

# WASHINGTON

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## GENERAL STATISTICS.

**General character of the state.**—Washington, with a gross area of 69,127 square miles, of which 2,291 represent water surface, ranks nineteenth in size among the states. The inhabitants of the state in 1900 numbered 518,103 and in 1910, 1,141,990, and the estimated population in 1914 was 1,407,865. In total population Washington ranked twenty-seventh among the states in 1914, thirtieth in 1910, and thirty-fourth in 1900. The density of population for the entire state in 1914 was 21.1 per square mile, the corresponding figures for 1910 and 1900 being 17.1 and 7.8, respectively.

The urban population in 1910—that is, the population residing in cities and towns of 2,500 inhabitants or more—was 605,530, or 53 per cent of the total, as against 40.8 per cent in 1900. There were in the state in 1914 10 municipalities each having an estimated population of more than 10,000, namely, Aberdeen, Bellingham, Everett, Hoquiam, North Yakima, Seattle, Spokane, Tacoma, Vancouver, and Walla Walla. These cities, whose aggregate population in that year formed 49.5 per cent of the estimated population of Washington, reported 55.7 per cent of the state's manufactured products.

The transportation facilities, already good, are being rapidly extended, the steam-railway mileage in 1914 being 5,247 miles. Two of the most important railroad systems of the Northwest traverse the state and have their western terminals on Puget Sound, one of

the best commercial harbors in the United States. The traffic movement on the Columbia River is greater than on any other river west of the Mississippi. Other rivers of the state are navigable to some extent and afford cheap transportation for the products of the inland counties.

The electric-railway mileage in 1912 was 923. Its development in eastern Washington has done much to open the fertile valleys of this section to farming and fruit growing.

The total value of farm crops in 1909 was \$78,927,053, of which nearly one-half—\$35,102,370—represented wheat.

According to the report of the United States Geological Survey, the mineral output of the state for 1914 was valued at \$13,830,739, the principal products being coal, \$6,757,511, and cement, \$2,303,433.

**Importance and growth of manufactures.**—In 1914, measured by the value of products of its manufacturing industries—\$245,326,456—Washington ranked twenty-third among the states, while in average number of wage earners engaged in such industries—67,205—it held twenty-seventh place.

Table 1 summarizes the more important data relative to all classes of manufactures combined in the state of Washington, for the censuses of 1914, 1909, 1904, and 1899, and gives the percentages of increase from census to census.

	MANUFACTURING INDUSTRIES.				PER CENT OF INCREASE. <sup>1</sup>		
	1914	1909	1904	1899	1909-1914	1904-1909	1899-1904
Number of establishments.....	3,829	3,674	2,751	1,926	4.2	33.6	42.8
Persons engaged.....	78,448	80,118	51,469	( <sup>2</sup> )	-2.1	55.7	.....
Proprietors and firm members.....	3,155	3,264	2,602	( <sup>2</sup> )	-3.3	25.4	.....
Salaried employees.....	8,088	7,734	3,658	2,103	4.6	111.4	73.9
Wage earners (average number).....	67,205	69,120	45,190	31,523	-2.8	52.9	43.4
Primary horsepower.....	399,567	297,897	168,342	87,001	34.1	77.0	92.2
Capital.....	\$277,715,262	\$222,261,229	\$96,952,621	\$41,574,744	24.9	129.2	133.2
Salaries and wages.....	63,207,140	59,592,947	34,180,206	19,128,588	6.1	74.3	78.7
Salaries.....	11,504,088	9,826,579	4,092,919	2,063,448	17.1	140.1	98.4
Wages.....	51,703,052	49,766,368	30,087,287	17,065,140	3.9	65.4	76.3
Paid for contract work.....	2,132,242	2,175,766	2,480,710	( <sup>2</sup> )	-2.0	-12.3	.....
Rent and taxes (including internal revenue).....	5,150,538	3,457,250	\$1,129,380	( <sup>2</sup> )	49.0	.....	.....
Cost of materials.....	136,609,309	117,887,688	66,166,165	38,276,944	15.9	78.2	72.9
Value of products.....	245,326,456	220,746,421	128,821,667	70,831,345	11.1	71.4	81.9
Value added by manufacture (value of products less cost of materials).....	108,717,147	102,858,733	62,655,502	32,554,401	5.7	64.2	92.5

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

<sup>2</sup> Figures not available.

<sup>3</sup> Exclusive of internal revenue.

While the manufactures of the state developed rapidly during the 15 years covered by Table 1, the greatest increase is shown for the period from 1904 to 1909. In 1914 there were almost twice as many establishments and more than double the number of wage

earners reported for 1899, while the value of products increased by nearly 250 per cent, and horsepower of the engines and other prime movers by more than 350 per cent. The decrease in the number of wage earners reported for 1914, as compared with the num-

ber for 1909, is due primarily to the depression in the lumber industry.

The amount paid annually for contract work depends upon the methods followed in the different establishments, rather than on the magnitude of the operations, therefore the decrease in this item is of no significance.

The statistics do not include the operations of the Puget Sound Navy Yard, located at Bremerton. In

1914 this establishment employed an average of 1,349 wage earners, and the products, consisting principally of repair work, were valued at \$2,775,849. In 1909 this establishment employed an average of 1,065 wage earners, and the products were valued at \$1,771,683.

Table 2 shows the relative importance of the leading manufacturing industries in 1914 and the percentages of increase for the three five-year periods from 1899 to 1914.

INDUSTRY.	CENSUS OF 1914.						PER CENT OF INCREASE. <sup>1</sup>									
	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1909-1914	1901-1909	1899-1904	1909-1914	1901-1909	1899-1904	1909-1914	1901-1909	1899-1904
All industries.....	3,820	67,205	100.0	\$245,320,456	100.0	\$108,717,147	100.0	-2.8	52.9	43.4	11.1	71.4	81.9	5.7	64.2	92.5
Lumber and timber products.....	939	38,079	56.7	83,635,760	34.0	48,002,188	41.4	-18.0	45.2	83.0	-4.3	62.1	73.7	-13.8	46.9	99.1
Flour-mill and gristmill products.....	100	928	1.4	23,605,382	9.6	3,892,487	3.1	44.1	5.1	25.6	32.0	21.7	110.5	42.6	25.7	68.3
Slaughtering and meat packing.....	11	804	1.3	18,443,520	7.5	2,642,752	2.5	4.3	142.8	47.6	17.8	150.4	27.8	31.3	128.5	29.3
Butter, cheese, and condensed milk.....	101	800	1.3	11,807,897	4.8	2,200,180	2.1	17.0	96.5	150.1	62.4	142.9	151.5	41.0	165.4	132.9
Printing and publishing.....	638	2,341	3.5	9,824,293	4.0	7,389,498	6.8	-10.9	43.8	81.1	5.8	94.9	141.3	4.6	90.4	133.1
Liquors, malt.....	25	883	1.3	9,458,255	3.9	0,057,580	0.1	15.4	60.7	125.5	37.0	54.4	263.3	42.5	33.9	272.6
Canning and preserving.....	86	2,352	3.5	9,440,540	3.8	4,170,738	3.8	15.9	105.4	-69.8	-1.5	165.3	-28.9	-8.3	259.3	-31.6
Cars and general shop construction and repairs by steam-railroad companies.....	26	4,543	6.8	7,026,016	2.9	3,947,008	3.6	67.3	104.7	38.8	50.6	68.5	87.1	80.9	126.3	34.1
Foundry and machine-shop products.....	243	2,128	3.2	6,817,211	2.8	3,830,030	3.5	-12.8	63.9	38.0	-14.4	102.5	70.0	-10.0	98.0	63.8
Bread and other bakery products.....	390	1,419	2.1	6,572,350	2.7	3,024,030	2.8	46.4	113.4	124.8	43.8	176.0	153.2	50.9	163.0	128.1
Shipbuilding, including boat building.....	64	1,444	2.1	3,101,446	1.3	2,114,583	1.9	134.4	48.5	.....	100.1	43.9	.....	141.1	86.4	.....
Cement.....	5	620	0.9	2,630,219	1.1	1,127,540	1.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gas, illuminating and heating.....	13	930	0.9	2,309,188	1.0	1,010,118	1.0	35.5	330.6	.....	40.7	179.7	90.5	57.4	125.8	80.5
Coffee and spice, roasting and grinding.....	25	103	0.3	2,236,749	0.9	734,800	0.7	47.3	.....	.....	50.9	.....	35.1	27.8	122.0	107.7
Brick and tile, terra-cotta, and fire-clay products.....	40	962	1.4	2,026,801	0.8	1,497,609	1.4	-200.0	135.8	48.1	-20.8	279.1	58.1	-21.5	262.7	52.0
Confectionery.....	67	510	0.8	1,783,228	0.7	827,164	0.8	-16.7	33.6	100.9	-19.3	68.4	194.6	-0.8	50.0	170.6
Copper, tin, and sheet-iron products.....	112	415	0.6	1,619,870	0.7	701,309	0.7	-28.8	.....	.....	-10.8	.....	.....	-21.1	.....	.....
Furniture.....	50	544	0.8	1,067,990	0.4	645,897	0.6	-8.4	90.2	43.7	-20.4	122.2	51.3	-17.5	142.2	41.9
Clothing, men's, including shirts.....	9	405	0.6	974,077	0.4	370,456	0.3	50.6	58.2	.....	57.0	134.6	.....	40.2	113.8	.....
Boots and shoes.....	11	178	0.3	707,177	0.3	207,427	0.2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Confectionery (ice cream).....	33	128	0.2	601,278	0.3	280,087	0.3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marble and stone work.....	27	189	0.3	673,123	0.3	396,509	0.4	-60.0	141.3	.....	-34.1	144.5	81.7	-47.3	135.3	89.3
Food preparations, not elsewhere specified.....	27	101	0.2	603,020	0.3	296,723	0.3	-16.5	.....	.....	-4.6	802.6	.....	35.0	500.4	.....
Leather goods.....	43	101	0.2	645,667	0.3	280,493	0.2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cars and general shop construction and repairs by electric-railroad companies.....	13	382	0.6	632,805	0.3	374,074	0.3	-0.8	.....	.....	-13.6	.....	.....	4.3	.....	.....
Mattresses and spring beds.....	10	190	0.3	614,271	0.2	281,090	0.3	14.4	25.8	.....	-14.5	166.9	77.0	0.4	65.3	120.8
Cooperage and wooden goods, not elsewhere specified.....	8	263	0.4	580,139	0.2	296,432	0.3	.....	.....	.....	112.5	.....	.....	112.2	.....	.....
Tobacco, cigars.....	115	215	0.3	593,249	0.2	348,460	0.3	-29.5	10.1	92.5	-17.3	12.7	105.4	21.4	16.7	126.3
Ice, manufactured.....	32	159	0.2	551,429	0.2	407,730	0.4	-2.4	.....	.....	-1.4	129.6	133.7	-2.2	106.4	132.2
Carriages, wagons, and repairs.....	27	150	0.2	524,345	0.2	258,450	0.2	-37.8	10.3	50.7	-27.2	40.4	70.3	-35.5	36.4	60.9
Mineral and soda waters.....	60	108	0.2	513,478	0.1	301,393	0.3	-8.5	.....	.....	4.3	82.2	75.3	-3.1	73.5	98.9
Awnings, tents, and sails.....	19	72	0.1	407,992	0.2	191,287	0.2	-46.5	.....	.....	-43.5	243.6	10.3	-28.1	160.8	21.4
Jewelry.....	17	173	0.3	418,131	0.2	220,179	0.2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clothing, women's.....	12	150	0.2	413,280	0.2	206,486	0.2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Agricultural implements.....	7	134	0.2	302,033	0.2	207,930	0.2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chemicals.....	4	32	(*)	373,553	0.1	114,888	0.1	.....	.....	.....	.....	.....	.....	.....	.....	.....
All other industries.....	420	4,351	6.5	31,431,810	12.8	12,083,130	11.1	.....	.....	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> Percentages are based on figures in table 30; a minus sign (-) denotes decrease; percentages are omitted where base is less than 100, or where comparable figures can not be given.

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

Although a few industries greatly predominate, there is considerable diversity in the manufactures of the state. Separate statistics are presented in the preceding table for 36 industries, or industry groups, for each of which products valued at more than \$300,000 were reported for 1914. These industries include 4 with products exceeding \$10,000,000 in value, 6 with products between \$5,000,000 and \$10,000,000, 8 between \$1,000,000 and \$5,000,000, and 18 with products valued at less than \$1,000,000. Among those included under the head of "all other industries" are a number which have products exceeding

in value some for which figures are shown in the table, but for which statistics can not be shown separately without the possibility of disclosing the operations of individual establishments. These industries are as follows: Bags, other than paper; explosives; paper and wood pulp; smelting and refining, copper; wire-work, including wire rope and cable; wood preserving; and wool pulling.

The industries in this table are arranged in the order of their importance as measured by value of products, but the arrangement would vary considerably from that given if based on average number of

wage earners or value added by manufacture. The lumber industry is the only one shown in the table which held the same rank in all three items. Flour-mill and gristmill products, second in value of products, was ninth in number of wage earners and seventh in value added by manufacture; slaughtering and meat packing, third in value of products, held only eleventh place in number of wage earners and ninth in value added by manufacture; while butter, cheese, and condensed milk, fourth in value of products, ranked twelfth in average number of wage earners and tenth in value added by manufacture. On the other hand, printing and publishing, fifth in value of products, was fourth in average number of wage earners and second in value added by manufacture. The canning and preserving industry and foundries and machine shops also held a higher rank in respect to wage earners employed and value added by manufacture than in value of products.

In rank according to value of products, there were a number of changes in 1914 as compared with 1909. Of the more important industries shown in the table, lumber and timber, flour mills and gristmills, slaughtering and meat packing, and printing and publishing held the same rank in value of products at both censuses. Butter, cheese, and condensed milk, liquors, malt, and railroad repair shops, ranking fourth, sixth, and eighth in 1914, were seventh, eighth, and ninth, respectively, in 1909. Canning and preserving, and foundry and machine shops, which ranked fourth and sixth, respectively, in 1909, fell to seventh and ninth places in 1914. The remaining industries show slight changes from 1909 to 1914.

*Lumber and timber products.*—The forests of western Washington inevitably lead to the lumber industry, and its wonderful timber growth supplies the material for the state's most important manufactures. For the last two censuses Washington has led all other states in these products. Although this industry employed 56.7 per cent of the total wage earners and produced 34 per cent of the state's manufactures for 1914, it showed a decrease from 1909 to 1914 in number of establishments, average number of wage earners, and value of products. The decrease was largely due to the depression in the lumber industry in the latter part of 1914 and also to the abandonment of a number of small mills. This industry embraces logging operations, sawmills, planing mills, and establishments engaged in the manufacture of wooden packing boxes, and window and door screens and weather strips, but does not include mills engaged exclusively in custom sawing for local consumption. The largest increase in this industry, both in average number of wage earners and value of products, was during the five-year period 1899–1904, the increases being 83.6 per cent and 73.7 per cent, respectively. For the five-year period 1904–1909 the percentages of increase for the same items were 45.2 per cent and 62.1 per cent, respectively, while for the

later five-year period 1909–1914 these items showed decreases of 13 per cent and 6.3 per cent, respectively. In 1914 the lumber industry gave employment to 38,079 wage earners and reported products valued at \$83,535,760. It is probable that some mills engaged in merchant sawing in 1899, 1904, or 1909, reported only custom work in 1914 and were omitted. This condition would account in part for the decrease in number of establishments.

*Flour-mill and gristmill products.*—This industry includes statistics for all mills grinding wheat, corn, rye, and other cereals, except custom mills grinding exclusively for toll or local consumption. Measured by value of products, the industry ranked second in the state both in 1909 and 1914.

During the last semidecade there was a large increase in both number of wage earners and value of products. In 1914 products valued at \$23,665,382 were reported and employment was given to 928 wage earners. This is an increase over 1909 in value of products of 32.6 per cent and in average number of wage earners of 44.1 per cent.

*Slaughtering and meat packing.*—This classification includes the wholesale slaughtering and meat-packing establishments and those engaged in the manufacture of sausage, but not the numerous retail butcher shops which slaughter animals for their own trade. Measured by value of products, this is the third largest industry in the state. The value of the output in 1914 was \$18,443,526, or 7.5 per cent of the total manufactured products. From 1909 to 1914 the value of products increased only 17.8 per cent, as compared with 150.4 per cent for the preceding five years. The industry is largely confined to the cities of Seattle, Tacoma, and Spokane.

*Butter, cheese, and condensed milk.*—This industry includes butter factories, cheese factories, and condensed-milk factories. In 1914 the average number of wage earners was 860, an increase of 17 per cent from 1909, and the value of products was \$11,807,897, or an increase of 62.4 per cent during the same period. While this industry shows marked progress during the five years, 1909 to 1914, the percentages of increase in each of the items shown were not so great as during the preceding five-year periods. In 1914 the state ranked fourth in the production of condensed milk, eleventh in the output of cheese, and fifteenth in butter. While condensed milk exceeds in value any of the other products reported, the statistics can not be shown separately without disclosing the operations of individual establishments.

*Printing and publishing.*—Establishments engaged in bookbinding and blank-book making; steel and copper plate engraving, including plate printing; lithographing; job printing, and the printing and publishing of books, newspapers and periodicals, and music are included in this classification. The industry as a whole shows an advance of 5.8 per cent in value of products from 1909 to 1914, but this increase is much

less than the relative gain during the two preceding five-year periods.

*Liquors, malt.*—The manufacture of malt liquors is one of the most important industries in the state, ranking sixth in value of products. The total output of this industry in 1914 was valued at \$9,458,255, an increase of 37 per cent over 1909. While this industry shows a substantial increase from 1909 to 1914 in all items covered in this table, except in number of establishments, the percentages of increase for value of products and average number of wage earners were not so great as for the two preceding five-year periods. In 1914 there were 25 breweries in the state, as compared with 31 in both 1909 and 1904. This decrease in the number of establishments is due to a greater centralization of the industry, causing the abandonment of some smaller concerns. In value added by manufacture an increase of 42.5 per cent is shown for the five-year period 1909–1914, the corresponding increases for the two preceding censuses being 33.9 per cent and 272.6 per cent, respectively.

*Canning and preserving.*—This industry covers the canning of fruits and vegetables, fish, oysters, clams, etc.; the packing of dried fruits by packing houses which make a specialty of such business; the preparation of pickled, smoked, and salted fish; and the manufacture of pickles, preserves, jellies, sauces, etc. It does not include the drying and packing of fruits by the grower on the farm, nor does it include the canning of meats, soups, and similar products in meat-packing establishments, the statistics for which are included with those for the slaughtering and meat-packing industry. The period of greatest growth in this industry was between 1904 and 1909, when the average number of wage earners increased 195.4 per cent and the value of products 165.3 per cent. From 1909 to 1914 there was a decrease of 1.5 per cent in value of products, but an increase of 15.9 per cent in the average number of wage earners employed. Of the 86 establishments reported in 1914, 48 were engaged in the canning and preserving of fish. The output of these establishments was valued at \$7,634,076, or 80.8 per cent of the total product of the entire industry.

*Foundry and machine-shop products.*—A great diversity of products is included under this heading, which embraces not only foundries and machine shops but also establishments primarily engaged in automobile repairing and in the manufacture of steam and gas engines, hardware, plumbers' supplies, steam pumps, steam fittings, and structural ironwork. The industry was really of greater importance in the state than is indicated by the statistics, as some machine shops manufactured a distinctive product and were assigned to other classifications. Among the most important products of this industry in 1914 were milling machinery, logging and mining equipment, and marine machinery and equipment for vessels.

The industry shows a decrease from 1909 to 1914 of 12.8 per cent in average number of wage earners and 14.4 per cent in value of products, due to several large concerns going out of business and to the change in classification of an important establishment.

**Persons engaged in manufacturing industries.**—Table 3 shows, for 1909 and 1914, the number of persons engaged in manufactures, distributed by sex, the average number of wage earners being distributed also by age. The sex and 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."

CLASS.	Census year.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.				
		Total.	Male.	Female.	Per cent of total.	
					Male.	Female.
All classes.....	1914 1909	78,448 80,118	73,057 76,342	4,401 3,776	94.3 95.3	5.7 4.7
Proprietors and officials.....	1914 1909	6,074 6,314	5,913 6,201	161 113	97.3 98.2	2.7 1.8
Proprietors and firm members..	1914 1909	3,155 3,264	3,028 3,178	127 86	96.0 97.4	4.0 2.6
Salaried officers of corporations..	1914 1909	1,003 1,094	1,038 1,078	25 16	97.6 98.5	2.4 1.5
Superintendents and managers..	1914 1909	1,856 1,956	1,847 1,945	9 11	99.5 99.4	0.5 0.6
Clerks and other subordinate salaried employees.	1914 1909	5,169 4,684	4,158 3,880	1,011 804	80.4 82.8	19.6 17.2
Wage earners (average number)....	1914 1909	67,205 69,120	63,886 66,201	3,319 2,859	95.1 95.9	4.9 4.1
16 years of age and over.....	1914 1909	66,055 68,854	63,086 66,042	3,269 2,812	95.1 95.9	4.9 4.1
Under 16 years of age.....	1914 1909	250 200	200 210	50 47	80.0 82.3	20.0 17.7

In 1914 the number of persons engaged in manufactures was 78,448, of whom 67,205, or 85.7 per cent, were wage earners; 6,074 were proprietors and officials and 5,169 were clerks. Of the wage earners 16 years of age and over, 63,686, or 95.1 per cent, were males and 3,269, or 4.9 per cent, were females. Figures for the sex and age distribution of wage earners for individual industries will be found in Table 6.

Table 4 gives, for the several classes of persons engaged in manufactures, the percentages of increase from 1909 to 1914 and the per cent distribution at the two censuses.

This table shows decreases for the five-year period in the total number of the several classes of employees with the exception of clerks and other subordinate salaried employees, in which class there was an increase of 10.4 per cent. The decreases are due to the lumber industry which shows a greater decrease in wage earners than is shown in all industries combined. The largest percentage of decrease for both sexes combined, 6 per cent, is shown for wage earners under 16 years of age, but the proportion which this class formed of the total number of employees was insignificant, being only three-tenths of 1 per cent in

both 1914 and 1909. Females engaged in manufacturing industries in 1914, were distributed among the several classes as follows: 73.9 per cent were wage earners, 22.5 clerks, and 3.6, proprietors and officials.

Table 4

CLASS.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.								
	Per cent of increase, <sup>1</sup> 1909-1914.			Per cent distribution.					
	Total.	Male.	Female.	Total.		Male.		Female.	
				1914	1909	1914	1909	1914	1909
All classes.....	-2.1	-3.1	18.9	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials.....	-3.8	-4.6	42.5	7.8	7.9	8.0	8.1	3.6	3.0
Proprietors and firm members.....	-3.3	-4.7	.....	4.0	4.1	4.1	4.2	2.3	2.3
Salaried officers of corporations.....	-2.8	-3.7	.....	1.4	1.4	1.4	1.4	0.6	0.4
Superintendents and managers.....	-5.1	-5.0	.....	2.4	2.4	2.5	2.5	0.2	0.3
Clerks and other subordinate salaried employees.....	10.4	7.2	25.7	6.6	6.3	6.6	6.1	22.5	21.3
Wage earners (average number).....	-2.8	-3.6	16.1	85.7	86.3	86.4	86.3	73.9	75.7
16 years of age and over.....	-2.8	-3.6	16.3	85.3	86.0	86.1	86.5	72.8	74.5
Under 16 years of age.....	-6.0	-8.7	.....	0.3	0.3	0.3	0.3	1.1	1.2

<sup>1</sup> A minus sign (-) denotes decrease; percentages are omitted where base is less than 100.

In order to compare the distribution of persons engaged in manufactures in 1914 with that shown in the census of 1904 it is necessary to use the classifications employed in the earlier census (see "Explanation of terms"). Table 5 makes this comparison according to occupational status.

Table 5

CLASS.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.								
	Number.			Per cent distribution.			Per cent of increase. <sup>1</sup>		
	1914	1909	1904	1914	1909	1904	1909-1914	1904-1909	.....
Total.....	78,448	80,118	51,459	100.0	100.0	100.0	-2.1	55.7	
Proprietors and firm members.....	3,155	3,204	2,602	4.0	4.1	5.1	-3.3	25.4	
Salaried employees.....	8,088	7,734	3,658	10.3	9.7	7.1	4.6	111.4	
Wage earners (average number).....	67,205	69,120	45,199	85.7	86.3	87.8	-2.8	52.9	

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

The number of salaried employees increased at each successive census, although much the larger increase was shown for the five-year period 1904-1909. Each of the other two classes and the total for all classes combined show increases for the five-year period 1904-1909 and decreases for the five-year period 1909-1914.

The average number of wage earners employed, and their per cent distribution as males 16 years of age and over, females 16 years of age and over, and wage earners under 16 years of age are given in Table 6 for 1914, 1909, and 1904. The table also shows for some of the important industries separately a similar distribution of wage earners for 1914 and 1909.

For all industries combined, the proportion of male wage earners over 16 years of age has been less at each successive census, while the proportions for females over 16 years of age and wage earners under 16 years of age have increased.

The actual number of wage earners under 16 years of age decreased with each succeeding census, but the

proportion was the same in 1914 as in 1909, though greater than in 1904.

Table 6

INDUSTRY.	Census year.	WAGE EARNERS.			
		Average number. <sup>1</sup>	Per cent of total.		Under 16 years of age.
			16 years of age and over.		
			Male.	Female.	
All industries.....	1914 1909 1904	67,205 69,120 45,199	94.7 95.5 90.9	4.9 4.1 2.9	0.4 0.4 0.2
Bread and other bakery products.....	1914 1909	1,419 969	66.6 70.4	31.9 28.9	1.5 0.7
Brick and tile, terra-cotta, and fire-clay products.....	1914 1909	962 1,589	99.1 99.6	..... 0.3	0.9 0.1
Butter, cheese, and condensed milk.....	1914 1909	860 735	90.6 84.4	7.3 15.0	2.1 0.7
Canning and preserving.....	1914 1909	2,352 2,029	75.3 75.1	22.4 23.5	2.3 1.4
Cars and general shop construction and repairs by electric-railroad companies.....	1914 1909	382 410	100.0 100.0	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	1914 1909	4,543 2,716	100.0 100.0	.....	.....
Clothing, men's, including shirts.....	1914 1909	405 269	7.9 4.5	92.1 95.5	.....
Confectionery.....	1914 1909	510 612	35.3 33.7	64.1 66.0	0.6 0.3
Cooperage and wooden goods, not elsewhere specified.....	1914 1909	263 97	97.0 99.0	3.0 1.0	.....
Copper, tin, and sheet-iron products.....	1914 1909	415 583	97.6 98.6	1.9 1.2	0.5 0.2
Flour-mill and gristmill products.....	1914 1909	923 644	97.7 98.9	2.3 1.1	.....
Foundry and machine-shop products.....	1914 1909	2,128 2,439	99.9 99.8	( <sup>2</sup> ) ( <sup>2</sup> )	( <sup>2</sup> ) 0.2
Furniture.....	1914 1909	544 582	97.4 96.6	1.5 1.7	1.1 1.7
Gas, illuminating and heating.....	1914 1909	630 465	100.0 100.0	.....	.....
Liquors, malt.....	1914 1909	883 705	99.1 99.3	0.9 0.7	.....
Lumber and timber products.....	1914 1909	38,079 43,749	99.6 99.5	0.3 0.4	0.1 0.1
Printing and publishing.....	1914 1909	2,341 2,624	84.6 81.8	13.5 13.3	1.9 5.0
Shipbuilding, including boat building.....	1914 1909	1,444 744	99.9 99.9	0.1 0.1	.....
Slaughtering and meat packing.....	1914 1909	864 828	96.2 97.5	3.8 2.5	.....
Tobacco, cigars.....	1914 1909	215 305	80.9 82.0	19.1 17.0	..... 1.0
All other industries.....	1914 1909	7,038 5,966	88.3 87.7	11.3 12.1	0.4 0.3

<sup>1</sup> For method of estimating the distribution of the average number for all industries combined, by sex and age periods, see "Explanation of terms."  
<sup>2</sup> Less than one-tenth of 1 per cent.

Of the 20 industries for which separate figures are given in this table, 8 show an increase from 1909 to 1914 in the proportion of both males and females, while the proportion of 4 remained unchanged, 3 of these employing only males 16 years of age and over.

There were only 250 wage earners under 16 years of age reported as employed in the manufactures of the state during 1914 and 266 in 1909. Wage earners under 16 years of age were employed in only 10 of the industries shown in Table 6, and the numbers in each case were so small that the per cent distribution is a negligible figure.

In 1914 the industries employing the largest pro-

portion of women wage earners were men's clothing, confectionery, bakery, and canning and preserving, which reported 92.1 per cent, 64.1 per cent, 31.9 per cent, and 22.4 per cent, respectively, while the proportion of wage earners under 16 years of age was greatest in the canning and preserving, butter, cheese, and condensed milk, and the printing and publishing industries.

Table 7 shows the average number and the per cent distribution of wage earners employed in each of the 10 cities having more than 10,000 inhabitants, classified according to age periods, and in the case of those 16 years of age and over, according to sex, for 1914, 1909, and 1904.

SEX AND AGE.	Census year.	AVERAGE NUMBER OF WAGE EARNERS IN—										
		Aberdeen.	Bellingham.	Everett.	Hoquiam.	North Yakima.	Seattle.	Spokane.	Tacoma.	Vancouver.	Walla Walla.	
Total.....	1914	1,568	1,922	1,950	1,657	582	12,429	3,020	6,705	360	311	
	1909	1,509	1,600	12,200	.....	1,001	111,523	13,901	16,820	.....	388	
	1904	.....	1,314	.....	.....	.....	6,300	2,428	14,457	.....	242	
16 years of age and over:												
	Male.....	1914	1,523	1,828	1,014	1,621	561	10,024	2,532	6,369	327	289
	1909	1,480	1,460	12,142	.....	1,558	110,307	13,492	16,485	.....	370	
Female.....	1914	.....	1,282	.....	.....	.....	6,703	2,297	4,240	.....	233	
	1909	43	76	41	39	9	1,460	481	387	33	14	
	1904	26	78	140	.....	23	11,080	1,895	1,322	.....	16	
Under 16 years of age.....	1914	2	18	4	.....	12	55	37	12	.....	8	
	1909	3	37	112	.....	20	140	14	13	.....	2	
	1904	.....	8	.....	.....	.....	31	2	8	.....	2	
Per cent of total: 16 years of age and over—												
	Male.....	1914	97.1	95.1	97.7	97.8	96.4	87.9	83.8	94.1	90.8	92.0
	1909	98.1	98.0	97.4	.....	92.8	90.2	89.5	95.1	.....	95.4	
Female.....	1914	.....	97.6	.....	.....	.....	90.2	94.0	95.1	.....	96.3	
	1909	2.7	4.0	2.1	2.2	1.6	11.7	14.9	5.7	9.2	4.5	
	1904	1.7	4.7	2.1	.....	3.8	9.4	10.1	4.7	.....	4.1	
Under 16 years of age.....	1914	0.1	0.9	0.2	.....	2.1	0.4	1.2	0.2	.....	2.6	
	1909	0.2	2.4	0.6	.....	3.3	0.4	0.4	0.2	.....	0.5	
	1904	.....	0.2	.....	.....	.....	0.5	0.1	0.2	.....	0.8	

<sup>1</sup> Figures do not agree with those published, because it was necessary to revise them in order to include data only for those establishments located within the corporate limits of the city.

Seattle, the most important manufacturing city of Washington, gave employment to 18.5 per cent of the total number of wage earners reported for all industries in the state during 1914. During the ten-year period 1904-1914 the number of wage earners increased 94.5 per cent, and the number of males 16 years of age and over, 89.6 per cent. For the five-year period 1909-1914 the increase for all classes of wage earners was 7.9 per cent, and for males 16 years and over, 5.1 per cent. While there were 12,429 wage earners employed on the average during 1914 in the manufactures of the city, Table 9 shows that at times larger numbers were employed, the greatest number, 13,112, being reported for the month of May. More than one-half of the industries of the city, as shown by Table 31, gave employment to females 16 years of age and over, the largest numbers being reported for the manufacture of men's clothing and confectionery.

Of the three cities having a population of over 50,000, the largest proportion of male wage earners 16 years of age and over and the smallest proportion of females over 16 years of age and of children under 16 years are shown for Tacoma. For the ten-year period 1904-1914 the total average number of wage earners reported for the city increased 51.8 per cent, and the average

number of males 16 years of age and over, 50.1 per cent.

During the decade the number of wage earners of all classes in Spokane increased 24.4 per cent, but there were 881 less employed in 1914 than in 1909—the decrease being in the males 16 years of age and over. Several of the most important industries shared in this loss, some establishments having gone out of business since 1909 and others having remained idle throughout the census year 1914. Of the cities listed, Spokane shows the smallest proportion of male wage earners (83.8 per cent), and the largest proportion of females (14.9 per cent). Of the smaller cities, Aberdeen and Bellingham show increases in the total average number of wage earners from 1909 to 1914, while Everett, North Yakima, and Walla Walla show decreases. The largest decrease, 11 per cent, occurred in Everett where the loss is accounted for by a foundry and machine-shop establishment, located in the city in 1909, having been subsequently burned and rebuilt outside the corporate limits of the city.

**Wage earners employed, by months.**—The following table gives, for all industries combined, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909, and the average number employed during each

month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

**Table 8** WAGE EARNERS IN MANUFACTURING INDUSTRIES.

MONTH.	Number. <sup>1</sup>					
	1914			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January.....	58,748	54,710	40,150	78.1	74.0	82.1
February.....	62,691	60,410	43,095	83.4	81.7	88.1
March.....	69,411	66,778	45,953	92.3	90.3	94.0
April.....	73,351	71,091	47,090	97.6	96.1	97.5
May.....	74,736	72,717	48,912	99.4	98.3	100.0
June.....	75,182	72,169	47,141	100.0	97.6	96.4
July.....	72,096	70,744	44,070	97.1	95.7	90.1
August.....	73,757	72,990	44,895	98.1	98.7	91.8
September.....	70,227	73,617	46,544	93.4	99.6	95.2
October.....	64,047	73,949	46,085	85.2	100.0	95.4
November.....	58,243	72,614	44,804	77.5	98.2	91.7
December.....	53,071	67,645	42,378	70.6	91.5	86.6

<sup>1</sup> The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

For 1904 and 1914 the late spring and early summer months show the greatest activity in the combined industries of the state, the maximum number of wage earners for 1904 being reported in May and for 1914 in June. The year 1909 shows a different season of greatest activity, October being the month of maximum employment. The greatest difference between the maximum and minimum months in any one of the three census years was 22,111 in 1914.

Table 9 gives the total average number of wage earners employed during 1914, together with the total number employed on the 15th of each month, or the nearest representative day, for the combined industries of the state, for a number of selected industries, and for the total industries of each of the 10 cities having more than 10,000 inhabitants and the per cent which the minimum is of the maximum.

**Table 9**

WAGE EARNERS: 1914.  
[Month of maximum employment for each industry is indicated by boldface figures and that of minimum by italic figures.]

