFACTURES—MICHIGAN.

TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.		Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.										WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.						Capital.
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.				Total.	16 and over.		Under 16.				
						Male.	Female.	Average number.	Number, 15th day of—		Male.		Female.	Male.	Female.				
									Maximum month.	Minimum month.									
1	Cooperage.....	35	122	26	8	3	2	83	Oc	120	Mh	61	112	112	.....	.....	Dollars.		
2	Copper, tin, and sheet-iron work.....	115	963	117	83	34	35	694	Oc	801	Fe	577	785	780	5	.....	298,480		
3	Corsets.....	12	1,848	4	75	92	148	1,529	De	1,744	Je	1,402	1,744	196	1,540	2	2,030,440		
4	Cutlery and edge tools.....	5	112	2	11	6	2	91	No	100	Fe	84	99	91	6	2	4,223,201		
5	Dairymen's, poultrymen's, and apiarists' supplies.....	13	162	9	13	6	9	125	Se	145	De	97	122	109	13	.....	187,970		
6	Dental goods.....	8	112	4	9	8	6	85	Jy	95	Ja	71	90	56	34	.....	533,487		
7	Druggists' preparations.....	16	3,991	7	112	328	327	3,219	No	3,317	Ap	3,145	3,309	1,459	1,850	.....	190,589		
8	Electrical machinery, apparatus, and supplies.....	54	5,105	19	230	377	349	4,190	Ap	4,908	Ap	3,775	4,657	2,376	1,776	2	26,343,212		
9	Electroplating.....	21	228	20	22	4	5	177	No	214	Fe	127	201	194	7	.....	15,967,288		
10	Enameling.....	6	71	8	5	1	1	56	No	82	Ja	23	66	62	2	1	216,936		
11	Engines, steam, gas, and water.....	35	16,050	4	492	777	519	14,258	Ja	16,691	Ap	10,460	16,328	15,736	587	5	77,438		
12	Engraving, steel and copper plate, including plate printing.....	10	93	16	2	4	4	67	De	85	Ja	61	78	56	21	1	62,500,889		
13	Envelopes.....	4	131	11	8	7	105	De	121	Jy	96	121	36	84	.....	1	76,018		
14	Fancy articles, not elsewhere specified.....	8	156	5	12	14	8	117	No	136	Mh	86	137	39	95	1	369,032		
15	Files.....	5	59	2	5	2	50	De	56	Ja	45	56	53	3	.....	2	230,459		
16	Flags and banners.....	4	45	2	5	1	2	35	No	50	Oc	24	39	8	91	.....	125,611		
17	Flavoring extracts.....	11	76	6	19	22	4	25	De	28	Ja	20	28	12	15	.....	52,952		
18	Flax and hemp, dressed.....	4	44	3	3	1	40	De	53	Jy	27	53	53	.....	.....	.....	170,247		
19	Flour-mill and gristmill products.....	345	1,947	400	166	145	108	1,123	Ja	1,286	Je	1,022	1,224	1,125	99	.....	147,515		
20	Food preparations, not elsewhere specified.....	37	3,312	20	113	480	216	2,483	.....	.....	.....	.....	2,524	1,780	744	.....	18,090,143		
21	Breadstuff preparations, cereals and breakfast foods.....	5	2,697	78	462	194	2,263	Au	3,124	Ja	1,605	2,102	1,440	662	.....	.....	18,823,565		
22	Macaroni, vermicelli, and noodles.....	6	97	3	8	3	2	81	De	99	Je	51	99	78	21	.....	16,654,918		
23	Peanut butter.....	3	29	2	2	2	3	20	Fe	24	Ja	16	19	9	10	.....	743,584		
24	All other.....	23	189	15	25	13	17	119	Oc	284	Ja	71	304	253	51	.....	230,459		
25	Foundry and machine-shop products.....	523	45,532	282	2,126	2,123	1,571	39,430	De	890	Mh	678	45,584	42,925	2,590	65	1,293,807		
26	Boiler shops.....	24	943	20	51	50	34	788	De	890	Mh	678	882	881	1	.....	133,114,339		
27	Foundries.....	101	15,653	49	540	442	236	14,386	No	17,307	Ja	11,453	17,559	16,592	945	21	3,475,800		
28	Machine shops.....	363	25,393	199	1,380	1,460	1,210	21,144	No	23,479	Ap	20,148	23,445	21,790	1,616	30	43,557,610		
29	Machine shop and foundry combined.....	35	3,543	14	155	171	91	3,112	No	3,764	Ap	2,607	3,698	3,662	28	8	77,486,057		
30	Fur goods.....	31	582	30	24	51	51	426	De	502	Ap	394	480	175	305	.....	8,594,872		
31	Furnishing goods, men's, neckwear.....	3	42	3	2	5	4	28	Au	32	De	25	27	5	22	.....	2,224,006		
32	Furniture.....	171	20,705	68	791	795	615	18,496	De	18,823	Ja	14,017	21,347	18,325	2,828	141	77,064		
33	Wood, including rattan and willow.....	140	17,943	54	680	504	410	16,295	De	18,823	Ja	14,017	18,810	16,964	2,657	130	53,725,259		
34	Metal furniture and store and office fixtures.....	31	2,822	14	111	291	205	2,201	De	2,542	Ja	1,891	2,537	2,361	171	5	46,892,200		
35	Furs, dressed.....	4	37	1	1	2	28	Fe	32	Au	20	27	12	15	.....	.....	7,832,000		
36	Gas and electric fixtures.....	13	184	6	26	22	12	118	De	142	Ja	92	145	126	18	1	46,725		
37	Gas, illuminating and heating.....	59	4,044	2	208	362	626	2,846	De	3,275	Fe	2,387	3,286	3,282	4	.....	433,142		
38	Glass, cutting, staining, and ornamenting.....	14	139	10	16	1	8	104	No	130	Ja	80	129	126	8	.....	60,125,709		
39	Gloves and mittens, cloth, not including gloves made in textile mills.....	9	155	9	9	3	2	132	Au	149	Ap	113	148	11	137	.....	2,180,742		
40	Grease and tallow, not including lubricating greases.....	14	179	9	14	4	8	144	Au	150	Ap	135	148	147	1	.....	229,826		
41	Hand stamps.....	11	49	13	6	8	7	20	Au	21	De	15	21	18	2	1	1,364,848		
42	Hardware.....	30	2,473	12	92	104	91	2,174	Au	21	De	15	2,562	1,952	591	18	40,673		
43	Locks and builders' hardware.....	9	499	2	22	17	17	441	Oc	550	Ja	384	550	373	177	.....	5,621,907		
44	Vehicle hardware.....	7	1,087	45	52	41	949	De	1,107	Ja	764	1,063	923	135	.....	.....	1,047,041		
45	All other.....	14	887	10	25	35	33	734	De	990	Mh	628	949	651	279	18	2,623,276		
46	House-furnishing goods, not elsewhere specified.....	10	478	7	19	32	19	401	De	473	Ja	222	949	651	279	18	2,045,990		
47	Ice, manufactured.....	18	868	14	66	12	34	742	Jy	1,084	Ja	460	769	748	21	.....	1,673,948		
48	Iron and steel, blast furnaces.....	11	1,203	39	45	18	1,101	Ja	1,173	No	1,033	1,139	1,137	2	.....	.....	5,105,412		
49	Iron and steel, steel works and rolling mills.....	7	1,675	68	118	34	1,455	No	1,675	My	1,110	1,454	1,450	4	.....	.....	15,820,266		
50	Iron and steel, bolts, nuts, washers, and rivets, not made in rolling mills.....	6	476	1	16	23	13	423	Se	468	No	387	395	359	35	1	10,081,631		
51	Iron and steel forgings, not made in steel works or rolling mills.....	15	1,806	74	97	39	1,596	Oc	1,919	Ja	1,046	1,778	1,696	82	.....	.....	1,620,926		
52	Iron and steel, tempering and welding.....	26	177	25	24	6	3	119	No	143	Ap	102	122	122	.....	.....	6,970,591		
53	Jewelry.....	22	195	24	17	8	25	121	De	144	Ja	104	143	121	22	.....	304,087		
54	Knit goods.....	31	3,437	8	89	98	72	3,170	De	3,416	Je	2,971	3,542	835	2,638	17	502,325		
55	Labels and tags.....	7	115	1	17	6	10	81	No	89	Mh	75	89	48	38	.....	9,122,918		
56	Lamps and reflectors.....	8	1,034	1	67	22	20	924	Se	1,168	Ja	731	811	590	221	.....	215,394		
57	Leather goods, not elsewhere specified.....	14	295	11	24	8	9	173	Ap	192	Ja	145	187	117	70	.....	2,730,728		
58	Leather, tanned, curried, and finished.....	28	3,748	1	158	81	44	3,464	Au	3,622	Ja	3,302	3,528	3,356	172	.....	723,731		
59	Lime.....	6	241	2	7	6	4	222	Au	263	Mh	162	227	227	.....	.....	32,889,376		
60	Liquors, malt.....	25	1,011	7	104	97	24	779	Jy	1,087	Ja	547	692	688	4	.....	601,900		
61	Lithography.....	10	550	4	43	49	16	438	De	504	Ja	361	504	384	120	.....	7,224,012		
62	Looking-glass and picture frames.....	8	62	4	7	.....	5	46	Fe	50	Oc	42	43	35	8	.....	1,812,267		
63	Lumber and timber products.....	380	16,139	410	363	317	128	14,923	Fe	16,575	Je	13,649	18,170	17,927	221	22	71,409		
64	Lumber, planing-mill products, not including planing mills connected with sawmills.....	192	6,434	153	380	372	273	5,256	De	5,963	Ja	4,251	5,833	5,454	332	47	49,093,440		
65	Machine tools.....	31	3,685	5	137	212	135	3,196	No	3,436	Je	3,030	3,385	3,177	202	6	24,835,940		
Includes water wheels and turbines (irrespective of capacity).....									No	3,436	Je	3,030	3,385	3,177	202	6	14,438,803		

<sup>1</sup> Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).  
<sup>2</sup> Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

## MANUFACTURES—MICHIGAN.

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## COMBINED AND SPECIFIED INDUSTRIES: 1919—Continued.

EXPENSES.										POWER.						
Salaries and wages.			For contract work.	Rent and taxes.		For materials.		Value of products.	Value added by manufacture.	Primary horsepower.					Electric horsepower generated in establishments reporting.	
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.	Owned.	Owned.	Owned.		
											Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power.	Rent.	

## THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
11,913	5,095	97,207	3,475	1,728	4,597	453,584	2,363	654,342	193,395	139	55	24		60		1	
183,378	90,272	956,254	8,800	47,495	63,755	1,701,678	20,029	3,790,651	2,068,944	471				445		2	
268,011	453,374	1,030,652		15,891	141,137	2,890,566	22,154	7,297,824	4,385,104	724	416	26		274	150	3	
21,879	7,307	70,415		2,852	1,712	41,825	5,797	179,373	131,751	151	65			86		4	
30,598	15,689	118,130		2,892	3,573	274,369	11,224	635,464	349,871	120		19		101		5	
34,736	18,181	98,348	3,220	6,646	13,312	94,629	2,315	319,089	222,145	54				54		6	
549,113	1,180,893	2,830,077		14,441	2,207,430	9,880,817	115,376	23,903,856	13,907,063	1,471	540	500		431	50	7	
1,062,059	949,048	4,685,479	7,555	106,420	1,697,016	8,812,180	222,896	25,025,528	15,990,472	5,659	265		37	5,357	85	8	
42,617	9,243	242,724		10,649	2,192	77,797	24,087	535,020	433,736	619				578	10	9	
15,850	1,146	84,636		4,930	1,088	53,129	24,806	211,039	133,704	53			41	53	3	10	
1,870,965	2,030,218	21,862,743	500	43,014	5,103,583	56,214,185	836,508	101,989,440	44,938,747	30,488	3,350	50	79	27,009	8,026	11	
3,000	6,088	81,748	300	7,570	187	38,572	1,207	201,395	161,616	27				27		12	
22,221	15,849	96,594	2,720	5,135	11,048	213,775	3,673	455,305	237,857	116				116		13	
26,150	14,959	71,012	887	6,892	4,407	185,973	2,914	399,221	210,334	27				27		14	
11,812	1,900	74,557		475	2,455	46,207	9,312	177,128	121,609	370	40		40	290		15	
10,592	8,120	23,285	225	4,575	1,861	52,647	1,385	103,137	49,105	20				20		16	
30,777	33,289	21,696		2,490	2,422	199,254	1,465	350,330	149,611	37			15	22		17	
8,151	1,402	31,903			970	135,213	1,304	184,208	47,691	48				48		18	
399,982	286,556	1,260,772	10,144	43,809	251,841	37,776,280	408,815	44,144,434	5,959,339	29,028	9,560	845	2,044	9,767	7,712	2,210	19
722,166	772,309	3,107,093	3,034	57,609	1,830,598	18,095,732	717,334	35,701,760	16,888,694	12,157	2,930	500	12	8,715	4,900	20	
638,635	734,522	2,917,006		49,089	1,786,669	10,490,817	651,830	33,168,108	16,015,461	10,761	2,650	500		7,611	4,800	21	
14,860	6,069	80,524		780	13,230	390,247	18,347	574,382	165,788	398	150			248	100	22	
4,900	3,853	14,549		1,130	6,472	334,275	2,875	390,983	43,833	125				125		23	
63,711	27,805	95,014	3,034	6,610	27,227	880,393	44,282	1,585,287	663,612	873	130		12	731		24	
7,343,593	4,688,654	52,415,677	1,209,839	396,745	6,810,639	64,642,116	4,158,028	169,432,545	100,662,401	84,776	10,307	1,507	625	1,509	70,828	11,167	25
213,738	153,929	1,167,693	35,556	10,049	419,281	2,037,905	87,094	5,277,320	3,152,261	2,100	1,265			43	586	26	
1,883,297	811,261	19,597,140	1,040,783	50,418	1,771,011	21,497,154	2,102,822	56,322,684	32,722,708	36,891	2,630	32	42	37	34,130	1,176	27
4,689,085	3,352,030	27,647,338	108,200	267,732	4,126,636	38,070,473	1,761,067	95,290,968	57,456,428	39,577	4,646	1,475	540	1,452	31,484	7,654	28
577,463	371,374	4,003,506	25,300	68,540	493,611	5,027,624	207,045	12,565,575	7,331,006	6,208	1,768			4,442	1,751	29	
75,390	175,983	411,618	1,838	38,895	52,099	1,272,808	9,034	2,443,527	1,161,885	117				117		30	
7,000	9,277	22,290		2,815	627	110,104	255	201,085	90,728	6				6		31	
3,021,947	2,943,621	19,659,909	305,800	89,615	2,056,189	27,627,005	783,207	69,497,237	41,187,025	28,947	19,809	1,694	30	445	6,069	4,564	32
2,573,744	1,903,757	17,148,788	290,064	84,370	1,818,322	22,616,109	676,420	58,509,672	35,077,143	25,133	17,629	1,679	18	295	5,512	3,644	33
448,203	1,040,164	2,511,121	9,826	5,245	237,867	4,710,896	106,787	10,927,565	6,109,882	3,814	2,180	15	12	150	1,457	920	34
15,060	1,892	33,286		2,040	534	75,038	2,552	152,654	75,064	113	80			33		35	
70,445	40,165	179,046		25,850	10,004	812,426	5,385	1,417,303	599,491	75			8	67		36	
503,947	1,139,831	3,965,259	6,510	1,520	1,247,040	2,614,834	5,759,498	17,993,314	9,722,982	13,593	10,484	1,032	1,272	805	3,149	37	
39,945	11,085	157,883	672	9,790	4,851	324,200	5,751	619,497	289,546	137	35			102		38	
22,883	4,241	68,804		6,073	4,312	397,569	1,934	532,652	133,149	107	21			86		39	
37,935	12,960	244,047	244	115	20,488	819,416	80,947	1,410,631	510,268	583	137			446		40	
9,300	10,203	21,046		5,087	407	52,893	1,647	151,038	96,498	25				25		41	
834,090	258,304	2,497,723	11,106	53,451	204,192	3,101,526	90,456	8,780,825	5,668,843	2,671	755		40	1,876	113	42	
76,073	50,607	505,611	11,106	22,180	17,800	687,039	15,899	1,748,739	1,045,801	319	75			244		43	
167,530	99,768	1,224,411		28,652	124,453	1,612,501	47,145	4,206,711	2,647,065	1,419	150		40	1,229		44	
90,457	108,029	767,801		2,619	61,939	801,986	27,412	2,805,375	1,875,977	933	530			403	113	45	
126,964	133,432	347,894		7,069	64,789	780,797	21,137	1,654,741	1,162,807	1,608	1,010		75	523	200	46	
163,121	80,101	1,186,323			81,299	452,670	264,766	2,821,688	2,104,252	8,137	1,328			6,809	3	47	
123,442	80,927	1,719,380			595,618	4,904,859	5,993,652	13,533,739	3,235,318	6,367	4,805	1,125		437	2,403	48	
311,943	268,358	2,471,088		12,000	641,642	2,393,307	508,496	8,444,643	5,442,840	9,142	2,710			0,432	405	49	
91,592	69,922	544,432	32,554	3,892	51,369	865,167	78,595	1,941,884	998,122	970				970		50	
282,425	178,109	2,386,888		10,300	266,535	4,474,800	386,911	8,559,190	3,697,479	6,757	2,420	150		4,187	900	51	
77,915	15,246	184,256	242	17,588	11,049	123,218	42,903	616,279	450,068	371			76	295	70	52	
54,207	58,859	159,954	4,010	18,221	3,000	422,250	1,495	961,685	537,940	76				76		53	
324,155	324,895	2,114,308	226,850	108,524	653,361	6,655,330	135,056	12,039,377	5,248,991	3,073	1,460		15	1,598	807	54	
33,043	14,380	79,868	1,668	6,225	7,199	13,892	3,665	328,712	193,155	78				78		55	
210,981	60,760	1,940,320		6,576	52,142	2,035,882	56,484	5,563,932	3,471,566	1,772				1,772		56	
89,595	22,428	133,679		11,380	14,694	824,188	5,479	1,258,893	429,228	132				90		57	
626,998	302,105	4,162,546		1,270	1,916,156	31,685,075	766,723	45,800,786	13,348,988	12,243	8,278	520	1,110	2,335	6,549	58	
23,150	10,286	183,272		200	11,044	148,596	142,424	626,750	334,730	1,195	1,000		118	77	350	59	
348,821	179,353	1,052,491		26,100	708,979	1,777,026	249,956	5,276,052	3,249,067	6,658	3,279			3,379	266	60	
138,474	117,924	467,455	38,344	14,705	57,172	766,042	18,817	1,029,149	1,144,290	687	517		25	145	25	61	
17,640	4,436	48,167		17,750	961	50,025	1,333	189,123	137,765	17				17		62	
1,037,905	589,560	2,332,752		19,888	1,432,799	15,471,880	211,676	46,043,855	30,350,299	79,449	70,028	4,245	859	2,010	2,307	6,499	63
1,334,351	782,287	5,821,510	141,616	54,293	719,063	23,643,702	365,706	37,869,320	13,859,822	27,070	14,968	1,752	237	10,113	2,802	64	
663,481	547,780	4,408,088	25,476	32,501	619,855	3,789,355	182,818	12,656,492	8,684,319	5,905	400		320	5,185		65	

\* Same number reported for one or more other months.



TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.		Total.	16 and over.		Under 16.			
					Male.	Female.	Average number.	Number, 15th day of—		Male.	Female.	Male.	Female.		
								Maximum month.							Minimum month.

## THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

																Dollars.
1	Marble and stone work.....	103	595	115	47	48	20	365	Se 187	Ja 152	414	412	2	.....	.....	1,904,119
2	Monuments and tombstones.....	83	341	99	19	32	15	176	No 281	Ja 105	190	188	2	.....	.....	916,033
3	Other marble and stone work, except slate.	20	254	16	28	16	5	179			224	224		.....	.....	988,086
4	Mattresses and spring beds, not elsewhere specified.	16	222	15	16	12	8	171	Se 207	Ja 125	188	151	37	.....	.....	540,661
5	Millinery and lace goods, not elsewhere specified.	12	427	6	25	27	50	319	Au 380	Je 284	325	132	181	8	4	1,441,479
6	Mineral and soda waters.....	131	929	160	70	35	62	602			529	519	7	3	.....	4,666,587
7	Mineral and carbonated waters..	126	814	159	58	32	54	511	Jy 177	Ja 351	455	448	4	3	.....	3,148,638
8	Fruit beverages.....	5	115	1	12	8	8	91	Se 177	Ja 37	74	71	3	.....	.....	1,517,949
9	Models and patterns, not including paper patterns.	52	1,009	41	71	16	20	891	De 1,043	Ja 727	1,069	1,064	4	1	.....	1,325,471
10	Musical instruments and materials, not specified.	11	474	7	31	9	49	378	Ja 407	Se 362	360	266	93	.....	1	582,327
11	Musical instruments, pianos.....	8	1,257	.....	34	77	24	1,122	De 1,288	My 1,038	1,288	1,103	132	44	0	7,882,678
12	Needles, pins, and hooks and eyes.	3	102	.....	11	2	7	142	De 158	Ap 130	148	90	58	.....	.....	440,871
13	Oil, essential.....	29	115	31	12	7	3	62	Au 115	Ja 47	114	114	3	.....	.....	974,755
14	Oil, vegetable and composite.....	3	117	.....	10	17	3	87	Au 143	Ja 31	96	96	.....	.....	.....	1,806,195
15	Optical goods.....	11	272	7	18	13	39	105	Au 207	De 176	178	120	58	.....	.....	513,282
16	Paints.....	24	1,800	6	119	423	233	1,019	Oc 1,167	Fe 887	1,124	1,004	118	1	1	12,174,690
17	Paper and wood pulp.....	39	10,225	3	279	241	141	9,561	De 7,343	Ap 6,723	9,825	8,558	1,265	.....	2	53,680,651
18	Paper exclusively.....	27	7,533	3	176	182	100	7,063	De 7,343	Ap 6,723	7,339	6,217	1,120	.....	2	36,481,698
19	Pulp exclusively.....	4	309	.....	7	9	3	200	No 846	Mh 157	313	310	3	.....	.....	2,227,672
20	Paper and pulp.....	4	2,883	.....	96	50	23	2,208	No 2,810	Ap 2,063	2,173	2,031	142	.....	.....	14,971,281
21	Paper goods, not elsewhere specified.	10	508	.....	30	57	23	451	Au 503	No 433	448	293	143	10	.....	2,533,806
22	Patent medicines and compounds...	70	2,146	41	223	248	242	1,392			1,485	645	838	.....	2	6,627,019
23	Patent and proprietary medicines.	49	1,983	27	187	227	218	1,324	No 1,432	Jy 1,192	1,396	580	814	.....	2	5,883,231
24	Patent and proprietary compounds, not elsewhere specified.	21	163	14	36	21	24	68	Au 74	Je 61	89	65	24	.....	.....	744,668
25	Paving materials.....	9	293	10	14	17	2	250	Au 841	Mh 111	325	325	.....	.....	.....	2,305,555
26	Perfumery and cosmetics.....	21	222	11	25	14	32	140	Oc 169	Ja 101	163	60	97	4	2	565,248
27	Phonographs and graphophones.....	10	929	1	46	42	42	798	De 1,086	Mh 637	1,019	907	100	6	.....	2,599,218
28	Photo-engraving.....	18	263	9	26	26	20	189	No 183	Ja 139	182	175	7	.....	.....	322,010
29	Pickles, preserves, and sauces.....	44	653	27	51	56	36	483			551	411	137	3	.....	3,186,311
30	Preserves.....	4	82	1	7	2	2	70	Jy 174	Ja 18	51	42	9	.....	.....	433,766
31	Pickles and sauces.....	40	571	26	44	54	34	413	Se 614	Ap 301	500	369	128	3	.....	2,752,545
32	Plumbers' supplies, not elsewhere specified.	11	1,032	9	55	80	51	837	De 1,085	Ja 662	989	910	79	.....	.....	2,272,329
33	Pottery.....	6	835	3	71	16	37	708			819	487	320	3	.....	1,860,703
34	China ware.....	3	780	.....	67	15	36	662	Ja 812	Au 615	766	434	320	3	.....	1,775,192
35	Earthen and stone ware.....	3	55	3	4	1	1	46	No 55	Jy 37	53	53	.....	.....	.....	85,511
36	Printing and publishing, book and job.	436	5,216	413	399	318	369	3,717			3,986	2,726	1,208	47	5	11,366,835
37	Job printing.....	405	4,750	387	366	197	273	3,627	De 4,017	Ja 3,535	3,812	2,583	1,177	47	5	10,273,161
38	Book publishing and printing...	5	65	5	4	5	10	41	Oc 49	Je 31	43	30	13	.....	.....	218,930
39	Book publishing without printing.	16	219	10	15	115	77	6	(4) 2	(4) 2	2	2	.....	.....	.....	498,030
40	Lithotype work and typesetting.	10	182	11	14	1	9	147	De 163	Ap 135	129	111	18	.....	.....	375,805
41	Printing and publishing, newspapers and periodicals.	565	6,643	483	1,021	1,142	821	3,176			3,392	2,723	596	66	7	14,562,346
42	Printing and publishing.....	44	3,069	14	199	890	452	1,514	De 1,637	Ja 1,410	1,633	1,528	94	10	1	8,018,086
43	Printing, publishing, and job printing.	438	3,248	432	753	178	250	1,635	De 1,703	Fe 1,597	1,732	1,175	496	55	6	5,191,085
44	Publishing without printing.....	82	326	37	69	74	119	27	Au 29	Ja 24	27	20	6	1	.....	453,175
45	Printing materials.....	3	12	.....	3	1	1	7	(4) 7	(4) 7	7	7	.....	.....	.....	33,001
46	Pumps, not including power pumps.	6	294	2	14	15	16	247	Se 336	Fe 175	263	129	5	97	32	479,637
47	Refrigerators.....	12	1,918	4	88	90	72	1,655	De 1,938	Jy 1,511	1,929	1,745	177	5	2	6,190,766
48	Rubber tires, tubes, and rubber goods, not elsewhere specified.	7	7,053	4	173	1,481	351	6,044	De 5,968	Ja 4,184	5,881	5,439	438	4	.....	57,418,022
49	Saddlery and harness.....	51	326	50	11	5	7	253	No 317	My 185	300	217	83	.....	.....	942,557
50	Salt.....	12	2,513	.....	95	257	98	2,063	De 2,265	Mh 1,923	2,274	2,110	154	10	.....	12,804,308
51	Sand-lime brick.....	7	123	.....	14	.....	3	106	Au 136	Mh 46	137	137	.....	.....	.....	428,081
52	Sausage, not made in slaughtering and meat-packing establishments.	20	228	32	10	18	9	159			163	143	19	1	.....	483,363
53	Sausage.....	18	131	19	6	12	6	88	Oc 92	Ja 84	88	79	8	1	.....	283,025
54	Sausage casings.....	11	97	13	4	6	3	71	De 75	Ap 67	75	64	11	.....	.....	200,338
55	Saws.....	9	109	8	14	9	8	70	De 75	Ja 67	74	73	1	.....	.....	405,667
56	Scales and balances.....	3	575	.....	29	43	83	420	Oc 534	Ja 292	506	487	19	.....	.....	2,253,891
57	Screws, machine.....	20	1,854	11	103	55	61	1,624	No 1,811	Ja 1,440	1,754	1,562	192	.....	.....	6,655,739
58	Shipbuilding, steel, new vessels and small boats.	7	17,061	1	428	526	110	15,996	Mh 20,269	De 9,460	19,133	19,073	59	1	.....	21,826,060
59	Shipbuilding, wooden, including boat building.	26	613	17	25	15	11	545			906	904	2	.....	.....	2,270,552
60	New vessels and small boats.....	20	307	13	20	7	9	258	Mh 327	Se 204	299	297	2	.....	.....	1,083,075
61	Repair work only.....	6	306	4	5	8	2	287	Oc 575	Ja 88	607	607	.....	.....	.....	1,177,477
62	Shirts.....	10	524	3	15	20	9	477	No 495	Je 458	477	37	416	5	10	440,185

<sup>1</sup> Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).<sup>2</sup> Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).



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EXPENSES.								Value of products.	Value added by manufacture.	POWER.					
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.				
											Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power. <sup>1</sup>	

[illegible]

<sup>4</sup> Same number reported throughout the year.

## MANUFACTURES—MICHIGAN.

TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.							WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.		
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.		Total.	16 and over.		Under 16.			
					Male.	Female.	Average number.	Number, 15th day of—		Male.	Female.	Male.		Female.	
								Maximum month.							Minimum month.

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

																Dollars.
1	Show cases.....	6	310	2	14	24	9	261	No 277	Ja 239	265	252	13			902,863
2	Signs and advertising novelties.....	25	355	32	25	15	23	260	Ja 131	Fe 88	306	234	72			793,575
3	Signs, other than electric.....	17	152	24	10	3	3	112	Ja 198	Fe 90	111	110	1			174,980
4	Electric signs and advertising novelties.....	8	203	8	15	12	20	148			195	124	71			618,505
5	Slaughtering and meat packing.....	24	2,083	18	73	193	87	1,712	De 2,073	My 1,465	2,073	1,773	297	2	1	18,431,187
6	Smelting and refining, copper.....	4	759		9	37	4	709	Mh 973	Je 537	598	598				5,940,624
7	Smelting and refining, not from the ore.....	4	41		10	3	3	25	Ja 26	Au 24	24	23	1			180,783
8	Sporting and athletic goods.....	12	423	7	24	9	10	373	De 447	Ja 290	445	324	121			913,735
9	Springs, steel, car and carriage, not made in steel works or rolling mills.....	6	1,972		39	37	26	1,870	Se 2,100	My 1,549	1,952	1,835	117			3,707,461
10	Stamped ware, not elsewhere specified.....	21	1,350	4	72	37	52	1,185	Au 1,380	Ap 845	1,125	870	254		1	4,200,572
11	Statuary and art goods.....	4	22	7			1	14	De 16	Fe 12	10	16				11,829
12	Steam fittings and steam and hot-water heating apparatus.....	15	865	2	31	45	25	762			1,253	1,224	29			3,101,554
13	Radiators and cast-iron heating boilers.....	4	786		13	36	16	701	Oc 1,203	My 138	1,174	1,145	29			2,840,865
14	All other.....	11	99	2	18	9	9	61	De 79	Fe 38	79	79				260,689
15	Steam packing.....	6	326	1	16	19	15	275	No 325	Ap 195	303	164	139			1,900,305
16	Stencils and brands.....	4	33	2	6		2	23	De 36	My 17	37	24	12	1		40,163
17	Stereotyping and electrotyping.....	8	228	3	22	13	13	177	De 199	Ja 136	200	193	6	1		332,804
18	Stoves and hot-air furnaces.....	21	5,040	5	188	307	210	4,240			4,601	4,502	91	8		18,843,300
19	Stoves and ranges.....	8	3,190		87	232	128	2,743	No 3,021	Ja 2,423	2,928	2,837	83	8		11,406,813
20	Hot-air furnaces and fireless cookers.....	13	1,850	5	101	165	82	1,497	No 1,658	Ja 1,392	1,673	1,605	8			7,436,547
21	Stoves, gas and oil.....	7	1,262		38	177	36	1,001	De 1,132	Ja 870	1,169	1,101	68			4,564,041
22	Structural ironwork, not made in steel works or rolling mills.....	34	3,118	22	128	487	168	2,313	De 2,727	My 1,932	2,731	2,657	73	1		12,116,532
23	Sugar, beet.....	16	2,221		106	210	69	1,836	De 4,383	Mh 590	4,807	4,733	74			27,673,805
24	Surgical appliances.....	9	108	10	8	1	5	84	Mh 91	Ja 76	82	20	62			81,620
25	Tinware, not elsewhere specified.....	6	1,022		41	34	29	918	Oc 963	Mh 848	987	575	392			3,200,475
26	Tobacco, chewing and smoking, and snuff.....	14	1,004	11	16	140	21	816			784	266	518			5,041,982
27	Chewing and smoking.....	8	998	5	16	140	21	816	Ja 932	Ap 752	784	266	518			5,020,452
28	Snuff.....	6	6													21,530
29	Tobacco, cigars and cigarettes.....	349	6,234	360	268	92	58	5,456	De 5,918	Je 4,656	6,103	1,000	5,088	5	10	9,221,680
30	Tools, not elsewhere specified.....	89	3,827	57	205	165	139	3,261	No 2,425	De 1,344	3,803	3,246	554	3		8,404,898
31	Machinists' tools.....	54	2,344	30	130	93	95	1,996	No 1,498	Ap 1,146	2,334	2,281	102	1		5,118,076
32	All other.....	35	1,483	27	75	72	44	1,265	No 1,498	Ap 1,146	1,469	1,015	452	2		3,346,822
33	Toys and games.....	12	403	12	16	7	7	361	Au 466	Ja 267	353	248	104		1	910,857
34	Trunks and valises.....	10	237	11	12	4	11	199	Ja 201	My 196	199	126	73			619,666
35	Upholstering materials, not elsewhere specified.....	9	236	4	18	6	4	204	No 223	Mh 184	228	183	45			1,127,682
36	Varnishes.....	6	452	1	47	119	92	193	No 222	Mh 189	206	187	19			3,408,004
37	Vinegar and cider.....	42	169	50	13	1	5	100	Oc 118	Ja 39	142	122	20			1,079,167
38	Vinegar.....	10	84	15	7		2	60	Oc 111	Ja 17	74	54	20			847,923
39	Cider.....	32	85	35	6	1	3	40	Oc 111	Ja 17	68	68				231,244
40	Wall plaster and composition flooring.....	10	744	1	33	91	34	585	No 700	Ja 401	653	630	23			2,847,954
41	Window and door screens and weather strips.....	15	379	10	16	16	18	319			377	313	60	4		1,723,212
42	Window and door screens.....	11	347	8	12	9	10	308	Ja 360	Jy 230	365	301	60	4		1,537,795
43	Weather strips.....	4	32	2	4	7	8	11	De 12	Au 10	12	12				185,417
44	Window shades and fixtures.....	5	894		24	34	40	766	De 941	Ap 583	941	624	316		1	2,369,206
45	Wirework, not elsewhere specified.....	38	2,901	19	135	140	91	2,516			2,775	2,154	601	13	7	8,993,804
46	Woven-wire fencing.....	11	747	2	34	74	23	614	Mh 697	Jy 542	735	735				3,455,055
47	All other.....	27	2,164	17	101	66	68	1,902	Jy 2,170	Ja 1,434	2,040	1,419	601	13	7	5,538,740
48	Wood distillation.....	16	1,704		72	69	37	1,536	Fe 1,773	Je 1,444	1,591	1,591				16,381,952
49	Wood, turned and carved.....	34	715	27	41	8	17	622	Je 723	Ja 550	759	692	64	3		1,525,818
50	Wooden goods, not elsewhere specified.....	18	1,118	13	42	57	22	984	De 1,142	Ja 872	1,185	819	338	24	4	2,490,201
51	Woolen goods.....	9	880	2	35	14	17	812	De 892	Ja 682	892	505	377	5	5	3,624,687
52	All other industries*.....	199	20,856	105	880	1,106	694	18,011								90,404,045

\*All other industries embrace—

1	Amputation.....	1
1	Artificial flowers.....	1
6	Babbit metal and solder.....	6
1	Bags, paper, not including bags made in paper mills.....	1
1	Baking powders and yeast.....	1
1	Belling wovens, other than rubber.....	1
1	Billard tables and accessories.....	1
2	Blacking, stains, and dressings.....	2
2	Bluing.....	2
2	Boot and shoe cut stock.....	2
5	Buttons.....	5
2	Canning and preserving fish.....	2
1	Card cutting and designing.....	1
1	Cars, steam-railroad, not including operations of railroad companies.....	1

8	Cash registers and calculating machines.....	8
1	Charcoal, not including production in the lumber and wood distillation industries.....	1
2	Chewing gum.....	2
2	China decorating, not including that done in potteries.....	2
1	Clocks.....	1
3	Cloth, sponging and refinishing.....	3
1	Coke, not including gas-house coke.....	1
2	Cordage and twine.....	2
2	Cordials and flavoring sirups.....	2
3	Cotton goods.....	3
1	Dyeing and finishing textiles, exclusive of that done in textile mills.....	1

2	Dyestuffs and extracts—natural.....	2
3	Emery and other abrasive wheels.....	3
2	Engraving and diecasting.....	2
1	Engraving, wood.....	1
2	Explosives.....	2
1	Felt goods.....	1
1	Fertilizers.....	1
1	Firearms.....	1
2	Fire extinguishers, chemical.....	2
1	Fireworks.....	1
2	Foundry supplies.....	2
1	Galvanizing.....	1
3	Gas machines and gas and water meters.....	3
1	Glass.....	1

4	Gloves and mittens, leather.....	4
2	Glucose and starch.....	2
2	Gold and silver, reducing and refining, not from the ore.....	2
2	Graphite, ground and refined.....	2
1	Grindstones.....	1
1	Hair work.....	1
1	Hardware, saddlery.....	1
1	Hat and cap materials.....	1
1	Hats and caps, other than felt, straw, and wool.....	1
1	Hats, fur-felt.....	1
1	Hats, straw.....	1
1	Horseshoes, not made in steel works or rolling mills.....	1
2	Ink, printing.....	2

<sup>1</sup> Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).