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.	
All Industries.....	67,205	58,748	62,691	69,411	73,351	74,736	75,182	72,096	73,757	70,227	64,047	58,243	53,071	70.6
Bread and other bakery products.....	1,419	1,356	1,355	1,393	1,405	1,402	1,403	1,423	1,428	1,480	1,483	1,476	1,444	90.0
Brick and tile, terra-cotta, and fire-clay products..	932	783	897	905	1,122	1,228	1,288	1,106	1,073	971	828	785	608	47.2
Butter, cheese, and condensed milk.....	860	714	728	773	801	999	1,004	982	945	897	832	792	763	71.1
Canning and preserving.....	2,352	517	809	1,157	1,611	2,165	3,090	4,054	4,271	3,830	3,438	2,194	1,088	12.1
Cars and general shop construction and repairs by electric-railroad companies.....	382	390	401	413	420	421	417	407	352	341	341	341	340	80.8
Cars and general shop construction and repairs by steam-railroad companies.....	4,543	4,268	4,325	4,457	4,630	4,667	4,639	4,669	4,731	4,747	4,623	4,562	4,198	88.4
Clothing, men's, including shirts.....	405	470	468	440	422	411	377	366	389	401	391	386	360	71.5
Confectionery.....	510	476	474	476	487	481	485	474	476	539	551	573	628	75.5
Cooperage and wooden goods, not elsewhere specified.....	263	160	160	169	309	310	312	103	310	304	309	313	307	51.1
Copper, tin, and sheet-iron products.....	415	367	360	368	394	416	419	433	499	454	447	410	402	72.1
Flour-mill and gristmill products.....	923	907	991	926	855	829	804	791	870	1,076	1,069	905	903	73.5
Foundry and machine-shop products.....	2,128	2,287	2,249	2,381	2,375	2,372	2,173	2,071	2,149	2,049	1,894	1,791	1,795	73.5
Furniture.....	544	567	545	550	573	549	539	522	532	553	530	539	520	90.8
Gas, illuminating and heating.....	630	586	634	634	702	694	619	644	608	604	640	576	560	79.8
Liquors, malt.....	883	877	887	871	882	898	907	998	948	938	830	810	741	74.2
Lumber and timber products.....	38,079	31,703	35,401	41,251	43,646	44,422	44,213	41,743	42,118	39,248	34,221	31,214	27,678	62.3
Printing and publishing.....	2,341	2,313	2,309	2,334	2,315	2,366	2,337	2,264	2,286	2,336	2,549	2,315	2,499	88.8
Shipbuilding, including boat building.....	1,444	1,649	1,717	1,663	1,698	1,639	1,474	1,375	1,277	1,273	1,182	1,180	1,255	65.0
Slaughtering and meat packing.....	864	896	908	912	866	871	860	841	855	842	838	829	842	91.1
Tobacco, cigars.....	215	212	219	218	212	217	220	206	210	214	222	213	217	92.8
All other industries.....	7,038	7,070	6,874	7,120	7,536	7,379	7,602	7,400	7,470	7,040	6,802	6,167	5,893	77.5
Total for cities.....	30,573	28,873	29,441	31,145	32,032	32,602	32,547	32,410	32,328	31,122	29,416	28,205	26,765	82.1
ABERDEEN.....	1,568	1,691	1,579	1,680	1,667	1,636	1,680	1,506	1,603	1,436	1,546	1,470	1,262	74.6
BELLINGHAM.....	1,922	1,414	1,754	1,928	1,972	2,130	2,379	2,492	2,532	2,034	1,800	1,563	1,066	42.1
EVERETT.....	1,959	1,769	1,798	1,978	2,133	2,141	2,147	2,151	2,190	2,161	1,938	1,642	1,400	66.7
HOQUIAM.....	1,657	1,752	1,679	1,765	1,859	1,893	1,913	1,945	1,537	1,495	1,198	1,430	1,418	61.6
NORTH YAKIMA.....	582	397	592	601	590	629	745	811	838	621	540	436	475	46.8
SEATTLE.....	12,429	12,313	12,727	12,866	12,987	13,112	12,708	12,303	12,405	12,474	12,058	11,527	11,518	87.8
SPOKANE.....	3,020	2,910	2,807	3,014	3,106	3,209	3,152	3,154	3,055	3,077	2,970	2,929	2,848	87.5
TACOMA.....	6,765	6,085	6,118	6,756	7,040	7,148	7,036	7,252	7,400	7,096	6,619	6,559	6,131	81.4
VANCOUVER.....	360	348	328	380	381	394	391	320	351	393	394	350	290	73.6
WALLA WALLA.....	311	264	259	277	297	310	336	386	357	332	338	299	237	65.8

The fluctuations in the number of wage earners employed in all industries followed closely the changes in the lumber industry, which in each month of the year gave employment to more than one-half of the total number of wage earners reported for all manufactures in the state. This industry gave employment to the greatest number of wage earners in May (44,422), and the smallest number in December (27,678, or

62.3 per cent of the maximum). The number employed in canning and preserving, which is a seasonal industry, was not sufficiently large to have much influence on the total number for all industries. It gave employment, however, to a large number of persons in the months of July, August, September, and October, and to a relatively small number throughout the winter and spring months. Other seasonal industries

did not furnish employment to enough wage earners to affect to any appreciable extent the general showing. The manufacture of brick and tile, terra-cotta, and fire-clay products, while comparatively a small industry in the state, shows a considerable fluctuation, the number of wage earners in December being but 47.2 per cent of the number in June. The least variation is shown for slaughtering and meat packing and for tobacco manufactures, for which industries the proportions which the minimum formed of the maximum were 91.1 and 92.8 per cent, respectively.

Of the 10 cities, Bellingham shows much the greatest fluctuation, the proportion that the minimum formed of the maximum for this city being 42.1 per cent.

Seattle shows the least fluctuation the per cent being 87.8.

**Prevailing hours of labor.**—In Table 10 the average number of wage earners, for 1914 and 1909, reported for all industries combined and for selected industries throughout the state, have been classified according to number of hours of labor per week prevailing in the establishments in which they were employed. A similar classification is given for 1914 only for all industries combined in each city having more than 10,000 inhabitants. The number employed in each establishment is classified as a total, even though a few employees worked a greater or a smaller number of hours.

INDUSTRY AND CITY.	Census Year.	AVERAGE NUMBER OF WAGE EARNERS.								
		Total.	In establishments where the prevailing hours of labor per week were —							
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries.....	1914 1909	07,205 09,120	10,518 5,677	1,464 1,725	7,331 7,086	4,259 1,619	40,855 48,781	1,784 2,653	518 270	470 409
Bread and other bakery products.....	1914 1909	1,410 960	861 22	137 150	237 341	55 42	105 304	13 10	21	11 13
Brick and tile, terra-cotta, and fire-clay products.....	1914 1909	962 1,589	20 5	368	261 187	90 12	214 885	500		
Butter, cheese, and condensed milk.....	1914 1909	890 735	31 31		55 87	23 16	271 181	478 415	2 3	2
Canning and preserving.....	1914 1909	2,352 2,020	150 101	21	630 24		1,311 1,359	234 409	6 18	
Cars and general shop construction and repairs by electric-railroad companies.....	1914 1909	382 410	5		218 181	2 3		157 23		
Cars and general shop construction and repairs by steam-railroad companies.....	1914 1909	4,543 2,716	1,791 574	111	288 1,410	2,102 23		20 601	135 99	
Clothing, men's, including shirts.....	1914 1909	405 269	405 255							
Confectionery.....	1914 1909	510 612	423 34	30 22	27 207	12 221	4 121			1
Cooperage and wooden goods, not elsewhere specified.....	1914 1909	263 97	1 1	50	3	113	146			
Copper, tin, and sheet-iron products.....	1914 1909	415 583	813 470		75 43	5 43	22 20			
Flour-mill and gristmill products.....	1914 1909	928 644	156 45	59	8 45	43 17	655 333	7 27		177
Foundry and machine-shop products.....	1914 1909	2,128 2,439	438 332	34 58	1,612 1,084		44 47	9		
Furniture.....	1914 1909	544 582	87 103	167 14	10 88		271 377			
Gas, illuminating and heating.....	1914 1909	630 405	93 2	70	18	84	353 267	84	13	6
Liquors, malt.....	1914 1909	883 765	850 613	20 67			6 16			7
Lumber and timber products.....	1914 1909	38,079 43,749	387 113	38 32	1,410 988	345 313	35,825 42,102	71 137		64
Printing and publishing.....	1914 1909	2,341 2,624	2,210 1,878	28 204	62 324	27 37	13 86	1 2	3	
Shipbuilding, including boat building.....	1914 1909	1,444 744	351 272		1,085 452		8 18			
Slaughtering and meat packing.....	1914 1909	864 828				100	764 776			
Tobacco, cigars.....	1914 1909	215 305	204 202		10 3		1 4			
All other industries.....	1914 1909	7,038 5,966	1,758 1,124	366 399	1,313 1,524	1,108 717	783 976	688 862	510 35	452 329
Total for cities.....	1914	30,573	8,336	950	5,510	2,335	13,083	347	2	10
ABERDEEN.....	1914	1,568	125		40		1,400	3		
BELLINGHAM.....	1914	1,922	130	7	607	40	1,062	80		
EVERETT.....	1914	1,959	198	31	39	1	1,655	35		
HOOQUIAM.....	1914	1,657	57		71		1,529			
NORTH YAKIMA.....	1914	582	98		84		332	8		
SEATTLE.....	1914	12,420	4,581	568	3,225	793	3,092	166		4
SPOKANE.....	1914	3,020	1,167	99	712	117	958	27		
TACOMA.....	1914	6,765	1,699	244	620	1,354	2,821	20	2	5
VANCOUVER.....	1914	360	260	1	17		82			
WALLA WALLA.....	1914	311	82		95	24	192	8		

The figures in this table for the state as a whole and for most of the selected industries emphasize the tendency toward a shortening of the working day of wage earners. In 1909, 52,113, or 75.4 per cent of the total average number of wage earners for all industries combined, were employed in establishments where the prevailing hours of labor were 60 or more per week, whereas but 43,634, or 64.9 per cent, were so employed in 1914. On the other hand, the number of wage earners in establishments where the working hours were less than 60 per week increased from 17,007, or 24.6 per cent of the total for the state in 1909 to 23,571, or 35.1 per cent of the total in 1914. There was a marked increase during the five-year period in the proportion of wage earners working 48 hours and in those working between 54 and 60 hours.

Of the selected industries, brick and tile, terra-cotta, and fire-clay products shows the greatest decrease in hours of labor. In 1909, 12.1 per cent of the wage earners in this industry were employed in establishments where the hours of labor were 54 or less per week, but in 1914 the proportion thus employed had increased to 68.4 per cent. In the lumber industry, 94.1 per cent of the average number of wage earners were employed 60 hours per week in 1914, as compared

with 96.2 per cent in 1909. As this industry employs more than one-half the total number of wage earners in the state, it has a predominant influence on the hours of labor and tends to keep the prevailing hours higher than they would be otherwise. In the foundries and machine shops and in the shipbuilding industry, almost the total number of the wage earners were employed in establishments operating 54 hours or less per week. In the manufacture of copper, tin, and sheet-iron products, and in the brewery, clothing, printing and publishing, and a number of less important industries, the majority of the wage earners were employed 48 hours per week, while in the manufacture of butter, cheese, and condensed milk, the majority were employed in factories operating between 60 and 72 hours per week.

In the three cities of over 50,000 population, Seattle, Spokane, and Tacoma, 67.4 per cent, 63.5 per cent, and 37.9 per cent, respectively, of the wage earners were in establishments where the prevailing hours of labor were 54 or less.

Location of establishments.—Table 11 shows, for 1914, 1909, and 1899, the extent to which the manufactures in Washington were centralized in cities having more than 10,000 inhabitants.

	Census year.	Aggregate.	CITIES HAVING A POPULATION OF 10,000 OR OVER.								DISTRICTS OUTSIDE OF CITIES HAVING A POPULATION OF 10,000 OR OVER.	
			Total.		10,000 to 25,000.		25,000 to 100,000.		100,000 and over.		Number or amount.	Per cent of aggregate.
			Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.		
Number of places.....	1914		10	.....	5	.....	2	.....	3	.....		
	1910		8	.....	5	.....	1	.....	2	.....		
	1900		5	.....	2	.....	3	.....		.....		
Population <sup>1</sup> .....	1914	1,407,865	606,701	49.5	82,702	5.9	61,985	4.4	552,104	39.2	711,074	50.5
	1910	1,141,990	521,557	45.7	96,218	8.4	83,743	7.3	341,596	29.9	620,433	54.3
	1900	518,103	176,344	34.0	21,111	4.1	155,233	30.0			341,759	66.0
Number of establishments.....	1914	3,829	2,024	52.9	210	5.5	184	4.8	1,630	42.6	1,805	47.1
	1909	3,674	1,629	44.3	215	8.6	277	7.5	1,037	28.2	2,045	55.7
	1899	1,926	691	35.9	81	4.2	610	31.7			1,235	64.1
Average number of wage earners..	1914	67,205	30,573	45.5	4,478	6.7	3,881	5.8	22,214	33.1	36,632	54.5
	1909	69,120	28,508	41.2	6,264	9.1	6,820	9.9	16,424	22.3	40,612	58.8
	1899	31,523	10,767	34.2	1,715	5.4	9,052	28.7			20,756	65.8
Value of products.....	1914	\$245,326,456	\$136,691,774	55.7	\$15,077,705	6.1	\$12,794,712	5.2	\$108,819,357	44.4	\$108,634,682	44.3
	1909	220,746,421	113,145,124	51.3	19,251,918	8.7	24,462,198	11.1	69,431,008	31.5	107,601,297	48.7
	1899	70,831,345	32,973,483	46.6	3,593,480	5.1	29,380,003	41.5			37,857,862	53.4
Value added by manufacture.....	1914	108,717,147	56,409,858	51.9	6,778,223	6.2	5,427,963	5.0	44,203,672	40.7	52,307,289	48.1
	1909	102,858,733	48,932,627	47.6	8,857,786	8.6	9,516,417	9.3	30,558,324	29.7	53,926,206	52.4
	1899	32,554,401	13,561,487	41.7	1,410,116	4.4	12,142,371	37.3			18,992,914	58.3

<sup>1</sup> Census estimate of population for 1914.

<sup>2</sup> Figures do not agree with those published, because it was necessary to revise them in order to include data only for those establishments located within the corporate limits of the city.

In accepting the statistics in the table it must be remembered that two of the cities (Hoquiam and Vancouver) that had a population of 10,000 and over at the census of 1914 were included with those of outside districts in prior censuses. This is one explanation of the increase in number of establishments, average number of wage earners, value of products, and value added by manufacture, in the totals for the 10 cities combined for the five-year period. For the ten-year period 1899-1909 the increase in the relative industrial importance of this class of cities was somewhat less than the increase in their population, but

for the five-year period 1909-1914 this condition has been reversed. The large proportions of the various totals for manufacturing industries reported from the districts outside the cities are mainly the result of the development of the lumber industry, canning and preserving, and the manufacture of butter, cheese, and condensed milk, which are largely confined to rural territory. The 1914 grouping of the cities in the above table is made up as follows: Walla Walla, North Yakima, Aberdeen, Vancouver, and Hoquiam, in the first group; Everett and Bellingham in the second; and Seattle, Spokane, and Tacoma in the third.

As a result of the large increases in the population of the various cities, the composition of the different groups has changed considerably since 1900. In that year there were no cities in the state with over 100,000 inhabitants, only three cities having between 25,000 and 100,000 inhabitants, and two having between 10,000 and 25,000 inhabitants, while five of the cities included in the 1914 grouping were included in the district outside of cities having a population of 10,000 or over. By 1910 Seattle and Spokane had so grown in population that each had over 100,000 inhabitants, Tacoma remained in the same group of cities as in 1900, while Everett and Bellingham grew so as to reach the group having between 25,000 and 100,000 inhabitants, and North Yakima and Aberdeen had sufficient population to be classed as cities of between 10,000 and 25,000 inhabitants. The growth of Everett in population was so rapid during the decade that in 1910 it skipped the first group entirely and advanced to the second. Two of the groups—those between 10,000 and 25,000 inhabitants and those between 25,000 and 100,000 inhabitants—show a decrease in 1914 as compared with 1909 in their relative growth as measured by each item in the table.

The 10 cities, which contained 49.5 per cent of the estimated population of the state in 1914, reported 55.7 per cent of the total value of products and 45.5 per cent of the total average number of wage earners. The corresponding proportions for 1909 were considerably less.

The relative importance in manufactures of each of the 10 cities having more than 10,000 inhabitants, as measured by average number of wage earners and by value of products in 1914, 1909, and 1904, is shown in Table 12. The cities are listed in the order of their importance as shown by value of products. Those for which comparative figures are not shown for 1909 and 1904 had less than 10,000 inhabitants in those years.

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1914	1909	1904	1914	1909	1904
Seattle.....	12,429	11,523	6,390	\$64,475,442	\$50,813,641	\$25,400,574
Tacoma.....	6,765	10,820	4,467	27,707,606	124,462,198	14,263,818
Spokane.....	3,020	13,301	2,428	16,636,309	118,617,367	8,830,852
Everett.....	1,959	12,200	.....	6,530,405	16,593,071	.....
Bellingham.....	1,922	1,566	1,314	6,204,307	4,599,637	3,203,988
Hoquiam.....	1,657	.....	.....	5,009,410	.....	.....
Aberdeen.....	1,568	1,509	.....	4,816,113	3,590,230	.....
Walla Walla.....	311	388	242	2,014,073	2,316,813	1,485,791
North Yakima.....	582	1,601	.....	1,637,401	12,152,167	.....
Vancouver.....	360	.....	.....	1,301,048	.....	.....

<sup>1</sup> Figures do not agree with those published, because it was necessary to revise them in order to include data only for those establishments located within the corporate limits of the city.

The manufacturing industries of Seattle and Bellingham show an increase in both value of products and in average number of wage earners for each of the five-year periods 1904-1909 and 1909-1914, but the increase in wage earners is not proportionate to the

increase in value of products. The industries contributing largely to these increases were slaughtering and meat packing, malt liquor, and the flour mills and gristmills in Seattle and the canning of fish in Bellingham.

Spokane, Walla Walla, Everett, and North Yakima each shows a decrease in wage earners and in value of products for the five-year period from 1909 to 1914.

Tacoma, the second city in manufacturing importance, shows an increase in 1914 over 1909 of 13.3 per cent in value of products, but a small decrease (0.8 per cent) in wage earners. The leading industries of the city are slaughtering and meat packing, lumber, flour mills, and the manufacture of malt liquors and foundry and machine-shop products.

In each of the remaining cities shown in the table the leading industries were as follows: Slaughtering and meat packing, printing and publishing, and lumber in Spokane; lumber and timber in Aberdeen, Hoquiam, North Yakima, and Everett; steam-railroad repair shops and malt liquors in Vancouver; and flour mills and gristmills and slaughtering and meat packing in Walla Walla.

Character of ownership.—Table 13 presents statistics concerning the character of ownership, or legal organization, of manufacturing enterprises. For all industries combined comparative figures are given for 1914, 1909, and 1904; for selected industries, statistics for 1914 and 1909 are shown; and for individual cities, the figures are for all industries combined and relate only to 1914. In order to avoid disclosing the operations of individual establishments, it is necessary to omit several important industries from this table.

This table shows for all industries combined an increase during the decade in the number of establishments operated under individual and corporate ownership and a decrease in the number for all other forms of ownership. Although corporations show a smaller proportion of the number of establishments than those owned by individuals, they largely predominate in value of products and average number of wage earners. In 1914 corporations controlled only 38 per cent of the total number of establishments in the state but they reported 88.3 per cent of the total value of products and 88.1 per cent of the total average number of wage earners. The total average number of wage earners and value of products reported by corporations have been greater, both actually and proportionately, at each successive census. In 1914 the largest proportions of the total value of products for the nine industries, for which separate statistics are given, are shown for corporate ownership. This condition prevails also in each of the 10 cities. In Hoquiam 97.9 per cent of the average number of wage earners and 97.6 per cent of the value of products are reported by corporations, which own 54.5 per cent of the total number of establishments in that city.

**Table 13**

INDUSTRY AND CITY.	Census year.	NUMBER OF ESTABLISHMENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.								
		Indi-viduals.	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-viduals.	Cor-pora-tions.	All oth-ers.	Indi-viduals.	Cor-pora-tions.	All oth-ers.		Indi-viduals.	Cor-pora-tions.	All others.	Indi-viduals.	Cor-pora-tions.	All others.				
All industries.....	1914	1,714	1,454	661	67,205	4,643	59,171	3,391	6.9	88.1	5.0	\$245,326,456	\$17,304,674	\$216,661,919	\$11,359,863	7.1	88.3	4.6				
	1909	1,445	1,444	785	69,120	6,814	57,107	5,199	9.9	82.6	7.5	220,746,421	20,580,962	185,171,875	14,993,584	9.3	83.9	6.8				
	1904	1,184	926	641	45,199	6,032	34,107	5,060	13.3	75.5	11.2	128,821,667	13,651,438	103,215,832	11,954,347	10.0	80.1	9.3				
Bread and other bakery products.	1914	303	27	60	1,419	553	689	177	39.0	48.6	12.5	6,572,356	2,596,081	3,160,105	810,170	39.5	48.1	12.4				
	1909	216	16	66	969	411	370	188	42.4	38.2	10.4	4,569,677	2,040,435	1,561,783	967,450	44.7	34.2	21.2				
Brick and tile, terra-cotta, and fire-clay products.	1914	14	19	7	962	92	842	28	0.6	87.5	2.9	2,020,801	154,344	1,801,018	71,439	7.0	88.9	3.5				
	1909	20	27	10	1,589	146	1,326	118	0.2	83.4	7.4	2,020,801	272,333	2,605,805	404,040	8.8	84.5	6.0				
Butter, cheese, and condensed milk.	1914	26	50	25	800	63	723	74	7.3	84.1	8.0	11,807,897	1,041,410	9,119,409	1,647,078	8.8	77.2	13.9				
	1909	27	40	30	735	58	616	61	7.9	83.8	8.3	7,271,047	787,342	5,333,026	1,150,679	10.8	73.3	15.8				
Canning and preserving...	1914	16	60	10	2,352	89	1,923	340	3.8	81.8	14.5	9,449,549	471,829	8,021,768	955,952	5.0	84.0	10.1				
	1909	17	68	5	2,029	170	1,821	38	8.4	89.7	1.9	9,555,387	672,497	8,519,319	404,040	7.0	88.8	4.2				
Copper, tin, and sheet-iron products.	1914	63	23	26	415	137	235	43	33.0	56.6	10.4	1,619,870	413,646	989,005	217,219	25.5	61.1	13.4				
	1909	45	17	19	583	207	298	78	35.5	51.1	13.4	1,945,720	666,412	983,012	296,296	34.3	50.5	15.2				
Flour-mill and gristmill products.	1914	28	56	16	928	55	846	27	5.9	91.2	2.9	23,665,382	1,519,080	21,735,290	411,062	6.4	91.8	1.7				
	1909	24	54	18	644	38	553	53	5.0	85.9	8.2	17,852,944	720,169	16,252,788	879,987	4.0	91.0	4.9				
Foundry and machine-shop products.	1914	99	94	50	2,128	178	1,733	217	8.4	81.4	10.2	6,837,241	575,017	5,607,551	653,773	8.4	82.0	9.6				
	1909	62	79	37	2,439	238	2,013	188	9.8	82.5	7.7	7,987,931	608,682	6,750,653	629,106	7.6	84.5	7.0				
Lumber and timber products.	1914	257	515	107	38,070	1,703	34,765	1,611	4.5	91.3	4.2	83,535,760	3,655,887	76,074,029	3,205,844	4.4	91.8	3.8				
	1909	322	657	284	43,749	3,273	37,286	3,190	7.5	85.2	7.3	89,164,827	6,290,252	76,676,527	6,068,631	7.1	86.1	6.8				
Printing and publishing..	1914	378	155	105	2,341	537	1,645	159	22.9	70.3	6.8	9,824,293	1,846,034	7,371,656	606,603	18.8	75.0	6.2				
	1909	315	107	84	2,624	882	1,498	244	33.0	57.1	9.3	9,286,183	3,335,207	4,883,678	1,067,303	35.9	52.6	11.5				
Total for cities.....	1914	894	792	338	30,573	2,363	26,667	1,543	7.7	87.2	5.0	136,691,774	9,784,062	121,320,607	5,587,105	7.2	88.8	4.1				
ABERDEEN.....	1914	21	27	12	1,508	40	1,255	273	2.6	80.0	17.4	4,815,113	154,260	3,910,576	750,277	3.2	81.2	15.6				
BELLINGHAM.....	1914	41	32	13	1,922	95	1,792	35	4.9	93.2	1.8	6,264,307	371,217	5,781,700	108,390	5.9	92.3	1.7				
EVERETT.....	1914	49	35	14	1,959	107	1,748	104	5.5	89.2	5.3	6,530,405	346,443	5,873,335	310,627	5.3	89.9	4.8				
HOQUIAM.....	1914	10	18	5	1,657	28	1,622	7	1.7	97.9	0.4	5,009,410	90,549	4,890,129	28,732	1.8	97.6	0.6				
NORTH YAKIMA.....	1914	16	19	7	582	50	503	29	8.6	86.4	5.0	1,937,461	430,760	1,408,485	98,216	22.2	72.7	5.1				
SEATTLE.....	1914	456	391	167	12,429	1,315	10,406	708	10.6	83.7	5.7	64,475,442	5,760,442	55,879,094	2,835,096	8.9	86.7	4.4				
SPOKANE.....	1914	119	111	47	3,020	311	2,546	163	10.3	84.3	5.4	16,636,309	1,003,097	15,013,615	619,687	6.0	90.2	3.7				
TACOMA.....	1914	154	129	60	6,765	348	6,232	185	5.1	92.1	2.7	27,707,606	1,108,131	25,909,340	600,135	4.3	93.5	2.2				
VANCOUVER.....	1914	14	9	5	300	30	312	18	8.3	89.7	5.0	1,301,048	113,906	1,083,592	103,550	8.8	83.3	8.0				
WALLA WALLA.....	1914	14	21	12	311	39	251	21	12.5	80.7	6.8	2,014,673	315,347	1,506,931	132,395	15.7	77.8	6.6				

Size of establishments.—The tendency for manufacturing to become concentrated in large establishments or the reverse is indicated by the statistics given in Table 14.

**Table 14**

VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			VALUE ADDED BY MANUFACTURE.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904
All classes.....	3,829	3,674	2,751	67,205	69,120	45,199	\$245,326,456	\$220,746,421	\$128,821,667	\$108,717,147	\$102,858,733	\$62,655,592
Less than \$5,000.....	1,327	902	765	1,069	963	895	3,277,559	2,397,468	1,962,006	2,225,976	1,630,474	1,353,090
\$5,000 to \$20,000.....	1,213	1,270	977	4,637	5,918	5,234	13,043,612	13,824,059	10,740,983	7,825,292	8,508,687	6,942,198
\$20,000 to \$100,000.....	850	1,073	758	13,280	18,671	14,562	39,264,264	47,224,421	32,957,702	10,981,501	28,287,103	19,105,365
\$100,000 to \$1,000,000.....	408	403	238	38,400	37,553	20,411	118,380,072	114,920,746	55,150,426	55,898,789	55,916,259	27,624,134
\$1,000,000 and over.....	31	20	13	9,019	6,015	4,097	71,360,049	42,370,727	28,001,570	22,982,600	10,416,910	7,630,717
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.....	34.7	24.6	27.8	1.6	1.4	2.0	1.3	1.1	1.5	2.0	1.6	2.2
\$5,000 to \$20,000.....	31.7	34.7	35.5	6.8	8.6	11.6	5.3	6.3	8.3	7.2	8.4	11.1
\$20,000 to \$100,000.....	22.2	29.2	27.6	19.8	27.0	32.2	16.0	21.4	25.6	18.4	25.6	30.5
\$100,000 to \$1,000,000.....	10.7	11.0	8.7	57.1	54.3	45.2	48.2	52.1	42.8	51.2	54.4	44.1
\$1,000,000 and over.....	0.8	0.5	0.5	14.8	8.7	9.1	29.1	19.2	21.7	21.1	10.1	12.2

For 1914, 439 establishments, or 11.5 per cent of the total number in the state, each reported products exceeding \$100,000 in value. In 1909 the proportion which establishments of this size formed of the total was the same, while in 1904 the percentage was only slightly less, but a proportional increase in value of products is shown at each successive census, from 64.5 per cent in 1904 to 71.3 per cent in 1909 and to

77.3 per cent in 1914. In 1914 this group reported 71.9 per cent of the total average number of wage earners for the state, 77.3 per cent of the total value of products, and 72.4 per cent of the total value added by manufacture. In the same year the small establishments—having products less than \$5,000 in value—although 34.7 per cent of the total number, reported only 1.3 per cent of total value of products.

Table 15 gives, for 1914 and 1909, for six of the more important industries, a classification of establishments, the average number of wage earners, value

of products, and the value added by manufacture similar to that presented in Table 14 for all industries combined.

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.				AVERAGE NUMBER OF WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.			
	1914		1909		1914		1909		1914		1909		1914		1909	
	Per cent distribution.		Per cent distribution.		Per cent distribution.		Per cent distribution.		Per cent distribution.		Per cent distribution.		Per cent distribution.		Per cent distribution.	
	1914	1909	1914	1909	1914	1909	1914	1909	1914	1909	1914	1909	1914	1909	1914	1909
<b>BUTTER, CHEESE, AND CONDENSED MILK.....</b>	101	07	100.0	100.0	860	735	100.0	100.0	\$11,807,807	\$7,271,047	100.0	100.0	\$2,290,189	\$1,594,856	100.0	100.0
Less than \$5,000.....	5	5	5.0	5.2	0	2	0.7	0.3	14,728	19,358	0.1	0.3	3,438	3,804	0.1	0.2
\$5,000 to \$20,000.....	27	27	26.7	27.8	40	35	4.7	4.8	523,638	325,382	4.4	4.5	124,388	60,071	5.4	3.8
\$20,000 to \$100,000.....	52	50	51.5	51.5	160	148	18.6	20.1	2,472,420	2,372,212	20.9	32.6	358,181	338,208	15.6	21.2
\$100,000 and over <sup>1</sup> .....	17	15	16.8	15.5	654	550	76.0	74.8	8,707,111	4,654,065	74.5	62.6	1,192,182	1,192,653	78.8	71.8
<b>CANNING AND PRESERVING....</b>	86	80	100.0	100.0	2,352	2,020	100.0	100.0	3,449,549	5,505,387	100.0	100.0	4,170,738	4,540,864	100.0	100.0
Less than \$5,000.....	5	8	5.8	10.0	8	14	0.3	0.7	8,694	21,237	0.2	0.2	0,303	11,230	0.2	0.2
\$5,000 to \$20,000.....	23	15	26.7	18.8	147	111	6.2	5.5	251,541	165,447	7.7	1.7	114,614	92,392	2.7	2.0
\$20,000 to \$100,000.....	31	25	36.0	31.2	483	334	20.5	16.5	1,603,181	1,004,565	17.0	11.1	706,850	458,446	16.9	10.1
\$100,000 and over <sup>1</sup> .....	27	32	31.4	40.0	1,714	1,570	72.9	77.4	7,586,133	8,344,198	80.3	87.0	3,342,961	3,987,790	80.2	87.6
<b>FLOUR-MILL AND GRISTMILL PRODUCTS.....</b>	100	96	100.0	100.0	928	644	100.0	100.0	23,665,382	17,852,914	100.0	100.0	3,392,887	2,378,848	100.0	100.0
Less than \$5,000.....	7	3	7.0	3.1	2	1	0.2	0.2	24,805	7,040	0.1	0.1	6,188	1,475	0.2	0.1
\$5,000 to \$20,000.....	25	24	25.0	25.0	80	24	8.2	3.7	286,065	204,065	1.2	1.0	65,033	55,148	1.9	2.3
\$20,000 to \$100,000.....	30	33	30.0	34.4	74	90	8.0	14.0	1,430,694	1,820,088	6.1	8.6	260,720	260,368	7.4	10.9
\$100,000 to \$1,000,000.....	31	32	31.0	33.3	362	300	39.0	60.0	8,038,838	10,030,124	37.8	59.5	1,250,315	1,503,793	36.9	63.2
\$1,000,000 and over.....	7	4	7.0	4.2	400	139	40.6	21.6	12,978,800	5,302,027	54.8	30.2	1,810,731	658,154	53.6	23.5
<b>FOUNDRY AND MACHINE-SHOP PRODUCTS.....</b>	248	178	100.0	100.0	2,128	2,439	100.0	100.0	6,837,241	7,987,031	100.0	100.0	3,886,060	4,263,000	100.0	100.0
Less than \$5,000.....	89	42	36.6	23.6	72	52	3.4	2.1	235,604	128,740	3.4	1.6	164,233	80,420	4.3	2.0
\$5,000 to \$20,000.....	81	60	33.3	33.7	346	230	16.3	9.4	876,087	625,064	12.8	7.8	387,864	387,864	15.1	9.1
\$20,000 to \$100,000.....	50	64	24.3	35.0	683	921	32.1	37.8	2,209,802	2,620,980	33.6	32.9	1,285,198	1,524,797	33.5	35.8
\$100,000 and over.....	14	12	5.8	6.7	1,027	1,236	48.3	50.7	3,426,598	4,606,247	50.1	57.7	1,807,325	2,264,822	47.1	53.1
<b>LUMBER AND TIMBER PRODUCTS.....</b>	939	1,263	100.0	100.0	38,979	43,740	100.0	100.0	83,535,760	89,154,820	100.0	100.0	45,062,188	52,275,954	100.0	100.0
Less than \$5,000.....	218	161	23.2	12.7	854	323	0.9	0.7	510,050	437,304	0.6	0.5	362,455	322,212	0.8	0.6
\$5,000 to \$20,000.....	227	390	24.2	30.9	1,499	2,844	3.9	6.5	2,533,038	4,595,974	3.1	5.2	1,649,696	3,074,419	3.7	5.9
\$20,000 to \$100,000.....	286	505	30.5	40.0	6,712	11,998	17.0	27.4	14,234,488	22,997,212	17.0	25.8	7,891,704	14,473,202	17.5	27.7
\$100,000 to \$1,000,000.....	202	204	21.5	16.2	20,391	26,884	69.3	61.4	59,570,738	57,507,240	71.3	64.5	31,806,630	32,694,937	70.6	62.5
\$1,000,000 and over.....	0	3	0.0	0.2	3,123	1,700	8.2	3.0	6,061,440	3,017,090	8.0	4.1	3,351,703	1,711,184	7.4	3.3
<b>PRINTING AND PUBLISHING....</b>	638	566	100.0	100.0	2,341	2,624	100.0	100.0	9,824,263	9,286,188	100.0	100.0	7,380,468	7,062,598	100.0	100.0
Less than \$5,000.....	367	242	57.5	47.8	216	220	2.2	8.4	927,405	647,984	9.4	7.0	704,805	512,531	10.3	7.3
\$5,000 to \$20,000.....	197	260	30.9	39.5	547	684	23.4	26.1	1,068,073	1,850,092	20.0	20.0	1,684,556	1,449,025	21.4	20.5
\$20,000 to \$100,000.....	59	64	9.2	10.7	650	885	28.0	33.7	2,649,421	2,290,718	27.0	24.7	2,151,430	1,689,976	29.1	23.9
\$100,000 and over <sup>1</sup> .....	15	10	2.4	2.0	923	835	39.4	31.8	4,279,524	4,488,484	43.6	48.3	2,888,677	3,411,060	39.1	48.3

<sup>1</sup> Includes the group "\$1,000,000 and over."

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

For 1914, as compared with 1909, only one of the six selected industries, namely, canning and preserving, showed a decrease in the number of establishments having products under \$5,000 in value. All other industries in this group show an increase, except butter, cheese, and condensed milk, which shows the same number of establishments in 1914 as in 1909. For the establishments having products valued at \$100,000 and over, all of the industries, except foundry and machine shops, show an increase in the average number of wage earners. Butter, cheese, and condensed-milk factories, flour mills and gristmills, and the lumber industry for establishments "\$100,000 and over," show increases in value of products, but canning and preserving, foundry and machine shops and printing and publishing show decreases.

Table 16 presents, for 1914, for all industries combined in each of the 10 cities having more than 10,000 inhabitants, statistics similar to those given in Table 14 for the state as a whole.

In the cities the same general condition prevails as that found throughout the state, namely, a preponderance as to number of wage earners, value of products, and value added by manufactures, for establishments having products valued at \$100,000 and over. The highest percentage of total value of products reported by establishments of this class, 92.1, appears for Hoquiam, and the lowest, 48.6, is shown for Walla Walla.

Each of the 10 cities shows a considerable proportion of the total number of establishments as having products valued at less than \$20,000, but their combined value of products was relatively small. Of the total number of such establishments for the 3 cities having over 100,000 inhabitants, those in Seattle represented 65.2 per cent, Spokane 67.5 per cent, and Tacoma 68.7 per cent, whereas the value of products formed only 7 per cent, 8.2 per cent, and 5.2 per cent, respectively.

**Table 16**

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.
<b>ABERDEEN</b> .....	60	1,568	100.0	\$4,815,113	100.0	\$2,203,411	100.0	<b>SEATTLE</b> .....	1,014	12,429	100.0	\$64,475,442	100.0	\$26,705,318	100.0
Less than \$5,000.....	14	9	0.6	43,272	0.9	27,597	1.3	Less than \$5,000.....	816	188	1.5	851,188	1.3	577,519	2.2
\$5,000 to \$20,000.....	24	103	6.6	247,862	5.1	152,555	6.9	\$5,000 to \$20,000.....	345	1,052	8.5	3,677,101	5.7	2,289,439	8.6
\$20,000 to \$100,000.....	11	190	12.1	587,135	12.2	260,043	11.8	\$20,000 to \$100,000.....	258	3,428	27.6	11,263,643	17.5	6,027,459	22.6
\$100,000 and over.....	11	1,266	80.7	3,936,844	81.8	1,762,610	80.0	\$100,000 to \$1,000,000.....	83	5,065	40.8	21,371,700	33.1	8,792,598	32.9
								\$1,000,000 and over.....	12	2,696	21.7	27,808,720	42.4	9,018,303	33.8
<b>BELLINGHAM</b> .....	86	1,922	100.0	6,264,307	100.0	2,898,003	100.0	<b>SPOKANE</b> .....	277	3,020	100.0	16,636,309	100.0	7,181,897	100.0
Less than \$5,000.....	25	14	0.7	61,511	1.0	36,542	1.3	Less than \$5,000.....	81	50	1.7	108,245	1.2	139,473	1.9
\$5,000 to \$20,000.....	31	128	6.7	351,663	5.6	206,453	7.1	\$5,000 to \$20,000.....	106	365	12.1	1,172,972	7.1	702,360	9.8
\$20,000 to \$100,000.....	19	251	13.1	753,037	12.0	388,970	13.4	\$20,000 to \$100,000.....	60	684	22.6	2,806,720	10.9	1,686,482	22.1
\$100,000 and over.....	11	1,529	79.6	5,098,096	81.4	2,266,038	78.2	\$100,000 and over.....	30	1,921	63.6	12,458,372	74.9	4,753,582	66.2
<b>EVERETT</b> .....	98	1,959	100.0	6,530,405	100.0	2,529,060	100.0	<b>TACOMA</b> .....	339	6,765	100.0	27,707,600	100.0	10,316,457	100.0
Less than \$5,000.....	34	23	1.2	90,037	1.4	59,572	2.4	Less than \$5,000.....	127	97	1.4	289,392	1.0	188,604	1.8
\$5,000 to \$20,000.....	30	119	6.1	401,320	6.1	270,307	10.7	\$5,000 to \$20,000.....	106	371	5.5	1,154,576	4.2	683,128	6.6
\$20,000 to \$100,000.....	23	348	17.8	1,121,022	17.2	605,621	23.9	\$20,000 to \$100,000.....	61	321	12.1	2,706,024	9.8	1,228,639	11.9
\$100,000 and over.....	11	1,469	75.0	4,917,426	75.3	1,594,460	63.0	\$100,000 to \$1,000,000.....	38	2,839	42.7	9,596,833	34.6	4,904,120	48.1
								\$1,000,000 and over.....	7	2,687	38.2	13,960,781	50.4	3,251,966	31.5
<b>HOQUIAM</b> .....	33	1,057	100.0	5,009,410	100.0	1,967,549	100.0	<b>VANCOUVER</b> .....	28	360	100.0	1,301,048	100.0	743,698	100.0
Less than \$5,000.....	5	1	0.1	11,404	0.2	6,594	0.3	Less than \$5,000.....	10	7	1.9	23,877	1.8	15,951	2.2
\$5,000 to \$20,000.....	12	37	2.2	113,999	2.3	74,503	3.8	\$5,000 to \$20,000.....	9	38	10.6	95,550	7.3	62,695	8.4
\$20,000 to \$100,000.....	7	96	5.8	269,117	5.4	146,674	7.5	\$20,000 to \$100,000.....	6	33	9.2	308,671	23.7	85,306	11.5
\$100,000 and over.....	9	1,523	91.9	4,614,890	92.1	1,739,778	88.4	\$100,000 and over.....	3	282	78.3	872,950	67.1	579,746	77.9
<b>NORTH YAKIMA</b> .....	42	582	100.0	1,937,461	100.0	1,004,901	100.0	<b>WALLA WALLA</b> .....	47	311	100.0	2,014,673	100.0	798,664	100.0
Less than \$5,000.....	9	12	2.1	29,247	1.5	20,253	1.9	Less than \$5,000.....	9	5	1.6	25,223	1.2	15,281	1.9
\$5,000 to \$20,000.....	16	49	8.4	183,751	9.5	79,590	7.5	\$5,000 to \$20,000.....	18	75	24.1	362,323	18.0	179,839	22.5
\$20,000 to \$100,000.....	14	150	25.8	588,729	30.1	373,625	35.6	\$20,000 to \$100,000.....	15	170	54.7	648,553	32.2	321,650	40.3
\$100,000 and over.....	3	371	63.7	1,140,734	58.9	596,433	55.1	\$100,000 and over.....	5	61	19.6	978,574	48.6	281,831	35.3

<sup>1</sup> Includes the group "\$1,000,000 and over."

Table 17 shows the size of establishments in 1914 as measured by the number of wage earners employed, for all industries combined, for 20 of the more important industries, and for each of the 10 cities having more

than 10,000 inhabitants. Table 18 presents, for 1914, percentages based on the figures in Table 17, and for 1909 similar percentages for all industries combined and for individual industries in the state as a whole.

**Table 17**

INDUSTRY AND CITY.	ESTABLISHMENTS EMPLOYING—								
	TOTAL.		No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.	
	Estab-lish-ments.	Wage earners (average number).		Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.
All industries.....	3,820	67,205	683	1,830	4,149	745	8,362	267	8,613
Bread and other bakery products.....	300	1,419	123	214	418	41	364	8	215
Brick and tile, terra-cotta, and fire-clay products.....	40	662	.....	18	45	13	140	6	181
Butter, cheese, and condensed milk.....	101	800	5	75	165	14	130	4	121
Canning and preserving.....	86	2,352	1	26	89	31	368	19	582
Cars and general shop construction and repairs by electric-railroad companies.....	13	382	.....	5	13	4	52	2	64
Cars and general shop construction and repairs by steam-railroad companies.....	26	4,543	.....	1	5	6	85	5	181
Clothing, men's, including shirts.....	9	405	.....	1	4	4	25	1	46
Confectionery.....	67	510	8	42	107	13	163	2	43
Cooperage and wooden goods, not elsewhere specified.....	8	263	.....	5	9	.....	.....	1	28
Copper, tin, and sheet-iron products.....	112	415	20	74	143	15	159	3	113
Flour-mill and gristmill products.....	100	928	8	59	126	23	260	6	188
Foundry and machine-shop products.....	243	2,128	40	121	307	63	660	9	276
Furniture.....	50	544	11	23	49	12	126	1	47
Gas, illuminating and heating.....	13	630	.....	4	11	4	61	3	109
Liquors, malt.....	25	883	.....	3	13	13	174	4	153
Lumber and timber products.....	939	38,079	32	314	775	264	3,135	128	4,238
Printing and publishing.....	638	2,341	239	324	665	56	612	13	439
Shipbuilding, including boat building.....	64	1,444	13	31	81	14	135	4	135
Slaughtering and meat packing.....	11	864	.....	3	5	2	24	2	68
Tobacco, cigars.....	115	215	52	53	110	9	82	1	23
All other industries.....	770	7,038	134	434	1,009	144	1,601	45	1,363
<b>Total for cities.....</b>	<b>2,024</b>	<b>30,573</b>	<b>398</b>	<b>950</b>	<b>2,350</b>	<b>418</b>	<b>4,642</b>	<b>143</b>	<b>4,607</b>
<b>ABERDEEN</b> .....	60	1,568	8	23	63	11	170	4	130
<b>BELLINGHAM</b> .....	86	1,922	16	34	71	24	227	6	175
<b>EVERETT</b> .....	98	1,959	16	45	101	23	233	7	230
<b>HOQUIAM</b> .....	33	1,057	4	13	38	6	75	2	69
<b>NORTH YAKIMA</b> .....	42	582	3	25	67	12	115	1	38
<b>SEATTLE</b> .....	1,014	12,429	223	464	1,165	204	2,272	76	2,382
<b>SPOKANE</b> .....	277	3,020	52	134	346	58	571	21	691
<b>TACOMA</b> .....	339	6,765	69	164	405	62	737	21	762
<b>VANCOUVER</b> .....	28	360	2	17	31	6	48	1	26
<b>WALLA WALLA</b> .....	47	311	5	26	63	12	144	4	104



Of the total number of establishments for all industries combined, 688 or 18 per cent, employed no wage earners in 1914. These were small establishments in which the work was done by the proprietors or firm members. In some cases they employed a few wage earners for short periods, but the number was so small and the periods so short that in computing the average number as described in the "Explanation of terms" no wage earners could be shown for the establishment. Of the establishments employing wage earners, 2,575, or 82 per cent, reported 20 or less; 388, or 12.4 per cent, reported more than 20 but less than 100; and 178, or 5.7 per cent, reported over 100. The corresponding percentages for 1909 are 80.9, 14.4, and 4.7, respectively.

Although there were only 178 establishments in the state in which over 100 wage earners were reported in 1914, this group gave employment to 37,354, or 55.6 per cent of the total number of wage earners. During the period from 1909 to 1914 the proportion of wage earners increased for the group reporting 101 to 250 and the one reporting 501 to 1,000, while it decreased slightly for the one employing 251 to 500 and the one for over 1,000. The smaller establishments are largely confined to the bakeries, printing, and tobacco manu-

factures, in each of which the majority employ from 1 to 5 wage earners. On the other hand, in the manufacture of brick and tile, terra-cotta, and fire-clay products, men's clothing, and gas, in the steam and electric railroad repair shops, in the lumber industry, and in slaughtering and meat packing, the majority of wage earners were in establishments where more than 100 were employed. With the exception of printing and publishing, which ranked first in the number of establishments having 1 to 5 wage earners, the lumber industry shows the largest number of establishments and the largest number of wage earners in each of the groups shown in the table.

Among the cities, the highest percentages of the total number of wage earners reported by establishments employing more than 100 wage earners each are shown for Hoquiam (82) and Bellingham (75.4).

**Engines and power.**—Table 19 shows, for 1914, 1909, and 1904, for all industries combined, the number and total horsepower of engines or motors employed in generating power (including electric motors operated by purchased current). It also shows separately the number and horsepower and per cent distribution of electric motors operated by current generated by the establishments reporting.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
				Amount.			Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total.....	9,280	6,149	2,257	399,567	297,897	168,342	100.0	100.0	100.0
Owned.....	3,275	3,291	2,257	314,391	266,808	155,933	78.7	89.6	92.6
Steam engines and turbines <sup>1</sup> .....	2,899	2,957	2,038	301,923	257,249	150,798	75.6	85.4	83.0
Internal-combustion engines.....	260	178	72	3,162	1,404	493	0.8	0.5	0.3
Water wheels, turbines, and motors.....	116	156	147	9,300	8,665	4,642	2.3	2.7	2.8
Rented.....	6,005	2,858	( <sup>2</sup> )	85,176	31,089	12,409	21.3	10.4	7.3
Electric.....	6,005	2,858	( <sup>2</sup> )	84,953	30,951	11,650	21.3	10.4	6.9
Other.....				223	138	759	( <sup>3</sup> )	( <sup>3</sup> )	0.4
Electric.....	7,344	3,564	( <sup>2</sup> )	112,485	43,615	15,290	100.0	100.0	100.0
Rented.....	6,005	2,858	( <sup>2</sup> )	84,953	30,951	11,650	75.5	71.0	76.2
Generated by establishments reporting.....	1,339	706	274	27,532	12,664	3,640	24.5	29.0	23.8

<sup>1</sup> Figures for horsepower include for 1909 and 1904 the amounts reported under the head of "other" owned power.  
<sup>2</sup> Not reported.  
<sup>3</sup> Less than one-tenth of 1 per cent.

This table shows an increase in primary power amounting to 101,670 horsepower, or 34.1 per cent, from 1909 to 1914. The use of rented power, now almost wholly electric, has greatly increased since 1904, when it represented only 7.3 per cent of the total primary power reported. In 1909 the amount of rented power had increased to 10.4 per cent of the total and in 1914 to 21.3 per cent. The increase in the use of electric motors run by current generated within the same establishment has been considerable since 1904.

Of the total increase from 1909 to 1914 in primary power, 44,674 horsepower, or 17.4 per cent, was in that generated by steam. The use of internal-combustion engines increased rapidly during the decade.

The capacity of such engines, however, represented only eight-tenths of 1 per cent of the total primary power in 1914. During the last five-year period there was a slight increase in the horsepower of water wheels, turbines, and motors, but a slight decrease in its proportion to the total primary power.

**Fuel.**—Closely related to the subject of power employed in manufactures is that of the fuel consumed in generating this power or otherwise used in the manufacturing processes.

Table 20 shows, for 1914, the quantity of each kind of fuel used, for which data were obtained, for all industries combined and for selected industries in the state as a whole, and for all industries combined in each city.

**Table 20**

INDUSTRY AND CITY.	COAL.					INDUSTRY AND CITY.	COAL.				
	An-thra-cite (tons, 2,240 lbs.).	Bitumi-nous (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, in-cluding gasoline (barrels).	Gas (1,000 cubic feet).		An-thra-cite (tons, 2,240 lbs.).	Bitumi-nous (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, in-cluding gasoline (barrels).	Gas (1,000 cubic feet).
All industries.....	4,525	400,801	60,355	1,466,957	88,401	Liquors, malt.....	1,045	7,130	1,308	101,470	320
Bread and other bakery products.....	40	9,188	511	8,701	11,508	Lumber and timber products.....	70	30,515	.....	203,784	18,864
Brick and tile, terra-cotta, and fire-clay products.....	1,520	82,142	.....	43,860	.....	Printing and publishing.....	24	1,335	17	762	14,830
Butter, cheese, and condensed milk.....	.....	3,013	.....	50,599	252	Slaughtering and meat packing.....	.....	10,489	.....	.....	100
Canning and preserving.....	541	9,712	.....	54,975	413	All other industries.....	581	133,817	44,713	474,333	38,000
Cars and general shop construction and repairs by electric-railroad companies.....	.....	1,171	100	.....	.....	Total for cities.....	3,070	181,355	25,221	348,005	64,201
Cars and general shop construction and repairs by steam-railroad companies.....	.....	37,878	5	50,774	.....	A. BERTHOEN.....	5	4,801	1,962	17	482
Cement.....	.....	35,035	.....	388,426	.....	BELLINGHAM.....	.....	7,223	408	27,444	4,729
Flour-mill and gristmill products.....	6	1,878	.....	10,083	1,000	EVERETT.....	4	814	2,264	6,633	3,003
Foundry and machine-shop products.....	70	1,885	8,078	10,245	2,080	HOQUIAM.....	.....	32	6	6	201
Gas, illuminating and heating.....	28	110,493	14,593	74,633	.....	NORTH YAKIMA.....	6	7,578	60	352	300
Ice, manufactured.....	.....	3,420	.....	8,613	350	SEATTLE.....	1,937	97,045	4,008	230,657	37,014
						SPOKANE.....	1,000	27,194	3,007	8,217	8,095
						TACOMA.....	18	31,807	13,100	62,137	8,058
						VANCOUVER.....	.....	225	51	13,802	124
						WALLA WALLA.....	20	4,576	111	.....	620

SPECIAL STATISTICS.

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantities and cost of materials, the quantities and values of products, and other information, for which no provision is made on the general schedule. Certain data of this character for five important industries in Washington are here presented. Statistics for power laundries are also given.

**Flour-mill and gristmill products.**—Washington possesses a great diversity of soil admirably adapted to the raising of wheat, barley, oats, and other cereals, which are largely utilized by the flour mills and gristmills of the state.

Table 21 gives quantities and values of flour-mill and gristmill products for the last three census years.

**Table 21**

	1914	1900	1904
Total value.....	\$21,605,382	\$17,852,914	\$14,063,012
Wheat flour:			
Barrels.....	3,765,070	2,804,212	3,024,287
Value.....	\$15,685,353	\$12,484,701	\$11,154,330
Rye flour:			
Barrels.....	6,343	5,500	1,115
Value.....	\$34,887	\$27,500	\$4,070
Barley meal:			
Pounds.....	1,235,024	517,700	7,104,000
Value.....	\$28,107	\$9,413	\$87,795
Corn meal and corn flour:			
Barrels.....	620	6,240	7,625
Value.....	\$3,453	\$23,069	\$21,034
Bran and middlings:			
Tons.....	121,537	(1)	(1)
Value.....	\$2,675,237		
Feed and offal:			
Tons.....	120,200	189,420	155,720
Value.....	\$3,588,665	\$4,788,078	\$3,014,454
Breakfast foods:			
Pounds.....	8,413,648	(2)	(2)
Value.....	\$251,117	(2)	(2)
All other cereal products, value.....	\$154,023	\$441,870	\$744
All other products, value.....	\$1,244,475	\$77,100	\$380,585

<sup>1</sup> Included in "feed and offal."

<sup>2</sup> Not reported separately.

With the exception of corn meal and corn flour, there was an increase from 1909 to 1914 in the value of all classes of products shown in this table. Wheat flour, the most important product of the mills, shows an increase of 34.3 per cent in quantity and 25.6 per cent in value.

Of the 70 mills grinding wheat in 1914, 8 manufactured 2,426,583 barrels of flour, or 64.4 per cent of the total output of the state. The equipment reported for 1914 consisted of 712 stands of rolls, 49 runs of stone, and 74 attrition mills. In 1914 five establishments manufactured sacks to be used as containers.

**Slaughtering and meat packing.**—The kind, number, and cost of animals slaughtered, and the value of the main products reported for this industry at the last three censuses are presented in the following table:

**Table 22**

	1914	1900	1904
<b>MATERIALS.</b>			
Total cost.....	\$15,000,774	\$13,750,982	\$5,423,134
Animals slaughtered:			
Beeves—			
Number.....	85,774	117,522	54,350
Cost.....	\$5,770,200	\$5,851,681	\$2,348,411
Calves—			
Number.....	3,571	14,218	5,463
Cost.....	\$51,031	\$100,168	\$55,716
Sheep and lambs—			
Number.....	302,854	200,383	170,819
Cost.....	\$1,870,230	\$1,304,180	\$720,781
Hogs—			
Number.....	373,321	239,352	122,313
Cost.....	\$5,503,200	\$4,107,508	\$1,504,273
Dressed meat purchased for curing, cost..	\$303,618	\$357,108	\$625,682
All other materials, cost.....	\$1,708,387	\$1,559,328	\$168,271
<b>PRODUCTS.</b>			
Total value.....	\$18,443,520	\$15,653,908	\$6,251,705
Fresh meat:			
Beef—			
Pounds.....	48,021,624	60,288,504	33,548,474
Value.....	\$5,290,910	\$6,035,883	\$2,253,838
Venison—			
Pounds.....	490,047	1,040,493	761,280
Value.....	\$52,871	\$210,574	\$61,700
Mutton and lamb—			
Pounds.....	15,187,052	13,303,776	8,355,285
Value.....	\$1,887,127	\$1,361,055	\$610,336
Pork—			
Pounds.....	27,016,711	16,774,450	8,092,695
Value.....	\$2,744,224	\$1,876,520	\$600,795
Edible offal and all other fresh meat—			
Pounds.....	4,862,441	2,000,561	1,076,070
Value.....	\$307,027	\$175,680	\$96,546
Pork, pickled and other cured:			
Pounds.....	22,352,555	17,116,650	10,900,124
Value.....	\$3,004,477	\$2,450,333	\$1,305,726
Sausage:			
Pounds.....	4,085,362	3,453,182	1,404,442
Value.....	\$540,600	\$300,188	\$108,430

<sup>1</sup> Excludes two establishments, to avoid disclosure of individual operations.

<sup>2</sup> Includes cost of "all other animals," to avoid disclosure of individual operations.

**Table 22—Continued.**

	1914	1909	1904
PRODUCTS—Continued.			
Lard compounds and substitutes:			
Pounds.....	11, 126, 466	(1)	(1)
Value.....	\$540, 750	(1)	(1)
Tallow, oleo stock, and stearin:			
Pounds.....	4, 080, 450	2, 939, 617	(1)
Value.....	\$201, 140	\$168, 144	(1)
Fertilizers and fertilizer materials:			
Tons.....	2, 657	2, 045	681
Value.....	\$81, 345	\$55, 319	\$30, 000
Hides and pelts:			
Cattle—			
Number.....	85, 774		
Pounds.....	5, 398, 177		
Value.....	\$902, 678	124, 887	59, 833
Cal—			
Number.....	2, 700	7, 325, 634	3, 416, 270
Pounds.....	37, 148	\$902, 944	\$317, 109
Value.....	\$5, 476		
Sheep—			
Number.....	362, 854	290, 298	179, 819
Value.....	\$334, 931	\$326, 207	\$196, 084
Wool:			
Pounds.....	448, 013	(2)	
Value.....	\$92, 493	(2)	
All other products, value.....	\$2, 330, 508	\$1, 744, 736	\$572, 081

<sup>1</sup> Not reported separately.  
<sup>2</sup> Figures can not be shown without disclosing individual operations.

The development of this industry is best measured by the production of beef and pork. While beef shows a decrease from 1909 to 1914 in both quantity and value, it was the leading product in 1914, contributing nearly one-third of the total value of all products reported for the industry. The decrease in the value of beef is more than counterbalanced by the increase in the value of pork. The most notable decrease was in veal, which was 1,459,446 pounds, or 74.9 per cent, in quantity, and \$166,703, or 75.9 per cent, in value. The increase from 1909 to 1914 in the output of all products, except beef and veal, has enabled the industry to retain its importance among the leading industries of the state.

**Canning and preserving.**—The remarkable combination of salt and fresh water within the jurisdiction of Washington produces a condition favorable to the canning and curing of fish and the canning of oysters and clams. The state owns and operates several trout and salmon hatcheries, producing many millions of fish, which are planted in the several lakes throughout the state and in Puget Sound and other waters on the coast.

The canning and preserving industry in Washington is largely confined to the canning and curing of fish and the canning of oysters and clams. In recent years this branch of the industry has received an impetus through the importation of salmon, halibut, and cod caught in Alaskan waters and brought into the state to be cured, as well as from state and Government aid in scientifically restocking local waters and by the conservation of the natural supply of fish.

Table 23 shows the quantities and values of the different products of the combined industry for the census years 1914, 1909, and 1904.

Canned salmon, which was the most important product, shows a decrease in value of products of \$1,198,011, or 16.3 per cent, from 1909 to 1914. The value of canned salmon reported in 1914, however, represents

an increase of 153.2 per cent as compared with 1904. Clams show an increase in value. The greatest production of smoked fish was reported for 1904, the year of least production for canned and salt fish. In 1914 the production of smoked salmon was nearly ten times that of smoked halibut. Of the salted fish products cod shows an increase in production of 17.9 per cent from 1909 to 1914 and in value of products 22.9 per cent, while herring shows a decrease in the same items of 35.8 per cent and 21.2 per cent, respectively.

**Table 23**

	1914	1909	1904
Total value.....	\$9, 440, 549	\$9, 595, 387	\$3, 617, 310
Fruits and vegetables.....	\$951, 100	\$478, 895	
Canned vegetables:			
Cases.....	47, 072	30, 585	
Value.....	\$78, 677	\$65, 504	
Canned fruits:			
Cases.....	324, 723	78, 930	
Value.....	\$757, 175	\$154, 392	
Apples—			
Cases (No. 3 size cans).....	33, 745	23, 533	
Value.....	\$54, 912	\$42, 319	
Berries—			
Cases (No. 2 size cans).....	218, 922	36, 549	\$173, 289
Value.....	\$537, 896	\$72, 832	
Pears—			
Cases (No. 3 size cans).....	25, 850	11, 549	
Value.....	\$71, 969	\$26, 058	
All other—			
Cases.....	46, 206	8, 305	
Value.....	\$92, 428	\$13, 183	
Dried fruits:			
Pounds.....	1, 766, 313	5, 445, 017	
Value.....	\$115, 338	\$268, 909	
Fish, clams, etc.....	\$7, 030, 524	\$8, 024, 717	\$3, 229, 844
Canned fish, clams, etc.:			
Cases, 48 cans.....	1, 152, 325	(2)	(2)
Value.....	\$6, 406, 955	\$7, 660, 370	\$2, 492, 080
Salmon			
Cases (No. 1 size can).....	1, 066, 366	(2)	(2)
Value.....	\$6, 156, 558	\$7, 354, 569	\$2, 431, 605
Clams			
Cases (No. 1 size cans).....	53, 000	(2)	(2)
Value.....	\$239, 716	\$178, 596	\$57, 475
All other			
Cases.....	2, 959	(2)	(2)
Value.....	\$10, 721	\$157, 205	\$3, 000
Smoked fish:			
Pounds.....	1, 619, 831	4, 173, 700	6, 040, 560
Value.....	\$107, 039	\$415, 204	\$555, 746
Halibut—			
Pounds.....	120, 143	191, 600	1, 550, 000
Value.....	\$12, 421	\$18, 692	\$151, 400
Salmon—			
Pounds.....	1, 231, 193	3, 527, 000	4, 180, 560
Value.....	\$123, 217	\$389, 620	\$405, 026
All other—			
Pounds.....	259, 495	155, 100	301, 000
Value.....	\$31, 401	\$6, 892	\$9, 320
Salted fish:			
Pounds.....	8, 337, 998	9, 763, 799	3, 594, 071
Value.....	\$456, 530	\$519, 143	\$172, 018
Cod—			
Pounds.....	5, 790, 747	4, 910, 329	876, 850
Value.....	\$247, 230	\$201, 118	\$49, 366
Herring—			
Pounds.....	61, 997	96, 500	750, 000
Value.....	\$2, 603	\$3, 305	\$26, 000
All other—			
Pounds.....	2, 485, 254	4, 756, 970	1, 967, 221
Value.....	\$206, 697	\$614, 720	\$90, 652
All other products, value.....	\$1, 467, 835	\$491, 775	\$214, 177

<sup>1</sup> In addition, canned fruits and vegetables, dried fruits, and pickles, preserves, and sauces to the value of \$16,300 were reported by establishments in other industries.  
<sup>2</sup> Reported in pounds in 1909 and 1904.

The value of fruits and vegetables canned and preserved formed approximately one-tenth of the total for the industry in 1914. This branch of the industry has shown a remarkable growth, the value of the products in 1914 being nearly twice that reported in 1909. Canned berries and "all other" show the greatest rate of increase both in quantity and value. Dried fruits is the only product showing a decrease,

which was 67.6 per cent in quantity and 55.5 per cent in value.

**Butter, cheese, and condensed milk.**—Table 24 shows the quantity and value of products reported for the industry at the last three censuses.

	1914	1909	1904
Total value.....	\$11,807,807	\$7,271,047	\$2,002,576
Butter:			
Pounds.....	16,813,044	11,302,501	7,722,011
Value.....	\$5,107,803	\$3,692,031	\$1,068,682
Packed solid—			
Pounds.....	5,407,664	1,418,308	406,000
Value.....	\$1,550,648	\$434,227	\$126,074
Prints or rolls—			
Pounds.....	11,405,380	9,884,283	7,255,912
Value.....	\$3,557,155	\$3,258,704	\$1,841,708
Cream sold:			
Pounds.....	2,740,350	3,000,180	830,662
Value.....	\$407,057	\$341,081	\$80,005
Cheese <sup>1</sup> :			
Pounds.....	1,355,423	422,200	921,383
Value.....	\$214,710	\$65,607	\$102,601
Condensed and evaporated milk <sup>2</sup> :			
Pounds.....	(3)	53,614,242	13,841,000
Value.....	(8)	\$2,076,320	\$738,688
All other butter, cheese, and condensed-milk factory products, value.....	\$5,920,480	\$47,000	\$41,868
All other products, not specified, value..	\$150,947	\$146,252	\$51,042

<sup>1</sup> Includes full-cream, part-cream, and other kinds.  
<sup>2</sup> Includes sweetened, unsweetened, and evaporated milk.  
<sup>3</sup> Included in "all other butter, cheese, and condensed-milk factory products," to avoid the disclosure of individual operations.

The production of butter increased 5,510,453 pounds, or 48.8 per cent, from 1909 to 1914, as compared with an increase of 3,579,680 pounds, or 46.4 per cent, from 1904 to 1909. Butter put up in prints or rolls formed more than two-thirds of the total quantity reported in 1914. Cheese, which decreased 54.2 per cent in quantity from 1904 to 1909, increased 221 per cent from 1909 to 1914, while for the decade the increase was 47.1 per cent in quantity and 109.3 per cent in value. The largest increase during this period was made in the manufacture of condensed and evaporated milk, but neither the quantity nor the value can be shown separately without disclosing the operations of individual establishments. The value of these products is therefore included in that for "all other butter, cheese, and condensed-milk factory products."

**Printing and publishing.**—The newspapers and periodicals of Washington show a decided growth for the last two five-year periods. Table 25 shows the number of publications and aggregate circulation per issue, classified according to period of issue, for the census years 1914, 1909, and 1904.

There was an increase of 69 in the number of publications during the period from 1909 to 1914, and 53 from 1904 to 1909, while the aggregate circulation per issue increased 307,941, or 28.8 per cent, during the more recent period, and 313,228, or 41.5 per cent, during the earlier period. From 1909 to 1914 the aggregate circulation per issue of each class of publications increased, with the exception of the semiweeklies, which decreased 13,899. The Sunday publications show an increase of 32,549 in circulation. Of the 43

daily papers published in 1914, 17, with an aggregate circulation of 146,251, were morning papers.

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1914	1909	1904	1914	1909	1904
Total.....	438	369	310	1,376,495	1,068,554	755,320
Daily.....	43	41	29	456,489	317,158	186,618
Sunday.....	12	13	9	276,212	243,663	130,161
Semiweekly.....	11	10	7	46,038	59,937	85,811
Weekly.....	307	268	226	276,979	252,396	217,845
Monthly.....	53	32	42	250,479	161,624	118,491
All other classes.....	12	5	3	64,298	33,776	16,400

<sup>1</sup> Includes two triweeklies.

In 1914 the largest class of publications in foreign languages consisted of the weeklies, which also had the largest circulation. The distribution of the publications in foreign languages in 1914, according to the language in which printed, is shown in the following statement:

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS IN FOREIGN LANGUAGES.				
	All classes.	Daily.	Sunday.	Weekly.	Monthly.
Total.....	31	4	2	21	4
German.....	10	1	2	6	1
Italian.....	2			2	
Japanese.....	8	3		4	1
Croatian.....	1			1	
Danish.....	1				1
Norwegian.....	3			2	1
Swedish.....	4			4	
Norwegian-Danish.....	2			2	

**Laundries.**—Statistics for power laundries are not included in the general tables or in the totals for all manufacturing industries. Table 26, however, summarizes these statistics for Washington for 1914 and 1909.

	POWER LAUNDRIES.		
	Number or amount.		Percent of increase, <sup>1</sup> 1909-1914.
	1914	1909	
Number of establishments.....	102	173	11.6
Persons engaged.....	3,744	3,731	0.3
Proprietors and firm members.....	205	195	5.1
Salaried employees.....	241	272	-11.4
Wage earners (average number).....	3,298	3,264	1.0
Primary horsepower.....	4,022	3,084	30.4
Capital.....	\$2,838,858	\$2,165,715	31.1
Salaries and wages.....	2,100,303	2,032,703	6.3
Salaries.....	265,045	275,057	-3.0
Wages.....	1,835,258	1,757,646	7.8
Paid for contract work.....	7,160	11,602	-38.8
Rent and taxes.....	131,329	113,580	15.6
Cost of materials.....	656,300	546,545	19.9
Amount received for work done.....	4,251,620	3,814,825	11.4

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

In 1914 Washington ranked tenth among the states in amount received for work done and thirteenth in number of persons engaged in the industry.

Table 27 shows, for 1914 and 1909, the number of wage earners employed in the laundries on the 15th

of each month, or the nearest representative day, and the percentage which this number represents of the greatest number employed in any month of the same year.

MONTH.	WAGE EARNERS.			
	Number.		Per cent of maximum.	
	1914	1909	1914	1909
January.....	3,282	2,946	97.2	80.4
February.....	3,227	2,957	95.6	80.7
March.....	3,267	2,986	96.7	81.5
April.....	3,300	3,066	97.7	83.7
May.....	3,318	3,169	98.3	86.5
June.....	3,316	3,389	98.2	92.5
July.....	3,370	3,537	99.8	96.6
August.....	3,344	3,663	99.0	100.0
September.....	3,377	3,579	100.0	97.7
October.....	3,268	3,391	96.8	92.6
November.....	3,260	3,262	96.5	89.1
December.....	3,241	3,229	96.0	88.2

Table 28 gives statistics as to kinds and amounts of power used in the laundries of the state in 1914 and 1909, together with the percentages of increases for the five-year period.