<sup>2</sup> Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

[illegible]

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	685	225					460	1
53,038	81,745	305,416			32,451	432,069	20,083	1,158,181	678,039	87							87	2
72,802	54,026	274,901	7,269	7,640	11,565	303,616	22,178	1,080,477	694,083	67							67	3
32,129	7,272	148,707	685	5,541	2,475	100,707	15,764	389,084	265,613	20							20	4
40,173	47,354	126,194	6,584	2,099	9,000	256,909	6,414	691,393	428,070									
313,008	348,823	2,277,400	15	4,803	176,749	49,581,119	193,229	59,584,740	9,810,392	4,746	2,735	500				1,511	5	
45,180	65,304	847,194			78,574	25,274,678	460,534	32,724,090	6,980,134	3,708	3,400					308	6	
32,827	8,889	45,430		2,760	2,325	392,978	11,831	549,430	144,621	73						73	7	
53,568	12,965	331,084	206	590	31,453	316,810	14,607	961,558	630,141	804	570					234	8	
272,125	88,065	2,242,320			95,644	5,133,090	292,800	8,471,558	3,045,068	1,786						1,786	9	
239,890	107,893	1,213,565	4,850	20,017	486,781	3,768,448	74,761	7,636,163	3,792,954	1,248						1,248	10	
	780	19,415		2,850	44	8,348	459	54,757	45,950									11
94,359	121,581	1,237,962		8,775	44,256	1,431,679	141,154	3,062,750	1,489,917	1,606	1,165					441	12	
54,991	47,806	1,152,985			28,938	1,251,587	138,068	2,566,839	1,177,184	1,513	1,165					348	13	
39,368	73,775	84,977		8,775	15,818	180,092	3,086	595,911	312,733							93	14	
50,014	45,092	283,930		7,771	15,886	657,135	7,088	1,115,495	451,272							292	15	
11,315	1,475	28,619		4,475	2,227	46,933	1,371	116,602	68,898							31	16	
84,702	22,066	247,738	494	15,626	789,829	117,378	14,470	750,000	618,252							444	17	
809,069	906,988	5,859,399			109,829	6,008,924	279,313	20,488,715	14,200,478	8,480	4,265	1,030	84	75		3,026	18	
458,458	544,002	4,027,744			359,173	3,036,960	185,077	11,580,108	8,358,071	4,560	2,660	30	80			1,790	19	
351,234	365,956	1,831,655			490,656	2,971,964	94,236	8,908,607	5,342,407	3,920	1,605	1,000	4	75		1,236	20	
219,842	404,209	1,100,021	993	4,080	93,002	2,943,025	50,271	7,497,180	4,503,884	902	100					802	21	
555,833	79,265	3,402,625	59,444	20,591	569,499	10,764,447	250,284	17,124,120	6,109,389	4,744	740			28		3,976	22	
365,163	299,421	2,764,916	70,863		1,331,032	15,520,700	1,161,150	26,378,870	9,697,020	20,550	17,387	2,335	89			739	23	
11,548	6,006	45,137	1,500	5,584	3,452	104,773	607	491,293	385,853	5						5	24	
123,069	83,592	1,099,987	34,280		181,737	2,618,062	49,810	4,630,093	1,965,821	1,062	392			80		590	25	
153,722	174,336	616,779	61,004	20,383	3,370,336	4,787,107	36,154	9,674,182	4,750,921	980	575			16		389	26	
153,722	174,336	616,779	61,004	20,383	3,370,336	4,787,107	36,154	9,674,182	4,750,921	980	575			16		389	26	
447,911	288,310	4,287,878	20,243	132	3,365,915	4,421	35,860	9,549,199	4,733,009	947	575			16		372	27	
841,790	442,129	4,793,687	124,883	4,421	3,365,915	7,743	288	24,083	16,952	33						17	28	
587,921	299,818	3,251,081	115,007	2,185,133	8,355,514	34,765	34,765	18,118,556	9,728,277	204				105		2,094	29	
264,139	145,211	1,452,526	10,300	440,944	3,403,064	146,206	11,898,853	8,349,533	3,511	412						2,094	30	
49,288	16,204	361,058	9,373	3,000,214	2,000,214	90,366	8,301,288	5,850,708	2,093	12						973	31	
44,327	18,173	202,167	23,669	1,312,840	334,758	55,900	3,807,505	2,498,825	1,478	400				105		1,737	32	
63,751	13,616	239,497	461	103,638	377,003	8,388	1,009,784	616,640	652	475						157	33	
			200	21,808	707,443	3,227	820,912	440,682	143	120						23	34	
			3,300	42,869		29,786	1,283,696	546,367	1,372	875						497	35	
149,327	259,122	268,709		139,505	2,114,125	29,614	4,091,941	1,948,202	553							553	36	
38,277	5,766	108,099	8,311	15,998	844,549	21,952	1,238,732	372,231	1,200	719	18	198				265	37	
19,977	3,579	96,283		12,167	468,889	9,302	633,689	195,113	208	142						152	38	
18,300	2,879	38,816	8,311	3,831	385,680	12,650	675,043	176,713	902	577	18	194				113	39	
126,762	200,665	725,909		8,252	1,266,915	223,588	3,591,223	2,100,720	4,924	505	400	125				4,294	40	
69,080	42,543	273,732	750	6,333	147,294	15,852	1,716,617	552,551	1,028	475						78	41	
47,122	28,864	257,008		1,880	144,343	751,647	15,610	1,484,799	717,542	1,004	475	400				54	42	
21,958	13,679	16,724		4,453	2,951	96,567	242	231,818	135,009	24						24	43	
74,587	207,503	632,798		4,000	151,189	841,894	23,368	2,803,580	1,968,598	1,057	600					367	44	
426,692	286,530	2,721,006	5,115	24,603	532,204	10,681,847	121,023	17,095,225	6,261,755	1,302	1,020					2,802	45	
100,927	134,671	693,546		1,680	131,094	7,159,891	36,407	8,114,877	1,753,506	9,822						1,827	46	
325,765	151,859	1,027,480	5,115	22,623	431,170	3,521,956	85,216	8,114,877	1,753,506	1,920						2,006	47	
210,463	153,926	1,985,414	267,213	600	587,044	5,055,143	737,305	10,651,181	4,587,733	5,985	3,829	150				697	48	
99,612	27,038	614,978	880	14,160	31,533	811,107	25,735	1,997,958	1,161,116	1,997	1,270					1,529	49	
115,690	94,912	667,934	8,695	1,718	138,328	1,485,092	24,108	3,225,494	1,716,294	4,414	3,620					601	50	
80,889	69,327	718,675	2,661		184,070	2,897,087	73,691	4,571,704	1,690,046	1,502	700					766	51	
2,999,310	2,897,387	24,089,326	302,717	250,387	9,624,723	41,450,118	6,110,743	127,974,152	80,413,291	46,313	22,528	3,287	191	627		19,630	52	

\* Same number reported for one or more other months.

TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.		Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.							WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.							Capital.
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Average number.	Wage earners.		Total.	16 and over.		Under 16.			
						Male.	Female.		Maximum month.	Minimum month.		Male.	Female.	Male.	Female.		
																Number, 15th day of—	

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.																
																Dollars.
1	DETROIT—All industries....	2,176	198,144	1,489	7,709	13,377	8,553	167,016	No185,910	Mh151,248	183,996	160,796	22,724	414	62	788,329,200
2	Artificial limbs.....	6	20	5	2	2	1	10	Jy <sup>3</sup> 11	Ja <sup>3</sup> 7	12	11	1			28,566
3	Artificial stone products.....	13	129	17	10	1	3	98	Oc 135	Ja 38	126	126				338,212
4	Automobile bodies and parts.....	110	36,395	54	911	1,425	957	33,048	Oc 38,780	Ja 26,049	37,760	36,164	1,565	31		120,928,578
5	Automobiles.....	26	37,694	2	1,070	2,805	1,775	32,042	Oc 37,599	Ja 26,290	35,338	33,863	1,304	171		172,900,788
6	Automobile repairing.....	25	308	24	18	15	19	232	Oc 300	Fe 171	299	298	1			251,140
7	Awnings, tents, and sails.....	10	214	7	21	29	16	141	Jy 189	Fe 94	133	74	59			431,176
8	Bookbinding and blank-book making	9	217	5	17	8	11	176	De 205	Ja 157	205	55	150			294,902
9	Boots and shoes.....	4	183	3	7	6	3	164	Oc 169	Ja 155	164	104	60			362,607
10	Boxes, cigar.....	4	228	1	8	2	3	214	Se 241	Ja 180	223	58	162	3		148,885
11	Boxes, paper and other, not elsewhere specified.	8	331	5	20	8	9	289	Jy <sup>3</sup> 303	Se 261	266	95	166		5	529,804
12	Boxes, wooden packing, except cigar boxes.	11	518	7	27	6	10	468	No 543	My 405	530	515		15		1,500,652
13	Brass, bronze, and copper products.....	50	9,686	14	300	474	234	8,664	Se 10,422	Ap 7,701	9,228	8,512	714	2		30,000,102
14	Bread and other bakery products.....	284	3,573	316	114	589	216	2,393	No 2,487	Fe 2,111	2,698	2,066	528	3	1	8,544,442
15	Brick, building.....	4	125		9	1	3	112	Se 154	Ja <sup>3</sup> 88	131	131				488,227
16	Butter.....	10	309	1	31	38	40	199	Je 247	Fe 155	186	139	46	1		5,149,536
17	Carpets, rag.....	3	4	4												1,263
18	Carriages and sleds, children's.....	3	5	3				2	( <sup>1</sup> ) 2	( <sup>1</sup> ) 2	2	2				11,060
19	Chemicals.....	10	2,263		148	295	112	1,708	Ja 2,214	Je 1,497	1,679	1,638	40	1		14,961,887
20	Cleansing and polishing preparations.....	11	36	7	10	3	1	15	De 22	Ja 11	24	13	11			30,304
21	Clothing, men's.....	18	1,431	17	32	92	80	1,210	De 1,405	Mh 1,112	1,405	220	1,180	2	3	5,134,593
22	Clothing, women's.....	13	465	8	35	15	12	395			438	43	395			652,822
23	Shirt waists and dresses, except house dresses.	6	382	1	30	12	11	328	Ja <sup>3</sup> 352	Je 293	303	38	325			602,801
24	All other.....	7	82	6	5	3	1	67	Jy <sup>3</sup> 71	Oc <sup>3</sup> 61	75	5	70			50,021
25	Coffee, roasting and grinding.....	10	113	8	10	14	20	61	Jy 68	My 55	63	30	33			818,364
26	Coffins, burial cases, and undertakers' goods.	8	138	7	9	13	4	105	Fe 119	Je 94	103	75	27	1		465,994
27	Confectionery and ice cream.....	38	1,015	44	43	48	39	841	No 2,096	My 1,519	1,030	423	607			2,023,346
28	Copper, tin, and sheet-iron work.....	45	487	46	38	22	17	364	Oc 423	Fe 307	399	399				1,025,773
29	Electrical machinery, apparatus, and supplies.	29	2,448	7	146	191	210	1,894	De 2,244	Ap 1,654	2,244	1,844	895	2	3	7,359,273
30	Electroplating.....	12	171	12	19	3	4	133	No 158	Ja 91	147	144	3			177,595
31	Engines, steam, gas, and water.....	13	7,543	2	224	534	300	6,483	Ja 8,520	Fe 5,651	6,934	6,095	239			31,231,060
32	Engraving, steel and copper plate, including plate printing.	6	60	8	2	3	3	44	De 58	Ja <sup>3</sup> 30	54	44	9	1		47,369
33	Food preparations, not elsewhere specified.	8	69	5	11	5	4	44	My 58	Mh <sup>3</sup> 33	49	36	13			428,010
34	Foundry and machine-shop products	171	15,674	64	846	737	627	13,400			14,934	13,974	951	6	3	39,839,344
35	Foundries.....	20	3,615	3	148	89	37	3,338	No 3,922	Ap 2,739	3,879	3,769	110			6,366,335
36	Machine shops.....	140	10,890	55	663	610	560	9,002	No 10,189	Fe 8,123	9,796	8,959	828	6	3	31,490,732
37	All other.....	11	1,169	6	35	38	30	1,060	De 1,259	Ap 833	1,269	1,246	13			1,976,277
38	Fur goods.....	17	429	17	18	45	39	310	De 365	Ja 276	346	117	229			1,010,609
39	Furnishing goods, men's, neckwear.	3	42	3	2	5	4	28	Au 32	De 25	27	5	22			77,064
40	Furniture.....	16	1,285	7	62	32	51	1,133			1,185	955	228	2		3,442,200
41	Wood furniture, other than rattan and willow.	12	1,222	3	64	29	48	1,088	My 1,142	Ja 1,044	1,117	887	228	2		3,200,357
42	All other.....	4	63	4	8	3	3	45	De 68	Ja 12	68	68				151,843
43	Glass, cutting, staining, and ornamenting.	9	89	8	10	1	4	66	No <sup>3</sup> 87	Ja 48	87	84	3			2,025,852
44	Hand stamps.....	8	41	10	5	3	5	18	Ja <sup>3</sup> 20	De 9	18	16	2			39,237
45	Hardware.....	15	1,443	2	62	71	53	1,255	No 2,627	De 1,753	1,416	1,207	209			2,910,619
46	House-furnishing goods, not elsewhere specified.	5	70	5	9	3	6	47	Ja 71	My 34	70	36	34			128,459
47	Iron and steel, forgings, not made in steel works or rolling mills.	6	720		30	38	14	638	Au 864	Ja 320	705	705				3,443,231
48	Iron and steel, tempering and welding.	13	146	8	24	6	3	105	No 127	Mh 92	108	108				260,690
49	Jewelry.....	19	177	22	16	8	22	109	De 127	Ja 92	126	115	11			478,701
50	Knit goods.....	8	275	2	21	6	10	236	De 204	Ap 192	306	75	231			1,009,883
51	Leather goods, not elsewhere specified	10	163	8	20	4	8	123	Ap 143	Ja 95	129	80	49			681,176
52	Leather, tanned, curried, and finished	3	403		25	22	7	349	Se 369	Ap 300	301	284	17			3,758,497
53	Liquors, malt.....	9	648	5	59	60	20	604	Jy 701	Fe 348	449	445	4			4,606,553
54	Lumber, planing-mill products, not including planing mills connected with sawmills.	32	1,400	18	59	55	26	1,282	Au 1,403	Mh 1,047	1,324	1,311	8	5		5,164,142
55	Machine tools.....	14	2,318	2	60	114	93	2,049	No 2,176	My 1,949	2,142	1,945	191	6		9,997,264
56	Marble and stone work.....	22	279	21	27	20	6	205			232	232				1,030,041
57	Monuments and tombstones.....	8	50	12	2	4	2	30	My 35	Fe 25	31	31				159,213
58	Other marble and stone work, except slate.	14	229	9	25	10	4	175	No 268	Ja 104	201	201				870,828
59	Mattresses and spring beds, not elsewhere specified.	6	109	6	7	5	6	85	Se 114	Ja 59	100	78	22			291,265
60	Millinery and lace goods, not elsewhere specified.	7	70	5	4	2	15	44	Se 48	Je 36	42	4	38			57,555

<sup>1</sup> Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).