The kinds and quantities of fuel used in the laundries as reported at the censuses of 1914 and 1909, with the percentages of increase, are given in Table 29.

POWER.	NUMBER OF ENGINES OR MOTORS.		HORSEPOWER.		Per cent of increase, <sup>1</sup> 1909-1914.
	1914	1909	Amount.		
			1914	1909	
Primary power, total.....	240	200	4,022	3,084	30.4
Owned.....	107	104	3,049	2,418	26.1
Steam engines.....	104	98	3,024	2,392	28.4
Internal-combustion engines.....	2	5	23	24	.....
Water wheels and motors.....	1	1	2	2	.....
Rented.....	142	96	973	666	46.1
Electric.....	142	96	961	594	61.8
Other.....	.....	.....	12	72	.....
Electric—Generated in establishments reporting.....	326	.....	1,585	.....	.....

<sup>1</sup> A minus sign (-) denotes decrease; percentages are omitted where base is less than 100.

KIND.	Unit.	QUANTITY.		Per cent of increase, <sup>1</sup> 1909-1914.
		1914	1909	
Anthracite coal.....	Tons (2,240 lbs.).....	260	8	.....
Bituminous coal.....	Tons (2,600 lbs.).....	9,880	10,279	-3.9
Coke.....	Tons (2,000 lbs.).....	809	1,883	-57.0
Oil, including gasoline.....	Barrels.....	44,724	17,499	155.6
Gas.....	1,000 cubic feet.....	9,500	14,765	-35.7

<sup>1</sup> A minus sign (-) denotes decrease; percentages are omitted where base is less than 100.

GENERAL TABLES.

Table 30 gives, for 1914, 1909, and 1904, 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 having 50,000 inhabitants or more, and for the cities having from 10,000 to 50,000 inhabitants, similar data for all industries combined.

Table 31 presents, for 1914, in the state as a whole and in cities with 50,000 inhabitants or more, statistics in detail for each industry that can be shown without the disclosure of 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.

TABLE 30.—COMPARATIVE SUMMARY FOR 1914, 1909, AND 1904.

INDUSTRY AND CITY.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Expressed in thousands.			INDUSTRY AND CITY.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Expressed in thousands.		
					Wages.	Cost of materials.	Value of products.						Wages.	Cost of materials.	Value of products.
THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.															
All industries.....	1914	3,829	67,205	399,567	\$51,709	\$136,609	\$245,326	Canning and preserving..	1914	186	2,352	4,565	\$1,322	\$5,279	\$9,450
	1909	3,674	69,120	297,897	49,768	117,888	220,740		1909	80	2,029	2,433	1,272	5,040	9,595
	1904	2,751	45,199	108,342	30,087	66,160	128,822		1904	61	689	1,491	380	2,361	3,617
Artificial stone products..	1914	23	72	136	65	106	243	Carriages, wagons, and repairs.	1914	27	150	289	147	200	524
	1909	41	105	117	79	122	325		1909	37	241	254	203	319	720
	1904	3	8	.....	8	3	13		1904	225	201	130	158	188	482
Awnings, tents, and sails..	1914	10	72	40	59	277	468	Cars and general shop construction and repairs by electric-railroad companies.	1914	13	382	1,223	341	250	633
	1909	19	121	42	88	562	828		1909	11	410	508	346	342	733
	1904	9	46	14	32	139	241		1904	(*)	.....	.....	.....	.....	.....
Boxes and cartons, paper..	1914	8	133	60	58	85	216	Cars and general shop construction and repairs by steam-railroad companies.	1914	26	4,543	7,169	3,541	3,080	7,027
	1909	6	110	42	46	97	197		1909	17	2,710	3,600	1,900	2,484	4,666
	1904	4	44	.....	14	19	40		1904	10	1,327	1,341	809	1,805	2,769
Brass and bronze products.	1914	11	45	118	42	84	180	Clothing, men's, including shirts.	1914	9	405	180	173	604	974
	1909	7	40	60	33	60	136		1909	10	269	81	100	369	617
	1904	7	38	.....	21	24	54		1904	11	170	31	61	147	263
Bread and other bakery products.	1914	390	1,419	1,265	1,001	3,548	6,572	Clothing, women's.....	1914	12	159	35	103	207	413
	1909	298	960	412	704	2,566	4,570		1909	6	62	16	41	81	168
	1904	165	454	117	314	894	1,656		1904	5	41	.....	22	52	106
Brick and tile, terra-cotta, and fire-clay products.	1914	40	962	5,404	626	529	2,027	Coffee and spice, roasting and grinding.	1914	25	193	299	117	1,502	2,237
	1909	66	1,589	6,060	989	763	3,082		1909	15	131	280	76	824	1,399
	1904	57	674	2,665	420	270	1,091		1904	8	64	104	38	265	524
Butter, cheese, and condensed milk.	1914	101	860	3,212	657	9,512	11,808	Confectionery.....	1914	67	510	258	277	956	1,733
	1909	97	735	2,203	457	5,676	7,271		1909	52	612	333	200	1,211	2,208
	1904	88	374	987	219	2,392	2,993		1904	28	458	.....	204	679	1,311

<sup>1</sup> Includes "canning and preserving, fish"; "canning and preserving, fruits and vegetables"; "canning and preserving, oysters"; and "pickles, preserves, and sauces."  
<sup>2</sup> Excludes statistics for one establishment, to avoid disclosure of individual operations.  
<sup>3</sup> Figures can not be shown without disclosing individual operations.

TABLE 30.—COMPARATIVE SUMMARY FOR 1914, 1909, AND 1904—Continued.

INDUSTRY AND CITY.	Cens-us year.	Num-ber of estab-lish-ments.	Wage earners (aver-age num-ber).	Primary horse-power.	Wages. Cost. of in-terials. Value of prod-ucts.			INDUSTRY AND CITY.	Cens-us year.	Num-ber of estab-lish-ments.	Wage earners (aver-age num-ber).	Primary horse-power.	Wages. Cost. of in-terials. Value of prod-ucts.		
					Expressed in thousands.								Expressed in thousands.		
THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES—Continued.															
Cooperage and wooden goods, not elsewhere specified.	1914 1909 1904	8 8 14	283 97 80	1,062 912 90	\$189 61 41	\$284 134 61	\$580 273 143	Lumber and timber prod-ucts.	1914 1909 1904	6 039 1,263 1,069	38,070 43,740 30,137	275,848 224,455 128,236	\$20,336 31,327 10,820	\$38,474 36,870 19,418	\$83,536 89,155 54,069
Copper, tin, and sheet-iron products.	1914 1909 1904	112 81 133	415 553 246	273 207 41	355 238	820 933 727	1,620 1,040 727	Marble and stone work...	1914 1909 1904	27 38 18	180 473 106	1,612 1,210 304	180 410 157	277 260 98	673 1,022 418
Flour-mill and gristmill products.	1914 1909 1904	100 99 70	928 944 618	13,401 11,775 8,616	744 464 410	20,272 15,474 12,771	23,065 17,853 14,604	Mattresses and spring beds.	1914 1909 1904	10 12 5	190 166 132	690 485 218	142 131 61	332 437 90	614 718 269
Food preparations, not elsewhere specified.	1914 1909 1904	27 30 6	101 121 25	491 157 70	62 72 13	456 372 24	693 695 77	Mineral and soda waters..	1914 1909 1904	63 49 33	108 118 64	263 158	97 91 43	212 171 85	513 492 270
Foundry and machine-shop products.	1914 1909 1904	243 178 112	2,128 2,439 1,487	6,645 5,117 2,851	1,894 1,907 1,090	3,000 3,724 1,791	6,837 7,988 3,945	Optical goods.....	1914 1909 1904	10 6 5	22 14 13	21 11 7	20 15 4	53 43 10	143 105 52
Fur goods.....	1914 1909 1904	14 15 11	55 71 61	17 14 6	38 55 31	60 144 53	164 316 132	Patent medicines and compounds and drug-gists' preparations.	1914 1909 1904	32 18 10	45 38 29	94 95	20 19 13	142 106 37	273 258 69
Furniture.....	1914 1909 1904	50 30 23	544 552 306	1,407 1,284 677	383 410 174	452 602 300	1,698 1,389 625	Photo-engraving.....	1914 1909 1904	11 9 4	57 62 25	64 54	72 73 20	23 30 10	105 184 50
Gas, illuminating and heating.	1914 1909 1904	13 12 7	630 465 108	2,568 1,479 454	487 273 78	769 661 149	2,360 1,684 602	Printing and publishing..	1914 1909 1904	638 596 383	2,341 2,624 1,797	3,093 2,212 2,035	2,092 2,140 1,354	2,435 2,224 1,056	6,824 6,280 4,765
Gloves and mittens, leather.	1914 1909 1904	6 6 7	52 59 53	17 10	29 21	70 69	148 120 108	Shipbuilding, including boat building.	1914 1909 1904	64 60 39	1,444 734 501	5,866 2,105	1,162 643 312	987 562 517	3,101 1,530 1,077
Ice, manufactured.....	1914 1909 1904	32 25 12	159 103 90	3,080 2,210 905	147 140 78	144 141 41	551 558 243	Slaughtering and meat packing.	1914 1909 1904	11 14 13	894 828 335	2,140 1,863 550	691 575 287	15,901 13,760 5,423	18,444 15,654 6,252
Leather goods.....	1914 1909 1904	43 34 30	101 100 117	67 70 31	82 123 81	365 602 203	646 1,012 436	Stoves, hot-air furnaces, and ranges.	1914 1909 1904	4 5 0	53 72 90	60 53	44 53	50 113	143 211
Lime.....	1914 1909 1904	6 12 6	154 188 171	384 245 68	112 126 87	80 109 160	250 376 335	Tobacco, cigars.....	1914 1909 1904	115 114 102	215 305	158 205 175	217 240 220	563 681 604	
Liquors, malt.....	1914 1909 1904	25 31 31	883 705 478	6,315 5,675 2,907	933 709 501	2,801 2,231 684	9,458 6,903 4,472	All other industries.....	1914 1909 1904	369 250 201	4,028 3,451 3,288	40,816 10,411 13,407	3,825 2,422 2,233	21,631 17,370 13,059	34,730 23,802 18,283

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

SEATTLE—All In-dustries.	1914 1909 1904	1,014 763 467	12,429 11,523 6,390	44,001 38,267	\$9,935 8,589 4,318	\$37,770 28,783 14,358	\$64,475 50,814 25,400	Flour-mill and gristmill products.	1914 1909 1904	10 7 6	270 155 147	3,425 2,305	\$222 111 90	\$6,202 3,872 4,158	\$7,601 4,430 4,594
Bread and other bakery products.	1914 1909 1904	132 78 38	534 295 134	653 148	410 260	1,283 893	2,355 1,550 495	Food preparations, not elsewhere specified.	1914 1909 1904	15 11 3	52 65 13	91 48	32 30 7	219 220 17	327 442 42
Brick, building.....	1914 1909 1904	5 5 4	79 137 61	430 482	69 100	42 37	176 259 67	Foundry and machine-shop products.	1914 1909 1904	82 71 41	1,094 1,210 562	3,125 2,787	880 1,023 431	1,367 2,012 870	3,262 4,290 1,817
Butter.....	1914 1909 1904	4 6 5	40 22 30	250 55	32 19	751 439	909 514 602	Fur goods.....	1914 1909 1904	8 7 5	32 37 32	8 4	20 32 19	33 75 37	91 150 91
Canning and preserving...	1914 1909 1904	11 7 4	210 59 112	1,123 233	169 44	424 234	777 304 610	Furniture.....	1914 1909 1904	24 17 5	100 166 24	227 230	75 139 19	98 140 18	273 405 52
Carrriages, wagons, and re-pairs.	1914 1909 1904	10 12 10	62 109 90	120 73	60 95	56 117	155 298	Ice, manufactured.....	1914 1909 1904	4 5 4	49 61 55	1,155 721	43 53 45	37 68 22	200 225 116
Clothing, men's, includ-ing shirts.	1914 1909 1904	5 5 4	266 141 109	38 47	103 58	346 236	596 374 188	Leather goods.....	1914 1909 1904	10 8 9	62 81 56	30 41	49 60 37	227 267 80	386 444 191
Confectionery.....	1914 1909 1904	34 20 14	332 383 270	134 213	171 190	671 890	1,120 1,491 821	Liquors, malt.....	1914 1909 1904	5 5 5	481 362 176	2,547 1,880	503 300 200	1,063 877 301	4,800 2,815 2,122
Copper, tin, and sheet-iron products.	1914 1909 1904	245 36 13	236 352 120	133 116	189 282	481 557	906 1,131 352	Lumber and timber prod-ucts.	1914 1909 1904	55 65 121	2,337 3,268 1,065	15,917 10,971	1,893 2,242 644	3,765 3,918 657	6,420 8,148 1,835

1 Excludes statistics of one establishment, to avoid disclosure of individual operations.  
 2 Includes "tinware, not elsewhere specified."  
 3 Includes "automobile repairing"; "engines, steam, gas, and water"; "hardware"; "plumbers' supplies, not elsewhere specified"; "pumps, steam and other power"; "steam fittings and steam and hot-water heating apparatus"; and "structural ironwork, not made in steel works or rolling mills."  
 4 Includes "saddlery and harness" and "trunks and valises."  
 5 Includes "boxes, wooden packing"; "lumber, planing-mill products, not including planing mills connected with sawmills"; and "window and door screens."  
 6 Includes "perfumery and cosmetics."  
 7 Includes "bookbinding and blank-book making" and "lithography."  
 8 Excludes statistics for two establishments, to avoid disclosure of individual operations.  
 9 Figures cannot be shown without disclosing individual operations.  
 10 Figures do not agree with those published, because it was necessary to revise them in order to include data only for those establishments located within the corporate limits of the city.  
 11 Includes "canning and preserving, fish," and "pickles, preserves, and sauces."

TABLE 30.—COMPARATIVE SUMMARY FOR 1914, 1909, AND 1904—Continued.

INDUSTRY AND CITY.	Cen-sus year.	Num-ber of estab-lish-ments.	Wage earners (aver-age num-ber).	Primary horse-power.	Wages.			INDUSTRY AND CITY.	Cen-sus year.	Num-ber of estab-lish-ments.	Wage earners (aver-age num-ber).	Primary horse-power.	Wages.		
					Cost. of ma-terials.	Value of prod-ucts.	Expressed in thousands.						Cost. of ma-terials.	Value of prod-ucts.	Expressed in thousands.
CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES—Continued.															
<b>SEATTLE—Contd.</b>															
Marble and stone work...	1914	4	27	26	\$28	\$35	\$80	Mineral and soda waters..	1914	4	7	54	\$8	\$23	\$53
	1909	5	54	38	47	81	218		1909	3	8	10	8	25	60
	1904	3	34	25	25	44	111		1904	3	9	8	8	8	26
Mineral and soda waters...	1914	12	32	50	35	79	167.	Printing and publishing..	1914	56	338	400	329	596	1,042
	1909	10	54	83	42	62	191		1909	46	365	387	376	477	2,120
	1904	6	24	17	17	29	86		1904	40	224	194	194	205	1,042
Patent medicines and compounds and druggists' preparations.	1914	12	20	18	12	83	156	Tobacco, cigars.....	1914	14	30	23	28	68	
	1909	8	24	54	12	42	153		1909	15	46	38	39	108	
	1904	3	15	4	4	14	41		1904	16	47	37	50	125	
Printing and publishing..	1914	214	1,057	1,264	952	1,148	4,613	All other industries.....	1914	97	1,002	3,054	852	4,448	7,217
	1909	133	1,042	791	904	1,042	4,009		1909	114	1,401	3,176	1,087	5,034	8,200
	1904	100	892	656	656	511	1,987		1904	55	638	490	490	1,332	2,692
Slaughtering and meat packing.	1914	3	482	900	370	9,706	11,133	<b>TACOMA—All industries.</b>	1914	339	6,765	24,686	4,064	17,991	27,708
	1909	4	325	468	240	6,410	7,171		1909	277	6,820	22,666	4,714	14,046	24,462
	1904	4	166	125	125	3,029	3,419		1904	236	4,457	2,906	2,906	8,157	14,264
Tobacco, cigars.....	1914	24	56	45	45	52	145	Bread and other bakery products.	1914	86	180	122	116	412	835
	1909	24	65	45	45	46	140		1909	26	184	109	84	333	567
	1904	26	57	42	42	57	143		1904	19	65	46	46	110	211
All other industries.....	1914	287	4,504	12,337	3,559	9,662	17,809	Confectionery.....	1914	7	64	40	33	94	200
	1909	204	3,036	7,410	2,252	6,218	11,672		1909	5	26	5	14	34	65
	1904	144	2,146	1,360	1,360	2,401	5,410		1904	6	56	24	24	83	194
<b>SPOKANE—All industries.</b>	1914	277	3,020	20,362	2,465	94,454	10,636	Copper, tin, and sheet-iron products.	1914	18	65	50	60	79	200
	1909	284	3,901	9,130	3,036	10,080	18,617		1909	13	69	37	67	89	231
	1904	188	2,423	1,669	1,669	4,700	8,831		1904	8	49	48	64	172	
Bread and other bakery products.	1914	22	414	301	256	1,052	1,880	Flour-mill and gristmill products.	1914	7	258	2,047	215	6,071	6,695
	1909	33	260	84	170	686	1,211		1909	5	116	2,630	76	3,430	3,844
	1904	18	101	58	58	216	359		1904	4	102	70	70	2,069	2,294
Confectionery.....	1914	11	61	47	42	115	213	Foundry and machine-shop products.	1914	27	370	1,014	260	695	1,321
	1909	10	126	78	58	252	406		1909	23	392	649	289	697	1,368
	1904	5	118	53	53	165	271		1904	10	15	358	253	439	898
Copper, tin, and sheet-ironwork.	1914	16	64	46	66	125	266	Furniture.....	1914	10	337	742	213	283	621
	1909	13	111	50	120	195	408		1909	7	285	625	194	348	690
	1904	6	60	51	51	70	164		1904	10	173	97	97	218	420
Flour-mill and gristmill products.	1914	3	62	963	55	1,446	1,810	Lumber and timber products.	1914	26	2,146	10,323	1,548	2,011	5,060
	1909	4	61	680	47	1,454	1,832		1909	31	2,935	12,862	1,959	2,839	6,040
	1904	4	45	33	33	918	1,089		1904	124	1,815	1,120	1,120	1,810	3,408
Foundry and machine-shop products.	1914	23	221	565	202	317	730	Printing and publishing..	1914	58	293	546	260	282	1,158
	1909	14	288	531	213	415	871		1909	42	293	264	253	247	1,094
	1904	10	196	148	148	230	515		1904	35	167	141	141	119	623
Furniture and refrigerators.	1914	7	18	58	15	27	55	Shipbuilding, wooden, including boat building.	1914	5	17	22	14	21	50
	1909	4	16	35	12	12	37		1909	6	31	58	29	38	93
	1904	4	11	7	7	9	26		1904	5	75	65	65	170	274
Leather goods.....	1914	4	5	6	5	28	46	Tobacco, cigars.....	1914	15	54	36	46	120	
	1909	6	29	11	21	150	224		1909	17	77	47	53	150	
	1904	3	13	9	9	30	61		1904	15	64	37	40	125	
Lumber and timber products.	1914	20	798	14,868	612	1,249	2,347	All other industries.....	1914	130	2,981	8,180	2,209	6,797	11,448
	1909	22	1,190	4,088	886	1,350	3,091		1909	102	2,432	5,427	1,702	6,788	10,323
	1904	24	968	581	581	1,467	2,468		1904	95	1,533	1,005	1,005	3,585	5,025

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

<b>ABERDEEN.....</b>	1914	60	1,563	13,280	\$1,219	\$2,612	\$4,815	<b>NORTH YAKIMA.....</b>	1914	42	582	2,343	\$402	\$873	\$1,937
	1909	43	1,509	9,532	995	2,172	3,590		1909	35	601	1,967	373	930	2,162
<b>BELLINGHAM.....</b>	1914	86	1,922	10,170	1,318	3,366	6,264	<b>WALLA WALLA.....</b>	1914	47	311	1,737	250	1,216	2,015
	1909	96	1,566	5,176	1,027	2,422	4,600		1909	48	388	1,500	323	1,385	2,317
	1904	73	1,314	858	858	1,651	3,294		1904	33	242	181	181	929	1,486
<b>EVERETT.....</b>	1914	93	1,959	13,653	1,610	4,000	6,530								
	1909	93	2,200	10,021	1,585	3,485	6,593								

1 Excludes statistics for two establishments, to avoid disclosure of individual operations.  
 2 Includes "perfumery and cosmetics."  
 3 Includes "bookbinding and blank-book making," "engraving, steel and copper plate, including plate printing" and "lithographing."  
 4 Figures do not agree with those published, because it was necessary to revise them in order to include data only for those establishments located within the corporate limits of the city.  
 5 Includes "automobile repairing" and "structural ironwork, not made in steel works or rolling mills."  
 6 Includes "saddlery and harness" and "trunks and valises."  
 7 Includes "boxes, wooden packing"; "lumber, planing-mill products, not including planing mills connected with sawmills; and "window and door screens."  
 8 Includes "tinware, not elsewhere specified."  
 9 Includes "automobile repairing"; "engines, steam, gas, and water"; "steam fittings and steam and hot-water heating apparatus"; and "structural ironwork not made in steel works or rolling mills."  
 10 Excludes statistics for one establishment, to avoid disclosure of individual operations.  
 11 Includes "bookbinding and blank-book making" and "lithographing."

TABLE 31.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

INDUSTRY.	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.	Clarks, 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.

1	All industries.....	3,829	78,448	3,155	2,910	4,158	1,011	67,205	Jo	75,182	Do	53,071	(*)	(*)	(*)	(*)	(*)	\$277,715,262
2	Agricultural implements.....	7	155	3	10	0	2	134	Jo	174	No	61	145	145				615,112
3	Artificial limbs.....	0	17	3	2	1	1	10	Ja <sup>1</sup>	11	Jo <sup>4</sup>	9	10	10				11,710
4	Artificial stone products.....	23	100	18	0	5	2	72	Jo	116	Ja <sup>4</sup>	48	88	88				240,530
5	Automobile bodies and parts.....	13	80	13	5	1	3	58	Jo	60	Ja <sup>4</sup>	49	50	47	2	1		148,251
6	Automobile repairing.....	20	90	24	4	3	1	07	Jo <sup>4</sup>	74	Ja <sup>4</sup>	62	05	65				124,044
7	Awnings, tents, and sails.....	10	121	21	11	12	5	72	Jo	89	De	51	09	39	20		1	372,023
8	Belting, leather.....	3	15	2	2	3	2	0	(c)	0	(c)	0	0	0				69,047
9	Bookbinding and blank-book making.....	12	56	14	3	1	2	30	Ap <sup>1</sup>	37	Jo	34	35	24	11			01,631
10	Boots and shoes.....	11	217	7	12	14	0	178	Ja	203	Jy <sup>4</sup>	164	180	133	39	8		1,007,937
11	Boxes and cartons, paper.....	8	150	3	13	4	8	133	No	173	Jo	112	103	38	124		1	240,623
12	Boxes, wooden packing.....	21	385	12	22	10	3	338	My	440	De	106	437	400	21	16		750,798
13	Brass and bronze products.....	11	69	8	0	5	2	45	Jy	53	De	39	44	42	1	1		140,080
14	Bread and other bakery products.....	390	2,123	437	47	149	71	1,410	Oo	1,483	Fe	1,335	1,402	974	467	14	7	2,907,909
15	Brick and tile, terra-cotta, and fire-clay products.....	40	1,111	32	51	52	14	002	Jo	1,288	De	008	1,100	1,096		10		6,548,088
16	Building brick.....	31	712	30	34	28	8	612	Jo	800	Ja	384	724	716		8		4,620,055
17	All other.....	0	309	2	17	24	0	360	My	505	De	182	382	380		2		1,068,033
18	Brooms, from broom corn.....	9	82	11	8	2	1	00	Au <sup>4</sup>	05	Jo	53	66	50	16			147,105
19	Butter, cheese, and condensed milk.....	101	1,094	38	87	71	38	800	Jo	1,004	Ja	714	819	745	57	16	1	5,709,740
20	Canning and preserving, fish.....	48	1,927	17	80	89	17	1,715	Au	3,215	Ja	385	3,102	2,547	593	37	15	11,525,141
21	Canning and preserving, fruits and vegetables.....	18	420	11	19	21	2	367	Au	034	Ja	6	1,108	557	535	5	11	607,640
22	Canning and preserving, oysters.....	8	216	3	14	11	12	170	No	329	Jy	21	434	348	86			314,804
23	Carpets, rag.....	9	33	0				24	Au	30	Ja <sup>4</sup>	19	25	22	3			10,841
24	Carrriages, wagons, and repairs.....	27	196	30	0	7	8	150	Ap	160	No	126	133	133				547,048
25	Carrriages and wagons.....	20	147	22	0	0	3	110	Ap	125	No	03	100	100				435,080
26	Repair work only.....	7	49	8		1		40	Mh <sup>4</sup>	45	No <sup>4</sup>	33	33	33				112,808
27	Cars and general shop construction and repairs by electric-railroad companies.....	13	400		0	11	1	382	My	421	De	340	340					1,200,030
28	Cars and general shop construction and repairs by steam-railroad companies.....	20	4,822		140	100	21	4,543	So	4,747	De	4,108	4,443	4,443				7,176,047
29	Cement.....	5	718		20	00	9	020	Ap	796	De	300	830	830				9,380,375
30	Chemicals.....	4	45		4	7	2	32	Oo	30	Fe	27	34	34				467,646
31	Cleansing and polishing preparations.....	3	5	4	1			(c)	(c)	0	(c)	0						1,237
32	Clothing, men's, including shirts.....	9	457	4	0	37	2	405	Ja	470	No	336	364	20	335			628,448
33	Clothing, women's.....	12	102	8	11	10	4	150	Mh	170	De	119	153	49	103	1		225,276
34	Suits, skirts, and cloaks.....	6	97	4	7	5	3	78	Ja	06	De	41	75	38	37			114,378
35	Shirts, waists and dresses.....	6	95	4	4	5	1	81	Mh	90	Jy	73	78	11	66	1		110,897
36	Coffee and spice, roasting and grinding.....	25	313	15	18	71	10	103	So	207	No	171	170	106	72		1	1,022,671
37	Collins, burial cases, and undertakers' goods.....	4	52	3	8	0	2	33	Ja <sup>4</sup>	35	Jo <sup>4</sup>	31	33	27	0			195,713
38	Confectionery and ice cream.....	100	880	90	38	89	31	638	De	739	Fe	581	739	307	420	2	1	1,211,765
39	Confectionery.....	67	697	58	24	83	22	510	De	628	Fe	474	614	217	394	2	1	885,438
40	Ice cream.....	33	189	32	14	0	0	128	Au	157	Ja	106	125	90	35			326,327
41	Cooperage and wooden goods, not elsewhere specified.....	8	286	5	0	7	2	203	No	313	Ja <sup>4</sup>	160	309	299	10			795,852
42	Copper, tin, and sheet-iron products.....	112	611	118	30	34	5	415	Au	490	Fe	300	447	438	7	2		1,070,320
43	Electroplating.....	4	12	0			1	5	(c)	5	(c)	5	5	5				7,460
44	Engines, steam, gas, and water.....	8	33	10	1	1		21	Ap <sup>4</sup>	23	Jo	14	19	19				78,527
45	Flour-mill and gristmill products.....	100	1,355	05	109	209	44	928	So	1,076	Jy	791	1,001	979	22			15,505,690
46	Food preparations, not elsewhere specified.....	27	154	23	14	12	4	101	Jo	140	My	87	101	80	10	2		632,454
47	Macaroni, vermicelli, and noodles.....	7	67	10	5	2	2	48	No	50	Ja <sup>4</sup>	46	47	42	5			213,423
48	Miscellaneous, for human consumption.....	10	25	8	1	3		13	Jo	16	Oo <sup>4</sup>	11	15	11	2	2		16,485
49	All others, including food for animals and fowls.....	10	62	5	8	7	2	40	Jo	75	Ap	30	30	30	3			402,506
50	Foundry and machine-shop products.....	100	2,343	107	153	141	32	1,850	Ap	2,002	No	1,504	1,089	1,086	2	1		9,404,447
51	Boiler shops.....	8	119	9	4	4		102	My	141	Au	82	91	91				176,502
52	Foundries.....	17	418	20	14	28	3	353	My	429	No	275	288	288				1,567,671
53	Machine shops.....	105	1,806	138	135	109	29	1,305	Mh	1,569	No	1,152	1,310	1,307	2	1		7,720,184
54	Fur goods.....	14	81	16	3	3	4	55	Oc <sup>4</sup>	83	Je	35	82	32	50			153,367
55	Furnishing goods, men's.....	4	97	0	2	7	1	81	Se	85	Fe	75	87	19	68			84,937
56	Furniture.....	50	633	40	30	9	10	544	Ap	573	De	520	527	514	7	0		1,309,493
57	Wood, other than rattan and willow.....	29	495	25	18	8	7	437	Ap	491	Jy	412	424	411	7	0		1,118,937
58	Rattan, willow, and metal.....	3	20		5	1	1	22	Ja <sup>4</sup>	25	Au <sup>4</sup>	18	22	22				51,342
59	Store and office fixtures.....	18	109	15	7		2	85	Ja <sup>4</sup>	91	Oo	73	81	81				139,214
60	Gas, illuminating and heating.....	13	894		43	190	31	630	Ap	702	De	560	560	560				23,639,196
61	Gloves and mittens, leather.....	6	81	7	1	13	8	52	Ap	66	De	37	59	27	32			110,795
62	Hand stamps.....	10	51	8	3	4		36	Jo	42	No <sup>4</sup>	33	33	33				51,532

1 Owned power only.

2 Includes rented power, other than electric.

3 No figures given for reasons stated under "Explanation of terms."

OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914.

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, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal-combustion engines. <sup>2</sup>	Water wheels and motors. <sup>1</sup>	

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

\$0, 146, 340	\$5, 357, 748	\$51, 703, 052	\$2, 132, 242	\$1, 337, 071	\$3, 812, 867	\$181, 352, 710	\$5, 256, 599	\$245, 326, 456	\$108, 717, 147	390, 567	301, 923	3, 385	9, 306	84, 953	27, 532	1
15, 502	9, 873	115, 444	.....	736	1, 155	177, 093	7, 330	302, 053	207, 630	202	.....	.....	.....	202	.....	2
1, 820	590	7, 148	1, 000	3, 555	68	5, 470	145	29, 100	23, 539	7	.....	.....	.....	7	.....	3
18, 835	6, 425	65, 302	225	3, 111	1, 096	104, 656	1, 826	243, 021	136, 539	196	59	46	.....	31	.....	4
7, 140	2, 970	56, 618	.....	10, 195	471	55, 816	1, 558	169, 999	112, 626	48	.....	.....	.....	48	.....	5
4, 500	2, 484	49, 684	44	5, 844	651	55, 047	2, 471	149, 183	111, 065	94	.....	18	.....	76	.....	6
12, 508	17, 242	53, 877	42	15, 780	3, 906	275, 340	1, 275	467, 902	191, 287	40	.....	.....	.....	40	.....	7
3, 380	5, 460	6, 087	516	2, 940	400	16, 749	123	52, 768	35, 896	9	.....	.....	.....	9	.....	8
4, 682	867	27, 768	1, 174	5, 574	1, 051	33, 460	1, 094	112, 059	77, 605	28	.....	.....	.....	28	.....	9
23, 366	21, 055	111, 644	.....	3, 937	6, 341	406, 188	3, 562	707, 177	207, 427	194	.....	.....	.....	194	.....	10
19, 857	6, 424	58, 166	1, 406	8, 585	4, 067	82, 349	2, 318	216, 278	131, 611	60	.....	.....	.....	60	.....	11
37, 900	11, 425	210, 998	6, 494	4, 021	5, 881	373, 089	9, 955	789, 019	405, 975	2, 208	1, 409	.....	60	739	.....	12
14, 250	4, 153	41, 859	3, 126	2, 951	2, 022	179, 599	4, 259	179, 794	95, 936	118	.....	.....	.....	118	.....	13
88, 646	230, 680	1, 000, 888	3, 563	157, 426	27, 581	3, 438, 977	108, 743	6, 572, 356	3, 024, 636	1, 265	65	33	2	1, 135	5	14
70, 100	23, 552	626, 376	5, 756	1, 555	34, 017	180, 195	368, 997	2, 026, 801	1, 497, 609	5, 404	3, 042	7	.....	2, 355	236	15
45, 840	40, 421	391, 722	300	1, 455	23, 099	109, 421	216, 443	1, 328, 182	1, 002, 318	3, 099	942	7	.....	2, 150	6	16
33, 260	33, 131	234, 654	5, 456	100	10, 318	50, 774	152, 554	698, 619	495, 201	2, 305	2, 100	.....	.....	205	230	17
8, 025	1, 920	30, 437	650	100	921	93, 327	1, 100	167, 158	72, 781	80	.....	.....	.....	80	.....	18
143, 117	95, 322	657, 321	20, 813	14, 703	39, 138	9, 367, 276	144, 432	11, 807, 897	2, 296, 189	3, 212	2, 068	86	24	1, 034	495	19
225, 339	115, 009	1, 072, 805	192, 453	23, 461	115, 911	3, 996, 365	112, 767	7, 034, 076	3, 524, 944	3, 665	2, 256	607	.....	802	89	20
21, 604	16, 416	143, 603	.....	2, 128	2, 434	805, 217	.....	9, 328	306, 604	387	285	4	.....	98	.....	21
13, 345	10, 413	42, 176	1, 501	.....	2, 461	98, 470	1, 932	243, 212	142, 801	330	303	27	.....	6	26	22
.....	.....	13, 008	1, 632	.....	36	4, 641	574	32, 900	27, 685	18	.....	.....	.....	18	.....	23
8, 872	9, 590	147, 402	600	17, 958	5, 627	254, 598	11, 297	524, 345	258, 450	289	.....	19	.....	270	.....	24
8, 872	8, 060	107, 226	900	15, 078	4, 358	214, 697	8, 321	415, 195	192, 177	218	.....	11	.....	207	.....	25
.....	1, 500	40, 176	.....	2, 880	1, 269	39, 901	2, 976	109, 150	66, 273	71	.....	8	.....	93	.....	26
10, 232	8, 430	340, 871	.....	.....	15, 913	240, 306	18, 426	632, 805	374, 074	1, 223	.....	.....	.....	1, 223	12	27
200, 091	110, 066	3, 541, 193	528	.....	10, 939	2, 881, 504	198, 404	7, 026, 916	3, 947, 008	7, 160	2, 746	.....	.....	4, 414	1, 181	28
82, 757	102, 241	495, 447	3, 676	.....	30, 874	754, 351	767, 328	2, 639, 210	1, 127, 540	18, 237	3, 975	.....	1, 000	12, 662	.....	29
10, 048	7, 922	25, 324	.....	2, 200	1, 991	248, 356	10, 309	373, 553	114, 888	80	22	.....	.....	67	.....	30
600	.....	.....	832	294	21	1, 257	43	4, 977	3, 677	.....	.....	.....	.....	.....	.....	31
19, 268	39, 195	172, 972	.....	17, 314	3, 073	601, 070	2, 551	974, 077	370, 456	180	.....	.....	.....	180	.....	32
24, 506	14, 137	102, 889	1, 550	12, 063	1, 298	205, 447	1, 347	413, 230	205, 486	85	.....	.....	.....	85	.....	33
15, 890	8, 660	65, 028	1, 550	6, 315	789	120, 067	820	258, 258	128, 371	16	.....	.....	.....	16	.....	34
8, 616	5, 477	37, 361	.....	5, 748	509	76, 380	527	155, 022	78, 115	19	.....	.....	.....	19	.....	35
43, 395	119, 396	117, 478	400	30, 627	8, 124	1, 401, 932	10, 011	2, 236, 749	734, 806	299	.....	.....	.....	299	.....	36
11, 745	7, 187	24, 687	.....	250	905	82, 061	2, 392	164, 499	80, 046	116	.....	.....	.....	116	.....	37
65, 924	128, 110	365, 828	.....	92, 730	10, 372	1, 318, 126	42, 229	2, 474, 506	1, 114, 151	642	67	22	.....	553	.....	38
44, 924	110, 958	270, 896	.....	71, 554	7, 145	927, 646	28, 418	1, 783, 228	827, 164	258	50	2	.....	205	.....	39
21, 000	11, 152	88, 932	.....	21, 176	3, 227	390, 480	13, 511	691, 278	286, 897	384	17	20	.....	347	.....	40
18, 512	11, 533	189, 027	.....	726	5, 960	280, 322	3, 385	580, 139	296, 432	1, 062	923	4	.....	135	235	41
66, 178	33, 595	355, 315	6, 152	43, 367	10, 090	817, 366	11, 197	1, 619, 870	791, 307	273	.....	45	.....	228	.....	42
.....	520	3, 176	172	1, 470	26	547	700	14, 917	13, 070	41	.....	.....	.....	41	.....	43
1, 800	720	22, 494	1, 289	2, 656	451	30, 368	1, 172	84, 991	53, 451	50	.....	.....	.....	50	.....	44
283, 001	267, 938	743, 620	697	31, 725	119, 044	20, 070, 584	201, 911	23, 665, 382	3, 392, 887	13, 401	1, 917	221	2, 197	9, 066	35	45
19, 920	9, 537	62, 400	.....	7, 961	4, 176	446, 650	9, 647	663, 020	206, 723	491	.....	.....	.....	491	.....	46
8, 840	3, 478	27, 634	.....	480	1, 126	128, 812	3, 715	220, 376	87, 849	140	.....	.....	.....	140	.....	47
900	1, 800	7, 477	.....	1, 860	107	24, 563	1, 185	48, 742	22, 904	16	.....	.....	.....	16	.....	48
10, 180	4, 259	27, 289	.....	5, 631	2, 943	293, 275	4, 747	393, 902	95, 880	335	.....	.....	.....	335	.....	40
281, 664	170, 738	1, 580, 630	20, 576	83, 247	76, 754	2, 489, 680	160, 045	5, 975, 823	3, 326, 098	5, 993	613	347	.....	5, 033	8	50
6, 850	3, 440	83, 125	.....	7, 266	2, 062	141, 899	7, 594	297, 881	148, 298	708	.....	.....	.....	708	.....	51
32, 175	36, 898	282, 898	.....	3, 510	14, 831	593, 032	49, 223	1, 252, 814	610, 559	922	13	6	.....	903	.....	52
242, 639	130, 490	1, 214, 607	20, 576	72, 471	59, 861	1, 754, 659	103, 228	4, 425, 123	2, 567, 241	4, 363	600	341	.....	3, 422	8	53
7, 554	5, 780	38, 022	948	9, 952	1, 257	59, 227	538	163, 613	103, 848	17	.....	4	.....	13	.....	54
2, 482	5, 698	20, 035	.....	2, 970	415	103, 255	739	168, 904	64, 910	42	.....	.....	.....	42	.....	55
45, 154	16, 616	352, 876	12, 304	15, 417	13, 895	438, 538	13, 555	1, 097, 990	645, 897	1, 407	929	28	.....	450	108	56
30, 424	13, 496	272, 236	400	6, 648	12, 521	330, 293	8, 072	811, 144	472, 779	1, 097	889	3	.....	205	108	57
4, 720	1, 800	11, 867	.....	1, 200	233	17, 360	1, 056	51, 325	32, 909	85	40	25	.....	20	.....	58
10, 010	1, 320	68, 773	11, 904	7, 569	1, 141	90, 885	4, 427	235, 521	140, 209	225	.....	.....	.....	225	.....	59
83, 822	189, 227	487, 309	.....	126	171, 411	124, 816	634, 254	2, 369, 188	1, 610, 118	2, 598	2, 027	256	.....	235	189	60
1, 000	3, 929	28, 704	.....	2, 142	1, 078	77, 769	1, 577	147, 849	68, 593	17	.....	.....	.....	17	.....	61
3, 950	4, 749	29, 992	.....	5, 850	435	39, 234	933	94, 490	63, 323	33	.....	.....	.....	33	.....	62

TABLE 31.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

INDUSTRY	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.

1	Hosiery and knit goods.....	10	87	8	8	2	60	Oo	08	Jo	34	88	20	02	.....	\$157,241		
2	Ice, manufactured.....	32	223	20	25	17	150	Jy	227	Fo	112	162	162	.....	1,808,028			
3	Iron and steel forgings.....	4	25	3	2	1	10	Je	28	Do	13	17	17	.....	47,615			
4	Jewelry.....	17	221	10	2	15	173	Mh	101	Do	153	154	147	5	2	.....	729,630	
5	Lime.....	0	178	1	8	12	164	Au	180	Do	113	138	130	2	.....	1,374,547		
0	Liquors, malt.....	25	1,141	5	77	161	883	Jy	008	Do	741	770	763	7	.....	13,870,230		
7	Lithography.....	4	90	.....	8	3	71	So	85	Fo	61	69	57	12	.....	230,000		
8	Lumber and timber products.....	821	39,040	592	080	874	30,461	My	42,001	Do	29,333	44,057	44,519	96	42	.....	88,412,502	
9	Lumber, planing-mill products, not including planing mills connected with sawmills.	91	1,510	54	87	87	1,273	Jy	1,478	Ja	1,073	1,320	1,317	.....	4,130,106			
10	Marble and stone work.....	27	247	26	15	15	180	Fo	222	Jy	152	103	103	.....	1,202,223			
11	Mattresses and spring beds.....	10	222	2	7	20	190	Ja	200	Au	181	191	173	18	.....	503,620		
12	Millinery and lace goods.....	3	45	5	1	.....	38	Do	10	Do	10	23	3	20	.....	10,180		
13	Mineral and soda waters.....	60	203	67	14	10	108	Jy	130	No	91	106	104	.....	602,845			
14	Models and patterns, not including paper patterns.	11	33	13	2	1	17	Ap	20	Do	14	20	18	2	.....	29,474		
15	Musical instruments, violins and other stringed instruments.	8	0	7	.....	.....	2	(*)	2	(*)	2	2	2	.....	0,753			
16	Optical goods.....	10	45	4	6	7	22	(*)	22	(*)	22	22	22	.....	70,140			
17	Paints.....	6	58	.....	10	18	23	Ap	26	Ja	20	22	20	2	.....	108,133		
18	Patent medicines and compounds.....	28	70	23	0	4	20	Jo	4	Do	14	33	31	2	.....	238,583		
19	Photo-engraving.....	11	80	7	0	7	57	Ap	01	Ja	52	67	63	3	.....	104,067		
20	Pickles, preserves, and sauces.....	12	130	4	10	14	94	Jy	143	Do	79	132	64	53	25	.....	436,031	
21	Printing and publishing, book and job.	220	1,377	200	91	112	932	Oo	1,009	Jy	866	940	778	139	22	1	.....	2,169,460
22	Job printing.....	201	1,271	186	85	70	807	Oo	1,064	Jy	830	904	743	138	22	1	.....	2,610,036
23	Book publishing and printing.....	12	04	8	4	40	4	Ja	5	No	3	4	3	1	.....	67,470		
24	Linotype work, typesetting.....	7	42	0	2	2	31	Ap	34	No	25	32	32	.....	82,000			
25	Printing and publishing, newspapers and periodicals.	402	2,764	351	102	771	1,302	Oo	1,340	Au	1,268	1,331	1,133	154	24	.....	4,009,591	
26	Printing and publishing.....	31	1,109	24	42	402	527	Ap	540	Au	508	534	494	38	2	.....	1,683,021	
27	Printing, publishing, and job printing.	200	1,346	208	76	175	752	Oo	704	Au	730	776	638	115	22	.....	2,025,846	
28	Publishing without printing.....	102	309	69	44	134	23	Ja	24	So	21	22	21	1	.....	300,724		
29	Rice, cleaning and polishing.....	0	67	42	1	13	11	My	12	Ap	10	11	11	.....	61,714			
30	Saddlery and harness.....	33	127	30	6	7	71	My	74	Jy	69	74	73	1	.....	414,649		
31	Shipbuilding, including boat building.	04	1,628	75	36	60	1,444	Fo	1,717	No	1,126	1,302	1,300	2	.....	4,506,883		
32	Slaughtering and meat packing.....	11	1,030	6	31	90	894	Mh	012	No	820	842	810	32	.....	6,023,055		
33	Stoves, hot-air furnaces, and ranges...	4	65	3	3	4	53	My	00	Do	47	40	40	.....	131,337			
34	Structural ironwork, not made in steel works or rolling mills.	13	215	8	14	16	170	Ja	198	No	142	178	178	.....	603,313			
35	Tobacco, cigars.....	115	355	127	1	6	215	Oo	222	Jy	206	231	187	44	.....	281,155		
36	Tools, not elsewhere specified.....	0	21	0	4	2	9	Jy	13	Ja	0	13	13	.....	67,485			
37	Trunks and valises.....	10	46	0	5	2	30	Jy	34	No	22	20	26	3	.....	71,105		
38	Window and door screens.....	6	13	0	.....	.....	7	Do	15	Ja	4	10	10	.....	27,790			
39	Wood, turned and carved.....	5	15	4	.....	.....	0	Ap	17	My	0	10	10	.....	49,594			
40	Woolen goods.....	4	130	.....	0	3	123	Mh	149	Do	95	148	115	33	.....	301,086		
41	All other industries*.....	174	3,717	108	165	290	3,000	.....	.....	.....	.....	.....	.....	.....	.....	36,776,570		

\* Owned power only.

\* Includes rented power, other than electric.

\* All other industries embrace—

Aeroplanes and parts.....	1
Automobiles.....	1
Babbitt metal and solder.....	3
Bags, other than paper.....	1
Baking powders and yeast.....	1
Baskets, and rattan and willow ware.....	4
Blacking, stains, and dressings.....	1
Bluing.....	2
Boot and shoe findings.....	2
Boxes, cigar.....	1
Brushes.....	4
Buttons.....	3

Cars, steam-railroad, not including operations of railroad companies.....	2
China decorating, not including that done in potteries.....	1
Coke, not including gas-house coke.....	4
Cordage and twine.....	1
Cordials and flavoring sirups.....	1
Cutlery and edge tools.....	1
Dairymen's, poultrymen's, and ap- lar- ist's supplies.....	3
Druggists' preparations.....	2
Electrical machinery, apparatus, and supplies.....	4

Emery and other abrasive wheels.....	1
Engraving and die-sinking.....	3
Engraving, steel and copper plate, in- cluding photo printing.....	2
Explosives.....	2
Fancy articles, not elsewhere specified	1
Fertilizers and plumes.....	2
Fertilizers.....	1
Fireworks.....	1
Flags and banners.....	2
Flavoring extracts.....	4
Fuel, manufactured.....	1
Furs, dressed.....	1

Gas and electric fixtures.....	4
Glass.....	1
Glass, cutting, staining, and ornament- ing.....	7
Gold and silver, reducing and refining, not from the ore.....	1
Grease and tallow, not including lubri- cating greases.....	1
Hardware.....	1
Hats and caps, other than felt, straw, and wool.....	3
Hats, fur-felt.....	1
Ink, writing.....	2

MANUFACTURES—WASHINGTON.

1597

OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914—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, including internal revenue and corporation income.	Principal materials.			Fuel and rent of power.	Total.	Steam engines. <sup>1</sup>	Internal-combustion engines. <sup>2</sup>		Water wheels and motors. <sup>1</sup>

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

\$11,369	\$5,755	\$27,335	\$100	\$6,522	\$836	\$72,706	\$1,004	\$166,566	\$92,766	28				28		1
34,420	19,203	146,673	480	6,886	18,850	65,651	78,042	551,429	407,735	3,080	1,004	57	170	1,849	6	2
3,000	240	11,806	600	1,650	324	21,582	4,144	48,876	23,150	123	90			33		3
6,750	19,700	155,928	548	10,862	1,135	183,334	5,618	418,131	229,170	190				190		4
21,120	18,405	111,800			7,249	49,079	31,014	260,079	169,086	384	150	24		210		5
287,567	246,608	933,098	15,218	6,754	1,129,703	2,630,349	170,326	9,458,255	6,657,580	6,315	3,849	360	55	2,051	865	6
17,920	12,588	59,295	4,320	8,825	1,111	75,708	2,189	207,097	129,110	81				81		7
2,130,959	1,076,260	28,095,603	1,210,796	116,273	1,405,462	35,100,204	402,521	78,130,094	42,627,279	265,269	256,858	820	2,513	5,078	22,015	8
162,176	95,939	1,015,050	822	21,642	41,175	2,520,566	59,957	4,595,765	2,015,242	8,320	4,914	51		3,355	575	9
31,275	17,325	160,315	304	9,208	7,494	264,370	12,244	673,123	396,509	1,612	630			982	30	10
15,170	22,858	142,075	510	17,756	6,419	324,575	7,706	614,271	281,990	680	150			530		11
2,000	408	14,232		2,882	189	31,588	250	85,042	53,204	4				4		12
19,950	12,288	96,759	225	13,500	6,899	203,182	8,933	513,478	301,363	293	66		17	210		13
3,120	120	12,163		2,605	265	5,957	973	41,741	34,811	65				65		14
		854		2,517	54	1,090	30	13,380	12,260	3				3		15
13,080	13,335	20,390		8,612	970	52,220	931	142,513	89,362	21				21		16
17,545	12,120	14,495		9,388	1,653	148,453	2,438	294,502	113,611	191				191		17
11,947	5,014	14,232	6,830	7,034	1,248	92,872	3,091	199,678	103,715	80	54	7	6	13		18
16,880	6,024	71,974	1,416	7,782	607	20,511	2,338	165,216	142,867	64				64		19
21,860	16,896	63,641		7,390	3,058	251,338	3,385	452,112	197,889	177	96	3	20	58		20
170,700	141,310	662,601	88,233	117,871	12,996	697,227	22,774	2,048,838	1,928,837	875				875	6	21
166,690	97,810	620,772	46,298	113,205	12,996	690,171	20,589	2,423,426	1,712,606	862				862	6	22
5,715	41,481	2,100	41,935	2,822	229	5,193	56	140,726	135,477	3				3		23
4,304	2,010	30,729		1,844	671	1,863	2,129	84,680	80,994	10				10		24
368,022	948,958	1,341,074	464,745	141,847	34,628	1,543,114	59,169	6,856,299	5,254,016	2,122	30	124	37	1,931	7	25
150,020	673,725	652,497	3,082	56,046	14,885	762,174	26,318	3,110,338	2,291,846	1,103		4		1,099		26
126,654	214,421	674,348	24,816	69,002	17,838	701,686	32,088	2,620,493	1,886,719	986	30	120	37	709	7	27
86,248	160,812	15,129	436,847	16,799	1,855	49,254	763	1,126,468	1,075,451	33				33		28
600	8,400	6,180		2,785	450	195,694	1,636	261,933	64,608	108				108		29
10,150	9,655	94,891	25	23,567	3,834	332,005	2,151	562,771	227,025	58				58		30
90,250	117,970	1,161,913	32,180	14,168	45,237	951,776	35,087	3,101,446	2,114,583	5,860	3,856	122		1,888	1,055	31
126,290	153,578	691,172		5,040	51,078	15,822,465	78,300	18,443,526	2,542,752	2,149	445	5		1,699		32
6,100	3,600	43,683		2,540	952	46,103	4,075	143,143	92,965	60				60		33
32,986	16,212	106,125	600	3,780	4,373	248,498	9,460	550,447	292,489	470				470		34
1,200	6,101	168,407	278	12,320	37,069	215,788	998	563,246	346,460							35
3,600	1,212	8,038		870	4,859	6,991	1,373	37,669	29,305	47	10	8		29		36
3,651	1,047	17,110		6,070	400	30,048	280	82,896	52,568	9				9		37
		5,085		314	100	6,091	589	20,972	13,092	51				51		38
		5,181		972	883	4,251	821	18,348	13,276	125	75	3		47		39
		790		740	2,039	155,144	11,703	272,163	105,316	350	100			250		40
10,969	3,520	70,126		86,121	148,432	16,233,004	1,353,262	27,547,437	9,961,171	29,121	6,810	27	2,605	19,679	354	41
461,805	443,248	2,488,037	9,525													

\* Same number reported throughout the year.

\* Same number reported for one or more other months.

Instruments, professional and scientific.....	2	Malt.....	1	Refrigerators.....	1	Stencils and brands.....	2
Iron and steel, steel works and rolling mills.....	1	Mirrors, framed and unframed.....	2	Roofing materials.....	2	Stereotyping and electrotyping.....	1
Iron and steel, bolts, nuts, washers, and rivets.....	1	Musical instruments, pianos.....	1	Rubber goods, not elsewhere specified.....	1	Surgical appliances.....	1
Iron and steel, wrought pipe.....	1	Musical instruments, piano and organ materials.....	1	Saws.....	3	Type founding.....	1
Ivory, shell, and bone work, not including combs and hairpins.....	1	Oil, not elsewhere specified.....	2	Show cases.....	6	Varnishes.....	1
Leather goods, not elsewhere specified.....	2	Paper and wood pulp.....	3	Signs and advertising novelties.....	6	Vinegar and cider.....	6
Leather, tanned, curried, and finished.....	3	Paper goods, not elsewhere specified.....	1	Smelting and refining, copper.....	1	Wall plaster.....	2
Liquors, distilled.....	1	Perfumery and cosmetics.....	2	Soap.....	4	Window shades and fixtures.....	1
Looking-glass and picture frames.....	2	Plumbers' supplies, not elsewhere specified.....	2	Springs, steel, car and carriage, not made in steel works or rolling mills.....	1	Wirework, including wire rope and cable.....	5
Lubricating greases.....	1	Pottery.....	2	Statuary and art goods.....	2	Wood preserving.....	5
		Printing materials.....	1	Steam fittings and steam and hot-water heating apparatus.....	2	Wool pulling.....	2
		Pumps, steam and other power.....	1	Steam packing.....	1		

TABLE 31.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

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.	10 and over.			Under 10.		
					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.

	1,014	15,761	834	738	1,422	338	12,429	Mo	13,112	De	11,518	12,117	10,050	1,413	44	10	\$61,317,496
1 SEATTLE—All industries	1,014	15,761	834	738	1,422	338	12,429	Mo	13,112	De	11,518	12,117	10,050	1,413	44	10	\$61,317,496
2 Artificers	3	11	1	1	1	1	4	(*)	8	(*)	8	8	8	8	8	8	10,300
3 Automobile bodies and parts	6	53	5	4	1	2	41	Jo	47	Ja	34	34	32	2	2	2	115,514
4 Automobile repairing	3	13	2	1	2	2	18	Ap	12	De	6	6	6	6	6	6	10,505
5 Awl, tents, and sails	6	69	6	6	8	4	47	Ap	50	De	34	43	24	19	19	19	215,786
6 Bookbinding and blank-book making	7	81	9	11	4	2	18	Mh	21	Jo	16	17	14	3	3	3	37,958
7 Boxes and cartons, paper	7	105	11	11	4	2	88	No	102	Ap	78	94	28	65	65	1	168,377
8 Brass, bronze, and copper products	8	40	2	0	5	1	35	Mh	40	De	30	35	34	1	1	1	102,072
9 Bread and other bakery products	132	763	161	10	30	10	533	De	554	Jo	515	557	300	162	2	3	904,620
10 Brick, building	5	67	4	8	4	2	79	Jo	110	De	58	100	99	1	1	1	563,792
11 Butter	4	61	3	7	4	3	46	De	55	Jo	40	54	52	2	2	2	350,554
12 Canning and preserving, fish	6	202	6	7	11	6	178	So	251	Ja	109	216	210	6	2	2	1,057,080
13 Carpets, rug	6	10	5	1	1	1	11	(*)	11	(*)	11	12	10	2	2	2	3,791
14 Carriages, wagons, and repairs	10	75	11	1	2	2	61	Mh	67	No	53	53	53	53	53	53	150,991
15 Cars and general shop construction and repairs by steam-railroad companies	5	403	15	11	11	11	437	Mh	472	Jo	407	447	447	447	447	447	933,651
16 Clothing, men's, including shirts	5	300	2	7	34	1	265	Ja	306	De	225	225	17	208	208	208	418,715
17 Coffee and spice, roasting and grinding	12	215	7	11	48	9	140	Ap	150	No	123	130	72	58	58	58	647,031
18 Confectionery and ice cream	41	510	33	20	71	14	381	De	403	Ja	354	449	175	272	1	1	881,991
19 Confectionery	34	455	27	15	71	10	332	De	420	Jy	204	406	139	265	1	1	531,791
20 Ice cream	7	64	6	5	6	4	49	Ju	62	Ja	30	43	30	1	1	1	152,290
21 Copper, tin, and sheet-iron products	45	332	48	23	21	4	210	Au	203	Mh	20	253	251	1	1	1	505,415
22 Electropainting	4	12	2	2	1	1	5	(*)	5	(*)	5	5	5	5	5	5	7,499
23 Flour-mill and gristmill products	10	418	6	30	90	17	279	Jo	320	Jy	225	288	279	9	9	9	5,031,397
24 Food preparations, not elsewhere specified	15	80	16	5	7	1	51	Jo	93	Ja	42	46	41	3	2	2	370,020
25 Foundry and machine-shop products	64	1,129	44	76	71	12	926	Mh	1,066	No	740	848	847	1	1	1	4,424,261
26 Boiler shops and foundries	13	328	13	11	14	3	287	My	380	No	218	244	244	244	244	244	1,007,065
27 Machine shops	51	801	31	65	57	9	630	Mh	730	No	522	604	603	603	603	603	3,417,196
28 Fur goods	8	44	6	1	2	3	32	De	40	Jo	22	47	10	28	28	28	87,900
29 Furniture	24	127	20	4	2	1	100	Ja	110	De	90	94	93	1	1	1	153,577
30 Wood, rattan, willow, and metal	14	58	11	3	2	2	42	Jo	46	Ap	30	42	41	1	1	1	61,391
31 Store and office fixtures	10	69	9	1	1	1	58	Ja	68	De	51	52	52	52	52	52	89,199
32 Hosiery and knit goods	6	62	7	6	7	1	41	Oo	66	Jo	24	59	17	42	42	42	95,525
33 Ice, manufactured	4	62	5	5	8	8	49	Jy	70	De	34	39	39	39	39	39	1,005,434
34 Liquors, malt	5	581	7	24	68	8	481	Jy	548	De	410	410	405	5	5	5	5,952,310
35 Lumber and timber products	25	2,187	7	62	63	10	2,045	Jo	2,226	De	1,888	2,138	2,138	2,138	2,138	2,138	5,520,391
36 Lumber, planing-mill products, not including planing mills connected with sawmills	23	270	16	10	17	4	219	Jy	232	Ja	167	222	222	222	222	222	687,250
37 Marble and stone work	4	31	3	1	2	1	27	So	39	Jo	20	26	26	26	26	26	73,859
38 Mattresses and spring beds	4	184	3	4	15	2	110	Jo	121	Jy	102	111	100	11	11	11	373,089
39 Millinery and lace goods	3	45	5	1	1	1	38	Jo	112	De	10	23	3	20	20	20	10,180
40 Mineral and soda waters	12	58	14	7	2	3	32	Jy	37	Ja	20	34	34	34	34	34	201,108
41 Models and patterns, not including paper patterns	7	29	10	2	1	1	10	Ap	21	No	13	15	13	2	2	2	21,724
42 Musical instruments and materials, violins, and other stringed instruments	4	5	3	1	1	1	2	Ap	4	Jy	1	2	2	2	2	2	5,303
43 Patent medicines and compounds	8	16	5	2	1	4	4	Ja	6	Oo	3	3	3	3	3	3	50,367
44 Photo-engraving	6	50	2	8	4	2	36	Mh	48	Ja	33	35	32	3	3	3	71,088
45 Pickles, preserves, and sauces	4	46	2	5	5	2	32	Jy	41	Jo	20	29	17	12	12	12	127,099
46 Printing and publishing, book and job	109	733	62	43	57	25	516	Oo	640	Jy	466	517	444	50	14	14	1,016,581
47 Job printing	98	690	85	39	26	20	409	Oo	614	Jy	440	400	418	58	14	14	921,920
48 Book publishing and printing	8	46	6	2	20	4	5	Au	8	No	3	4	3	1	1	1	41,051
49 Linotype work, typesetting, etc.	3	27	1	2	2	1	21	Ja	22	No	17	23	23	23	23	23	53,610
50 Printing and publishing, newspapers and periodicals	95	949	50	65	300	51	477	Oo	495	Au	400	484	415	65	4	4	1,494,320
51 Printing and publishing	10	616	3	20	240	21	317	Ap	320	Au	305	323	294	27	2	2	1,145,427
52 Printing, publishing, and job printing	17	292	13	9	18	2	100	Oo	176	Mh	140	161	121	38	2	2	224,416
53 Publishing without printing	8	131	34	27	42	28	108	(*)	0	(*)	0	37	37	37	37	37	124,477
54 Saddlery and harness	4	54	4	4	4	4	38	Mh	42	Jy	35	210	210	210	210	210	181,207
55 Shipbuilding, wooden, including boat building	26	245	32	5	8	2	108	Ap	207	No	123	210	210	210	210	210	323,002
56 Slaughtering and meat packing	3	575	1	17	51	24	482	Ja	498	Mh	467	495	477	18	18	18	3,752,773
57 Structural ironwork, not made in steel works or rolling mills	8	59	5	7	1	1	46	Au	58	Jo	38	43	43	43	43	43	106,016
58 Tobacco, cigars	24	85	24	3	2	2	56	No	56	Mh	54	60	51	9	9	9	74,410
59 Tools, not elsewhere specified	6	21	6	4	2	2	9	Au	13	Ja	6	13	13	13	13	13	67,485
60 All other industries*	192	4,274	105	186	350	93	3,471					3,051	2,703	328	15	5	23,100,093

\* Owned power only.

2 Includes rented power, other than electric.

3 Same number reported throughout the year.

\* All other industries embrace—

Aeroplanes and parts	1
Artificial stone products	4
Automobiles	1
Rabbit metal and solder	2
Bags, other than paper	1
Baskets, and rattan and willow ware	1
Belling, leather	2
Blacking, stais, and dressings	1
Bluing	2
Boot and shoe findings	2
Boots and shoes	8
Boxes, wooden packing	3
Brooms, from broom corn	2

Brushes	2
Buttons	2
Cars and general shop construction and repairs by electric-railroad companies	3
Cars, steam-railroad, not including operations of railroad companies	1
Chemicals	2
China decorating	1
Cleansing and polishing preparations	2
Clothing, women's	10
Coffins, burial cases, and undertakers' goods	1
Cooperage	1

Cordage and twine	1
Cutlery and edge tools	1
Druggists' preparations	2
Electrical machinery, apparatus, and supplies	2
Engines, steam, gas, and water	2
Engraving and die-making	1
Engraving, steel and copper plate, including plate printing	1
Fancy articles, not elsewhere specified	1
Feathers and plumes	2
Fireworks	1
Flags and banners	2

Furnishing goods, men's	3
Gas and electric fixtures	2
Gas, illuminating and heating	2
Glass, cutting, staining, and ornamenting	3
Gloves and mittens, leather	2
Gold and silver, reducing and refining, not from the ore	1
Hand-knit goods	1
Hand stamps	6
Hardware	1
Hats and caps, other than felt, straw, and wool	3
Hats, fur-felt	1



MANUFACTURES—WASHINGTON.

TABLE 31.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

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.			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.

1	<b>SPOKANE—All industries.....</b>	277	4,150	226	213	540	151	3,020	My	3,200	Fe	2,807	3,030	2,548	454	36	1	\$18,801,450
2	Automobile repairing.....	5	28	4	1	1	1	23	Ja <sup>a</sup>	25	Au <sup>a</sup>	22	23	23				21,020
3	Bread and other bakery products.....	22	533	20	13	69	17	414	Oc	453	Fe	301	400	220	177			986,898
4	Brick and tile and other clay products.....	3	14	3				11	My	44	Au <sup>a</sup>	1	45	45				24,000
5	Carriages and wagons and materials.....	3	35	5	1	2		27	Ap	36	De	20	21	21				125,295
6	Cars and general shop construction and repairs by steam-railroad companies.....	3	53		4	2		47	Ja <sup>a</sup>	54	Au	37	48	48				42,113
7	Confectionery.....	11	83	12	2	4	4	61	Do	77	Fe	40	76	30	46			101,548
8	Copper, tin, and sheet-iron work.....	16	99	16	9	9	1	64	Je	70	No	40	63	63				283,315
9	Flour-mill and gristmill products.....	3	94		6	21	5	62	Ja	72	Je	54	67	65	2			1,255,911
10	Food preparations, not elsewhere specified.....	4	23	5	2	1	1	14	Mh	24	Jy <sup>a</sup>	8	17	13	4			37,425
11	Foundry and machine-shop products.....	14	108	14	6	6	5	77	Ap	84	No	68	76	75	1			447,563
12	Furniture and refrigerators.....	7	30	6	4		1	19	My <sup>a</sup>	25	Fe	14	20	20				37,315
13	Hand stamps.....	3	11	2	1	1		7	( <sup>a</sup> )	7	( <sup>a</sup> )	7	7	7				5,540
14	Jewelry.....	4	20	5	1	1		13	Ja <sup>a</sup>	14	Mh <sup>a</sup>	12	15	15				7,965
15	Leather goods.....	4	12	3	3	1		5	( <sup>a</sup> )	5	( <sup>a</sup> )	5	5	5				24,036
16	Liquors, malt.....	3	118	3	16	1		93	Fe <sup>a</sup>	97	De	84	80	89				2,790,637
17	Lumber and timber products.....	6	455	3	17	25	3	408	My	522	Fe	253	362	351	2	9		1,561,088
18	Lumber, planing-mill products, not including planing mills connected with sawmills.....	11	424	1	23	40	1	359	Jy	412	De	308	334	322		12		1,154,673
19	Mineral and soda waters.....	4	12	7		1		4	Je	9	De <sup>a</sup>	6	6	6				83,316
20	Pickles, preserves, and sauces.....	3	18	1	5	3		9	My <sup>a</sup>	11	Ja <sup>a</sup>	8	9	2	7			79,451
21	Printing and publishing.....	53	692	53	39	216	68	316					324	274	45	4	1	1,204,904
22	Book and job.....	40	270	40	17	29	7	177	Mh	192	My	160	186	143	38	4	1	603,197
23	Newspapers and periodicals.....	13	422	13	22	187	61	139	Fe <sup>a</sup>	144	Mh	134	138	131	7			601,707
24	Tobacco, cigars.....	14	50	16		2	3	29	Jy	30	Ja <sup>a</sup>	28	29	24	5			38,214
25	All other industries*.....	81	1,246	50	60	128	41	958					907	821	165	11		8,577,515

* All other industries embrace—	Boxes, fancy and paper.....	1	2	Cars and general shop construction and repairs by electric-railroad companies.....	2	Confectionery (ice cream).....	2
Agricultural implements.....	1	Boxes, wooden packing.....	1	Confectionery.....	1	Cooperage.....	1
Artificial limbs.....	1	Brass and bronze products.....	1	Electrical machinery, apparatus, and supplies.....	1	Engraving, steel and copper plate, including plate printing.....	1
Artificial stone products.....	2	Brooms.....	2	Engraving, steel and copper plate, including plate printing.....	1	Fur goods.....	5
Automobile bodies and parts.....	2	Brushes.....	1	Gas and electric fixtures.....	2		
Awnings, tents, and sails.....	2	Butter.....	3				
Bookbinding and blank-book making.....	1	Buttons.....	1				

1	<b>TACOMA—All industries.....</b>	330	8,084	278	313	622	106	6,765	Au	7,400	Ja	6,025	6,854	6,450	302	7	5	\$28,287,257
2	Automobile bodies and parts.....	3	9	4				5	( <sup>a</sup> )	5	( <sup>a</sup> )	5	5	4				5,150
3	Awnings, tents, and sails.....	3	15	8		3		4	Mh	7	Ja	2	6	2	4			48,675
4	Brass and bronze products.....	3	11	4		1		6	Au	8	Ja <sup>a</sup>	5	5	4				17,698
5	Bread and other bakery products.....	36	272	42	0	36	5	180	No	195	Fe	147	192	112	75	1	4	437,225
6	Brooms, from broom corn.....	3	6	4				2	Jy <sup>a</sup>	4	Ja <sup>a</sup>	2	2	2				11,608
7	Cars and general shop construction and repairs by electric-railroad companies.....	3	68		1	2		60	Jy	66	De	54	54	54				112,166
8	Coffee and spice, roasting and grinding.....	7	60	2	6	20	6	35	Jo	39	No	30	31	22	8		1	241,274
9	Confectionery and ice cream.....	11	132	6	10	8	2	100	Jy	118	Fe	93	110	53	66			159,944
10	Confectionery.....	7	81	5	6	4	2	64	De	72	Fe	58	75	27	48			116,036
11	Ice cream.....	4	51	1	4	4		42	Jy	56	Ja <sup>a</sup>	35	44	20	18			43,908
12	Copper, tin, and sheet-iron products.....	18	94	19	7	3		65	So <sup>a</sup>	71	Fe	53	73	71	1	1		104,657
13	Flour-mill and gristmill products.....	7	321		20	31	12	258	Oc	283	Je	229	265	260	5			3,094,527
14	Food preparations, not elsewhere specified.....	4	32	1	5	4	1	21	Fe <sup>a</sup>	24	Ap <sup>a</sup>	18	20	17	3			98,454
15	Foundry and machine-shop products.....	22	435	16	24	34	4	357	Fe	405	Jy	241	334	334				2,054,074
16	Furniture.....	10	372	6	15	7	7	337	Ap	360	Jy	306	320	319	7			967,633
17	Lumber and timber products.....	26	2,327	7	62	101	10	2,147	Au	2,582	Ja	1,704	2,163	2,163				5,723,372
18	Marble and stone work.....	5	85	3	5	6	1	70	Ap	88	Je <sup>a</sup>	55	65	65				158,218
19	Mineral and soda waters.....	5	23	6	1	2		14	My <sup>a</sup>	16	De	12	13	13				50,725
20	Patent medicines and compounds.....	11	16	13				2	( <sup>a</sup> )	2	( <sup>a</sup> )	2	2	2				7,598
21	Printing and publishing.....	58	615	49	20	217	27	203	Oc	311	Ja	283	268	261	35	2		737,757
22	Saddlery and harness.....	3	9	3				6	Mh <sup>a</sup>	7	So <sup>a</sup>	5	7	7				14,850
23	Shipbuilding, wooden, including boat building.....	5	24	7				17	Mh <sup>a</sup>	24	So <sup>a</sup>	7	26	26				14,510
24	Show cases.....	3	5	3				2	Fe <sup>a</sup>	4	Oc <sup>a</sup>	1	3	3				2,225
25	Tobacco, cigars.....	15	76	21		1		54	Je	64	Jy	45	57	45	12			65,333
26	All other industries*.....	78	3,073	54	118	145	30	2,724					2,788	2,611	176	1		14,150,614

* All other industries embrace—	Boxes, fancy and paper.....	2	Car and general shop construction and repairs by steam-railroad companies.....	3	Electrical machinery, apparatus, and supplies.....	1	
Artificial limbs.....	2	Brick and tile, terra-cotta and fire-clay products.....	1	Chemicals.....	1	Engines, steam, gas, and water.....	1
Artificial stone products.....	4	Brushes.....	1	Cleaning and polishing preparations.....	1	Flavoring extracts.....	2
Automobile repairing.....	2	Butter.....	2	Clothing, men's.....	1	Furnishing goods, men's.....	1
Babbitt metal and solder.....	1	Canning and preserving, fish.....	1	Clothing, women's.....	1	Furs, dressed.....	1
Baskets, and rattan and willow ware.....	1	Carpets, rag.....	2	Cordials and flavoring sirups.....	1	Gas, illuminating and heating.....	1
Boots and shoes.....	2	Carriages, wagons, and repairs.....	4				
Boxes, cigar.....	1						

<sup>1</sup> Owned power only.