<sup>2</sup> Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

## COMBINED AND SPECIFIED INDUSTRIES: 1919—Continued.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.					
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power. <sup>1</sup>	

## CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
31,073,381	31,542,425	245,433,882	1,298,522	3,292,484	54,797,732	639,955,795	15,957,608	1,234,519,842	578,606,379	308,250	82,379	22,453	3,406	.....	200,012	79,688	1
4,940	4,160	12,762	.....	4,650	129	10,501	734	57,509	46,274	16	.....	.....	.....	.....	16	.....	2
23,876	4,585	150,614	.....	8,968	3,832	200,074	0,039	526,061	319,048	119	.....	.....	7	.....	112	.....	3
4,430,610	3,506,466	55,650,295	61,972	185,253	6,117,926	95,672,050	2,038,643	201,455,182	103,744,450	52,020	5,140	620	414	.....	46,746	1,991	4
5,158,737	5,841,769	48,441,007	.....	492,033	17,975,236	229,029,053	1,993,113	348,772,599	117,749,833	37,221	8,746	40	40	.....	28,395	10,465	5
38,394	31,008	300,356	290	40,827	1,251	257,561	9,204	827,985	561,220	145	.....	.....	.....	.....	145	.....	6
79,418	50,826	173,921	.....	19,983	73,436	755,292	4,601	1,379,577	618,681	87	.....	.....	.....	.....	87	.....	7
44,787	21,148	134,781	.....	15,315	5,540	122,742	1,821	484,158	359,595	81	.....	.....	.....	.....	81	.....	8
19,034	43,424	179,908	.....	7,503	18,888	540,270	5,886	932,107	379,945	120	80	.....	.....	.....	49	70	9
27,073	5,806	161,426	.....	4,057	3,325	152,593	4,749	409,544	251,962	146	.....	.....	90	.....	56	.....	10
71,149	22,475	221,177	1,045	19,132	23,831	426,734	9,281	987,132	551,117	156	.....	.....	.....	.....	156	.....	11
87,834	21,350	512,234	.....	19,790	30,983	921,073	21,591	1,812,856	870,192	1,750	925	.....	.....	.....	825	.....	12
1,502,318	1,132,674	12,429,056	16,404	59,030	888,507	28,106,593	1,185,737	49,289,768	19,947,438	24,566	7,230	1,000	.....	.....	16,636	311	13
454,927	1,455,127	3,120,705	8,563	199,824	222,118	13,121,250	420,085	22,631,347	9,089,412	3,258	145	.....	8	.....	3,105	.....	14
68,750	4,852	109,806	9,010	1,800	25,909	33,510	92,452	614,736	488,774	480	450	.....	.....	.....	30	.....	15
95,425	106,001	321,121	.....	14,753	63,873	6,715,643	42,443	7,777,022	1,018,936	1,395	.....	70	.....	.....	1,325	.....	16
.....	.....	.....	.....	1,205	.....	1,955	240	9,835	7,640	2	.....	.....	.....	.....	2	.....	17
.....	.....	.....	.....	300	95	1,243	121	8,161	6,797	2	.....	.....	.....	.....	2	.....	18
541,928	544,587	2,755,063	751	20,638	418,867	2,361,237	1,109,354	11,356,383	7,794,702	20,339	10,444	8,122	.....	.....	1,773	9,375	19
12,663	2,513	13,637	.....	4,775	420	47,555	603	172,111	123,053	14	.....	.....	.....	.....	14	.....	20
245,453	450,709	1,006,451	22,360	29,704	109,184	4,390,316	25,139	7,124,219	2,708,764	833	750	.....	.....	.....	83	370	21
92,083	44,389	354,355	722	15,559	33,157	821,230	5,946	1,559,372	732,196	98	.....	.....	.....	.....	96	.....	22
80,858	41,309	297,583	412	9,954	32,642	603,711	4,421	1,210,545	602,413	77	.....	.....	.....	.....	77	.....	23
6,725	2,360	52,932	310	4,405	467	216,019	1,525	348,827	129,783	19	.....	.....	.....	.....	19	.....	24
39,660	33,860	55,063	.....	15,800	4,760	1,685,136	12,834	2,004,401	309,434	390	.....	.....	.....	.....	390	.....	25
55,353	45,680	123,351	720	5,420	50,641	330,637	5,297	774,597	438,433	180	54	.....	.....	.....	135	.....	26
117,219	146,361	731,226	.....	123,466	253,301	2,866,320	65,392	5,393,154	2,461,442	2,021	277	.....	.....	.....	1,744	1	27
87,843	53,755	548,165	8,660	26,620	23,379	856,991	8,276	2,043,402	1,178,135	313	.....	.....	.....	.....	313	.....	28
719,330	486,450	2,094,059	800	99,331	703,908	4,461,297	122,967	12,970,284	8,380,020	3,084	.....	25	.....	.....	3,059	.....	29
37,677	7,058	188,571	.....	14,223	1,738	60,908	17,309	426,434	348,217	489	.....	.....	.....	.....	403	10	30
1,007,985	1,276,643	10,429,954	500	33,763	1,156,046	14,141,983	336,799	36,611,142	22,132,390	16,109	1,400	50	.....	.....	14,659	7,681	31
3,000	3,748	60,425	300	5,610	8	26,303	955	149,550	122,301	14	.....	.....	.....	.....	14	.....	32
15,080	9,974	48,245	.....	5,240	7,904	216,600	10,611	374,536	147,265	187	150	.....	.....	.....	37	100	33
2,932,965	1,898,760	19,800,679	65,608	272,092	1,923,268	21,088,054	1,235,422	58,384,369	36,060,893	22,956	4,184	.....	426	.....	18,346	1,735	34
643,161	167,221	5,359,399	12,000	42,426	554,774	4,222,388	564,781	3,324,581	8,530,412	6,822	1,344	.....	10	.....	5,463	461	35
2,139,877	1,600,855	12,650,495	28,306	191,733	1,093,589	15,432,144	606,597	40,708,491	24,660,750	14,543	2,150	.....	416	.....	11,977	1,159	36
149,927	130,660	1,790,785	25,300	38,833	274,005	1,432,522	64,044	4,351,297	2,854,731	1,591	690	.....	.....	.....	901	115	37
63,390	159,553	328,994	1,000	32,230	46,810	1,059,576	3,955	2,031,793	985,262	46	.....	.....	.....	.....	46	.....	38
7,000	9,277	22,290	.....	2,815	527	110,104	255	201,085	90,726	6	.....	.....	.....	.....	6	.....	39
202,115	203,072	1,225,460	3,645	12,044	144,456	1,483,347	56,087	3,955,855	2,416,421	1,454	1,215	30	.....	.....	209	802	40
194,141	197,673	1,177,637	3,645	10,104	143,072	1,380,234	53,707	3,766,491	2,332,460	1,328	1,165	30	.....	.....	133	802	41
7,974	5,399	47,823	.....	1,940	1,384	103,113	2,290	189,364	83,961	126	50	.....	.....	.....	76	.....	42
25,295	6,905	108,617	572	8,020	3,694	159,279	3,160	354,080	191,651	67	.....	.....	.....	.....	67	.....	43
8,000	8,485	10,426	.....	5,417	351	43,429	1,571	133,170	88,170	23	.....	.....	.....	.....	23	.....	44
220,412	145,018	1,582,377	11,106	50,449	128,637	2,053,416	57,871	5,326,455	3,215,163	1,599	180	.....	40	.....	1,379	.....	45
25,390	20,596	41,951	.....	6,465	2,702	189,223	2,797	343,017	150,994	611	450	.....	.....	.....	161	.....	46
120,087	61,272	978,849	.....	9,400	53,769	1,118,560	100,522	2,416,250	1,197,168	2,970	1,775	150	.....	.....	1,054	900	47
77,015	15,246	163,661	242	12,664	10,928	93,157	39,885	532,001	199,049	322	.....	70	.....	.....	252	70	48
52,707	55,959	151,942	4,010	17,561	2,775	416,620	1,402	937,784	519,762	72	.....	.....	.....	.....	72	.....	49
71,029	15,740	193,767	.....	27,840	55,316	938,629	11,040	1,102,769	483,100	316	220	.....	.....	.....	96	140	50
78,408	16,562	99,469	.....	10,720	8,729	600,016	3,304	933,871	329,651	105	.....	.....	42	.....	63	.....	51
111,423	155,717	603,374	.....	483,277	0,164,967	47,402	8,624,215	2,411,816	1,072	835	.....	.....	.....	.....	237	900	52
247,547	123,005	754,735	.....	24,000	511,885	1,281,422	142,156	3,763,420	2,339,842	3,905	1,735	.....	.....	.....	2,170	180	53
286,306	120,320	1,754,346	357	27,449	143,800	5,618,003	98,695	9,114,453	3,397,755	5,895	3,013	160	.....	.....	2,122	1,114	54
379,185	311,921	2,894,785	25,476	21,002	438,741	2,556,309	94,647	8,245,106	5,594,150	2,547	275	.....	320	.....	1,952	.....	55
75,880	32,715	316,027	11,827	10,326	12,018	414,510	19,022	1,186,101	752,569	1,309	135	.....	14	.....	1,160	.....	56
12,425	8,828	43,611	300	600	2,185	92,457	2,841	244,040	148,742	95	.....	.....	.....	.....	81	.....	57
63,455	23,887	272,416	11,527	9,726	10,733	322,053	16,181	942,061	603,827	1,214	135	.....	.....	.....	1,079	.....	58
27,451	13,933	120,615	355	9,070	5,028	449,275	6,521	818,698	362,002	185	.....	.....	.....	.....	185	.....	59
11,909	9,608	38,589	2,000	8,133	13,114	122,004	414	246,387	123,969	10	.....	.....	.....	.....	10	.....	60

\* Same number reported for one or more other months.

\* Same number reported throughout the year.

## MANUFACTURES—MICHIGAN.

TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.		Total.	16 and over.		Under 16.			
					Male.	Female.	Average number.	Number, 15th day of—		Male.	Female.	Male.	Female.		
								Maximum month.							Minimum month.

## CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

DETROIT—Continued.																	Dollars.	
1	Mineral and soda waters.....	28	403	35	32	16	38	282	Jy	397	Ja	194	245	242	2	1	1,837,898	
2	Models and patterns, not including paper patterns.....	29	792	19	53	15	12	693	De	864	Ja	574	885	882	3	.....	1,018,167	
3	Oil, vegetable and composite.....	3	117	.....	10	17	3	87	De	143	Ja	31	96	96	.....	.....	1,306,195	
4	Optical goods.....	4	225	1	13	9	37	165	Au	178	De	146	148	94	54	.....	451,608	
5	Paints.....	11	812	2	59	213	119	410	Oc	536	Fe	360	422	386	34	1	4,411,062	
6	Patent medicines and compounds.....	25	1,739	14	181	183	193	1,168	.....	.....	.....	.....	1,209	533	674	2	5,312,434	
7	Patent and proprietary medicines.....	18	1,647	10	159	109	178	1,131	No	1,215	Jy	1,021	1,107	506	659	2	4,925,200	
8	Patent and proprietary compounds, not elsewhere specified.....	7	92	4	22	14	15	37	No	46	Fe	28	42	27	15	.....	387,225	
9	Perfumery and cosmetics.....	15	155	10	18	2	21	104	Oc	133	Ja	66	122	41	79	2	423,945	
10	Photo-engraving.....	12	221	7	30	22	18	144	No	157	Ja	116	156	149	7	.....	278,537	
11	Pickles, preserves, and sauces.....	12	159	10	20	13	5	111	Oc	124	De	98	97	52	45	.....	466,736	
12	Plumbers' supplies, not elsewhere specified.....	5	110	5	6	7	5	87	De	124	Ja	49	124	116	8	.....	310,176	
13	Printing and publishing, book and job.....	186	2,958	157	242	229	232	2,098	.....	.....	.....	.....	2,227	1,511	697	18	6,086,385	
14	Job printing.....	171	2,623	147	218	134	160	1,964	De	2,108	Ja	1,835	2,113	1,415	670	18	5,397,391	
15	Book publishing without printing.....	8	172	3	10	94	63	2	(?)	(?)	.....	.....	.....	.....	.....	.....	.....	
16	Book publishing and printing, linotype work and typesetting.....	7	168	7	14	1	9	132	No	149	Ap	119	112	94	18	.....	327,347	
17	Printing and publishing, newspapers and periodicals.....	70	2,307	25	177	619	404	1,082	.....	.....	.....	.....	1,181	1,109	62	10	7,034,682	
18	Printing and publishing.....	7	1,607	2	93	498	258	816	De	896	Ja	751	891	873	18	.....	5,924,365	
19	Printing, publishing, and job printing.....	19	392	5	33	60	41	253	De	277	Ja	239	277	226	42	0	772,031	
20	Publishing without printing.....	44	248	18	51	61	105	13	My	14	Ja	12	13	10	2	1	338,286	
21	Sausage, not made in slaughtering and meat-packing establishments.....	9	110	9	7	13	2	85	De	88	Ap	82	88	78	10	.....	219,889	
22	Screws, machine.....	15	1,391	7	67	53	52	1,212	No	1,347	Ja	1,071	1,281	1,111	170	.....	5,287,072	
23	Shipbuilding, wooden.....	4	110	.....	7	1	3	99	Mh	127	Se	81	111	111	.....	.....	189,936	
24	Shirts.....	3	48	2	2	2	1	41	De	42	Mh	40	42	4	38	.....	23,669	
25	Signs and advertising novelties.....	14	91	18	5	2	4	62	Se	72	Ja	43	68	65	3	.....	107,021	
26	Slaughtering and meat packing.....	11	1,957	5	57	188	85	1,622	De	1,983	My	1,375	1,983	1,683	297	2	16,082,329	
27	Stamped ware, not elsewhere specified.....	15	1,197	1	67	31	43	1,055	Ja	1,223	Ap	845	984	747	236	1	3,147,044	
28	Statuary and art goods.....	4	22	.....	.....	.....	1	14	De	16	Fe	12	16	16	.....	.....	11,820	
29	Steam fittings and steam and hot-water heating apparatus.....	9	549	.....	23	12	19	495	Oc	788	My	181	771	742	29	.....	2,031,229	
30	Stereotyping and electrotyping.....	5	154	3	14	8	8	121	De	131	Ja	92	131	126	4	1	191,607	
31	Stoves and hot-air furnaces.....	5	2,715	.....	62	204	93	2,356	No	2,553	Ja	2,038	2,442	2,415	19	8	9,859,350	
32	Structural ironwork, not made in steel works or rolling mills.....	21	1,990	10	79	317	127	1,457	De	1,872	My	1,101	1,872	1,849	22	1	7,702,394	
33	Tobacco, cigars and cigarettes.....	73	3,735	65	177	47	25	3,421	No	3,627	Je	2,717	3,612	346	3,264	1	6,485,293	
34	Tools, not elsewhere specified.....	74	2,729	47	162	92	101	2,327	No	2,843	Fe	1,955	2,737	2,630	106	1	6,006,985	
35	Toys and games.....	6	22	10	.....	.....	.....	12	Jy	11	Mh	7	28	4	23	.....	35,748	
36	Trunks and valises.....	7	65	9	3	4	3	46	Jy	47	Ja	44	46	40	6	.....	121,057	
37	Window and door screens and weather strips.....	6	40	7	3	5	5	20	Je	30	Fe	14	30	30	.....	.....	178,002	
38	Wirework, not elsewhere specified.....	17	890	13	44	17	26	790	Au	978	Jy	477	772	575	197	.....	1,696,659	
39	Wood, turned and carved.....	4	65	2	5	.....	4	54	Oc	66	Ja	40	64	62	2	.....	101,337	
40	All other industries*.....	280	38,301	137	1,410	3,152	1,739	31,857	.....	.....	.....	.....	34,189	27,853	6,178	116	37	211,983,760

\*All other industries embrace—  
 Agricultural implements..... 1  
 Aluminum manufactures..... 1  
 Babbitt metal and solder..... 6  
 Bags, other than paper, not including bags made in textile mills..... 4  
 Belting, leather..... 2  
 Bluing..... 2  
 Brooms, from broom corn..... 4  
 Brushes..... 6  
 Buttons..... 3  
 Card cutting and designing..... 1  
 Carriages and wagons, including repairs..... 2  
 Cars and general shop construction and repairs by steam-railroad companies..... 2  
 Cars, steam-railroad, not including operations of railroad companies..... 1

Cash registers and calculating machines..... 5  
 Cement..... 1  
 Chewing gum..... 1  
 Clocks..... 2  
 Cloth, sponging and refinishing..... 1  
 Coal-tar products..... 1  
 Condensed milk..... 1  
 Cooperage..... 3  
 Cordials and flavoring sirups..... 1  
 Corsets..... 2  
 Cotton goods..... 1  
 Cutlery and edge tools..... 1  
 Dairywomen's, poultrymen's, and apirists' supplies..... 7  
 Dental goods..... 7  
 Druggists' preparations..... 10  
 Dyeing and finishing textiles, exclusive of that done in textile mills..... 1

Emery and other abrasive wheels..... 3  
 Enameling..... 5  
 Engraving and diesinking..... 1  
 Engraving, wood..... 1  
 Envelopes..... 3  
 Fancy articles, not elsewhere specified..... 2  
 Fertilizers..... 1  
 Files..... 1  
 Fire extinguishers, chemical..... 2  
 Flags and banners..... 3  
 Flavoring extracts..... 5  
 Flour-mill and gristmill products..... 4  
 Foundry supplies..... 2  
 Furs, dressed..... 2  
 Galvanizing..... 1  
 Gas and electric fixtures..... 12  
 Gas and water meters..... 1  
 Gas, illuminating and heating..... 1

Gloves and mittens, cloth, not including gloves made in textile mills..... 2  
 Gloves and mittens, leather..... 1  
 Gold and silver, reducing and refining, not from the ore..... 1  
 Graphite, ground and refined..... 1  
 Grease and tallow, soap stock..... 1  
 Hat and cap materials..... 1  
 Hats and caps, other than felt, straw, and wool..... 4  
 Hats, straw..... 1  
 Horseshoes, not made in steel works or rolling mills..... 1  
 Ice, manufactured..... 2  
 Ink, printing..... 1  
 Ink, writing..... 1  
 Instruments, professional and scientific..... 3  
 Iron and steel, blast furnaces..... 1

<sup>1</sup> Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).

<sup>2</sup> Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).



## MANUFACTURES—MICHIGAN.

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## COMBINED AND SPECIFIED INDUSTRIES: 1919—Continued.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.						
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.	
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.					Rent. <sup>2</sup>
											Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power. <sup>1</sup>		

## CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.									
116,743	73,232	406,130	1,000	14,718	146,453	1,026,670	31,877	2,384,184	1,325,637	803	40					763	1	
212,916	36,950	1,483,932		43,373	38,543	296,172	16,178	2,703,024	2,390,674	438						438	2	
31,612	42,643	81,422		2,678	10,218	2,550,973	20,325	2,810,776	248,478	321	200					121	3	
28,440	55,892	153,646		1,700	3,408	322,255	4,851	860,904	539,798	141	90					51	4	
237,555	407,107	576,905	1,667	28,510	239,184	3,742,397	54,476	7,036,782	3,239,909	1,826	675					1,151	5	
550,659	500,133	1,021,230	8,876	44,910	295,970	3,373,310	56,060	8,091,447	4,661,477	704	535					259	6	
464,507	468,006	980,888	4,676	28,368	233,298	2,890,212	53,228	7,280,137	4,336,697	719	535					184	7	
86,152	32,127	40,342	4,200	16,512	12,672	483,098	3,432	811,310	324,780	75						75	8	
46,642	18,210	91,044		17,096	25,685	330,886	4,688	717,050	381,476	125	30					95	9	
87,002	60,231	270,990	21,066	21,216	6,465	95,345	6,107	850,812	749,360	117						117	10	
55,309	37,978	112,477		6,849	17,920	477,494	8,638	892,635	406,505	100	30					70	11	
17,630	14,344	114,212		6,904	7,013	200,041	10,600	516,194	305,553	219	125					94	12	
769,897	782,773	2,769,607	441,130	245,545	188,521	4,121,348	73,102	11,430,857	7,236,407	2,023			5			2,018	13	
709,290	353,591	2,572,516	310,865	227,895	181,808	4,033,006	69,273	10,270,035	6,167,756	1,977			5			1,972	14	
22,966	418,720	2,548	128,596	8,508	4,276	55,802	424	720,265	664,039							46	15	
37,641	10,453	104,543	1,669	9,142	2,437	32,540	3,405	440,557	404,612	46						46	16	
587,335	1,495,641	1,783,875	363,137	66,059	608,914	4,945,757	50,987	14,017,463	9,020,739	2,948				40		2,908	17	
333,311	1,169,110	1,358,841	379	19,885	547,712	4,277,812	37,140	11,321,031	7,006,079	2,466				40		2,466	18	
38,049	145,910	408,219	1,300	17,055	21,598	460,260	13,230	1,315,577	836,097	446						406	19	
165,975	180,621	16,815	361,458	29,719	39,634	198,605	597	1,377,855	1,178,563	36						36	20	
18,280	24,704	119,857		2,119	3,473	1,313,923	16,043	1,693,309	362,743	326	15					311	21	
288,093	135,952	1,575,027	26,084	2,750	344,448	2,658,853	82,554	6,019,583	3,278,176	2,920	500					2,420	22	
18,654	4,324	147,648		3,770	792	103,359	2,576	287,998	182,063	85						85	23	
2,500	3,700	30,228		5,575	500	115,295	210	176,915	61,410	7						7	24	
21,697	8,231	94,477	7,269	6,279	1,305	101,511	780	305,208	202,917	2						2	25	
239,548	341,273	2,170,786		1,540	172,595	47,993,092	178,125	57,648,125	9,476,908	4,352			2,615	500		1,237	26	
230,342	92,985	1,090,826	4,850	19,117	480,768	3,414,629	65,670	6,973,264	3,492,905	1,160						1,160	27	
730	780	19,415		2,850	44	8,348	459	54,757	45,950								28	
74,383	109,311	767,442		8,395	28,219	882,597	75,317	1,950,840	992,926	728	315					418	29	
56,282	15,297	174,078	494	13,979	5,739	77,035	10,278	535,989	448,676	265						265	30	
390,236	487,761	3,499,130		325,073	2,667,070	157,670	10,144,806	7,320,066	3,591	2,100	30					1,381	31	
380,559	483,740	2,845,906	22,879	411,060	7,200,330	179,008	11,271,015	3,891,677	2,941							2,937	32	
321,806	141,733	2,820,710	10,910	76,357	1,347,641	5,532,945	23,936	11,606,301	6,049,420	123						123	33	
704,464	296,335	3,838,302	10,300	109,138	311,502	2,322,691	105,534	9,216,733	6,788,508	2,351	100			12		2,239	34	
		9,034		2,540		19,252	388	42,807	23,167	5						5	35	
5,890	6,684	58,725	200	9,200	3,135	93,214	1,294	202,955	108,447	22						22	36	
16,438	9,075	38,141	750	4,721	4,159	90,316	697	190,227	98,414	54						54	37	
128,815	68,497	994,416	5,115	18,683	78,268	1,323,661	33,150	2,930,334	1,573,523	1,104	400					704	38	
16,050	4,587	60,244		2,988	3,358	24,524	2,567	199,032	171,941	152	100					52	39	
5,232,328	7,028,604	45,019,210	137,381	409,616	17,449,699	88,555,444	5,107,130	233,407,399	139,744,825	65,877	24,075	11,911	1,539			28,352	33,195	40

Iron and steel, steel works and rolling mills. 5  
Iron and steel, bolts, nuts, washers, and rivets, not made in rolling mills. 4  
Iron and steel, doors and shutters. 1  
Japanning. 5  
Lamps and reflectors. 3  
Lead, bar, pipe, and sheet. 9  
Lithographing. 1  
Looking-glass and picture frames. 6  
Malt. 2  
Mirrors, framed and unframed, not elsewhere specified. 1  
Motorcycles, bicycles, and parts. 1  
Mucilage, paste, and other adhesives, not elsewhere specified. 2  
Musical instruments and materials, not specified. 1

Musical instruments, pianos. 1  
Needles, pins, and hooks and eyes. 2  
Oleomargarine and other butter substitutes. 1  
Paper and wood pulp. 1  
Paper goods, not elsewhere specified. 2  
Paving materials. 2  
Pottery. 1  
Printing and publishing, music. 1  
Printing materials. 2  
Pumps, not including power pumps. 3  
Refrigerators. 2  
Roofing materials. 1  
Rubber tires, tubes, and rubber goods, not elsewhere specified. 2  
Saddlery and harness. 3  
Salt. 1  
Sand-lime brick. 1

Saws. 2  
Scales and balances. 2  
Shipbuilding, steel, new vessels. 2  
Show cases. 4  
Smelting and refining, not from the ore. 3  
Soap. 2  
Sporting and athletic goods. 1  
Springs, steel, automobile. 1  
Stationery goods, not elsewhere specified. 2  
Steam packing. 3  
Steel barrels, drums, and tanks. 1  
Stencils and brands. 2  
Stoves, gas and oil. 3  
Surgical appliances. 2  
Suspenders, garters, and elastic woven goods. 1  
Tinware, not elsewhere specified. 4

Tobacco, chewing and smoking, and snuff. 12  
Typewriters and supplies. 1  
Umbrellas and canes. 2  
Upholstering materials, not elsewhere specified. 3  
Varnishes. 3  
Wall plaster, and composition flooring. 2  
Washing machines and clothes wringers. 1  
Window shades and fixtures. 2  
Wire. 1  
Wood preserving. 1  
Wooden goods, not elsewhere specified. 1

<sup>1</sup> Same number reported throughout the year.

<sup>2</sup> Same number reported for one or more other months.



TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.							WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.		
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.		Total.	16 and over.		Under 16.			
					Male.	Fe- male.	Average number.	Number, 15th day of—		Male.	Fe- male.	Male.		Fe- male.	
								Maximum month.							Minimum month.

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

1	FLINT—All industries.....	107	28,575	95	1,065	1,650	1,162	24,603	De 20,414	Ja 18,356	29,411	27,021	2,380	10	Dollars.
2	Artificial stone products.....	5	19	6	1	1	12	Jy <sup>s</sup> 16	Ja <sup>s</sup> 7	13	13	13	1	1	47,510
3	Automobile bodies and parts.....	3	1,218	38	61	25	1,094	Se 1,367	Ja 827	1,215	1,203	12	1	1	3,433,227
4	Automobile repairing.....	4	29	4	1	1	22	Se <sup>s</sup> 24	Ja <sup>s</sup> 20	25	24	1	1	1	18,895
5	Bread and other bakery products.....	20	285	21	12	60	22	170	Au 198	Fe 152	178	153	24	1	679,649
6	Confectionery and ice cream.....	6	54	11	1	2	40	Jy <sup>s</sup> 48	Ja <sup>s</sup> 36	38	23	15	1	1	55,184
7	Copper, tin, and sheet-iron work.....	5	26	3	2	2	18	Se 23	Ap 14	21	21	1	1	1	54,768
8	Foundry and machine-shop products.....	5	521	2	18	33	27	441	Jy 523	Ja 328	448	297	151	1	900,796
9	Lumber, planing-mill products, not including planing mills connected with sawmills.....	3	93	14	4	3	72	My 76	Ap 67	70	70	1	1	1	251,043
10	Mineral and carbonated waters.....	3	20	7	1	1	11	Au 19	Ja 5	8	8	1	1	1	33,992
11	Printing, job.....	9	103	6	11	2	6	78	Jy 93	Ap 60	83	47	35	1	249,750
12	Tobacco, cigars.....	7	67	10	1	1	55	De 78	Je 43	75	19	56	1	1	59,453
13	All other industries*.....	37	26,140	25	967	1,483	1,075	22,590			27,237	25,143	2,086	8	118,352,110

*All other industries embrace—	Brooms, from broom corn.....	1	Electrical machinery, apparatus, and supplies.....	3	Ice, manufactured.....	1
Automobiles.....	Butter.....	1	Carriage and wagon materials.....	1	Iron and steel, forgings, not made in steel works or rolling mills.....	1
Awnings, tents, and sails.....	Clothing, men's.....	1	Electroplating.....	1		
Blacking, stains, and dressings.....		1				
Brass and bronze products.....		1				

GRAND RAPIDS.....		611	27,927	452	1,242	1,641	1,044	23,548	De 26,918	Ja 20,724	27,431	22,146	4,928	214	143	80,670,385
All industries.....		5	10	2	1	1	6	Jy <sup>s</sup> 7	Ja <sup>s</sup> 4	6	6	6	1	1	1	83,472
Artificial stone products.....		19	1,263	12	76	42	44	1,089	No 1,447	My 705	1,434	1,363	70	1	1	3,836,494
Automobile bodies and parts.....		3	181	20	7	11	143	De 180	Se 128	180	177	3	1	1	915,494	
Automobiles.....		8	202	11	14	18	9	150	Jy 191	Ja 106	131	128	3	3	1	473,540
Automobile repairing.....		4	86	4	6	3	73	De 92	My 60	92	45	44	3	1	1	121,848
Bookbinding and blank-book making.....		4	380	4	20	20	316	No 392	Je 245	383	321	62	4	1	1	825,566
Brass and bronze products.....		74	787	84	9	68	38	588	No 652	Je <sup>s</sup> 559	633	363	266	4	1	1,797,637
Bread and other bakery products.....		5	99	1	5	14	22	57	Jy 77	No 44	47	37	10	1	1	541,665
Butter.....		3	3	2	1	1	30	Ja <sup>s</sup> 32	My <sup>s</sup> 28	31	12	19	1	1	1	19,609
Cleansing and polishing preparations.....		3	38	2	3	2	1	52	Au 84	Ja 25	70	2	68	1	1	67,655
Clothing, men's.....		4	68	2	4	4	6	78	De 87	Ap <sup>s</sup> 72	87	61	26	1	1	113,845
Clothing, women's.....		6	120	4	6	22	10				87	61	26	1	1	498,645
Coffins, burial cases, and undertakers' goods.....		23	370	25	10	38	10	287			298	143	151	3	1	1,141,360
Confectionery and ice cream.....		13	311	14	7	33	7	250	Oc 290	Jy 199	249	102	146	1	1	898,842
Confectionery.....		10	59	11	3	5	3	37	Jy 71	Ja <sup>s</sup> 20	49	41	5	3	1	242,518
Ice cream.....		7	60	5	8	2	1	44	Jy 58	Ja 26	52	50	2	1	1	146,244
Copper, tin, and sheet-iron work.....		3	26	1	3	1	21	No 29	Je <sup>s</sup> 15	28	24	4	1	1	1	17,300
Electroplating.....		9	201	10	19	29	19	124	Au 133	Mh 112	123	122	1	1	1	1,737,907
Flour-mill and gristmill products.....		41	1,430	27	75	60	52	1,210			1,491	1,438	53	1	1	3,404,018
Foundry and machine-shop products.....		7	450	3	14	18	3	412	De 518	Ap 340	522	487	35	1	1	1,155,628
Foundries.....		30	832	22	53	44	45	608	De 821	Ja 568	821	803	18	1	1	2,131,906
Machine shops.....		4	148	2	8	4	4	130	De 148	Mh 116	148	148	1	1	1	202,494
Boiler shops and machine shop and foundry combined.....		71	10,444	37	359	427	249	9,372			11,086	9,910	1,122	47	7	27,452,997
Furniture.....		58	8,731	34	306	230	185	7,967	De 9,416	Ja 6,650	9,396	8,374	977	40	5	22,546,800
Wood, other than rattan and willow.....		4	281	2	19	5	9	246	De 333	Ja 175	333	262	67	2	2	454,430
Rattan and willow, and metal furniture.....		9	1,432	1	34	183	55	1,159	De 1,356	Ja 940	1,357	1,274	78	5	1	4,451,767
Store and office fixtures.....		9	818	7	19	32	32	728	De 961	Fe 522	941	604	318	18	1	1,081,588
Hardware.....		4	597	15	31	25	526	No 622	Je 455	615	124	487	5	1	1	2,290,461
Knit goods.....		4	230	13	7	2	208	Fe 230	De 179	216	211	5	1	1	1	932,360
Leather, tanned, curried, and finished.....		3	105	8	19	1	77	Jy 120	De <sup>s</sup> 53	63	63	1	1	1	1	729,775
Liquors, malt.....		7	431	6	21	19	20	365	De 403	Ja 300	352	317	20	15	1	1,766,094
Lumber, planing-mill products, not including planing mills connected with sawmills.....		6	46	8	1	7	2	28	Je <sup>s</sup> 30	Ja 19	30	30	1	1	1	115,601
Marble and stone work, monuments and tombstones.....		7	30	5	3	2	20	Jy 33	Ja 11	15	15	1	1	1	1	76,083
Mineral and carbonated waters.....		13	70	10	7	3	1	49	De 55	Au <sup>s</sup> 38	63	7	56	1	1	123,139
Patent medicines and compounds.....		10	59	8	5	1	45	De 55	Au <sup>s</sup> 38	63	7	56	1	1	1	36,683
Patent and proprietary medicines.....		3	11	2	2	3	4	Je <sup>s</sup> 9	Ja 6	8	8	4	4	1	1	86,456
Patent and proprietary compounds, not elsewhere specified.....		4	182	1	19	25	108	De 216	Ja 27	268	206	62	13	1	1	1,144,819
Phonographs and graphophones.....		54	667	45	59	52	54	457			505	373	119	13	1	1,372,523
Printing and publishing, book and job.....		46	607	37	56	33	40	441	Oc <sup>s</sup> 473	Ja 409	488	356	119	13	1	1,285,515
Job printing.....		4	35	3	2	19	11	16	De <sup>s</sup> 17	Ja <sup>s</sup> 14	17	17	1	1	1	26,830
Book publishing without printing.....		4	25	5	1	1	3	16			17	17	1	1	1	60,178
Book publishing and printing, and linotype work and type-setting.....																

\* Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).

\* Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

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[illegible]

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.								
2,829,557	3,403,437	38,092,615	18,111	190,352	12,134,492	170,650,052	2,173,712	275,779,638	102,955,574	33,610	2,198	2,150	127	100	29,085	1,625	1
	1,200	15,390	3,472	1,684	516	26,303	2,606	82,731	53,822	37	15		22				
122,818	87,114	1,357,508			111,840	5,702,502	62,619	8,597,634	2,632,513	2,354	500				1,854	200	2
2,600	1,816	39,866		2,015	266	76,600	1,612	142,688	64,476	47					147		3
30,590	45,213	195,652	247	12,810	22,336	1,013,978	21,889	1,621,915	580,048	147					97		4
	3,405	36,934		9,700	1,331	303,719	4,586	383,488	175,194	27					2		5
6,800	9,385	26,716		1,730	6,759	45,306	362	115,721	70,053	9					9		6
59,010	62,934	503,084		10,136	51,379	1,093,704	22,936	2,148,759	1,032,119	338					338		7
14,617	3,405	91,208			6,518	337,705	8,010	484,834	139,119	475	120				355		8
																	9
1,663	779	12,286		910	304	49,295	1,152	103,099	52,652	13					13		10
33,718	10,885	86,714		12,294	2,318	134,245	4,556	303,703	224,902	90			5		85		11
1,300	1,000	100,098		2,415	17,656	80,475	490	173,701	92,736	1					1		12
2,556,441	3,176,301	35,627,159	14,392	136,656	11,913,119	161,796,220	2,042,895	261,621,365	97,782,260	30,072	1,563	2,150	100	100	26,159	1,425	13

4, 558, 267	4, 184, 226	26, 170, 377	1, 228, 015	446, 774	3, 503, 391	49, 213, 898	1, 947, 863	100, 135, 055	57, 973, 294	44, 048	22, 578	3, 053	679	922	16, 816	6, 817	1
100	75	7, 580	600	500	89	11, 557	824	29, 752	17, 401	7			2		5		2
271, 154	61, 541	1, 544, 053	1, 040	35, 583	358, 468	2, 608, 235	62, 980	5, 684, 074	2, 935, 459	1, 940	1, 110				330		3
51, 067	17, 573	206, 125			16, 491	569, 819	9, 652	1, 284, 478	675, 007	1, 901	15				176		4
89, 040	35, 383	166, 446	12, 662	8, 069	6, 712	610, 484	5, 040	1, 038, 425	422, 901	133			1		132		5
34, 680	2, 506	65, 623		2, 290	1, 976	83, 476	1, 613	266, 566	181, 472	33					33		6
62, 231	40, 438	329, 061		8, 112	13, 063	302, 526	22, 309	910, 555	585, 720	478				200	278	210	7
24, 910	180, 536	441, 746		19, 422	29, 382	2, 173, 459	54, 530	3, 605, 027	1, 377, 033	424	70			10	344		8
15, 935	48, 186	69, 558	42	3, 452	11, 026	1, 422, 753	11, 284	1, 647, 484	213, 447	234					234		9
1, 800	780			180		2, 256	9	7, 200	4, 935								10
9, 800	4, 203	39, 551	1, 740	4, 386	1, 252	113, 736	2, 119	227, 142	111, 287	18					18		11
12, 765	19, 742	29, 039		2, 876	3, 137	83, 747	494	190, 917	106, 686	14					14		12
33, 938	70, 085	67, 159	279	2, 290	13, 466	274, 962	7, 115	537, 458	255, 381	238					238		13
67, 104	111, 219	182, 891		23, 607	219, 395	1, 266, 838	18, 849	2, 344, 979	9, 059, 492	426	185				241	256	14
61, 722	103, 564	136, 312		20, 397	217, 785	910, 523	11, 390	1, 847, 950	1, 926, 037	204	185				19	256	15
5, 381	7, 665	46, 579		3, 210	1, 010	356, 315	7, 259	407, 029	133, 455	222					222		16
15, 300	5, 224	53, 715		1, 859	1, 184	117, 638	1, 599	248, 122	128, 885	36					36		17
4, 940	1, 435	23, 736		1, 278	200	1, 131	3, 554	49, 805	40, 180	53					45		18
73, 013	64, 340	143, 090	100	423	33, 943	4, 921, 085	30, 420	5, 453, 586	501, 181	1, 937	850				462	345	19
226, 218	121, 875	1, 434, 394	4, 062	70, 393	92, 419	1, 520, 210	156, 723	3, 987, 657	2, 310, 724	2, 569	675	25		147	1, 722	254	20
63, 650	29, 469	558, 195		375	31, 542	471, 272	100, 919	1, 479, 688	907, 497	731	380	25			348	115	21
134, 046	84, 732	701, 056	4, 062	35, 496	43, 851	944, 408	46, 037	2, 170, 741	1, 150, 245	1, 516	240	25		147	1, 129	136	22
28, 222	7, 174	155, 113		34, 522	17, 026	104, 529	9, 717	337, 228	222, 082	322	75				247	3	23
1, 603, 827	1, 516, 798	10, 594, 498	54, 599	65, 092	969, 708	13, 562, 587	320, 303	34									

<sup>a</sup> Same number reported for one or more other months.