<sup>2</sup> Includes rented power, other than electric.

OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914—Continued.

EXPENSES.							Value of products.	Value added by manufacture.	POWER.				
Salaries and wages.			For contract work.	Rent and taxes.		Primary horsepower.				Electric horsepower generated in establishments reporting.			
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.			Fuel and rent of power.		Total.	Steam engines. <sup>1</sup>	Internal-combustion engines. <sup>2</sup>

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

\$464,708	\$687,598	\$2,465,024	\$287,576	\$169,856	\$240,396	\$9,153,541	\$300,871	\$16,636,309	\$7,181,897	20,362	13,373	16	900	6,073	48	1
27,446	860	16,293	3,350	1,020	193	14,708	492	54,247	39,047	11	45			11		2
1,800	2,180	6,212		225	154	1,165	3,055	1,889,276	836,903	301				256		3
6,660	1,400	22,961	385	90	1,095	19,284	2,426	15,200	10,980	125				125		4
		46,148			106	33,559	2,747	58,082	36,372	65				65		5
								93,819	57,513	112				112		6
3,000	6,792	41,495		16,420	538	109,685	5,282	213,040	98,083	47				47		7
12,450	10,078	66,411	1,238	4,072	1,731	124,175	1,196	266,356	140,985	46				46		8
27,365	25,667	54,720	695	17,439	6,723	1,437,828	8,242	1,810,235	364,165	993			350	613		9
768	670	8,273		3,000	270	15,328	1,034	46,285	29,903	49				49		10
10,000	10,753	63,327	240	3,269	5,146	104,164	5,270	268,457	159,014	220	36			184		11
6,000	720	14,692		1,550	256	25,590	1,003	54,846	28,253	58		12		46		12
1,200	650	6,058		1,650	36	4,422	194	19,512	14,896	9				9		13
	520	9,542	200	956	70	5,717	183	22,200	16,300	12				12		14
3,752	900	4,772		2,412	746	28,005	82	45,629	17,642	6				6		15
24,300	25,210	123,164	14,718		133,202	618,535	31,052	1,287,590	738,003	829	53			776		16
44,514	26,298	315,876	50,261	10,808	13,065	604,037	1,673	1,058,037	552,427	13,105	12,370		550	185	5	17
47,594	36,025	280,825		1,575	5,843	679,232	20,209	1,213,210	513,769	1,668	600			968	18	18
	750	7,837		1,104	830	21,750	841	52,795	30,204	54	40			14		19
7,680	5,536	4,676		3,550	455	44,210	832	81,965	36,923	11				11		20
93,517	262,571	304,960	214,973	41,142	9,461	567,495	11,884	1,878,518	1,299,139	379	30			349		21
35,008	30,819	141,114	6,450	26,031	3,546	148,524	6,168	559,194	404,502	157				157		22
58,419	231,752	163,846	208,523	15,111	5,915	418,971	6,716	1,319,324	894,637	222	30			192		23
	2,400	22,896	16	1,445	3,424	27,468	168	68,298	40,662							24
146,662	172,153	789,442	1,500	40,959	47,397	3,845,401	172,507	6,138,732	2,120,814	2,402	199	4		2,199	20	25

Gas, illuminating and heating.....	1	Mattresses and spring beds.....	2	Paints.....	2	Soap.....	1
Glass, cutting, staining, and ornamenting.....	1	Mirrors, framed and unframed.....	1	Patent medicines and compounds.....	3	Structural ironwork, not made in steel works or rolling mills.....	4
Hosiery and knit goods.....	1	Models and patterns, not including paper patterns.....	1	Photo-engraving.....	2	Vinegar and cider.....	2
Ice, manufactured.....	1	Musical instruments and materials, not specified.....	2	Roofing materials.....	1	Window and door screens.....	1
Lithographing.....	1	Optical goods.....	1	Show cases.....	1	Wirework.....	1
Looking-glass and picture frames.....	2			Signs and advertising novelties.....	1	Wood, turned and carved.....	1
Marble and stone work.....	2			Slaughtering and meat packing.....	2		

\$631,952	\$714,712	\$4,963,021	\$45,549	\$100,181	\$394,251	\$16,997,321	\$393,828	\$27,707,606	\$10,316,457	24,086	15,758	27	2	8,299	4,280	1
		3,520		1,320	34	4,400	286	12,600	7,914	3				3		2
	3,200	3,388		1,380	782	10,280	100	31,431	12,051	3				3		3
	175	4,692	400	300	204	8,490	430	17,743	8,823	15				15		4
18,485	40,668	116,300		9,989	4,376	399,518	12,898	834,596	422,180	122				122		5
	1,717	741		240	46	7,520	48	14,750	7,182	4				4		6
		49,604		2,190	58,368			111,563	53,185	210				210		7
11,575	30,740	16,805	300	5,825	3,180	234,108	2,661	409,181	172,412	78				78		8
16,190	8,086	50,020		11,966	2,153	200,932	4,722	388,083	182,429	106				106		9
9,130	4,176	33,280		5,030	1,527	91,915	2,486	199,913	105,512	40				40		10
7,060	3,910	25,740		6,936	626	109,017	2,236	188,170	76,917	66				66		11
10,780	2,900	60,490		7,882	1,169	77,784	862	200,365	121,709	50				50		12
54,855	47,622	214,709		3,661	28,954	6,023,969	47,211	6,695,231	624,051	3,047	1,167			1,880		13
6,220	3,568	10,894		762	377	100,825	1,123	156,377	54,420	61				61		14
42,463	34,270	247,693	13,329	8,420	18,816	637,596	42,460	1,285,387	605,331	988	75	5		908		15
28,624	13,146	212,828		2,748	11,308	277,920	5,218	620,800	337,662	742	615			127	108	16
156,320	131,145	1,548,265		11,333	84,421	2,602,627	8,599	5,059,625	2,448,420	10,323	10,039			284	2,716	17
10,950	7,940	62,618		2,970	2,668	180,897	5,118	374,297	188,372	228				228		18
1,200	1,968	10,350		1,056	447	16,461	370	45,000	31,179	10			2	8		19
214		1,080		1,114	84	3,138	43	11,675	8,494	1				1		20
63,274	191,739	260,090	30,040	44,801	5,535	274,892	6,649	1,157,665	876,024	546				546		21
		5,420		2,312	236	6,700	119	17,700	10,881	4				4		22
		13,902	780	745	85	20,448	167	50,091	29,476	22		5		17		23
		1,090		434	31	850	100	3,425	2,475	17				17		24
	1,040	36,264		1,878	8,833	45,345	208	120,166	74,613							25
209,085	185,640	2,023,849	700	38,985	218,342	5,795,353	254,466	10,086,975	4,037,156	7,566	3,862	17		3,627	1,405	26

Glass, cutting, staining, and ornamenting.....	3	Leather, tanned, curried, and finished.....	1	Photo-engraving.....	2	Stencils and brands.....	1
Gloves and mittens, leather.....	1	Liquors, malt.....	2	Pickles, preserves, and sauces.....	2	Stoves and hot-air furnaces.....	1
Grease and tallow, not including lubricating greases.....	1	Mattresses and spring beds.....	1	Rice, cleaning and polishing.....	1	Structural ironwork not made in steel works or rolling mills.....	1
Hand stamps.....	1	Models and patterns, not including paper patterns.....	2	Roofing materials.....	1	Trunks and valises.....	1
Ice, manufactured.....	2	Musical instruments and materials, not specified.....	2	Slaughtering and meat packing.....	2	Wall plaster.....	1
Iron and steel forgings.....	1	Paints.....	2	Steam fittings and steam and hot-water heating apparatus.....	1	Wooden goods, not elsewhere specified.....	1
Jewelry.....							

<sup>1</sup> Same number reported for one or more other months.

<sup>2</sup> Same number reported throughout the year.

MANUFACTURES—WASHINGTON

TABLE 31.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

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 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.																	
1	ABERDEEN.....	60	1,729	44	52	47	18	1,568	Ja	1,691	De	1,262	1,764	1,714	48	2	\$4,820,062
2	BELLINGHAM.....	89	2,182	78	67	95	20	1,922	Au	2,532	De	1,066	2,497	2,375	98	24	6,940,221
3	EVERETT.....	98	2,209	77	62	84	27	1,959	Au	2,190	De	1,400	2,112	2,063	45	4	6,207,833
4	HOOQUIAM.....	33	1,750	20	32	38	12	1,657	Jy	1,945	Oo	1,198	1,886	1,845	41		4,080,340
5	NORTH YAKIMA.....	42	730	33	33	62	20	552	Au	838	Fe	392	611	500	9	12	2,384,172
6	VANCOUVER.....	28	425	25	25	12	3	380	Se	393	De	290	449	408	41		1,088,600
7	WALLA WALLA.....	47	455	38	42	43	21	311	Jy	386	Ja	254	327	304	15	8	2,425,646

<sup>1</sup> Owned power only.

MANUFACTURES—WASHINGTON

1603

OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914—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, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal-combustion engines. <sup>2</sup>	Water wheels and motors. <sup>1</sup>	Electric (rented).	

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

\$134,363	\$73,654	\$1,218,618	\$70,761	\$10,374	\$99,894	\$2,571,888	\$39,814	\$4,815,113	\$2,203,411	13,280	13,028	72	-----	180	523	1
161,137	132,731	1,318,427	115,687	33,449	93,225	3,281,756	104,548	6,264,307	2,898,003	10,170	8,256	53	-----	1,861	378	2
136,729	112,013	1,609,839	8,732	22,326	75,986	3,933,700	66,745	6,530,405	2,529,960	13,653	12,157	-----	-----	1,496	3,677	3
85,875	47,744	1,287,337	925	8,022	78,459	3,027,908	13,953	5,009,410	1,667,549	12,377	11,908	8	-----	461	300	4
46,747	61,775	402,497	97,497	14,696	32,931	816,533	56,027	1,937,461	1,064,901	2,343	1,639	7	98	599	8	5
48,493	13,716	282,094	460	3,537	61,434	522,972	34,378	1,301,048	743,698	936	675	-----	-----	201	-----	6
63,616	44,632	250,315	19,849	14,445	40,701	1,158,684	57,325	2,014,673	798,664	1,737	227	-----	193	1,317	-----	7

<sup>1</sup> Owned power only.

<sup>2</sup> Includes rented power, other than electric.

# WEST VIRGINIA.

By JOHN D. ROBERTS.

## GENERAL STATISTICS.

**General character of the state.**—West Virginia was admitted to the Union as a state in 1862. With a gross area of 24,170 square miles, of which 24,022 represent land surface, it ranks fortieth in size among the states. Its inhabitants in 1900 numbered 958,800 and in 1910, 1,221,119; and its estimated population in 1914 was 1,332,910. In total population West Virginia ranked twenty-eighth among the states in 1910; and in density of population it ranked sixteenth, with 50.8 inhabitants per square mile, the corresponding figure for 1900 being 39.9.

The urban population in 1910—that is, the population residing in cities and towns of 2,500 inhabitants or more—was 228,242, or 18.7 per cent of the total, as against 13.1 per cent in 1900. There were no cities having more than 50,000 inhabitants in the state in 1914, but there were 10 cities each of which had an estimated population of more than 10,000—Bluefield, Charleston, Clarksburg, Fairmont, Huntington, Martinsburg, Morgantown, Moundsville, Parkersburg, and Wheeling. These cities, whose aggregate population in that year formed 15.2 per cent of the estimated total population of West Virginia, reported 34.8 per cent of the value of the state's manufactured products.

The cities and mining districts of the state are well supplied with railway transportation facilities, though some of the heavily wooded areas are not traversed by railroads. The steam-railway mileage in 1914 was 3,915 and the electric-railway mileage in 1912 was 370. The Ohio River, which forms the greater part of the western boundary of the state, affords cheap and adequate shipping facilities.

The mineral products of the state, in 1914, according to the reports of the United States Geological Survey, were valued at \$134,071,803, consisting principally of bituminous coal, 71,707,626 short tons, valued at \$71,391,408; natural gas, 238,740,162,000 cubic feet, valued at \$35,515,329; and petroleum, 9,680,033 barrels, valued at \$18,468,540. In total value of mineral products West Virginia ranked second among the states; in production of natural gas, first; and in production of petroleum, sixth. The number of productive petroleum wells in the state, on December 31, 1914, was 14,932. The market production of gasoline made from natural gas in that year was 9,278,108 gallons, valued at \$691,899.

The total value of West Virginia's farm crops in 1909 was \$40,374,776, and the value of domestic animals sold or slaughtered on farms was \$18,456,118.

**Importance and growth of manufactures.**—West Virginia's abundant supply of fuel, especially bituminous coal and natural gas, is of great advantage to its manufacturing industries, and undoubtedly has been largely instrumental in advancing its rank in value of products from twenty-ninth in 1909 to twenty-eighth in 1914. The state's proportion of the total value of manufactured products in the United States was the same at each of the last two censuses—eight-tenths of 1 per cent.

Table 1 summarizes the more important data relative to all classes of manufactures combined in the state of West Virginia for the censuses of 1914, 1909, 1904, and 1899, together with the percentages of increase from census to census.

	MANUFACTURING INDUSTRIES.				PER CENT OF INCREASE. <sup>1</sup>		
	1914	1909	1904	1899	1909-1914	1904-1909	1899-1904
Number of establishments.....	2,749	2,586	2,109	1,824	6.3	22.6	15.6
Persons engaged.....	79,353	71,403	48,880	(*)	11.0	46.2	.....
Proprietors and firm members.....	2,559	2,599	2,230	(2)	-1.5	16.5	.....
Salaried employees.....	5,716	4,971	2,892	1,744	15.0	71.9	65.8
Wage earners (average number).....	71,078	63,893	43,758	33,080	11.2	46.0	32.3
Primary horsepower.....	278,504	217,406	138,578	91,894	28.1	56.9	60.8
Capital.....	\$175,995,011	\$150,922,586	\$86,820,823	\$49,103,138	16.6	73.8	76.8
Salaries and wages.....	51,377,760	38,710,047	24,051,872	14,159,146	32.7	60.9	69.9
Salaries.....	7,593,764	5,709,602	2,898,830	1,619,290	33.0	97.0	90.8
Wages.....	43,784,006	33,000,355	21,153,042	12,539,856	32.7	56.0	67.3
Paid for contract work.....	2,257,677	2,201,287	1,508,180	(3)	2.6	46.0	.....
Rent and taxes (including internal revenue).....	2,952,432	2,229,295	1,532,746	(3)	32.4	.....	.....
Cost of materials.....	110,033,165	92,877,988	54,419,206	37,228,253	18.5	70.7	40.2
Value of products.....	193,511,782	161,949,526	99,040,676	67,006,822	19.5	63.5	47.8
Value added by manufacture (value of products less cost of materials).....	83,478,617	69,071,538	44,621,470	29,778,569	20.9	54.8	49.8

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

<sup>2</sup> Figures not available.

<sup>3</sup> Exclusive of internal revenue.

This table shows an increase from census to census in the manufactures of the state, but the rate of increase was smaller for the five-year period 1909-1914 than for either of the preceding periods.

Between the censuses of 1909 and 1914 the number of establishments increased 163, or 6.3 per cent; the capital invested, \$25,072,425, or 16.6 per cent; the average number of wage earners, 7,185, or 11.2 per

cent; the amount paid in wages, \$10,783,651, or 32.7 per cent; the value of products, \$31,562,256, or 10.5 per cent; and the value added by manufacture, \$14,407,079, or 20.9 per cent. The value added by manufacture represents the net wealth created by manufacturing operations during each census year, as

described in the "Explanation of terms" at the beginning of this bulletin.

Table 2 shows the relative importance of the leading manufacturing industries of the state and the percentages of increase for the three five-year periods from 1899 to 1914.

INDUSTRY.	CENSUS OF 1914.						PER CENT OF INCREASE. <sup>1</sup>									
	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1900-1914	1904-1909	1899-1904	1900-1914	1904-1909	1899-1904	1900-1914	1904-1909	1899-1904
All industries.....	2,740	71,078	100.0	\$103,511,782	100.0	\$83,478,617	100.0	11:2	40.0	32.3	10.5	63.5	47.8	20.9	54.8	40.8
Lumber and timber products.....	995	17,417	24.5	28,004,240	15.0	10,411,838	23.2	-0.6	60.5	31.5	0.8	53.8	54.0	-3.3	60.7	78.2
Iron and steel, steel works and rolling mills.....	15	5,348	7.5	21,185,559	10.9	6,527,101	7.8	5.7	14.8	10.9	-5.0	60.7	0.4	-0.2	38.7	1.0
Tin plate and terneplate.....	8	1,475	2.1	16,180,551	7.8	3,203,914	3.9	10.5	227.2	.....	63.4	217.5	.....	72.7	302.1	.....
Glass.....	63	8,880	12.5	14,631,171	7.0	9,093,030	12.0	43.0	68.5	88.5	88.1	69.1	145.7	82.2	64.2	101.1
Leather, tanned, curried, and finished. Cars and general shop construction and repairs by steam-railroad companies.....	18	1,072	1.5	11,014,540	5.7	2,310,026	2.8	-31.8	66.1	42.5	-11.0	105.4	88.8	12.2	59.0	93.0
Flour-mill and gristmill products.....	37	8,437	11.9	10,990,103	5.7	6,004,941	7.2	49.3	32.8	63.3	63.3	63.4	39.9	63.0	58.8	70.3
Brick, tile, pottery, and other clay products.....	229	381	0.5	7,952,814	3.6	1,124,386	1.4	-15.7	13.0	57.5	-8.4	24.1	63.5	2.7	10.0	44.3
Foundry and machine-shop products.....	55	4,790	6.7	6,798,118	3.5	4,570,173	5.5	64.3	43.4	11.8	87.3	68.3	39.9	78.2	66.5	30.6
Slaughtering and meat packing.....	118	1,908	2.7	5,079,574	2.6	2,406,123	2.9	40.9	5.9	86.6	49.8	18.5	88.7	47.0	12.0	82.2
Copper, tin, and sheet-iron products.....	7	214	0.3	4,787,000	2.5	340,704	0.5	21.0	25.5	58.7	27.2	95.2	44.1	-10.9	45.8	27.4
Coke, not including gas-house coke.....	24	1,575	2.2	4,781,700	2.4	1,521,345	1.8	71.0	144.3	941.7	120.0	179.0	.....	91.0	183.6	.....
Paper and wood pulp.....	54	1,302	2.0	2,077,526	1.5	1,084,110	1.3	-08.0	74.7	-49.1	-00.0	81.2	18.3	-57.5	67.1	-2.2
Printing and publishing.....	8	1,033	1.5	2,804,429	1.5	1,000,030	1.3	-11.1	113.2	94.0	5.7	104.3	145.8	10.4	80.1	111.8
Bread and other bakery products.....	242	1,218	1.7	2,430,565	1.3	1,770,540	2.1	-2.0	32.9	16.5	22.0	28.2	50.1	22.0	20.6	48.7
Clothing, men's.....	138	569	0.8	2,305,438	1.2	978,283	1.2	64.4	31.6	136.9	56.8	61.2	131.5	60.1	58.7	112.7
Liquors, malt.....	7	491	0.7	2,172,955	1.1	738,083	0.9	21.8	28.3	.....	47.9	71.8	70.2	78.2	49.4	91.0
Furniture.....	10	244	0.3	1,378,080	0.7	980,242	1.2	-41.2	25.4	29.3	-30.3	5.8	62.8	-40.3	-0.8	92.0
Lime.....	22	560	0.8	1,278,174	0.7	620,074	0.8	.....	.....	.....	.....	48.9	42.7	.....	51.3	37.6
Clothing, women's.....	10	773	1.1	980,317	0.5	546,471	0.6	50.4	328.3	.....	52.1	455.2	.....	30.0	445.5	.....
Bone, carbon, and lamp black.....	0	169	0.2	867,425	0.4	268,899	0.3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ice, manufactured.....	18	161	0.2	851,332	0.4	464,478	0.5	59.4	.....	.....	42.8	117.5	.....	33.8	56.3	.....
Woolen and worsted goods.....	47	364	0.5	755,922	0.4	570,901	0.6	50.2	32.4	120.0	50.0	34.8	196.0	56.5	25.0	201.0
Copperage.....	8	276	0.4	670,401	0.4	262,092	0.3	-54.0	.....	.....	-44.7	.....	.....	-38.8	.....	.....
Paving materials.....	30	232	0.3	644,423	0.4	263,632	0.3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Electrical machinery, apparatus, and supplies.....	13	423	0.6	671,410	0.3	433,144	0.5	.....	.....	.....	.....	.....	.....	.....	.....	.....
Minerals and earths, ground.....	4	162	0.2	509,308	0.3	382,306	0.5	18.2	705.9	.....	42.2	1,710.0	.....	45.3	1,613.7	.....
Saddlery and harness.....	12	422	0.6	662,928	0.3	401,756	0.5	627.6	.....	.....	385.9	.....	.....	452.4	.....	.....
Mineral and soda waters.....	17	127	0.2	555,666	0.3	262,214	0.3	(*)	.....	-45.9	17.8	28.3	15.4	34.7	46.6	-2.2
Marble and stone work.....	77	148	0.2	543,591	0.3	318,396	0.4	42.3	13.0	148.6	78.8	34.4	171.5	49.9	27.0	151.4
Chemicals.....	27	224	0.3	487,541	0.3	288,624	0.3	55.6	.....	-72.0	33.7	135.5	-40.6	25.4	148.4	-52.8
Carrages and wagons.....	3	52	0.1	482,940	0.3	282,220	0.3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Explosives.....	51	240	0.3	474,024	0.2	278,295	0.3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wood, turned and carved.....	7	54	0.1	401,173	0.2	160,534	0.2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Artificial stone products.....	7	108	0.3	440,541	0.2	132,106	0.2	47.8	-22.6	10.2	43.0	-10.0	83.1	-12.3	-5.8	40.0
Mattresses and spring beds.....	31	203	0.4	448,251	0.2	249,950	0.3	.....	.....	.....	174.0	.....	.....	130.6	.....	.....
Dyestuffs and extracts.....	9	108	0.2	364,934	0.2	143,240	0.2	.....	.....	.....	36.4	88.0	.....	25.9	145.7	.....
Canning and preserving.....	4	66	0.1	363,025	0.2	44,473	0.1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Confectionery.....	29	216	0.3	351,493	0.2	87,792	0.1	-26.3	-17.1	-42.1	-41.9	-20.8	-1.3	-49.8	-53.0	6.2
All other industries.....	13	82	0.1	201,593	0.2	127,687	0.1	.....	.....	.....	19.4	8.0	130.6	31.5	-11.0	211.4
	276	9,306	13.2	36,015,217	18.5	12,835,481	15.3	.....	.....	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> Percentages are based on figures in Table 31; a minus sign (-) denotes decrease; percentages are omitted where the base is less than 100, or where comparable figures can not be given.

<sup>2</sup> Same number reported in both years.

In addition to the industries presented separately in the above table, there were 18 other industries in the state which reported products in 1914 to the value of \$250,000 or more. These industries are included in the table under the head of "all other industries," for the reason that the operations of individual establishments would be disclosed if they were shown separately.<sup>1</sup>

<sup>1</sup> These industries are:

- |   |   |
|---|---|
| Boots and shoes, not including rubber boots and shoes.                | Lamps and reflectors.                                       |
| Brooms.   | Liquors, distilled.   |
| Cars, steam-railroad, not including operations of railroad companies. | Oil, not elsewhere specified.                               |
| Cement.   | Patent medicines and compounds and druggists' preparations. |
| Dyeing and finishing textiles.  | Petroleum, refining.  |
| Galvanizing.  | Smelting and refining, zinc.                                |
| Hosiery and knit goods.   | Smelting and refining, not from ore.                        |
| Iron and steel, blast furnaces.                                       | Tobacco manufactures.                                       |
| Iron and steel pipe, wrought.   | Wood preserving.  |

Although certain industries predominate, it will be seen from Table 32 that there is considerable diversity among the manufactures of the state. The leading industries are lumber and timber; steel works and rolling mills; tin plate and terneplate; glass; leather, tanned, curried, and finished; cars and general shop construction and repairs by steam-railroad companies; flour mills and gristmills; and the manufacture of brick, tile, pottery, and other clay products. Several of these important industries call for special consideration.

*Lumber and timber products.*—Under this head are included statistics for logging and sawmill operations, for planing mills, and for the manufacture of wooden packing boxes. The industry gave employment dur-

ing the year 1914 to an average of 17,417 wage earners, with products valued at \$28,994,240. These figures represent 24.5 per cent and 15 per cent of the respective totals reported for all manufacturing industries of the state. The statistics do not cover mills engaged exclusively in custom sawing for local consumption.

*Glass.*—West Virginia ranked fourth in 1914 and in 1909 among the states in production of glass. The abundant local supplies of natural gas and of glass-making sands are directly responsible for the great increase in this industry, which has grown from 16 establishments in 1899, employing an average of 1,949 wage earners, with products valued at \$1,872,000, to 63 establishments in 1914, with an average of 8,889 wage earners, and products valued at \$14,631,171. Special data for the industry are to be found on page 19.

*Steel works and rolling mills and tin plate and terneplate.*—West Virginia's coal resources, and the location of the mines with reference to the Pittsburgh iron district, make the hot rolling of iron and steel one of the most important industries in the state. In conjunction therewith there has been a rapid development of the tin plate and terneplate industry. Although the rolling and the coating of tin plate and terneplate are treated as separate industries, in many instances the work is all done in the same establishment. In the preceding table statistics for the two industries are given separately; but eliminating all the duplications in the consideration of the two as a consolidated industry, there were 17 plants in 1914, employing 6,823 wage earners, with products valued at \$28,795,938, and value added by manufacture amounting to \$9,791,105. The combined industry ranks second in value of products, slightly below lumber and timber products.

*Leather, tanned, curried, and finished.*—Though this industry shows a decrease, compared with 1909 figures, measured by value of products, it ranks fifth in importance among the industries of the state. There were 18 tanneries reported—2 less than in 1909. The average number of wage earners decreased 499, or 31.8 per cent. The total amount paid for wages decreased \$160,170, or 20.7 per cent; cost of materials \$1,688,287, or 16.3 per cent; and the value of products \$1,436,052, or 11.5 per cent.

*Cars and general shop construction and repairs by steam-railroad companies.*—The statistics for this industry represent the work done in the car shops operated by steam-railroad companies. The operations consist principally of repairs to rolling stock and equipment, but include also shopwork done for the track and bridge and building departments.

The value of work performed increased from \$6,732,575 in 1909 to \$10,990,193 in 1914. Employment was given to an average of 8,437 wage earners in 1914—the third largest number reported by any of the industries specified in the table. This number represents an increase of 2,785, or 49.3 per cent, as compared with the number in 1909—5,652.

*Flour-mill and gristmill products.*—This is an important industry of the state, occupying seventh place in value of products in 1914. The number of wage earners employed in this industry is comparatively small, due to the fact that much of the labor is done by the proprietors or members of their families, and that the processes involved in the manufacture are simple and to a large extent mechanical. Most of the mills are small and are located in the rural districts, but there are several large mills in the cities of the state.

*Brick, tile, pottery, and other clay products.*—The clay-working industries of West Virginia ranked eighth in 1914 when measured by value of products (\$6,798,118), of which amount \$1,976,816 represents brick and tile, terra-cotta, and fire-clay products, and \$4,821,302 represents the pottery industry. Thirty establishments are engaged in the production of brick and tile, terra-cotta, and fire-clay products, and 15 in the pottery industry. From the reports of the United States Geological Survey it appears that in 1914, in value of clay products, West Virginia ranked second in the United States in the production of white ware and sanitary ware; fourth in china ware, porcelain electric supplies, and vitrified paving brick; seventh in tiles, not including draintile; and seventeenth in building brick. In 1914 the capital invested in the in 55 establishments reported was \$9,368,799, an increase of 79.4 per cent over \$5,221,285 shown in 1909.

*Liquors, malt.*—This industry shows a general decrease in 1914, due to the establishments operating only six months, as the manufacture of liquors in the state of West Virginia was discontinued June 30, 1914, by an act of the state legislature.

*Persons engaged in manufacturing industries.*—Table 3 gives for 1914 and 1909, the number of persons engaged in manufactures, distributed by sex and age.

**Table 3**

PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.

CLASS.	Census year.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.			Per cent of total.	
		Total.	Male.	Female.	Male.	Female.
All classes.....	1914	79,353	72,715	6,638	91.6	8.4
	1909	71,493	66,121	5,342	92.5	7.5
Proprietors and officials.....	1914	4,688	4,573	95	98.0	2.0
	1909	4,508	4,423	85	98.1	1.9
Proprietors and firm members..	1914	2,559	2,485	74	97.1	2.9
	1909	2,599	2,527	72	97.2	2.8
Salaried officers of corporations..	1914	652	639	13	98.0	2.0
	1909	568	562	6	98.9	1.1
Superintendents and managers..	1914	1,457	1,449	8	99.5	0.5
	1909	1,341	1,334	7	99.5	0.5
Clerks and other subordinate salaried employees.....	1914	3,007	2,939	668	81.5	18.5
	1909	3,062	2,505	557	81.8	18.2
Wage earners (average number)....	1914	71,078	65,199	5,879	91.7	8.3
	1909	63,893	59,193	4,700	92.6	7.4
16 years of age and over.....	1914	70,583	64,862	5,721	91.9	8.1
	1909	62,340	58,335	4,005	92.8	7.2
Under 16 years of age.....	1914	495	337	158	68.1	31.9
	1909	1,653	858	795	81.6	18.5

It should be borne in mind, however, that the sex and age classification of the wage earners in this and other tables is an estimate obtained by the methods described in the "Explanation of terms."

The total number of persons engaged in manufacturing industries for the year 1914 was 79,353, representing an increase of 7,890, or 11 per cent, as compared with 71,463 for 1909. Of the 1914 total, 2,559

were proprietors and officials, 3,607 were clerks and other subordinate employees, and 71,078 were wage earners. The figures for individual industries will be found in Table 32, page 22.

The percentages of increase from 1909 to 1914 and the per cent distribution at the two censuses for persons engaged in manufactures, are given in the following table:

CLASS.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.								
	Per cent of increase, <sup>1</sup> 1909-1914.			Per cent distribution.					
	Total.	Male.	Female.	Total.		Male.		Female.	
				1914	1909	1914	1909	1914	1909
All classes.....	11.0	10.0	24.3	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials.....	3.5	3.4	.....	5.9	6.3	6.3	6.7	1.4	1.6
Proprietors and firm members.....	-1.5	-1.7	.....	3.2	3.0	3.4	3.8	1.1	1.3
Salaries officers of corporations.....	14.8	13.7	.....	0.8	0.8	0.9	0.8	0.2	0.1
Superintendents and managers.....	8.7	8.0	.....	1.8	1.9	2.0	2.0	0.4	0.1
Clerks and other subordinate salaried employees.....	17.8	17.3	10.0	4.5	4.3	4.0	3.8	10.1	10.4
Wage earners (average number).....	11.2	10.1	25.1	89.6	89.4	89.7	89.5	88.6	88.0
16 years of age and over.....	12.3	11.2	27.0	88.9	87.0	89.2	88.2	86.2	84.3
Under 16 years of age.....	-63.0	-60.7	-10.0	0.6	1.5	0.5	1.3	2.4	3.7

<sup>1</sup> A minus sign (-) denotes decrease; percentages are omitted where base is less than 100.

All classes, except proprietors and firm members, and wage earners under 16 years of age, show increases. The percentage of decrease in the number of wage earners under 16 years of age, for both sexes combined, was 53; but the proportion which this class formed of the total number of wage earners was insignificant, being only six-tenths of 1 per cent in 1914 and 1.5 per cent in 1909. Wage earners over 16 years of age constituted 89 per cent of the total number of persons engaged in manufacturing industries in the state in 1914 and 87.9 per cent in 1909.

Table 5 presents statistics for the three main classes of persons engaged in manufactures, the number and per cent distribution for 1914, 1909, and 1904, and per cent of increase for the two five-year periods.

CLASS.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.							
	Number.			Per cent distribution.			Per cent of increase. <sup>1</sup>	
	1914	1909	1904	1914	1909	1904	1909-1914	
							1914	1909
Total.....	79,353	71,463	48,880	100.0	100.0	100.0	11.0	46.2
Proprietors and firm members.....	2,559	2,509	2,230	3.2	3.6	4.0	-1.5	10.5
Salaried employees.....	6,710	4,071	2,892	7.2	7.0	5.9	15.0	71.0
Wage earners (average number).....	71,078	63,893	43,758	89.6	89.4	89.5	11.2	40.0

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

Salaried employees and wage earners show increases at each successive census, although much the greater for the five-year period 1904-1909. The decrease of 1.5 per cent in number of proprietors and firm members, for the period 1909-1914, is due to the incorporation of many industries reported at prior censuses as under other classes of ownership.

Table 6 shows, for 1914, 1909, and 1904, the average number of wage earners employed in all industries combined, with the per cent distribution of males and females 16 years of age and over, and of children under 16 years of age. For some of the important industries, a similar distribution of wage earners is given for 1914 and 1909.