## MANUFACTURES—MICHIGAN.

TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.							WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.		
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.			Under 16.	
					Male.	Female.	Average number.	Number, 15th day of—			Male.	Female.		Male.	Female.
								Maximum month.	Minimum month.						

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

GRAND RAPIDS—Continued.																Dollars.		
1	Printing and publishing, newspapers and periodicals.	20	580	11	34	164	62	309					333	264	63	4	2	1,109,067
2	Printing and publishing.	7	417	2	16	145	45	208	De	220	Fe	196	220	197	19	3	1	792,213
3	Printing, publishing, and job printing.	5	146	3	13	14	17	99	De	112	Fe	88	112	66	44	1	1	369,372
4	Publishing without printing.	8	17	6	5	5		1	(S)		(S)	1	1	1				7,482
5	Saddlery and harness.	4	27	2	2			23	(S)	23	(S)	23	23	23				105,155
6	Sausage, not made in slaughtering and meat-packing establishments.	3	16	5			1	9	Jy	4	Ja	8	10	10				328,900
7	Saws.	3	15	2	4	1	2	6	(S)	6	(S)	6	7	7				23,860
8	Shirts.	3	66	1	4	18	3	40	Oct	43	Ja	34	37	8	29			53,080
9	Signs, other than electric.	3	23	4	3			16	Au	20	Ja	13	16	16				21,785
10	Tobacco, cigars.	25	761	24	32	18	9	678	Au	795	De	625	779	100	664	2	7	809,408
11	Tools, not elsewhere specified.	3	7	3				4	(S)	4	(S)	4	6	4		2		17,875
12	Wood, turned and carved.	10	139	11	7	2	3	116	De	152	Ja	85	151	141	10			220,044
13	All other industries*.	134	7,350	74	352	479	304	6,141					6,839	5,425	1,194	103	117	21,050,666

\*All other industries embrace—  
 Aluminum manufactures.  
 Artificial limbs.  
 Awnings, tents, and sails.  
 Baskets, and rattan and willow ware.  
 Belting, leather.  
 Blacking, stains, and dressings.  
 Boots and shoes.  
 Boxes, cigar.  
 Boxes, paper and other, not elsewhere specified.  
 Boxes, wooden packing, except cigar boxes.  
 Brick, building.  
 Brooms, from broom corn.

Brushes.  
 Buttons.  
 Canning and preserving, fruits.  
 Carpets, rag.  
 Carriages and wagons, including repairs.  
 Cars and general shop construction and repairs by electric-railroad companies.  
 Cars and general shop construction and repairs by steam-railroad companies.  
 Cash registers and calculating machines.  
 China decorating.

Cordage and twine.  
 Cordials and flavoring sirups.  
 Cutlery and edge tools.  
 Dental goods.  
 Electrical machinery, apparatus, and supplies.  
 Engraving, steel and copper plate, including plate printing.  
 Fancy articles, paper novelties.  
 Flavoring extracts.  
 Food preparations, not elsewhere specified.  
 Fur goods.  
 Gas, illuminating and heating.  
 Gas machines and gas and water meters.

Glass, cutting, staining, and ornamenting.  
 Gloves and mittens, cloth, not including gloves made in textile mills.  
 Grease and tallow, not including lubricating greases.  
 Hair work.  
 Hand stamps.  
 Hats and caps, other than felt, straw, and wool.  
 House-furnishing goods, not elsewhere specified.  
 Ice, manufactured.  
 Ink, writing.

1		LANSING—All industries....		147	14,297	100	509	739	600	12,349	No 13,712	Ja 10,185	12,770	11,765	987	17	1	61,031,509
2	Artificial stone products.....	4	28	5	2	2		19	Jy	31	Fe	9	14	14				58,328
3	Automobile bodies and parts.....	6	2,351		52	66	31	2,202	No	2,361	Ja	1,842	2,204	1,910	285			6,590,290
4	Automobile repairing.....	8	39	10		1	3	25	Jy	30	Ja	20	22	21	1			85,072
5	Bread and other bakery products.....	10	99	16	4	1	9	69	Au	71	Mh	67	66	59	7			166,163
6	Copper, tin, and sheet-iron work.....	5	37	4	5	1	2	25	Oct	35	Apr	18	36	36				94,314
7	Engines, steam, gas, and water.....	4	950		46	36	30	838	Dec	939	Ja	715	939	884	52	3		3,271,744
8	Flour-mill and gristmill products.....	3	33	3	2	4	4	20	Oct	25	Jan	14	24	22	2			334,852
9	Foundry and machine-shop products.....	16	1,143	4	60	29	07	983	Dec	1,148	Mh	866	1,143	1,036	98	9		4,180,119
10	Iron and steel, forgings, not made in steel works or rolling mills.....	4	783		21	56	17	689	Oct	927	Jan	515	780	717	63			2,509,799
11	Iron and steel, welding.....	3	6	3				3	(S)	3	(S)	3	2	2				13,605
12	Lumber, planing-mill products, not including planing mills connected with sawmills.....	6	208		23	20	7	158	Sept	180	Feb	125	173	173				1,146,001
13	Models and patterns, not including paper patterns.....	3	8	3				5	Dec	6	Mh	4	6	6				15,865
14	Printing, job.....	17	210	14	13	3	5	175	My	183	Jan	160	182	108	71	2	1	390,224
15	Printing and publishing, newspapers and periodicals.....	5	147		5	33	27	82	Dec	93	Aug	62	93	54	38	1		399,008
16	Tobacco, cigars.....	4	15	4			1	10	Jan	13	Sept	8	12	3	9			19,689
17	All other industries *.....	49	8,240	34	276	487	397	7,046					7,074	6,711	361	2		41,741,436

\*All other industries embrace—  
 Automobiles.  
 Awnings, tents, and sails.  
 Bags, other than paper, not including bags made in textile mills.  
 Baking powders.  
 Bookbinding and blank-book making.

Boxes, cigar.  
 Brass and bronze products.  
 Brick, building.  
 Brooms, from broom corn.  
 Butter.  
 Carpets, rag.  
 Carriages and wagons, repair work only.

Chewing gum.  
 Clothing, women's, undergarments and petticoats.  
 Coffee, roasting and grinding.  
 Coffins, burial cases, and undertakers' goods.  
 Condensed milk.

Confectionery and ice cream.  
 Dairymen's, poultrymen's, and apirists' supplies.  
 Druggists' preparations.  
 Electrical machinery, apparatus, and supplies.  
 Furniture, store and office fixtures.

1 Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).

\*Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

## COMBINED AND SPECIFIED INDUSTRIES: 1919—Continued.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.					
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.				
										Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power. <sup>1</sup>	Rent- ed. <sup>2</sup>	

## CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

Dollars. 133,818	Dollars. 253,034	Dollars. 306,834	Dollars. 64,950	Dollars. 18,256	Dollars. 98,975	Dollars. 582,223	Dollars. 17,153	Dollars. 2,343,763	Dollars. 1,744,387	600					600	1	
98,170	214,091	209,375	150	16,320	92,518	485,081	13,371	1,771,394	1,272,942	492					492	2	
32,533	32,126	96,575	50,000	1,108	6,395	93,712	3,782	531,343	433,849	108					108	3	
3,115	6,817	884	14,800	828	62	3,430		41,026	37,596							4	
2,900		23,338		250	328	192,399	220	253,775	61,156	7					7	5	
	600	13,090		780	126	94,639	2,412	121,993	24,942	53					53	6	
10,200	2,025	7,355	500	1,015	359	12,824	540	40,177	26,813	13					13	7	
6,022	2,750	26,753		1,716	489	72,026	435	176,500	104,039	8					8	8	
6,307		18,138		1,675	328	16,077	64	57,331	41,190	1					1	9	
42,941	78,540	507,433	5,588	11,363	313,859	790,054	3,162	1,932,897	1,189,081	27					27	10	
		4,200	16,896	720		12,410	187	25,900	11,308	10					10	11	
25,078	7,553	137,721		6,494	2,001	59,710	6,105	342,335	243,520	288					288	12	
1,208,597	1,135,727	6,828,793	9,980	109,653	937,064	12,202,025	1,049,570	27,433,945	14,182,350	16,822	7,153	2,983	458	75	6,153	3,448	13

Iron and steel, forgings, not made in steel works or rolling mills.....	1	Mirrors, framed and unframed, not elsewhere specified.....	1	Photographic materials, motion-picture films, not exposed.....	1	Stereotyping and electrotyping....	1
Jewelry.....	2	Models and patterns, not including paper patterns.....	2	Pickles and sauces.....	1	Stoves and hot-air furnaces.....	1
Labels and tags.....	1	Motorcycles, bicycles, and parts.....	1	Plumbers' supplies, not elsewhere specified.....	2	Structural ironwork, not made in steel works or rolling mills.....	2
Lamps and reflectors.....	2	Musical instruments and materials, not specified.....	3	Refrigerators.....	1	Surgical appliances.....	1
Leather goods, not elsewhere specified.....	1	Musical instruments, pianos.....	2	Roofing materials.....	2	Textile machinery and parts.....	1
Lithographing.....	1	Musical instruments, piano materials	2	Rubber tires, tubes, and rubber goods, not elsewhere specified....	2	Toys and games.....	2
Looking-glass and picture frames.....	1	Optical goods.....	2	Sand-lime brick.....	1	Trunks and valises.....	1
Lumber and timber products.....	1	Paints.....	2	Soap.....	1	Typewriters and parts.....	1
Machine tools.....	2	Paper and wood pulp.....	1	Steam fittings and steam and hot-water heating apparatus.....	3	Upholstering materials, excelsior... 1	2
Mattresses and spring beds, not elsewhere specified.....	2	Paper goods, not elsewhere specified	3	Steam packing.....	1	Varnishes.....	1
Millinery and lace goods, not elsewhere specified.....	3	Perfumery and cosmetics.....	5	Stencils and brands.....	1	Vinegar and cider.....	1
		Photo-engraving.....				Window and door screens and weather strips.....	2
						Wirework, not elsewhere specified..	3

1,435,320	1,535,491	13,957,051	14,370	55,651	3,776,420	63,783,131	1,198,209	104,722,115	39,740,775	23,602	4,907	100	6	243	18,346	2,129	1
2,500	1,300	27,876		400	186	46,673	1,904	114,416	65,838	17					17		2
129,627	121,095	2,485,552	335	6,009	270,825	4,957,424	64,426	9,229,855	4,208,005	4,420	1,875				2,545	1,310	3
	4,529	38,710		8,725	12,804	111,654	4,540	207,429	91,235	46					46		4
9,300	10,356	88,832		1,840	3,897	514,412	12,987	840,135	312,736	122					122		5
10,925	4,747	31,664		1,366	1,078	93,270	366	168,453	74,817	2					2		6
115,625	85,813	936,176		1,500	283,468	1,382,955	86,104	3,227,820	1,755,761	1,182	460		6		716	300	7
2,900	8,960	24,735			3,021	757,650	5,157	846,933	84,126	503				213	290		8
162,548	102,722	1,092,396	9,054	2,074	349,476	2,055,379	53,325	4,556,250	2,447,546	1,822	550	100		30	1,142	480	9
90,696	112,527	913,826			149,683	2,319,385	169,741	4,174,718	1,655,592	2,509	520				1,989		10
		4,732		2,400	15	8,960	426	25,193	15,812	11					11		11
63,400	44,813	175,068		3,080	20,008	1,632,779	10,971	2,229,531	582,781	564	60				504		12
		5,538		540	50	6,241	769	17,825	10,825	23					23		13
38,866	9,629	214,072	2,613	15,937	6,050	239,463	5,775	665,197	419,959	139					139		14
39,860	34,800	82,651	2,368	1,440	17,592	143,413	4,664	495,507	347,430	117					117		15
	720	9,852		1,500	4,240	13,997	227	35,537	21,313								16
769,079	993,480	7,826,371		8,840	2,054,029	49,499,476	770,837	77,890,312	27,613,999	12,125	1,442				10,683	39	17

Gas, illuminating and heating.....	1	Mattresses and spring beds, not elsewhere specified.....	1	Screws, machine.....	1	Sugar, beet.....	1
Glass, cutting, staining, and ornamenting.....	1	Mineral and carbonated waters.....	1	Show cases.....	1	Tinware, not elsewhere specified....	1
Hardware.....	1	Patent and proprietary medicines.....	1	Signs, other than electric.....	1	Tools, not elsewhere specified.....	1
Ice, manufactured.....	1	Pumps, power, other than steam....	1	Stoves and hot-air furnaces.....	1	Windmills.....	1
Marble and stone work, monuments and tombstones.....	2			Structural ironwork, not made in steel works or rolling mills.....	2	Window and door screens.....	1

<sup>1</sup> Same number reported throughout the year.<sup>2</sup> Same number reported for one or more other months.

## MANUFACTURES—MICHIGAN.

TABLE 36.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.							WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.		
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Average number.	Wage earners.		Total.	16 and over.			Under 16.	
					Male.	Female.		Number, 15th day of—			Male.	Female.		Male.	Female.
								Maximum month.	Minimum month.						

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

1	SAGINAW—All industries....	208	11,116	180	424	625	415	9,472	No 11,379	Ja 7,900	11,350	9,415	1,881	38	16	Dollars. 45,240,435
2	Artificial stone products.....	6	44	6	6	1	.....	31	Se 59	Mh 5	43	43	.....	.....	.....	89,653
3	Automobile bodies and parts.....	5	270	1	23	15	9	222	De 327	Fe 116	327	293	34	.....	.....	768,536
4	Automobile repairing.....	4	8	.....	.....	.....	.....	4	(3) 4	(3) 4	4	4	.....	.....	.....	3,926
5	Brass and bronze products.....	3	27	5	2	.....	.....	19	Se 41	Mh 5	27	27	.....	.....	.....	36,189
6	Bread and other bakery products.....	18	313	23	8	24	18	240	De 248	Ja 234	234	117	115	2	.....	565,201
7	Butter.....	3	24	.....	3	2	4	15	Jy 19	Ja 12	10	8	2	.....	.....	99,721
8	Confectionery and ice cream.....	7	47	8	8	.....	.....	29	Jy 35	Ja 23	27	21	6	.....	.....	115,113
9	Copper, tin, and sheet-iron work.....	10	51	16	7	.....	.....	24	De 33	Ap 15	34	33	1	.....	.....	84,788
10	Foundry and machine-shop products.....	17	3,182	3	82	169	101	2,827	.....	.....	3,855	3,687	166	2	.....	19,355,859
11	Machine shops.....	11	787	3	38	29	35	682	De 755	Ja 637	756	749	5	2	.....	3,321,225
12	All other.....	6	2,395	.....	44	140	66	2,145	No 3,097	Ja 1,107	3,099	2,938	161	.....	.....	16,034,634
13	Iron and steel, welding.....	3	9	6	.....	.....	.....	3	No 4	Mh 2	4	4	.....	.....	.....	4,949
14	Liquors, malt.....	3	86	2	9	5	.....	70	Au 108	De 26	62	62	.....	.....	.....	469,651
15	Lumber, planing-mill products, not including planing mills connected with sawmills.....	11	537	15	27	31	28	436	De 497	Mh 368	500	487	13	.....	.....	2,216,696
16	Marble and stone work.....	5	29	8	2	6	2	11	Oc 13	Ja 7	12	11	1	.....	.....	38,188
17	Mineral and carbonated waters.....	3	18	2	2	1	.....	13	Au 19	Mh 10	10	10	.....	.....	.....	33,847
18	Patent medicines and compounds.....	4	21	.....	4	1	4	12	(3) 12	(3) 12	8	3	5	.....	.....	125,457
19	Printing and publishing, book and job.....	14	139	17	12	2	17	91	No 98	Ap 88	96	80	16	.....	.....	397,057
20	Tobacco, cigars.....	18	113	21	4	2	.....	86	De 103	Jy 74	110	66	44	.....	.....	95,481
21	All other industries *.....	74	6,198	43	225	366	225	5,339	.....	.....	5,987	4,459	1,478	34	16	20,740,103

*All other industries embrace—	Cars and general shop construction and repairs by steam-railroad companies.....	Coffins, burial cases, and undertakers' goods.....	Engraving, steel and copper plate, including plate printing.....
Automobiles.....	Cash registers and parts.....	Cooperage, hogsheds and barrels.....	Flags and banners.....
Awnings, tents, and sails.....	Chemicals.....	Corsets.....	Flour-mill and gristmill products.....
Bookbinding and blank-book making.....	Clothing, women's, shirt waists and dresses, except house dresses.....	Electrical machinery, apparatus, and supplies.....	Fur goods.....
Boxes, cigar.....	Coal-tar products.....	Electroplating.....	Furniture.....
Boxes, set-up paper boxes.....	Coffee, roasting and grinding.....	Enameling.....	Gas, illuminating and heating.....
Canning and preserving, vegetables.....	.....	Engines, steam, gas, and water.....	Glass, cutting, staining, and ornamenting.....
Carriages and wagons, including repairs.....	.....	.....	.....

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

1	ADRIAN.....	62	2,260	58	95	163	74	1,870	Oc 2,082	My 1,715	2,217	1,775	431	11	.....	7,070,936
2	ALPENA.....	38	1,500	30	45	36	17	1,372	Oc 1,590	Fe 1,218	1,570	1,408	184	.....	.....	7,140,433
3	ANN ARBOR.....	78	1,899	69	89	61	68	1,612	Jy 1,711	Ap 1,502	1,674	1,503	171	.....	.....	7,381,026
4	BATTLE CREEK.....	118	8,346	35	338	794	449	6,680	Au 7,554	Ja 5,868	6,723	5,724	992	3	4	38,863,882
5	BAY CITY.....	108	6,173	73	313	439	201	5,057	De 6,127	Au 4,305	5,820	4,635	1,164	20	1	21,878,831
6	BENTON HARBOR.....	65	2,879	45	136	219	151	2,328	De 2,507	My 2,092	2,682	2,280	393	9	.....	8,117,598
7	ESCANABA.....	45	992	42	33	60	15	842	Fe 882	Au 774	870	657	212	1	.....	2,358,546
8	HOLLAND.....	64	3,281	36	158	192	144	2,748	Se 3,089	Ja 2,432	3,243	2,623	573	22	20	14,024,531
9	IRONWOOD.....	28	479	29	20	18	13	399	De 451	My 271	453	425	17	11	.....	1,182,500
10	ISHPEMING.....	21	191	20	18	32	14	107	Oc 164	Fe 61	154	141	12	1	.....	1,531,533
11	JACKSON.....	156	11,205	110	445	585	444	9,620	No 11,075	Ja 8,145	11,161	9,468	1,668	22	3	37,870,437
12	KALAMAZOO.....	185	9,535	120	483	778	525	7,629	De 8,724	My 7,080	8,670	6,703	1,910	31	26	36,855,912
13	MARQUETTE.....	34	1,605	18	62	70	40	1,415	My 1,469	Je 1,266	1,457	1,405	40	12	.....	9,464,813
14	MONROE.....	41	3,224	19	114	108	79	2,904	De 3,135	Ja 2,678	3,145	1,998	1,145	1	1	10,654,823
15	MUSKEGON.....	141	10,954	101	362	372	403	9,716	De 10,993	Mh 8,669	11,155	9,421	1,096	16	22	36,751,190
16	OWOSSO.....	40	2,043	31	90	98	48	1,781	De 2,121	Fe 1,488	2,121	1,893	211	12	.....	7,537,438
17	PONTIAC.....	78	9,167	96	282	590	517	7,682	No 9,345	Ja 5,622	9,317	8,618	699	.....	.....	42,693,258
18	PORT HURON.....	83	2,631	67	123	110	91	2,231	Oc 2,767	Ja 1,717	2,861	2,426	422	12	1	10,001,596
19	SAULT STE. MARIE.....	26	1,421	18	51	76	28	1,948	No 1,325	Mh 1,170	1,321	1,207	113	1	.....	22,410,301
20	TRAVERSE CITY.....	56	1,182	52	66	63	41	960	No 1,094	Ja 843	1,110	896	210	4	.....	3,141,355
21	WYANDOTTE.....	26	6,806	20	81	332	159	6,214	Ja 6,957	Jy 4,729	7,215	6,921	289	5	.....	26,345,649
22	ALL OTHER CITIES.....	50	69,956	38	797	3,244	1,248	64,620	No 74,426	Ja 50,186	74,598	73,228	1,367	3	.....	442,141,539

1 Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).

2 Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

## COMBINED AND SPECIFIED INDUSTRIES: 1919—Continued.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.					
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.				
										Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power. <sup>1</sup>		

## CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

Dollars. 1,450,249	Dollars. 1,373,206	Dollars. 9,983,886	Dollars. 1,262,078	Dollars. 58,590	Dollars. 1,121,658	Dollars. 20,546,630	Dollars. 769,132	Dollars. 43,146,125	Dollars. 21,830,363	31,402	9,005	802	35	.....	21,560	2,541	1
9,252	2,170	42,232	500,000	1,059	914	50,817	1,176	118,760	66,767	68	.....	.....	6	.....	62	.....	2
71,191	25,643	237,603	1,014	736	65,733	235,067	14,816	695,137	445,254	464	150	.....	.....	.....	314	232	3
.....	.....	4,116	.....	1,101	15	1,659	688	10,808	8,561	5	.....	.....	.....	.....	5	.....	4
6,892	1,091	35,343	.....	950	27	17,034	1,171	117,363	99,158	23	.....	.....	.....	.....	23	.....	5
36,944	53,666	169,982	.....	5,590	6,610	893,939	19,801	1,479,984	569,154	291	150	.....	.....	.....	141	150	6
8,000	7,352	14,806	.....	1,200	1,071	645,972	3,684	754,126	104,470	54	.....	.....	.....	.....	54	.....	7
8,653	1,360	25,685	.....	2,724	1,279	181,119	3,521	309,904	125,264	107	.....	.....	.....	.....	107	.....	8
8,200	1,855	23,575	.....	2,160	693	58,556	701	118,020	58,763	18	.....	.....	15	.....	3	.....	9
329,724	355,185	3,029,118	743,565	50	322,198	5,903,959	231,681	13,598,454	7,459,814	14,586	680	.....	.....	.....	13,902	469	10
115,700	106,707	1,045,560	8,400	.....	106,210	828,756	41,726	3,023,729	2,153,247	1,026	175	.....	.....	.....	1,447	50	11
214,024	278,478	1,980,528	735,165	50	215,988	5,078,203	189,055	10,574,725	5,306,567	12,960	505	.....	.....	.....	12,455	419	12
.....	.....	5,762	.....	710	.....	1,551	94	11,207	9,562	7	.....	.....	.....	.....	7	.....	13
17,129	8,781	46,903	.....	2,100	38,351	64,240	15,384	165,744	86,120	246	210	.....	.....	.....	36	86	14
105,970	74,489	348,514	8,994	.....	40,982	1,491,133	16,159	2,474,337	967,045	2,515	1,740	675	.....	.....	100	644	15
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3,000	5,025	10,163	3,852	144	423	25,998	754	86,162	59,410	29	.....	.....	.....	.....	29	.....	16
3,205	1,200	12,811	.....	757	1,562	32,717	437	81,744	48,590	8	.....	.....	.....	.....	8	.....	17
10,874	5,062	14,082	.....	650	969	57,407	496	112,602	54,699	21	.....	.....	.....	.....	21	.....	18
24,554	10,464	40,137	199	11,331	2,976	180,703	7,843	401,874	204,268	208	150	.....	.....	.....	58	125	19
4,191	2,125	68,228	.....	1,735	23,208	114,984	915	239,512	123,613	5	.....	.....	.....	.....	5	.....	20
801,970	781,188	5,783,326	4,454	26,593	614,638	10,577,715	449,821	22,370,387	11,842,851	12,747	5,925	127	10	.....	6,685	835	21

Gloves and mittens, cloth, not including gloves made in textile mills. . . . . 1	Matches. . . . . 1	Printing and publishing, newspapers and periodicals. . . . . 3	Tobacco, smoking. . . . . 1
Graphite, ground and refined. . . . . 1	Mattresses and spring beds, not elsewhere specified. . . . . 1	Saddlery and harness. . . . . 1	Tools, not elsewhere specified. . . . . 2
Grease and tallow, not including lubricating greases. . . . . 1	Models and patterns, not including paper patterns. . . . . 2	Sausage, not made in slaughtering and meat-packing establishments. . . . . 2	Vinegar. . . . . 1
Hand stamps. . . . . 1	Musical instruments, piano materials. . . . . 1	Saws. . . . . 1	Window and door screens and weather strips. . . . . 1
Leather, tanned, curried, and finished. . . . . 2	Optical goods. . . . . 1	Shipbuilding, wooden, small boats. . . . . 1	Window shades and fixtures. . . . . 1
Lumber and timber products. . . . . 2	Phonographs and graphophones. . . . . 1	Show cases. . . . . 1	Wood, turned and carved. . . . . 1
Machine tools. . . . . 1	Pickles and sauces. . . . . 2	Structural ironwork, not made in steel works or rolling mills. . . . . 1	Wooden goods, not elsewhere specified. . . . . 2

## CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

227,368	353,169	1,714,133	1,327	25,805	188,498	9,973,970	178,958	14,549,031	4,396,103	3,317	1,396	.....	33	68	1,820	1,225	1
181,336	79,249	1,528,379	20,989	4,908	335,107	4,060,687	826,788	9,356,190	4,408,715	23,318	4,300	14,350	35	2,100	2,533	11,047	2
238,415	134,470	2,102,025	61,768	16,355	409,172	5,083,093	293,554	9,793,696	4,417,049	3,029	1,036	.....	5	.....	2,588	13	3
1,500,311	1,506,827	8,667,501	58,509	95,131	2,798,882	20,610,926	1,377,965	58,139,963	28,161,062	22,432	7,457	644	13	1,881	12,437	5,187	4
1,133,186	730,588	5,392,522	6,490	91,867	1,245,158	14,795,768	465,828	28,214,525	12,952,929	14,540	5,772	1,692	.....	.....	7,076	4,520	5
510,759	632,923	2,563,222	324,232	36,718	658,386	4,285,508	346,015	11,345,034	6,713,511	3,374	378	.....	20	.....	2,976	8	6
84,160	98,203	875,692	150	6,610	66,258	1,063,448	89,483	3,017,912	1,894,981	2,201	1,817	.....	21	.....	363	.....	7
513,375	625,862	2,708,869	5,826	9,078	420,350	0,968,362	256,629	17,711,095	7,486,104	4,837	2,538	400	.....	.....	1,999	845	8
30,145	23,208	586,658	161	5,100	15,834	519,693	34,458	1,381,290	827,139	725	512	.....	.....	.....	213	4	9
58,456	63,125	124,413	24	3,041	12,843	441,074	41,624	1,007,432	524,734	370	210	.....	.....	.....	160	198	10
1,371,181	1,374,608	10,898,509	437,842	97,874	605,391	29,006,420	982,292	49,517,712	19,529,000	18,744	1,715	30	40	.....	16,950	410	11
1,497,758	1,736,242	8,162,319	32,537	82,699	1,611,751	22,857,069	1,379,274	46,254,017	22,018,574	26,147	16,013	1,432	115	140	8,447	6,987	12
151,686	143,867	1,592,963	445	8,949	69,171	3,817,158	848,138	7,210,375	2,545,070	6,138	2,580	1,000	2	.....	2,556	1,231	13
426,438	382,519	3,362,497	1,422	6,025	683,110	7,595,365	705,762	16,052,331	7,691,204	14,563	11,137	1,425	73	20	1,908	3,571	14
1,129,120	1,078,576	10,852,919	84,305	43,125	2,843,277	24,585,375	1,090,354	55,969,347	30,293,618	24,026	5,253	300	14	.....	18,459	1,317	15
308,206	274,211	2,220,894	17,404	4,260	513,735	4,873,237	335,853	9,948,736	4,739,646	4,220	2,195	450	.....	.....	1,575	1,015	16
1,462,366	993,604	10,880,753	.....	58,398	5,271,983	66,076,808	709,554	104,990,133	38,203,971	12,841	1,033	.....	2	94	11,712	154	17
372,273	273,268	2,482,382	36,183	19,440	265,889	4,447,905	483,052	9,545,578	4,614,621	5,884	1,880	.....	181	.....	3,823	97	18
146,505	163,878	1,532,761	.....	6,354	553,611	4,696,114	2,064,327	10,699,767	3,939,326	5,598	568	.....	524	.....	4,506	3	19
137,922	96,771	846,635	11,211	9,965	93,443	2,198,408	83,676	4,699,960	1,817,679	3,131	1,140	.....	.....	70	1,021	.....	20
425,341	741,088	10,659,415	200	1,900	1,389,796	10,562,077	2,877,907	33,382,791	19,942,807	29,528	10,557	17,315	9	100	1,547	11,341	21
11,930,110	6,764,868	103,194,750	2,004	19,561	47,873,654	304,984,927	4,086,201	569,208,377	260,138,249	38,788	4,392	1,000	220	.....	33,176	62,448	22

\* Same number reported throughout the year.

\* Same number reported for one or more other months.

\* All other cities comprise Hamtramck and Highland Park.

# MINES AND QUARRIES—MICHIGAN.

## EXPLANATION OF TERMS.

**Scope of census and period covered.**—The census of mines, quarries, and petroleum or natural-gas wells does not cover enterprises which were idle; that is, in which neither productive nor development work was done during the entire year, or the products of which were valued at less than \$500; or in the case of bituminous coal mining, producing less than 1,000 tons, or, if not productive, in which development work amounting to less than \$5,000 was done. The returns relate to the calendar year 1919. When use is made of the statistics relating to character of ownership, size of enterprises, and similar subjects, it is imperative that due attention be given their limitations, particularly in connection with any attempt to show average wages, cost of production, or profits.

**The enterprise.**—The term "enterprise" represents one or more mines and quarries, wells or groups of wells, or natural-gas gasoline plants, all within the same state, operated under a common ownership or unified control, or for which only one set of books of account was kept, and for which a single report was secured. It may cover plants at several localities within the same state. If plants under unified control were not all located within the same state, separate reports were secured in order that statistics for the several enterprises thus defined might be included in statistics for the states in which they were located. The enterprise is further defined as being limited to a single industry.

**Number of mines, quarries, wells, and plants.**—Under these designations is given the number of mines, quarries, wells, and gasoline plants shown by the returns. As a rule each group of workings at a given locality in which operations were conducted as a unit or were unified by common management or joint handling of some part of the mining process, has been considered as a single mine or quarry. Many individual openings, therefore, are not counted as individual mines. The total number reported comprises those in operation or in the course of development during the year 1919. For petroleum and natural-gas wells the individual wells were counted and the total number productive December 31, 1919, is reported. The number of natural-gas gasoline plants is the total number reported in operation during the year.

**Classification by industries.**—The enterprises reported have been grouped by industries according to the kind of products.

**Selected industries.**—The detailed table gives the principal facts separately for the leading industries of the state.

**Influence of increased prices.**—In comparing figures for cost of supplies and materials and value of products with the corresponding figures for earlier censuses, account should be taken of the general increase in the prices of commodities during recent years.

**Persons engaged in the industry.**—The number of persons engaged in each industry, by occupation, sex, and, in the case of wage earners, also by age, was reported for a single representative day. In addition to the number of wage earners on the representative date, a report was obtained of the number employed on the 15th of each month, without distinction of sex or age. From these figures the average number of wage earners for the year has been calculated by dividing the sum of the numbers reported for the several months by 12.

**Salaries and wages.**—Under these heads are given the total payments during the year for salaries and wages, respectively.

**Prevailing hours of labor.**—This inquiry called merely for the prevailing practice followed in each enterprise. Occasional variations in hours from one part of the year to another were disregarded, and also where a few wage earners might have hours differing from the majority. All the wage earners of each enterprise are therefore counted in the class within which the enterprise falls.

**Capital.**—The instructions on the schedule relating to capital were as follows: "The answer should show the total amount of capital, owned and borrowed, invested by the operator in the enterprise on the last day of the business year reported. *Do not* include securities and loans representing investments in other enterprises." The reports received in respect to capital, however, have in so many cases been defective that the data compiled only indicate very general conditions.

**Expenses.**—The expenses reported in the census of 1919 include salaries and wages; the cost of supplies, materials, and fuels, including the freight on these; cost of power purchased; the cost of contract work; royalties and rents paid; and taxes paid or assessed. The census of 1909 reported in addition to the items of expenses covered by the present census all other items of expense incident to that year's business, except interest on indebtedness, dividends, and allowances for depreciation.

**Supplies and materials, fuel, and power.**—Statistics as to supplies and materials, fuel, and power, relate to the cost of these used during the year which may be more or less than the amount purchased during the year. The term "supplies and materials" covers mine, mill, quarry, and well supplies, and mineral purchased for treatment, resale, or distribution.

**Royalties and rents.**—The amounts given under this head represent the payment to fee holders or the value of share of product credited to fee holders for mineral output from leased land, and also rents paid for plants, equipment, and privileges or easements.

**Taxes.**—The taxes include Federal capital stock; corporation income, and excess profits tax; and also state, county, and local taxes. The data compiled in respect to Federal taxes are very defective as many mining corporations are engaged in other business and have sources of income other than from mining and do not pay taxes on mining separately.

**Expenditures for development work.**—In the statistics for producing enterprises that part of the expenses for salaries, wages, contract work, supplies and materials, fuel, and power credited to development work is shown as expenditures for development work. For nonproducing enterprises the total of these expenses is given as expenditure for development work.

**Quantity of products.**—In so far as the statistics on quantities of mineral products in 1919 are available for the states, they will be found in the reports of the United States Geological Survey.

**Value of products.**—The amounts given under this heading represent the selling value at point of production or f. o. b. at point of shipment, or such other value as may represent the net value or amount received for the 1919 product under the terms by which it was disposed of, and also includes the value at point of production of products used by the operating company.

**Cost of mining and profits.**—The data do not show entire cost of mining and well operations, and can not be used for the calculation of profits. No account was taken of depreciation or interest; rent of offices and buildings other than those for mines, quarries, and wells; insurance, selling, and other sundry expenses.

**Lands controlled.**—The inquiry on land tenure was confined to land pertaining to the operations covered by the report. In many of these, however, land held in reserve for future development and for other purposes not pertaining to mining was included and also a large number of more or less unsatisfactory estimates.

**Power used.**—The figures on power represent the rated capacity of the engines, motors, etc., and not the amount in actual daily use.

**Fuel.**—Statistics of fuel are shown only for anthracite and bituminous coal, coke, wood, oil, and gas. As only the principal varieties of fuel are shown, no comparison can be made with the total cost.



## STATISTICS FOR THE STATE.

Michigan, which ranks twenty-second among the states in size (land area 57,480 square miles) and seventh in population (3,668,412 in 1920), ranked ninth in value of mineral products in 1919. The state ranked eighth in the total number of persons engaged in the mining industries and in the average number of wage earners employed.

The total value of products of the mining enterprises in 1919 amounted to \$103,870,089, which was an increase of 53.4 per cent as compared with the corresponding amount reported at the census of 1909. This increase and the increases in capital, wages, cost of supplies and materials and fuel and power, shown in Table 1, are largely due to general price increases during the census interval and not in contradiction to the decreases in the number of individual mines and quarries and wells operated and average number of wage earners employed in mining. It is difficult to gauge the change in the mining industries as a whole, for the reason that there has been considerable increase in the production of iron ore and limestone and decrease in the amount of coal and copper produced.

The mining industries reported in Michigan in 1919, classified by principal products and listed in order of value of products, were iron ore, copper, bituminous coal, limestone, gypsum, sandstone, basalt, clay, marble, and petroleum and natural gas. The production of salt was an important mineral industry in Michigan in 1919, but was not included in the census of mines and quarries. The industries for which statistics can be shown without disclosure of individual operations are ranked by value of products in Table 2.