At the censuses of 1914 and 1909 the proportion of males 16 years of age and over, for all industries combined, was 91.3 per cent as compared with 90 per cent in 1904. The corresponding proportions for females were 8 per cent, 7 per cent, and 7.4 per cent, in 1914, 1909, and 1904; and for children under 16 years of age, seven-tenths of 1 per cent, 1.6 per cent, and 2.6 per cent, respectively. The proportion which the number of children under 16 years of age formed of the total number of wage earners, therefore, was about one-fourth as great in 1914 as in 1904.

Of the 21 industries for which separate figures are given in this table and for which percentages are shown, 8 show an increased proportion of males in 1914, as compared with 1909, and 8 an increased proportion of females, while but 2 show an increase in the proportion of children under 16 years of age. Three of the industries that gave employment to children under 16 years of age in 1909 reported no employees of this class for 1914.

In the manufacture of men's clothing in 1914, four-fifths of the wage earners 16 years and over were women. On the other hand, in the manufacture of copper, tin, and sheet-iron products, of brick, tile, pottery, and other clay products, and in the printing and publishing industry but from one-fifth to one-fourth of the wage earners are females over 16 years

of age. Among the industries reporting children under 16 years of age, decreases in the proportions of such wage earners are shown for all those that employed any considerable number at the census of 1909.

INDUSTRY.	Census year.	WAGE EARNERS.					INDUSTRY.	Census year.	WAGE EARNERS.				
		Average number. <sup>1</sup>	Per cent of total.			Average number.			Per cent of total.				
			16 years of age and over.		Under 16 years of age.				16 years of age and over.		Under 16 years of age.		
			Male.	Female.					Male.	Female.			
All industries.....	1914 1909 1904	71,078 63,893 43,758	91.3 91.3 90.0	8.0 7.0 7.4	0.7 1.6 2.6	Ice, manufactured.....	1914 1909	364 233	98.6 99.0	.....	1.4 0.4		
Artificial stone products.....	1914 1909	203 79	99.5	0.4	.....	Iron and steel, steel works and rolling mills..	1914 1909	5,348 5,060	99.8 99.3	0.2 0.2	..... 0.5		
Bread and other bakery products.....	1914 1909	569 346	85.3 90.5	14.2 0.9	0.5 2.6	Leather, tanned, curried, and finished.....	1914 1909	1,072 1,571	99.9 100.0	.....	0.1		
Brick, tile, pottery, and other clay products.	1914 1909	4,790 2,916	76.2 79.5	22.9 19.5	0.9 1.0	Lime.....	1914 1909	773 514	100.0 100.0	.....	.....		
Cars and general shop construction and repairs by steam-railroad companies.	1914 1909	8,437 5,652	99.8 99.0	0.1 0.3	0.1 0.7	Lumber and timber products.....	1914 1909	17,417 18,643	99.6 99.4	0.2 0.1	0.2 0.6		
Clothing, men's.....	1914 1909	491 261	21.0 23.8	79.0 76.2	.....	Minerals and earths, ground.....	1914 1909	422 58	99.8	0.2	.....		
Coke, not including gas-house coke.....	1914 1909	1,392 4,426	100.0 100.0	.....	.....	Paper and wood pulp.....	1914 1909	1,033 1,102	94.7 96.1	5.3 3.9	.....		
Copper, tin, and sheet-iron products.....	1914 1909	1,575 916	69.1 60.7	27.5 32.2	3.4 7.1	Paving materials.....	1914 1909	422	100.0	.....	.....		
Flour-mill and gristmill products.....	1914 1909	381 452	99.7 98.9	0.3 0.4	0.7	Printing and publishing.....	1914 1909	1,218 1,255	75.0 72.7	21.1 21.8	3.9 5.5		
Foundry and machine-shop products.....	1914 1909	1,908 1,354	99.8 99.8	0.1	0.1 0.2	Tin plate and terneplate.....	1914 1909	1,475 1,335	90.4 90.9	9.6 8.5	0.7		
Furniture.....	1914 1909	560 592	97.7 97.0	1.8 1.8	0.5 1.2	All other industries.....	1914 1909	12,279 10,908	78.6 72.8	19.8 22.7	1.6 4.4		
Glass.....	1914 1909	8,889 6,190	90.4 86.1	8.7 8.7	0.9 5.2								

<sup>1</sup> For method of estimating the distribution, by sex and age periods, of the average number in all industries combined, see "Explanation of terms." Percentages are omitted when base is less than 100.

Table 7 gives, for 1914, and so far as comparative figures are available, for 1909 and 1904, for each of the 10 cities with a population of 10,000 and over, the average number of wage earners classified according to age periods and for those 16 years of age and over according to sex. The per cent distribution is also shown.

SEX AND AGE.	Census year.	AVERAGE NUMBER OF WAGE EARNERS IN—									
		Blue-field.	Charles-ton.	Clarks-burg.	Fair-mont.	Hunting-ton.	Martins-burg.	Morgan-town.	Mounds-ville.	Parkers-burg.	Wheel-ing.
Total.....	1914 1909 1904	1,247 670 .....	1,081 951 887	316 ..... .....	1,837 ..... .....	4,641 3,156 2,229	1,568 1,420 .....	1,470 ..... .....	1,508 ..... .....	1,820 1,495 1,444	7,920 7,809 7,127
16 years of age and over:											
Male.....	1914 1909 1904	1,238 643 .....	946 789 1,767	298 ..... .....	1,671 ..... .....	4,309 2,955 1,972	741 756 .....	1,263 ..... .....	1,191 ..... .....	1,446 1,286 1,358	6,428 6,052 5,574
Female.....	1914 1909 1904	4 18 .....	125 155 102	18 ..... .....	162 ..... .....	108 156 .....	750 629 .....	172 ..... .....	296 ..... .....	365 187 71	1,393 1,492 1,185
Under 16 years of age.....	1914 1909 1904	5 9 .....	10 7 18	..... ..... .....	4 ..... .....	7 93 101	77 35 .....	35 ..... .....	21 ..... .....	9 22 15	99 265 368
Per cent of total:											
16 years of age and over—											
Male.....	1914 1909 1904	99.8 96.0 .....	87.5 83.0 86.5	94.3 ..... .....	91.0 ..... .....	94.8 93.6 88.5	47.1 53.2 .....	85.9 ..... .....	79.9 ..... .....	79.8 86.0 94.0	81.3 77.5 78.2
Female.....	1914 1909 1904	0.3 2.7 .....	11.5 16.3 11.5	5.7 ..... .....	8.8 ..... .....	5.1 3.4 7.0	47.9 44.3 .....	11.7 ..... .....	19.6 ..... .....	19.7 12.5 5.0	17.5 19.1 16.6
Under 16 years of age.....	1914 1909 1904	0.4 1.3 .....	1.0 0.7 2.0	..... ..... .....	0.2 ..... .....	0.1 3.0 4.5	5.0 2.5 .....	2.4 ..... .....	1.4 ..... .....	0.5 1.5 1.0	1.2 3.4 5.2

<sup>1</sup> Figures do not agree with those published as it was necessary to revise the totals to include data only for establishments located within the corporate limits of the city.

Table 8 presents, for the six cities for which statistics from the last three censuses are available, percentages of increase in average number of wage earners from census to census, based on the figures in Table 7.

Of the 10 cities for which separate totals are given the manufactures in nine gave employment to more than 1,000 wage earners on the average during the year. The industries of Wheeling gave employment

to the largest number (7,920). The six cities for which comparative data are given for 1914 and 1909 show considerable increase in the numbers employed, and the four for which comparative figures are given for three censuses show that the number of wage earners increased constantly.

CITY.	PER CENT OF INCREASE IN AVERAGE NUMBER OF WAGE EARNERS. <sup>1</sup>				
	Period.	Total.	16 years of age and over.		Under 16 years of age.
			Male.	Female.	
Bluefield.....	1909-1914	86.1	92.5	.....	.....
Charleston.....	1901-1914	22.0	23.3	22.5	.....
	1909-1914	13.8	10.9	-10.4	.....
	1901-1909	7.2	2.9	52.0	.....
Huntington.....	1901-1914	108.2	123.1	50.6	-93.1
	1909-1914	47.1	48.0	117.8	.....
	1901-1909	41.6	40.8	-30.8	-7.9
Martinsburg.....	1909-1914	10.4	-2.4	10.0	.....
Parkersburg.....	1901-1914	26.0	7.0	.....	.....
	1909-1914	21.7	13.0	91.4	.....
	1901-1909	3.5	-5.3	.....	.....
Wheeling.....	1901-1914	11.1	15.4	17.1	-73.1
	1909-1914	1.4	6.3	-7.0	-92.5
	1901-1909	0.0	8.6	25.0	-28.2

<sup>1</sup> A minus sign (-) denotes decrease; percentages not shown where base is less than 100.

The number of male wage earners greatly exceeds the number of females in all the cities except Martinsburg. The manufacture of hosiery and knit goods and woolen goods are the principal industries in Martinsburg, and they give employment to the largest number of females. The total for the city (750) was slightly in excess of the number of males (741). The number of female wage earners reported for three of the cities for 1914 was less than the number in 1909. There was an increase in the number of females during the 10 years for each of the four cities for which data are given for 1914, 1909, and 1904. The greatest number of females (1,393) is reported for Wheeling, where they are employed principally in the manufacture of cigars; copper, tin, and sheet-iron products; glass; lamps and reflectors; patent medicines and compounds; and chewing and smoking tobacco.

There were 267 children under 16 years of age reported as wage earners in the 10 cities. Wheeling reported the greatest number (99), and they were employed largely in the manufacture of glass and the printing and publishing industry. The textile industry of Martinsburg gave employment to most of the 77 children reported for that city.

**Wage earners employed, by months.**—Table 9 gives, for all industries combined, for 1914 and 1909, a comparative statement of the total number of wage earners employed on the 15th of each month, or the nearest representative day; for 1904, the average number employed during each month; and for each of the three years, the percentage which the number reported for each month forms of the greatest number reported for any month.

Table 9

MONTH.	Number. <sup>1</sup>			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
	January.....	71,642	50,191	38,852	93.4	81.2
February.....	71,608	57,393	40,030	93.4	82.0	86.7
March.....	74,664	60,499	42,633	97.4	87.4	92.4
April.....	76,677	62,460	41,618	100.0	90.3	96.7
May.....	76,205	62,655	40,163	99.4	90.5	100.0
June.....	73,332	65,467	46,147	95.0	91.6	100.0
July.....	69,880	62,187	43,680	91.1	80.9	91.8
August.....	71,644	65,651	43,192	92.7	91.9	93.6
September.....	71,664	68,269	44,204	93.6	98.7	96.0
October.....	69,773	69,202	45,671	91.0	100.0	98.9
November.....	63,875	68,647	45,394	83.3	99.2	98.3
December.....	62,672	68,056	44,416	81.6	98.3	96.2

<sup>1</sup> The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

For 1914 the spring months show the greatest activity in the combined industries of the state, the maximum number of wage earners appearing for April and the minimum for December of that year. In 1909, however, the maximum employment occurred in the fall months, the greatest number being reported for October and the minimum in January. For 1904 two months—May and June—are approximately alike in showing the maximum number of wage earners. The minimum month for the year was January. The greatest difference between the maximum and minimum months in any one of the three census years was 14,105 for 1914, the corresponding figures for 1909 and 1904 being 13,011 and 7,311, respectively.

The average monthly employment of wage earners in 1914 was 71,078; in 1909, 63,893; in 1904, 43,758.

The total average number of wage earners employed during 1914, together with the total number employed on the 15th day of each month, or the nearest representative day, for the combined industries of the state, for a number of selected industries, and for the total industries of each of the 10 cities with a population of 10,000 and over, is given in Table 10. The per cent that the maximum month forms of the minimum is also given.

There are no seasonal industries of importance in West Virginia, although several of the more important industries, such as lumber and timber, glass, and iron and steel, show quite a fluctuation in number of wage earners employed, due to the unsettled trade conditions that existed during the latter part of the year 1914. For the state as a whole, the degree of fluctuation amounted to 18.4 per cent between the maximum and minimum months of April and December, the least fluctuation being for the slaughtering and meat-packing, flour-mill and gristmill, and bread and other bakery products industries. Of the cities, Moundsville and Morgantown show the greatest fluctuation, 57.4 per cent and 58.3 per cent, respectively, being the proportions that the minimum formed of the maximum number of wage earners employed in these cities.

Table 10

WAGE EARNERS: 1914.  
[The month of maximum employment for each industry is indicated by boldface 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.....	71,078	71,642	71,608	74,664	<b>76,677</b>	76,205	73,332	69,880	71,044	71,604	69,773	68,875	<i>62,572</i>	81.6
Artificial stone products.....	263	249	243	247	287	292	287	284	201	283	264	<i>218</i>	231	74.7
Bread and other bakery products.....	509	<i>560</i>	551	551	554	577	583	588	536	587	578	568	555	93.5
Brick, tile, pottery, and other clay products.....	4,790	<b>4,045</b>	4,590	4,790	<b>5,156</b>	5,130	4,832	4,610	4,929	4,909	5,124	4,944	<b>4,352</b>	78.5
Canning and preserving.....	216	31	<i>25</i>	30	29	29	29	95	351	849	924	144	55	2.7
Cars and general shop construction and repairs by steam-railroad companies.....	8,437	8,538	8,473	8,615	8,245	8,100	8,255	8,026	8,806	9,006	8,942	8,115	<b>7,523</b>	83.5
Clothing, men's.....	491	495	489	<b>521</b>	499	510	493	456	<i>449</i>	493	501	493	493	86.2
Coke, not including gas-house coke.....	1,392	1,690	1,650	1,678	1,624	1,432	1,341	1,252	1,278	1,238	1,194	1,186	<i>1,141</i>	67.5
Copper, tin, and sheet-iron products.....	1,575	<i>1,399</i>	1,397	1,566	1,740	1,706	1,637	1,658	1,631	1,646	1,606	1,491	<b>1,432</b>	79.9
Flour-mill and gristmill products.....	381	<i>355</i>	357	359	393	394	366	368	382	386	424	422	<b>426</b>	83.3
Foundry and machine-shop products.....	1,908	2,002	1,919	1,961	2,076	2,107	2,032	2,032	1,911	1,799	1,808	1,675	<i>1,577</i>	74.8
Glass.....	8,889	9,229	10,011	10,137	10,082	10,173	8,152	<i>6,089</i>	7,138	8,271	8,413	9,431	9,542	59.9
Ice, manufactured.....	364	216	<i>218</i>	226	301	380	485	538	511	489	421	305	283	39.6
Iron and steel, steel works and rolling mills.....	5,348	6,093	6,054	6,590	<b>6,860</b>	5,426	5,229	4,919	4,991	5,253	4,681	<b>3,657</b>	4,414	53.3
Leather, tanned, curried, and finished.....	1,072	<i>772</i>	849	995	1,022	1,105	1,171	1,218	1,186	1,176	1,138	1,093	1,083	68.0
Lime.....	773	888	662	801	850	897	745	737	814	896	709	738	<i>655</i>	73.0
Liquors, malt.....	244	415	401	403	426	440	543	83	67	57	38	<i>25</i>	30	4.6
Lumber and timber products.....	17,417	17,470	17,081	18,006	18,870	19,687	19,491	18,941	18,403	16,762	16,164	14,519	<b>13,604</b>	69.1
Marble and stone work.....	224	224	219	216	237	234	234	230	227	221	220	216	<i>208</i>	87.8
Minerals and earths, ground.....	422	499	483	525	592	616	464	339	371	328	333	335	<i>279</i>	47.1
Paper and wood pulp.....	1,033	1,035	1,092	1,071	1,125	1,123	1,071	1,029	958	971	965	974	977	84.9
Printing and publishing.....	1,218	1,212	1,201	1,213	1,212	1,202	1,199	1,194	1,199	1,222	1,249	1,258	<b>1,263</b>	94.2
Slaughtering and meat packing.....	214	212	212	215	213	211	212	214	217	219	217	215	<b>220</b>	95.5
Tin plate and terneplate.....	1,475	1,528	1,420	1,468	1,556	1,606	1,636	1,599	1,480	<b>1,637</b>	1,512	1,181	1,227	68.5
Woolen and worsted goods.....	276	264	280	277	282	253	255	249	245	245	274	298	299	66.6
All other industries.....	12,087	12,294	11,739	12,184	12,496	12,698	12,599	12,622	12,642	12,659	11,974	10,484	10,703	82.2
Total for cities.....	23,408	23,126	23,390	24,259	24,658	24,978	24,579	22,736	23,631	24,128	22,668	21,060	21,383	84.3
BLUEFIELD.....	1,247	1,217	1,252	1,287	<i>1,145</i>	1,206	1,181	1,211	1,279	1,292	1,400	1,353	1,143	81.6
CHARLESTON.....	1,081	1,086	1,024	1,088	1,104	1,110	1,163	1,119	1,092	1,084	1,100	1,099	1,092	86.0
CLARKSBURG.....	316	<i>278</i>	<i>276</i>	<i>276</i>	305	311	333	342	372	335	332	318	316	74.2
FAIRMONT.....	1,837	1,852	1,873	1,950	2,013	1,980	2,079	1,811	1,859	2,081	1,771	1,515	1,590	72.6
HUNTINGTON.....	4,641	<b>5,005</b>	4,919	4,739	4,694	4,710	4,711	4,657	4,581	4,455	4,472	4,491	83.4	
MARTINSBURG.....	1,568	1,453	<i>1,444</i>	1,476	1,501	1,544	1,597	1,592	1,606	<b>1,664</b>	1,657	1,654	1,628	86.8
MORGANTOWN.....	1,470	1,442	1,446	1,372	1,551	1,596	1,595	1,577	1,428	1,607	1,672	1,644	1,550	68.3
MOUNDSVILLE.....	1,508	<i>1,368</i>	1,371	1,720	1,685	1,655	1,576	1,470	1,565	1,619	1,512	1,509	1,406	56.3
PARKERSBURG.....	1,820	1,850	1,769	1,869	1,936	2,034	1,989	1,796	1,805	1,860	1,655	1,619	<i>1,578</i>	79.6
WHEELING.....	7,920	7,977	8,116	8,462	<b>8,666</b>	8,554	8,356	8,047	8,128	8,105	7,514	6,376	6,739	77.8

Prevailing hours of labor.—Table 11 shows the average number of wage earners classified according to the hours of labor per week prevailing in the establishments in which they were employed for 1914 and 1909. The number employed in each establishment

is classified as a total, even though a few employees worked a greater or less number of hours. The figures for the state relate to all industries combined and to a number of selected industries, and for the cities, to all industries combined.

Table 11

INDUSTRY AND CITY.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.								
		Total.	In establishments where the prevailing hours of labor per week were—							
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries.....	1914	71,078	12,286	7,316	7,593	6,201	20,454	10,141	772	405
	1909	63,893	7,181	3,162	6,593	7,394	31,480	6,209	274	1,780
Artificial stone products.....	1914	263	10	70	2	181				
	1909	79	1	14	47	17				
Bread and other bakery products.....	1914	569	60	75	65	314	31	20	4	
	1909	346	29	27	5	227	8	33	17	
Brick, tile, pottery, and other clay products.....	1914	4,790	2,468	756	594	15	987			
	1909	2,916	1,291	220	489	65	890			
Canning and preserving.....	1914	216	17	13		186				
	1909	271		2		261		8		
Cars and general shop construction and repairs by steam-railroad companies.....	1914	8,437	2,089	472	1,010	306	4,534	16	10	
	1909	5,652		50	35	1,614	2,489	411	1,053	
Clothing, men's.....	1914	491	115	89	273	14				
	1909	261		28	148	85				
Coke, not including gas-house coke.....	1914	1,392	29	105		717	406	45		
	1909	4,426	21	38	316	16	3,966		69	

Table 11—Continued.

INDUSTRY AND CITY.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.								
		Total.	In establishments where the prevailing hours of labor per week were—							
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
Copper, tin, and sheet-iron products.....	1914 1909	1,575 910	38 8	..... .....	87 07	430 218	508 593	512 .....	..... .....	..... .....
Flour-mill and gristmill products.....	1914 1909	381 452	16 74	..... 4	20 17	10 26	294 273	14 35	18 22	..... 2
Foundry and machine-shop products.....	1914 1909	1,908 1,354	155 10	10 31	872 512	227 109	044 508	..... 34	..... .....	..... .....
Glass.....	1914 1909	8,880 0,190	2,315 1,806	3,931 2,252	532 1,424	083 385	1,128 263	..... .....	..... .....	..... .....
Ice, manufactured.....	1914 1909	304 233	..... .....	1 35	41 5	10 71	141 71	85 20	24 33	50 60
Iron and steel, steel works and rolling mills.....	1914 1909	5,348 5,000	2,123 1,779	51 .....	902 812	740 312	535 315	037 1,842	..... .....	..... .....
Leather, tanned, curried, and finished.....	1914 1909	1,072 1,571	..... .....	80 1	130 68	..... 128	853 1,374	..... .....	..... .....	..... .....
Lime.....	1914 1909	773 514	..... .....	..... 1	..... .....	88 .....	558 513	..... .....	..... .....	127 .....
Liquors, malt.....	1914 1909	244 415	85 208	..... .....	140 120	..... .....	13 42	..... 30	..... .....	..... .....
Lumber and timber products.....	1914 1909	17,417 18,043	308 108	100 205	307 304	210 757	13,233 13,908	3,070 3,148	3 .....	..... .....
Marble and stone work.....	1914 1909	224 144	81 11	10 5	110 79	..... 5	23 44	..... .....	..... .....	..... .....
Minerals and earths, ground.....	1914 1909	422 58	..... .....	..... .....	10 .....	..... .....	410 50	..... .....	..... 8	2 .....
Paper and wood pulp.....	1914 1909	1,033 1,162	..... .....	..... .....	..... .....	60 57	606 680	..... 320	..... 90	301 .....
Printing and publishing.....	1914 1909	1,218 1,255	741 601	90 35	288 470	10 41	80 99	..... .....	..... .....	..... .....
Slaughtering and meat packing.....	1914 1909	214 107	..... .....	171 .....	1 .....	..... .....	42 21	..... 140	..... .....	..... .....
Tin plate and tinplate.....	1914 1909	1,475 1,335	857 523	..... .....	328 450	290 350	..... .....	..... .....	..... .....	..... .....
Woolen and worsted goods.....	1914 1909	270 590	..... .....	..... .....	30 4	..... 1	240 594	..... .....	..... .....	..... .....
All other industries.....	1914 1909	12,087 0,874	818 592	1,420 320	1,334 1,154	3,031 2,020	4,372 4,047	552 200	346 71	208 570
Total for cities.....	1914	23,408	4,355	3,005	4,106	4,530	4,330	1,788	20	185
BLUEFIELD.....	1914	1,247	52	.....	24	15	80	1,054	10	.....
CHARLESTON.....	1914	1,081	138	12	140	207	528	50	.....	.....
CLARKSBURG.....	1914	316	47	9	103	30	63	33	.....	25
FAIRMONT.....	1914	1,837	103	801	143	400	209	31	.....	.....
HUNTINGTON.....	1914	4,641	2,537	64	379	333	1,293	0	2	24
MARTINSBURG.....	1914	1,508	9	134	62	1,208	155	.....	.....	.....
MORGANTOWN.....	1914	1,470	452	310	250	4	424	.....	4	1
MOUNDVILLE.....	1914	1,508	17	823	41	46	59	520	2	.....
PARKERSBURG.....	1914	1,820	238	.....	1,013	39	490	29	2	3
WHEELING.....	1914	7,020	702	1,743	2,019	2,182	1,017	62	3	132

From these figures it appears that 56.5 per cent of the wage earners in all industries throughout the state in 1914 were employed in establishments in which the prevailing hours were from 54 to 60 per week; that 27.5 per cent were employed in establishments in which the prevailing hours were less than 54; and that 15.9 per cent were in establishments where the prevailing hours were more than 60. In the cities, taken as a group, for the same three classes referred to, the percentages differ somewhat from those for the state as a whole, being 55.8, 35.7, and 8.6, respectively.

The majority of wage earners in Fairmont, Huntington, Morgantown, and Moundsville were employed in establishments in which the prevailing hours were

less than 54; in Charleston, Clarksburg, Martinsburg, Parkersburg, and Wheeling, in establishments with prevailing hours from 54 to 60, inclusive; and in Bluefield, in establishments with prevailing hours between 60 and 72.

**Location of establishments.**—Table 12 shows, for 1914, 1909, and 1899, the extent to which the manufactures in West Virginia are centralized in the 10 cities with a population of 10,000 and over.

In accepting the statistics in this table it must be remembered that some of the cities that had a population of 10,000 or more in 1914 were included in the district outside of cities at prior censuses: Clarksburg, Fairmont, Morgantown, and Moundsville in 1909 and 1899, and Bluefield and Martinsburg in 1899.

The 10 cities having a population estimated at 10,000 or over in 1914 show 15.2 per cent of the total population estimated for the state, 25.6 per cent of the total number of establishments, 32.9 per cent of the total average number of wage earners, and 34.8 per cent of the total value of products.

**Table 12**

	Census year.	Aggregate.	CITIES HAVING A POPULATION OF 10,000 OR OVER.						DISTRICTS OUTSIDE OF CITIES HAVING A POPULATION OF 10,000 OR OVER.	
			Total.		10,000 to 25,000.		25,000 to 100,000.		Number or amount.	Per cent of aggregate.
			Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.		
Number of places.....	1914 1910 1900	..... ..... .....	10 6 4	..... ..... .....	7 4 3	..... ..... .....	3 2 1	..... ..... .....	..... ..... .....	..... ..... .....
Population <sup>1</sup> .....	1914 1910 1900	1,332,010 1,221,119 958,800	208,122 135,526 75,183	15.5 11.1 7.8	94,037 62,724 36,305	7.1 5.1 3.8	112,035 72,802 38,878	8.4 6.0 4.1	1,126,788 1,085,593 883,617	84.5 83.9 92.2
Number of establishments.....	1914 1909 1899	2,749 2,536 1,824	705 435 327	25.6 16.8 17.9	313 192 149	11.4 7.4 8.2	392 243 178	14.3 9.4 9.8	2,044 2,151 1,497	74.4 83.2 82.1
Average number of wage earners.....	1914 1909 1899	71,078 63,893 33,080	23,408 15,501 9,830	32.9 24.3 29.7	9,766 4,536 3,640	13.7 7.1 11.0	13,642 10,965 6,100	19.2 17.2 18.7	47,670 48,392 23,250	67.1 75.7 70.3
Value of products.....	1914 1909 1899	\$103,511,782 101,949,526 67,006,822	\$67,321,100 46,302,723 23,079,313	34.8 28.6 34.4	\$24,342,252 12,714,312 8,004,968	12.6 7.9 11.9	\$42,978,848 33,538,411 15,074,345	22.2 20.7 22.5	\$126,190,682 115,646,803 43,927,509	65.2 71.4 65.6
Value added by manufacture.....	1914 1909 1899	83,478,617 69,071,538 29,778,569	29,399,155 19,032,710 9,630,783	35.2 27.6 32.3	11,342,784 4,851,460 2,902,341	13.6 7.0 9.9	18,056,371 14,181,250 6,668,442	21.6 20.5 22.4	54,079,462 50,038,828 20,147,786	64.8 72.4 67.7

<sup>1</sup> Census estimate of population for 1914.

Table 13 shows, for 1914, 1909, and 1904, the relative importance in manufactures of each of the cities having more than 10,000 inhabitants, as measured by average number of wage earners and by value of products. The cities are listed in the order of their rank in respect to value of products in 1914.

**Table 13**

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1914	1909	1904	1914	1909	1904
Wheeling.....	7,920	7,809	7,127	\$27,878,933	\$27,077,151	\$21,797,475
Huntington.....	4,041	3,156	2,229	11,400,468	6,511,260	4,407,153
Parkersburg.....	1,820	1,495	1,444	7,142,990	5,498,452	3,778,139
Fairmont.....	1,837	.....	.....	4,383,674	.....	.....
Charleston.....	1,081	951	887	3,699,447	3,235,363	2,100,470
Moundsville.....	1,508	.....	.....	3,628,793	.....	.....
Martinsburg.....	1,568	1,420	.....	3,021,938	2,515,458	.....
Morgantown.....	1,470	.....	.....	2,337,990	.....	.....
Bluefield.....	1,247	670	.....	2,173,008	1,465,039	.....
Clarksburg.....	316	.....	.....	1,653,859	.....	.....

Each of the cities for which comparable figures are given shows increases in value of products and average number of wage earners.

Wheeling, the most important city of the state, is noted especially for its iron and steel industries, but there were 16 industries in the city that reported products valued at more than \$500,000 each in 1914. In order of importance these industries ranked as follows: Steel works and rolling mills; tobacco, chewing and smoking; copper, tin, and sheet-iron products; cigars and cigarettes; tin plate and terne-plate; foundry and machine-shop products; iron and steel, blast furnaces; patent medicines and compounds; galvanizing; slaughtering and meat packing; glass; printing and publishing; lamps and reflectors; liquors, malt; bread and other bakery products; and leather, tanned, curried, and finished. There

were 123 establishments reported for these industries and they gave employment to 6,729 wage earners, or 85 per cent of the total number for all industries in the city; and their products were valued at \$24,273,176, or 85.6 per cent of the total.

For the period 1909-1914 the greatest relative gain in value of products, 60 per cent, was made by Huntington. This was largely the result of the increased output of the steam-railroad repair shops and of its flour and lumber mills, glassworks, furniture, mattress and spring bed factories, the construction of steam-railroad cars and printing and publishing industries.

In Charleston the 14.3 per cent increase was divided among its principal industries, all of which showed substantial increases in value of products. These industries, with products valued at more than \$200,000 each, are bread and other bakery products, flour-mill and gristmill products, foundry and machine-shop products, lumber and timber products, and printing and publishing.

Parkersburg, with an increase of \$1,644,538 in value of products between 1909 and 1914, reported in detail 83 establishments, which represented 35 industries. Those industries having products valued at more than \$250,000 are: Boots and shoes; cars and general shop construction and repairs by steam-railroad companies; clothing, men's; foundry and machine-shop products; furniture; lumber and timber products; oils, not elsewhere specified; petroleum refining; and printing and publishing.

Martinsburg shows an increase of 20.2 per cent in value of products between 1909 and 1914. The principal industries reported were carriages and wagons, flour-mill and gristmill products, hosiery and knit goods, distilled liquors, and woolen goods.

At the census of 1914 four cities—Clarksburg, Fairmont, Morgantown, and Moundsville—were added to those having 10,000 or more inhabitants. The principal industries in Clarksburg are bread and other bakery products, confectionery, foundry and machine-shop products, manufactured ice, and printing and publishing. The leading industries in Fairmont are glass, and the manufacture of foundry and machine-shop products, and lumber and timber products. The leading industry of Morgantown is the manufacture of glass. Among other important industries are bread and other bakery products, confectionery, foundry and machine-shop products, and printing and publishing. Moundsville reported products valued at

\$3,628,793, made by 27 establishments representing 20 different industries, the most prominent being brooms and brushes, men's and women's clothing, glass, and stamped and enameled ware.

**Character of ownership.**—Table 14 presents statistics in respect to character of ownership, or legal organization, of manufacturing enterprises. For all industries combined for the state as a whole comparative figures are given for 1914, 1909, and 1904, while for the selected industries figures for 1914 and 1909 only are given. For individual cities the figures are for all industries combined and relate only to 1914. To avoid disclosing the operations of individual establishments several important industries are omitted.

INDUSTRY AND CITY.	Cen- sus year.	NUMBER OF ESTABLISHMENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.					
		Indiv- iduals.	Cor- pora- tions.	All oth- ers.	Total.	In establish- ments owned by—			Per cent of total.			Total.	Of establishments owned by—			Per cent of total.			
						Indiv- iduals.	Cor- pora- tions.	All oth- ers.	Indiv- iduals.	Cor- pora- tions.	All oth- ers.		Indiv- iduals.	Cor- pora- tions.	All oth- ers.	Indiv- iduals.	Cor- pora- tions.	All oth- ers.	
All industries.....	1914 1909 1904	1,304 1,188 920	905 813 638	540 685 551	71,078 63,893 43,768	5,060 6,113 4,922	62,436 53,309 35,005	3,582 4,474 3,771	7.1 9.6 11.2	87.8 83.4 80.1	5.0 7.0 8.0	\$193,511,782 161,949,529 99,040,676	\$11,258,657 11,090,673 10,014,225	\$171,832,047 140,385,294 78,951,053	\$10,420,178 10,477,289 10,075,308	5.8 6.8 10.1	88.8 86.7 70.7	5.4 6.5 10.2	
Bread and other bakery products.	1914 1909	114 124	7 10	17 17	569 846	331 224	135 86	103 36	58.2 64.7	23.7 24.9	18.1 10.4	2,305,438 1,409,911	1,304,367 897,065	630,714 423,001	370,357 140,245	56.0 61.1	27.4 28.8	16.1 10.2	
Brick, tile, pottery, and other clay products.	1914 1909	6 0	48 30	2 6	4,790 2,916	186 45	4,705 2,793	..... 78	1.8 1.5	98.2 95.8	..... 2.7	6,798,118 3,620,037	1,110,408 28,345	6,681,710 3,527,909	..... 72,723	1.7 0.8	98.3 97.2	..... 2.0	
Copper, tin, and sheet-iron products.	1914 1909	8 3	13 11	3 6	1,575 916	31 14	1,533 885	11 17	2.0 1.5	97.3 96.6	0.7 1.9	4,731,790 2,150,739	63,574 32,005	4,636,138 2,084,839	32,048 32,935	1.3 1.5	98.0 96.9	0.7 1.5	
Flour-mill and gristmill products.	1914 1909	112 90	41 38	70 70	381 452	101 126	290 220	80 106	20.5 27.9	52.5 48.7	21.0 23.5	7,052,814 7,095,801	1,801,057 1,617,210	4,666,226 4,786,234	664,631 1,302,351	19.7 19.7	66.2 62.2	14.1 18.1	
Foundry and machine-shop products.	1914 1909	32 27	60 38	20 18	1,908 1,354	97 144	1,696 1,088	115 122	5.1 10.6	88.9 80.3	6.0 9.0	5,070,574 3,391,930	250,701 280,552	4,436,946 2,748,527	382,927 356,851	5.1 8.4	87.3 81.0	7.5 10.5	
Glass.....	1914 1909	5 0	54 42	4 4	8,880 6,100	49 44	8,551 6,066	280 80	0.0 0.7	96.2 98.0	3.3 1.3	14,631,171 7,770,483	48,038 40,009	14,283,733 7,657,301	299,400 72,213	0.3 0.6	97.0 98.4	2.0 0.9	
Ice, manufactured.....	1914 1909	5 2	36 20	3 7	364 233	0 .....	345 .....	13 * 20	1.0 .....	94.8 88.8	3.0 11.2	755,922 478,887	15,617 .....	719,632 425,720	20,673 * 53,161	2.1 .....	95.2 88.9	2.7 11.0	
Lumber and timber products.	1914 1909	601 549	152 173	242 204	17,417 18,643	2,318 3,249	13,136 12,320	1,063 3,074	13.3 17.4	75.4 66.1	11.3 10.5	28,904,240 28,768,481	3,569,287 4,137,601	21,515,216 20,267,413	3,909,737 4,363,467	12.3 14.4	74.2 70.5	13.5 15.1	
Printing and publishing....	1914 1909	134 132	71 08	37 35	1,218 1,255	330 206	810 872	72 87	27.6 23.0	66.5 69.5	5.9 6.9	2,430,565 1,902,036	614,283 498,570	1,671,316 1,353,748	144,660 130,709	25.3 25.0	68.8 68.0	5.9 7.0	
Total for cities.....	1914	283	328	94	23,408	1,805	20,830	704	7.7	89.0	3.3	67,321,100	4,780,505	59,008,438	3,472,150	7.1	87.7	5.2	
BLUEFIELD.....	1914	8	16	.....	1,247	37	1,210	.....	3.0	97.0	.....	2,173,008	127,853	2,045,155	.....	5.9	94.1	.....	
CHARLESTON.....	1914	20	48	12	1,081	09	951	61	0.4	88.0	5.6	3,009,447	284,093	3,202,889	212,405	7.7	86.6	5.7	
CLARKSBURG.....	1914	18	19	6	316	88	176	52	27.8	55.7	16.5	1,653,859	280,116	1,183,113	181,631	17.5	71.5	11.0	
FAIRMONT.....	1914	20	25	5	1,837	80	1,728	29	4.4	94.1	1.6	4,383,674	170,075	4,156,301	57,238	3.9	94.8	1.3	
HUNTINGTON.....	1914	41	61	10	4,641	224	4,305	52	4.8	94.1	1.1	11,400,408	575,277	10,723,242	101,949	5.0	94.1	0.9	
MARTINSBURG.....	1914	16	12	9	1,568	75	1,434	59	4.8	91.5	3.8	3,021,038	293,462	2,509,260	219,216	9.7	88.0	7.3	
MORGANTOWN.....	1914	21	19	9	1,470	34	1,420	16	2.3	96.0	1.1	2,337,000	189,843	2,080,396	67,751	8.1	89.0	2.9	
MOUNDSVILLE.....	1914	13	8	0	1,508	60	1,407	41	4.0	93.3	2.7	3,628,793	549,009	1,650,603	1,428,881	15.1	45.5	39.4	
PARKERSBURG.....	1914	29	42	12	1,820	103	1,571	146	5.7	86.3	8.0	7,142,000	202,000	6,460,221	390,109	4.1	90.4	5.5	
WHEELING.....	1914	83	88	25	7,920	1,935	6,677	308	13.1	83.0	3.9	27,878,933	2,009,118	25,050,800	812,919	7.2	89.9	2.9	

<sup>1</sup> Includes the group "all others."