The leading mining industry in Michigan in 1919 was the production of iron ore. Sixty-five out of a total of 122 mining enterprises in the state were engaged in this industry, employed 51.6 per cent of the total number of wage earners, and reported \$60,906,692 as value of products, or 58.6 per cent of the total value of products of the state. This amount includes, in addition to the value of iron ore, the value of manganese ore produced as a by-product. The iron-ore mining districts from which production was reported were in Dickinson, Gogebic, Iron, and Marquette Counties. Michigan was second only to Minnesota in the production of iron ore in 1919.

The mining industry second in importance in Michigan was copper, which was reported from Houghton, Keweenaw, and Ontonagon Counties. This industry employed 39.1 per cent of the average number of wage earners and reported products valued at \$34,476,336, or 33.2 per cent of the total value of

products. This amount includes receipts for custom milling and for power sold or for work or miscellaneous services for other enterprises. Michigan ranked second among the states in the total value of products of enterprises in the copper-mining industry.

The bituminous coal-mining industry in Michigan was third in importance among the mining industries of the state. It employed 5.3 per cent of the total number of wage earners and reported products valued at \$3,861,874, or 3.7 per cent of the total value of mineral products. Michigan coal-mining operations are in a basin in the south central portion of the state. Production was reported from Bay, Saginaw, Tuscola, and Calhoun Counties.

In addition to the operation of producing enterprises, mining on nonproducing properties for purposes of development was reported by six enterprises in 1919, three in the iron-ore industry and three in the copper industry. These operations were small, less than 1 per cent of the aggregate for the state, measured either by the number of wage earners employed or by expenditures reported.

The character of organizations conducting mining enterprises is brought out in Table 3, which shows that corporations operated 93.4 per cent of the total number of enterprises, employed 99.8 per cent of the average number of wage earners, and reported products valued at \$103,723,550, or 99.9 per cent of the total. Table 3 also shows that all copper-mining and all coal-mining enterprises were corporations. Similar statistics can not be given for the iron-ore industry without disclosure of statistics relating to minor operations by two individuals; all other iron-ore enterprises were conducted by corporations.

The proportion of small enterprises to large enterprises, as measured by average number of wage earners employed, is shown in Table 4. Forty-five and one-tenth per cent of the total number of mining enterprises in Michigan were in classes having no wage earners or fewer than 101 and the wage earners employed were only 7 per cent of the total number of wage earners. Fifty-five per cent of the total number of enterprises had more than 100 wage earners each, and these enterprises employed 93 per cent of the total number of wage earners. The largest enterprises—that is, those employing more than 500 wage earners—three in the iron-ore industry, eight in the copper-mining industry, and one in the coal-mining industry, employed 13,844 wage earners, or 44.2 per cent of the total number in all industries.

Table 5 shows that in three-fourths of the enterprises employing wage earners and for nearly three-

fourths of the wage earners employed the hours of labor were 44 to 53 per week and that in all other enterprises and for about one-fourth of the wage earners the hours of labor were 54 to 62 per week. In the iron-ore, copper, and coal-mining industries the 8-hour day and 6-day week prevailed, but in the iron-ore-mining industry the 9-hour and 10-hour day ruled for a considerable number of wage earners. In the quarrying industries the 10-hour day was the rule.

The statistics for wage earners presented in Table 6, showing changes in the number employed month by month, reflect conditions prevailing in the industries during the census year. The minimum shown in November for the coal industry was very abnormal and due to the great strike.

Table 7 presents for 1919 statistics in detail for the state as a whole and for each industry that can be shown without the disclosure of individual operations.

TABLE 1.—COMPARATIVE SUMMARY, PRODUCING ENTERPRISES: 1919 AND 1909.

	MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>		MINING INDUSTRIES.		Per cent of increase. <sup>1</sup>
	1919.	1909			1919	1909	
Number of enterprises.....	122	83	.....	Capital.....	\$283,528,279	\$119,331,987	137.6
Number of mines and quarries.....	165	173	-4.6	Principal expenses:			
Number of petroleum and natural-gas wells.....	19	21	.....	Salaries.....	4,311,559	2,173,522	98.4
Persons engaged.....	33,202	40,905	-18.8	Wages.....	50,406,187	27,660,908	82.2
Proprietors and firm members, total.....	19	118	-83.9	Contract work.....	29,439	470,205	-93.7
Number performing manual labor in or about the mines, quarries, and wells.....	6	75	.....	Supplies and materials.....	15,204,063	9,800,415	55.1
Salaried employees.....	1,891	1,618	16.9	Fuel and power.....	8,444,697	4,193,347	101.4
Wage earners (average number).....	31,292	39,169	-20.1	Royalties and rents.....	6,668,923	4,048,606	64.7
Power used (horsepower).....	337,882	278,861	23.4	Taxes.....	6,275,133	1,948,756	222.0
				Value of products.....	103,870,089	87,714,479	53.4

<sup>1</sup> A minus sign (-) denotes decrease. Percentages are omitted where base is less than 100.

TABLE 2.—PRINCIPAL INDUSTRIES, PRODUCING ENTERPRISES, RANKED BY VALUE OF PRODUCTS: 1919.

INDUSTRY.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.		INDUSTRY.	Number of enterprises.	WAGE EARNERS.		VALUE OF PRODUCTS.	
		Average number.	Per cent distribution.	Amount.	Per cent distribution.			Average number.	Per cent distribution.	Amount.	Per cent distribution.
All industries.....	122	31,292	100.0	\$103,870,089	100.0	Copper.....	22	12,235	39.1	\$34,476,336	33.2
Iron ore.....	65	16,160	51.6	60,908,692	58.6	Coal, bituminous.....	11	1,654	5.3	3,861,874	3.7
						All other industries <sup>1</sup> .....	24	1,243	4.0	4,625,187	4.6

<sup>1</sup> Includes enterprises in industries as follows: Basalt, 1; clay, 4; gypsum, 4; limestone, 11; marble, 1; petroleum and natural gas, 1; sandstone, 2.

TABLE 3.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES, PRODUCING ENTERPRISES: 1919.

INDUSTRY AND CHARACTER OF ORGANIZATION.	Number of enterprises.	Number of wage earners.	VALUE OF PRODUCTS.		PER CENT DISTRIBUTION.		
			Total.	Per enterprise.	Enterprises.	Wage earners.	Value of products.
ALL INDUSTRIES.....	122	31,292	\$103,870,089	\$851,394	100.0	100.0	100.0
Corporation.....	114	31,236	103,723,550	909,856	93.4	99.8	99.9
Individual.....	5	51	132,642	26,528	4.1	0.2	0.1
Firm.....	3	5	13,897	4,632	2.5	( <sup>1</sup> )	( <sup>1</sup> )
COPPER.....	22	12,235	34,476,336	1,567,106	100.0	100.0	100.0
Corporation.....	22	12,235	34,476,336	1,567,106	100.0	100.0	100.0
COAL, BITUMINOUS.....	11	1,654	3,861,874	351,079	100.0	100.0	100.0
Corporation.....	11	1,654	3,861,874	351,079	100.0	100.0	100.0

<sup>1</sup> Less than one-tenth of 1 per cent.

## MINES AND QUARRIES—MICHIGAN.

TABLE 4.—SIZE OF PRODUCING ENTERPRISES, BY AVERAGE NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.		INDUSTRY AND WAGE EARNERS PER ENTERPRISE.	ENTERPRISES.		WAGE EARNERS.	
	Number.	Per cent distribution.	Number.	Per cent distribution.		Number.	Per cent distribution.	Number.	Per cent distribution.
ALL INDUSTRIES.....	122	100.0	31,292	100.0	COPPER.....	22	100.0	12,235	100.0
No wage earners.....	1	0.8	23	0.1	21 to 50.....	3	13.6	112	0.9
1 to 5.....	9	7.4	116	0.4	51 to 100.....	3	13.6	224	1.8
6 to 20.....	9	7.4	546	1.7	101 to 500.....	8	36.4	1,787	14.6
21 to 50.....	16	13.1	1,492	4.8	501 to 1,000.....	5	22.7	3,494	28.6
51 to 100.....	20	16.4	15,271	48.8	Over 1,000.....	3	13.6	6,618	54.1
101 to 500.....	55	45.1	7,226	23.1	COAL, BITUMINOUS.....	11	100.0	1,654	100.0
501 to 1,000.....	9	7.4	6,618	21.1	6 to 20.....	2	18.2	21	1.3
Over 1,000.....	3	2.5			51 to 100.....	2	18.2	188	11.4
IRON ORE.....	65	100.0	16,160	100.0	101 to 500.....	6	54.5	784	47.4
1 to 5.....	1	1.5	5	( <sup>1</sup> )	501 to 1,000.....	1	9.1	661	40.0
6 to 20.....	3	4.6	40	0.2					
21 to 50.....	8	12.3	275	1.7					
51 to 100.....	13	20.0	963	6.0					
101 to 500.....	37	56.9	11,806	73.1					
501 to 1,000.....	3	4.6	3,071	19.0					

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 5.—NUMBER OF PRODUCING ENTERPRISES AND AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK, FOR SELECTED INDUSTRIES: 1919.

INDUSTRY.	TOTAL.		NUMBER WHERE THE PRE- VAILING HOURS OF LABOR PER WEEK WERE—				INDUSTRY.	TOTAL.		NUMBER WHERE THE PRE- VAILING HOURS OF LABOR PER WEEK WERE—			
	Enter- prises.	Wage earn- ers.	44 to 53.		54 to 62.			Enter- prises.	Wage earn- ers.	44 to 53.		54 to 62.	
			Enter- prises.	Wage earn- ers.	Enter- prises.	Wage earn- ers.				Enter- prises.	Wage earn- ers.	Enter- prises.	Wage earn- ers.
All industries.....	1 121	31,292	91	23,341	30	7,951	Copper.....	22	12,235	22	12,235	.....	.....
Iron ore.....	65	16,160	55	9,286	10	6,874	Coal, bituminous.....	11	1,654	11	1,654	.....	.....
							All other industries.....	28	1,243	3	166	20	1,077

<sup>1</sup> Exclusive of 1 enterprise in the sandstone industry employing no wage earners.

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1919.

[The month of maximum employment for each industry is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

INDUSTRY.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		Janu-ary.	Febru-ary.	March.	April.	May.	June.	July.	Aug-ust.	Sep-tember.	Octo-ber.	Novem-ber.	Decem-ber.	
All industries.....	31,537	34,703	<b>34,962</b>	34,635	30,884	30,019	<i>29,013</i>	29,864	30,585	31,629	32,043	29,442	30,605	83.0
Producing enterprises.....	31,292	34,436	<b>34,729</b>	34,420	30,655	29,765	<i>28,836</i>	29,599	30,303	31,365	31,780	29,202	30,414	83.0
Iron ore.....	16,160	16,584	<b>16,527</b>	16,670	15,927	15,999	15,710	16,115	16,096	16,472	16,464	15,774	<i>16,532</i>	98.5
Copper.....	12,235	15,038	<b>15,177</b>	14,856	12,934	10,688	<i>10,040</i>	10,187	10,923	11,445	11,820	11,879	11,839	68.2
Coal, bituminous.....	1,654	2,047	<b>2,236</b>	2,085	533	1,586	1,617	1,801	1,785	1,937	2,049	178	1,996	7.9
All other industries.....	1,243	787	<b>789</b>	809	1,261	1,492	1,469	1,496	1,499	<b>1,511</b>	1,447	1,373	1,003	50.8
Nonproducing enterprises.....	245	267	<b>233</b>	215	229	254	<i>177</i>	265	<b>282</b>	264	263	240	251	62.8

TABLE 7.—DETAILED STATISTICS FOR MINING INDUSTRIES: 1919.

	Aggregate.	PRODUCING ENTERPRISES.					Non-producing enterprises. <sup>1</sup>
		Total.	Iron ore.	Copper. <sup>1</sup>	Coal, bituminous.	All other. <sup>2</sup>	
Number of enterprises.....	128	122	65	22	11	24	6
Number of mines and quarries.....	171	165	100	28	14	23	6
Number of petroleum and natural-gas wells.....	19	19				19	
Capital.....	\$290,334,808	\$283,528,279	\$116,799,825	\$147,786,096	\$6,037,645	\$12,904,713	\$6,806,529
Principal expenses:							
Salaries and wages—							
Officers.....	\$539,390	\$534,307	\$246,190	\$177,196	\$44,739	\$66,182	\$5,033
Superintendents and managers.....	\$1,389,345	\$1,369,921	\$680,133	\$516,062	\$95,918	\$71,803	\$19,424
Technical employees.....	\$877,713	\$871,746	\$648,085	\$198,180	\$10,660	\$14,811	\$5,967
Clerks, etc.....	\$1,550,282	\$1,535,585	\$800,807	\$548,567	\$54,777	\$131,434	\$14,697
Wage earners.....	\$50,750,490	\$50,406,187	\$32,186,404	\$14,608,804	\$1,987,732	\$1,623,247	\$344,303
Supplies and materials.....	\$15,498,561	\$15,204,063	\$7,845,035	\$5,612,077	\$604,557	\$1,082,394	\$292,498
Fuel.....	\$7,500,221	\$7,455,207	\$2,669,228	\$4,146,775	\$264,876	\$374,328	\$45,014
Power.....	\$1,005,160	\$989,490	\$769,457	\$114,048	\$38,701	\$69,284	\$15,670
Royalties and rents.....	\$6,693,314	\$6,685,923	\$6,593,825		\$49,940	\$20,168	\$24,391
Taxes.....	\$6,307,184	\$6,275,133	\$3,785,506	\$2,328,086	\$29,878	\$131,663	\$32,051
Contract work.....	\$34,786	\$29,439	\$23,580			\$5,859	\$5,347
Expenditures for development (included in the above items).....	\$3,316,407	\$2,657,899	\$1,912,393	\$559,630	\$143,023	\$42,853	\$658,508
Value of products.....	\$103,870,089	\$103,870,089	\$60,906,692	\$34,476,335	\$3,861,874	\$4,625,187	
Persons engaged in industry.....	33,472	33,202	17,169	12,917	1,744	1,372	270
Proprietors and firm members (total).....	19	19	2			17	
Number performing manual labor.....	6	6				6	
Salaried officers.....	123	121	40	56	13	12	2
Superintendents and managers.....	385	379	185	133	32	29	6
Technical employees.....	333	329	235	82	8	4	4
Clerks, etc.....	1,075	1,062	547	411	37	67	13
Wage earners (average number).....	31,637	31,292	16,160	12,235	1,654	1,243	245
Wage earners, by occupation (Dec. 15):							
Above ground (total).....	11,996	11,894	4,760	5,400	304	1,430	102
Below ground (total).....	20,722	20,575	11,591	7,036	1,837	111	147
Foremen, shift bosses, etc.—							
Above ground.....	394	391	157	154	25	55	3
Below ground.....	657	647	323	298	22	4	10
Enginemen, hoistmen, electricians, mechanics, etc.—							
Above ground.....	4,409	4,357	1,916	1,990	125	326	52
Below ground.....	658	653	399	182	67	5	5
Miners, quarrymen, and drillmen, including their helpers—							
Above ground.....	512	512	117		10	385	
Below ground.....	10,440	10,396	7,050	2,004	1,295	47	44
Timbermen, trackmen, and men engaged in hauling, tramping, etc.—							
Above ground.....	596	587	469	6	24	88	9
Below ground.....	5,857	5,773	2,699	2,710	345	19	84
Muckers, loaders, laborers, and others not classified—							
Above ground.....	3,826	3,788	2,068	1,188	120	432	38
Below ground.....	3,110	3,106	1,120	1,942	108	36	4
Wage earners employed in mills and beneficiating plants—							
Above ground.....	2,259	2,259	33	2,082		144	
Number of females included in wage earners reported above—							
Above ground.....	58	58	4	49		5	
Number of wage earners under 16 years of age included in those reported above—							
Above ground.....	2	2		2			
Mineral and oil land operated..... acres.....	120,045	114,356	20,025	66,531	9,169	18,631	5,689
Land controlled, total..... acres.....	551,076	545,255	252,949	262,865	10,529	18,912	5,821
Mineral and oil land owned.....	95,862	90,683	4,775	65,655	1,921	18,332	5,179
Mineral and oil land leased.....	24,309	23,798	15,376	876	7,248	299	610
Timber and other lands owned and leased.....	430,905	430,773	232,798	196,334	1,360	281	132
Power used: Aggregate horsepower.....	340,842	337,882	142,559	169,589	6,884	18,850	2,960
Prime movers (horsepower, total).....	275,064	274,084	94,778	161,353	6,189	11,764	980
Steam engines—							
Number.....	1,086	1,082	655	326	49	52	4
Horsepower.....	209,447	208,797	69,497	127,961	6,114	5,225	650
Steam turbines—							
Number.....	30	28	13	11	1	3	2
Horsepower.....	57,100	56,770	17,132	33,230	75	6,333	330
Internal-combustion engines—							
Number.....	15	15	4	4		7	
Horsepower.....	417	417	49	162		206	
Water wheels and turbines—							
Number.....	16	16	16				
Horsepower.....	8,100	8,100	8,100				
Purchased power (horsepower, total).....	65,778	63,798	47,781	8,236	695	7,086	1,980
Electric motors operated by purchased current—							
Number.....	1,006	976	507	261	10	198	30
Horsepower.....	65,778	63,798	47,781	8,236	695	7,086	1,980
Electric motors run by current generated by enterprise using:							
Number.....	1,663	1,663	504	888	179	92	
Horsepower.....	107,750	107,750	40,572	56,088	5,285	5,805	
Fuel used:							
Coal, anthracite..... tons, 2,240 pounds.....	18,891	18,891	1,332	14,809		2,750	
Coal, bituminous..... tons, 2,000 pounds.....	1,377,369	1,371,023	431,760	782,742	83,824	72,687	6,346
Coke..... tons, 2,000 pounds.....	4,017	4,013	255	2,755		1,000	4
Fuel oils..... barrels.....	2,826	2,826	310	2,476		40	
Gasoline and other volatile oils..... barrels.....	1,627	1,570	253	1,096		251	57
Natural gas..... 1,000 cubic feet.....	33,781	33,781		33,456		325	

<sup>1</sup> Includes 1 reduction mill operated independently of mines.<sup>2</sup> Includes enterprises as follows: Basalt, 1; clay, 4; gypsum, 4; limestone, 11; marble, 1; petroleum and natural gas, 1; sandstone, 2.<sup>3</sup> Includes enterprises as follows: Copper, 3; iron ore, 3.