<sup>2</sup> Includes the group "individuals."

For all industries combined the statistics for 1914 show that the establishments under corporate ownership, while representing only 32.9 per cent of the total number of establishments, reported 87.9 per cent of the total average number of wage earners and 88.8 per cent of the total value of products. The corresponding percentages for 1909 were 31.4, 83.4, and 86.7, respectively, and for 1904, 30.3, 80.1, and 79.7, respectively. Individual ownership represented 47 per cent of the total number of establishments in the

state, but the percentages reported by this class for wage earners and value of products were only 7.1 and 5.8, respectively.

In the individual industries the forms of ownership prevailing vary. The bread and other bakery products, lumber and timber products, and printing and publishing industries are more largely controlled by individual and all other forms of ownership than are the other industries for which figures are given. This is particularly the case with the bread and other

bakery products industry, in which 131 out of a total of 138 establishments in 1914, with 76.3 per cent of the total number of wage earners and 72.6 per cent of the total value of products, were under individual and all other forms of ownership.

In Bluefield, Charleston, and Parkersburg, more than half, and in Fairmont and Huntington one-half of the establishments were under corporate ownership; in the other cities the majority were under individual and all other forms of ownership. The average number of wage earners, however, shows the percentage reported by corporations was in excess of the percentage reported for individual and all other forms of ownership combined; and the same condition exists in respect to value of products, except in the case of Moundsville, for which only 45.4 per cent of the total value of products was reported by establishments under corporate ownership. This condition is due to

the fact that a large amount of contract work was done in the state penitentiary in Moundsville, which was reported as part of the value of products of establishments under all other ownership. Since the prisoners employed in the performance of this work are not reported as wage earners, however, the per cent distribution of the wage earners in Moundsville is not radically different from that for all the cities taken as a group.

Size of establishments.—It is of interest from the standpoint of industrial organization to note the tendency toward concentration of manufactures in large establishments. The following table groups the establishments according to the value of their products and gives, for each group, for 1914, 1909, and 1904 the average number of wage earners, the value of products, and the value added by manufacture, together with the per cent distribution.

VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			VALUE ADDED BY MANUFACTURE.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904
All classes.....	2,749	2,586	2,100	71,078	63,893	43,758	\$193,511,782	\$161,949,520	\$99,040,676	\$83,478,617	\$69,071,538	\$44,621,470
Less than \$5,000.....	1,166	1,082	775	1,737	1,988	1,180	2,644,911	2,548,624	1,818,126	1,800,714	1,734,907	1,200,794
\$5,000 to \$20,000.....	786	759	707	4,107	4,240	3,914	8,031,347	7,566,470	7,340,887	4,644,685	4,352,873	4,036,852
\$20,000 to \$100,000.....	488	462	443	10,082	10,384	10,657	22,485,402	21,017,729	19,041,458	11,464,927	10,417,819	10,011,781
\$100,000 to \$1,000,000.....	266	250	170	35,227	32,553	21,487	79,149,733	68,334,808	45,085,216	40,266,968	33,764,126	21,889,469
\$1,000,000 and over.....	43	33	14	19,895	14,728	6,520	81,200,389	62,481,895	25,154,989	25,301,323	18,801,813	7,473,574
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.....	42.4	41.8	36.7	2.5	3.1	2.7	1.4	1.6	1.8	2.2	2.5	2.7
\$5,000 to \$20,000.....	28.6	29.4	33.5	5.8	6.6	8.9	4.2	4.7	7.4	5.6	6.3	9.0
\$20,000 to \$100,000.....	17.8	17.9	21.0	14.2	16.3	24.4	11.6	13.0	19.2	13.7	15.1	22.4
\$100,000 to \$1,000,000.....	9.7	9.7	8.1	49.6	50.9	49.1	40.9	42.2	46.1	48.2	48.9	49.1
\$1,000,000 and over.....	1.6	1.3	0.7	28.0	23.1	14.9	42.0	38.6	25.4	30.3	27.2	10.7

It will be seen from this table that 43 of the 2,749 establishments reported in 1914, or 1.6 per cent, turned out products valued at more than \$1,000,000. These establishments employed an average of 19,895 wage earners, or 27.9 per cent of the total for all wage earners, and reported 42 per cent of the total value of products and 30.3 per cent of the total value added by manufacture.

On the other hand, the very small establishments—that is, those having products valued at less than \$5,000—although constituting 42.4 per cent of the total number of establishments, reported only 1.4 per cent of the total value of products. The great bulk of the manufacturing was reported by establishments having products valued at \$100,000 or more.

The table shows that during the five years from 1909 to 1914 there was a considerable increase, as measured by both value of products and value added by manufacture, in the relative importance of the largest establishments—those reporting products valued at not less than \$1,000,000—and a decrease in that of each of the other classes. A similar but more pronounced change took place between 1904 and 1909.

The average value of products per establishment, for all classes of establishments combined, increased during the last five-year period from \$62,625 to \$70,394, and the average value added by manufacture from \$26,710 to \$30,367; but this fact should not be taken as being in itself an indication of a tendency toward concentration, since the increased values are in all probability due in part to the increases that have taken place in the prices of commodities.

Table 16 shows for seven of the more important industries, for 1914 and 1909, a classification similar to that presented in Table 15.

It will be noted that the average number of wage earners, value of products, and value added by manufacture, per establishment, are high in the glass, copper, tin, and sheet-iron products, and brick, tile, pottery, and other clay products industries; while the averages are low in the foundry and machine-shop, flour-mill and gristmill, lumber and timber, and printing and publishing industries. The average value of products in the glass industry was \$232,200, and in the printing and publishing industry approximately \$10,000. The largest establishments in the state,

however, as measured by average value of products per establishment, were in the tin-plate and terne-plate industry, with an average of \$1,891,320; the steel works and rolling mills industry, with \$1,412,371;

and the slaughtering and meat-packing industry, with \$683,950; but in order to avoid disclosing the operations of individual establishments, these industries could not be shown in the detail given in the table.

**Table 16**

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.		AVERAGE NUMBER OF WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.			
	1914	1909	1914	1909	Per cent distribution.		1914	1909	Per cent distribution.		1914	1909	Per cent distribution.	
					1914	1909			1914	1909			1914	1909
<b>BRICK, TILE, POTTERY, AND OTHER CLAY PRODUCTS.</b>	55	50	4,700	2,010	100.0	100.0	\$6,798,118	\$3,629,037	100.0	100.0	\$4,576,173	\$2,568,098	100.0	100.0
Less than \$20,000 <sup>1</sup>	19	25	237	222	4.9	7.0	183,020	184,071	2.7	5.1	137,453	141,365	3.0	5.5
\$20,000 to \$100,000 <sup>2</sup>	22	17	724	609	15.1	22.9	973,598	764,892	14.3	21.1	733,716	648,082	16.0	21.3
\$100,000 and over <sup>3</sup>	14	8	8,829	2,025	70.9	60.4	5,640,504	2,680,074	83.0	73.0	3,705,004	1,878,651	81.0	73.2
<b>COPPER, TIN, AND SHEET-IRON PRODUCTS.</b>	24	19	1,575	910	100.0	100.0	4,731,700	2,150,780	100.0	100.0	1,521,345	796,565	100.0	100.0
Less than \$5,000	7	3	10	3	0.0	0.3	18,530	9,985	0.4	0.5	10,644	6,351	0.7	0.8
\$5,000 to \$100,000 <sup>2</sup>	8	10	76	59	4.8	6.4	172,331	136,705	3.6	6.4	70,878	73,391	5.3	9.2
\$100,000 and over <sup>3</sup>	9	6	1,489	854	94.5	93.2	4,540,839	2,004,039	96.0	93.2	1,430,823	716,820	94.0	90.0
<b>FLOUR-MILL AND CRISTMILL PRODUCTS.</b>	229	207	381	452	100.0	100.0	7,052,814	7,695,801	100.0	100.0	1,124,386	1,094,654	100.0	100.0
Less than \$5,000	64	34	27	26	7.1	5.8	183,312	109,153	2.6	1.4	45,573	20,702	4.1	1.9
\$5,000 to \$20,000	100	93	90	105	25.2	23.2	1,082,202	1,087,237	15.3	13.5	239,730	214,799	21.3	10.6
\$20,000 to \$100,000	61	67	142	104	37.3	30.3	2,199,493	2,594,193	31.2	33.7	429,825	420,012	38.2	38.9
\$100,000 and over <sup>3</sup>	11	13	110	157	30.4	34.7	3,687,804	3,905,198	50.9	51.4	409,252	433,141	36.4	39.6
<b>FOUNDRY AND MACHINE-SHOP PRODUCTS.</b>	118	83	1,908	1,354	100.0	100.0	5,079,574	3,391,030	100.0	100.0	2,409,123	1,632,252	100.0	100.0
Less than \$5,000	47	22	91	45	4.8	3.3	129,480	65,083	2.5	1.9	86,884	37,711	3.6	2.3
\$5,000 to \$20,000	34	25	151	149	7.9	10.8	334,000	212,844	6.6	7.2	227,900	160,587	9.5	9.8
\$20,000 to \$100,000	27	29	488	587	25.6	43.4	1,254,550	1,418,392	24.7	41.8	694,194	731,322	27.0	44.8
\$100,000 to \$1,000,000	10	7	1,178	570	61.7	42.5	3,500,578	1,665,011	66.2	49.1	1,430,139	702,632	59.4	43.0
<b>GLASS.</b>	63	51	8,889	6,190	100.0	100.0	14,631,171	7,779,483	100.0	100.0	9,993,030	5,483,555	100.0	100.0
Less than \$20,000 <sup>1</sup>	6	7	30	40	0.4	0.6	31,888	37,075	0.2	0.5	19,572	29,319	0.2	0.5
\$20,000 to \$100,000	12	15	433	755	5.4	12.2	658,908	844,316	4.5	10.9	453,050	579,102	4.5	10.6
\$100,000 and over <sup>3</sup>	45	29	8,370	5,395	94.2	87.2	13,940,315	6,897,492	95.3	88.7	9,520,300	4,875,101	95.3	88.9
<b>LUMBER AND TIMBER PRODUCTS.</b>	905	1,016	17,417	18,643	100.0	100.0	28,994,240	28,758,481	100.0	100.0	10,411,838	20,082,394	100.0	100.0
Less than \$5,000	675	524	960	1,130	5.5	6.1	1,295,740	1,185,410	4.2	4.1	621,723	880,883	4.8	4.4
\$5,000 to \$20,000	235	294	1,620	2,280	9.3	12.3	2,334,041	2,839,305	8.1	9.9	1,706,505	2,002,584	8.8	10.0
\$20,000 to \$100,000	118	123	2,951	3,379	16.9	18.1	5,735,233	5,847,892	19.8	20.8	3,342,071	3,467,986	17.2	17.3
\$100,000 and over <sup>3</sup>	69	70	11,880	11,848	68.2	63.0	19,721,197	18,885,955	68.0	65.7	13,438,539	13,730,911	69.2	68.4
<b>PRINTING AND PUBLISHING.</b>	242	235	1,218	1,255	100.0	100.0	2,430,565	1,992,036	100.0	100.0	1,770,549	1,451,498	100.0	100.0
Less than \$5,000	147	168	239	274	19.0	21.8	343,993	368,017	14.2	18.5	276,057	290,599	15.6	20.0
\$5,000 to \$20,000	69	54	322	315	26.4	25.1	680,790	477,927	28.0	24.0	438,000	370,669	24.7	25.5
\$20,000 and over <sup>3</sup>	26	23	657	666	53.9	53.1	1,505,782	1,146,092	62.0	57.5	1,056,483	790,233	59.7	54.4

<sup>1</sup> Includes the group "less than \$5,000."  
<sup>2</sup> Includes the group "\$1,000,000 and over."

<sup>3</sup> Includes the group "\$20,000 to \$100,000."  
<sup>4</sup> Includes the group "\$100,000 to \$1,000,000" in 1914, and the group "\$1,000,000 and over" in 1909.

Table 17 shows, for 1914, for each of the 10 cities having a population of 10,000 and over, for all industries combined, the number of establishments classified according to value of products per establishment, and

for each group the average number of wage earners, value of products, and value added by manufacture. The per cent distribution of the items constituting each total is also given.

**Table 17**

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.
<b>BLUEFIELD.</b>	21	1,217	100.0	\$2,173,008	100.0	\$1,094,644	100.0
Less than \$5,000	6	6	0.5	10,210	0.5	8,313	0.8
\$5,000 to \$20,000	9	46	3.7	106,520	4.9	62,201	5.7
\$20,000 and over <sup>1</sup>	9	1,195	95.8	2,056,278	94.6	1,024,130	93.6
<b>CHARLESTON.</b>	89	1,081	100.0	3,699,447	100.0	1,527,591	100.0
Less than \$5,000	24	30	2.8	61,877	1.7	39,880	2.6
\$5,000 to \$20,000	28	151	12.1	312,825	8.5	182,418	11.9
\$20,000 to \$100,000	25	410	37.9	1,120,413	30.3	579,616	37.9
\$100,000 to \$1,000,000	12	510	47.2	2,204,332	59.6	725,677	47.5
<b>CLARKSBURG.</b>	43	310	100.0	1,653,850	100.0	643,884	100.0
Less than \$5,000	8	15	5.1	19,520	1.2	12,875	2.0
\$5,000 to \$20,000	17	66	21.5	178,728	10.8	96,817	15.0
\$20,000 and over <sup>2</sup>	18	232	73.4	1,455,602	88.0	534,192	83.0

<sup>1</sup> Includes the groups "\$100,000 to \$1,000,000" and "\$1,000,000 and over."  
<sup>2</sup> Includes the group "\$100,000 to \$1,000,000."

Table 17—Continued.

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.
FAIRMONT.....	50	1,837	100.0	4,383,674	100.0	2,775,403	100.0
Less than \$5,000.....	9	21	1.1	22,106	0.5	15,004	0.5
\$5,000 to \$20,000.....	20	101	5.7	211,456	4.8	121,380	4.4
\$20,000 to \$100,000.....	16	302	16.4	894,232	20.4	372,011	13.4
\$100,000 and over <sup>1</sup> .....	5	1,410	76.8	3,255,880	74.3	2,267,028	81.7
HUNTINGTON.....	102	4,641	100.0	11,400,468	100.0	4,623,309	100.0
Less than \$5,000.....	25	33	0.7	60,060	0.5	37,886	0.8
\$5,000 to \$20,000.....	25	99	2.1	232,948	2.0	134,659	2.9
\$20,000 to \$100,000.....	31	555	12.0	1,281,006	11.7	672,076	14.5
\$100,000 to \$1,000,000.....	18	1,354	29.2	3,357,206	29.4	1,649,046	35.7
\$1,000,000 and over.....	3	2,900	56.0	6,468,648	56.7	2,128,852	46.0
MARTINSBURG.....	37	1,568	100.0	3,021,938	100.0	1,313,344	100.0
Less than \$5,000.....	8	13	0.8	18,365	0.6	12,676	1.0
\$5,000 to \$20,000.....	13	58	3.7	128,690	4.3	76,377	5.8
\$20,000 to \$100,000.....	11	144	9.2	476,816	15.8	155,200	11.8
\$100,000 and over <sup>1</sup> .....	5	1,353	86.3	2,398,067	79.4	1,069,091	81.4
MORGANTOWN.....	49	1,470	100.0	2,337,990	100.0	1,584,314	100.0
Less than \$5,000.....	18	16	1.1	42,170	1.8	25,778	1.6
\$5,000 to \$20,000.....	16	64	4.4	170,387	7.7	90,784	5.7
\$20,000 to \$100,000.....	9	118	8.0	384,423	16.4	185,521	11.7
\$100,000 and over.....	6	1,272	86.5	1,732,010	74.1	1,282,231	80.9
MOUNDSVILLE.....	27	1,508	100.0	3,628,793	100.0	1,533,326	100.0
Less than \$5,000.....	5	7	0.5	11,854	0.3	8,255	0.5
\$5,000 to \$20,000.....	7	44	2.9	85,627	2.4	48,335	3.2
\$20,000 to \$100,000.....	10	140	9.3	310,733	8.6	145,585	9.5
\$100,000 and over <sup>1</sup> .....	5	1,317	87.3	3,220,579	88.8	1,331,151	86.8
PARKERSBURG.....	83	1,820	100.0	7,142,990	100.0	2,397,869	100.0
Less than \$5,000.....	25	33	1.8	65,337	0.9	35,977	1.5
\$5,000 to \$20,000.....	19	86	4.7	105,116	2.7	103,030	4.3
\$20,000 to \$100,000.....	25	442	24.3	1,053,012	14.7	588,950	24.6
\$100,000 and over <sup>1</sup> .....	14	1,259	69.2	5,829,525	81.6	1,600,012	69.6
WHEELING.....	201	7,920	100.0	27,878,933	100.0	11,905,411	100.0
Less than \$5,000.....	65	136	1.7	162,173	0.6	111,892	0.9
\$5,000 to \$20,000.....	57	318	4.0	641,972	2.3	367,896	3.1
\$20,000 to \$100,000.....	38	757	9.6	1,750,699	6.3	891,898	7.5
\$100,000 to \$1,000,000.....	32	4,034	50.9	11,597,129	41.6	5,273,437	44.3
\$1,000,000 and over.....	9	2,675	33.8	13,720,960	49.2	5,260,238	44.2

<sup>1</sup>Includes the group "\$1,000,000 and over."

The cities having the highest average value per establishment, for all classes combined, were Wheeling, with \$138,701, and Moundsville, with \$134,400; and those having the lowest averages were Clarksburg and Charleston, with \$38,462 and \$41,567, respectively. The highest average value for establishments having products in excess of \$1,000,000 was reported for Huntington—three establishments with an average of \$2,189,549. The lowest average for establishments with products valued at less than \$5,000 appears for Bluefield—six establishments with an average of \$1,702.

Table 18 shows the size of establishments as measured by the average number of wage earners employed in 1914. The figures given are for the combined industries of the state and for the 24 industries giving employment to more than 200 wage earners. Similar statistics are shown for the combined industries of each of the 10 cities of 10,000 or more inhabitants.

Of the 2,749 establishments reported for all industries, 1,545, or 56.2 per cent, reported from 1 to 5 wage earners; 25.2 per cent, from 6 to 50 wage earners; and 19.6 per cent, 51 or more; while 7.9 per cent employed no wage earners. The establishments employ-

ing more than 100 wage earner numbered 158, of which 22 employed more than 500 each. Of the latter, 5 were steam-railroad repair shops, 3 were glass factories, 3 were steel works and rolling mills, and 4 were establishments manufacturing lumber and timber products.

Of the total number of wage earners, 47 per cent were in establishments employing more than 250 wage earners. The single group reporting the largest number of employees is that comprising the establishments having 251 to 500 wage earners, which gave employment to 14,180 wage earners, or 20 per cent of the total for all industries. This group shows an average of 346 wage earners per establishment. More than one-half of the total number of wage earners employed in the steel works and rolling mills were in this group.

There were 245 establishments reporting no wage earners. In these small establishments the proprietors and members of their families not receiving compensation in the form of wages did all the work. The principal industries in which establishments of this character were found are bread and other bakery products, flour-mill and gristmill products, printing and publishing, and lumber and timber products (sawmills).

**Table 18**

INDUSTRY AND CITY.	TOTAL,		ESTABLISHMENTS EMPLOYING—						
	Estab-lish-ments.	Wage earners (average number).	No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.	
			Estab-lish-ments.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.
All Industries.....	2,740	71,078	245	1,545	3,391	472	5,092	220	7,110
Artificial stone products.....	31	263	2	23	55	3	34	2	43
Bread and other bakery products.....	138	500	22	87	219	27	271	2	70
Brick, tile, pottery, and other clay products.....	55	4,700	.....	3	7	17	210	18	590
Canning and preserving.....	20	210	1	11	34	17	182	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	37	8,437	.....	5	12	6	82	2	47
Clothing, men's.....	7	491	1	.....	.....	1	14	1	28
Coke, not including gas-house coke.....	54	1,392	.....	2	7	10	212	20	836
Copper, tin, and sheet-iron products.....	24	1,575	1	11	30	4	38	2	92
Flour-mill and gristmill products.....	229	381	62	154	245	12	109	1	30
Foundry and machine-shop products.....	118	1,008	6	68	100	24	257	12	369
Glass.....	63	8,880	.....	4	14	3	31	9	294
Ice, manufactured.....	47	304	.....	27	63	10	181	4	120
Iron and steel, steel works and rolling mills.....	15	5,348	.....	.....	.....	.....	.....	2	97
Leather, tanned, curried, and finished.....	18	1,072	1	4	7	.....	.....	4	175
Lime.....	10	773	.....	3	5	2	18	1	26
Liquors, malt.....	10	244	.....	1	2	5	66	3	120
Lumber and timber products.....	905	17,417	32	667	1,366	174	1,962	57	1,828
Marble and stone work.....	27	221	2	17	39	5	50	2	75
Minerals and earths, ground.....	12	422	.....	2	5	2	30	6	187
Paper and wood pulp.....	8	1,033	.....	.....	.....	.....	.....	3	116
Printing and publishing.....	242	1,218	36	161	392	34	378	10	348
Slaughtering and meat packing.....	7	214	.....	1	1	4	50	1	30
Tin plate and ternoplate.....	8	1,475	.....	.....	.....	.....	.....	3	45
Woolen and worsted goods.....	8	276	.....	2	4	1	6	3	91
All other industries.....	557	12,087	70	292	724	96	968	45	1,474
Total for cities.....	705	23,408	51	320	833	181	1,970	75	2,340
BLUEFIELD.....	24	1,247	3	9	20	9	121	2	49
CHARLESTON.....	80	1,081	10	42	127	22	231	9	289
CLARKSBURG.....	43	316	.....	25	72	15	175	3	69
FAIRMONT.....	50	1,837	2	20	42	17	186	6	164
HUNTINGTON.....	102	4,641	10	41	110	20	227	16	520
MARTINSBURG.....	37	1,568	3	17	48	11	114	3	108
MORGANTOWN.....	40	1,470	6	27	53	8	80	2	65
MOUNDSVILLE.....	27	1,568	7	6	19	9	80	3	91
PARKERSBURG.....	83	1,820	4	38	86	22	259	9	277
WHEELING.....	201	7,920	6	95	244	48	497	22	708

**Table 18—Continued.**

INDUSTRY AND CITY.	ESTABLISHMENTS EMPLOYING—									
	51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		Over 1,000 wage earners.	
	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.
All Industries.....	109	8,045	95	14,038	41	14,180	10	10,840	6	8,373
Artificial stone products.....	7	520	5	131	4	1,404	.....	.....	1	1,228
Brick, tile, pottery, and other clay products.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	8	614	7	1,140	4	1,464	3	1,938	2	3,140
Clothing, men's.....	2	120	2	329	.....	.....	.....	.....	.....	.....
Coke, not including gas-house coke.....	4	287	.....	.....	2	695	1	512	.....	.....
Copper, tin, and sheet-iron products.....	3	238	.....	.....	1	450	.....	.....	.....	.....
Foundry and machine-shop products.....	3	189	4	493	5	1,659	3	2,202	.....	.....
Glass.....	10	1,200	23	3,483	6	2,960	2	1,206	1	1,024
Iron and steel, steel works and rolling mills.....	1	71	.....	.....	0	.....	2	.....	.....	.....
Leather, tanned, curried, and finished.....	5	301	4	499	.....	.....	.....	.....	.....	.....
Lime.....	1	88	2	316	1	320	.....	.....	.....	.....
Liquors, malt.....	1	56	.....	.....	.....	.....	.....	.....	.....	.....
Lumber and timber products.....	27	2,036	28	4,124	6	1,008	3	2,382	1	1,811
Marble and stone work.....	1	60	.....	.....	.....	.....	.....	.....	.....	.....
Minerals and earths, ground.....	1	68	1	132	.....	.....	.....	.....	.....	.....
Paper and wood pulp.....	2	141	2	316	1	460	.....	.....	.....	.....
Printing and publishing.....	1	100	.....	.....	.....	.....	.....	.....	.....	.....
Slaughtering and meat packing.....	.....	.....	1	133	.....	.....	.....	.....	.....	.....
Tin plate and ternoplate.....	2	150	3	417	1	338	1	510	.....	.....
Woolen and worsted goods.....	1	68	1	107	.....	.....	.....	.....	.....	.....
All other industries.....	23	1,027	11	1,631	7	2,412	3	2,081	1	1,170
Total for cities.....	32	2,296	24	3,600	14	4,672	5	3,378	3	4,310
BLUEFIELD.....	5	323	1	111	.....	.....	.....	.....	1	1,051
CHARLESTON.....	2	146	1	120	.....	.....	.....	.....	.....	.....
FAIRMONT.....	9	631	4	577	1	375	1	705	.....	.....
HUNTINGTON.....	0	.....	.....	.....	1	481	.....	.....	1	2,080
MARTINSBURG.....	2	128	.....	.....	.....	.....	.....	.....	1	1,170
MORGANTOWN.....	.....	.....	4	656	2	616	.....	.....	.....	.....
MOUNDSVILLE.....	.....	.....	.....	.....	.....	.....	2	1,318	.....	.....
PARKERSBURG.....	5	420	5	769	.....	.....	.....	.....	.....	.....
WHEELING.....	0	630	9	1,367	10	3,200	2	1,205	.....	.....

Of the 705 establishments in the 10 cities having a population of 10,000 and over, 51, or 7.2 per cent, employed no wage earners; 320, or 45.4 per cent, employed from 1 to 5 wage earners; and 22, or 3 per cent, employed more than 250 wage earners. This latter class averaged 562 wage earners per establishment.

Table 19 presents, for 1914, percentages based on the figures in Table 18 together with similar percentages for 1909 with reference to all industries combined and to individual industries in the state as a whole.

Wage earners in establishments employing an average of 250 or less decreased 7.5 per cent between 1909 and 1914, with a corresponding increase for those in establishments employing more than 250. Among the

industries showing increases for the establishments employing more than 250 wage earners are brick, tile, pottery, and other clay products; cars and general shop construction and repairs by steam-railroad companies; copper, tin, and sheet-iron products; steel works and rolling mills; lime; lumber and timber products; and tin plate and terneplate. The industries that show a decrease in this respect are coke; leather, tanned, curried, and finished; paper and wood pulp; and woolen and worsted goods.

For the cities 52.8 per cent of the wage earners in 1914 were reported for the establishments employing 251 or more. The cities showing the largest percentages in these establishments are Bluefield, Fairmont, Huntington, Martinsburg, Moundsville, and Wheeling.

INDUSTRY AND CITY.	Cen- sus year.	PER CENT OF TOTAL AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS EMPLOYING SPECIFIED NUMBER.								Cen- sus year.	PER CENT OF TOTAL AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS EMPLOYING SPECIFIED NUMBER.								
		1 to 5	6 to 20	21 to 50	51 to 100	101 to 250	251 to 500	501 to 1,000	Over 1,000		1 to 5	6 to 20	21 to 50	51 to 100	101 to 250	251 to 500	501 to 1,000	Over 1,000	
All industries.....	1914 1909	4.8 5.1	7.2 8.5	10.0 11.0	11.3 12.7	19.8 23.3	19.9 17.7	15.2 17.4	11.8 4.2	Liquors, malt.....	1914 1909	0.8 25.1	27.0 20.2	49.2 54.7	23.0				
Artificial stone products.....	1914 1909	20.9 32.9	12.9 7.6	16.4 59.5		49.8				Lumber and timber products...	1914 1909	7.8 7.8	10.9 13.2	10.5 13.6	11.7 11.9	23.7 25.0	11.3 10.7	13.7 14.7	10.4
Bread and other bakery products.	1914 1909	38.5 54.6	47.6 37.3	13.9 8.1						Marble and stone work.....	1914 1909	17.4 38.2	22.3 20.9	33.5 31.9	26.8				
Brick, tile, pottery, and other clay products.	1914 1909	0.1 0.5	4.5 8.6	11.7 11.2	11.0 16.8	16.4 24.0	30.6 9.8	25.6 29.1		Minerals and earths, ground.....	1914 1909	1.2 31.0	7.1 69.0	44.3 16.1	31.3				
Canning and preserving.....	1914 1909	15.7 11.8	84.3 58.3	9.6	20.3					Paper and wood pulp.....	1914 1909			11.2 12.0	13.6 9.6	30.6 28.3	44.5 50.2		
Cars and general shop construction and repairs by steam-railroad companies.	1914 1909	0.1 0.8	1.0 1.4	0.6 5.0	7.3 18.9	13.5 28.2	17.4 18.5	23.0 27.2		Printing and publishing.....	1914 1909	32.2 31.1	31.0 28.4	28.6 21.8	8.2 18.8				
Clothing, men's.....	1914 1909		2.9 16.5	5.7	24.4 83.5	67.0				Slaughtering and meat packing.	1914 1909	0.5 3.6	23.4 31.7	14.0	62.1 64.7				
Coke, not including gas-house coke.	1914 1909	0.5 0.4	15.2 2.8	63.7 24.3	20.6 27.8	15.7	20.0			Tin plate and terneplate.....	1914 1909			3.1 2.8	10.6 58.1	28.3 22.9	35.2 39.1		
Copper, tin, and sheet-iron products.	1914 1909	1.9 2.6	2.4 6.2	3.9 4.1	15.1 7.4	35.5 44.1	44.1 32.5			Woolen and worsted goods.....	1914 1909	1.4 1.0	2.2 13.5	33.0 6.8	24.6 33.6	38.8 45.1			
Flour-mill and gristmill products.	1914 1909	64.3 61.3	27.8 25.2	7.9 13.5						All other industries.....	1914 1909	6.0 6.2	8.0 8.5	12.2 11.8	13.4 15.4	13.5 11.6	20.0 18.3	17.3 28.2	9.7
Foundry and machine-shop products.	1914 1909	8.4 6.4	13.5 26.1	18.8 28.4	9.9 14.9	25.8 24.1	23.6			Total for cities.....	1914	3.6	8.4	10.0	9.8	15.4	20.0	14.4	18.4
Glass.....	1914 1909	0.2 0.2	0.3 0.8	3.3 3.5	13.6 14.0	39.2 42.8	18.7 28.7	24.8 10.1		BLUEFIELD.....	1914	2.1	9.7	3.9					84.3
Ice, manufactured.....	1914 1909	17.3 20.6	49.7 49.8	33.0 29.6						CHARLESTON.....	1914	11.7	21.4	25.7	29.9	10.3			
Iron and steel, steel works and rolling mills.	1914 1909		0.3	1.8 0.9	1.3 3.2	55.2 9.7	22.0 50.1	19.1 12.8		CLARKSBURG.....	1914	22.8	55.4	21.8					
Leather, tanned, curried, and finished.	1914 1909	0.7 0.3		16.3 13.6	36.5 18.3	46.5 48.3				FAIRMONT.....	1914	2.3	10.1	8.9	7.9	7.0	20.4	43.3	
Lime.....	1914 1909	0.6 2.5	2.3 7.8	3.4 14.0	11.4 75.7	40.9 75.7	41.4			HUNTINGTON.....	1914	2.6	4.9	11.2	13.6	12.4	10.4	45.0	
										MARTINSBURG.....	1914	3.1	7.3	6.9	8.2				74.6
										MOBAGTOWN.....	1914	3.9	5.4	4.4		44.6	41.9		
										MOUNDSVILLE.....	1914	1.3	5.3	6.0					87.4
										PARKERSBURG.....	1914	4.7	14.2	15.2	23.6	42.3			
										WHEELING.....	1914	3.1	6.3	8.9	8.1	17.3	40.4	16.0	

**Engines and power.**—Table 20 presents, for the state as a whole, for the census years 1914, 1909, and 1904, statistics as to the kind, number, and horsepower of engines and motors, together with the per cent distribution.

For 1914 the total primary power reported was 278,504 horsepower, as compared with 217,496 in 1909, the increase being 61,008 horsepower, or 28.1 per cent. Although steam furnishes the bulk of power used, its relative importance diminished between the two censuses. The total horsepower of steam engines and turbines in use in 1914 was 216,976 horsepower,

or 77.9 per cent of the primary power, as compared with 184,591 horsepower, or 84.9 per cent of the total, in 1909. This decrease in relative importance is due to the increasing use of rented electric power and of internal-combustion engines, which together represented 20 per cent of the total primary power in 1914, as against 10.2 per cent in 1909. The use of water power shows a marked decline during the same period, the horsepower of water wheels, turbines, and motors being only a trifle more than half as great in 1914 as in 1909, while the proportion which such power formed of the total decreased to a still greater extent.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
	1914	1909	1904	Amount.			Per cent distribution.		
				1914	1909	1904	1914	1909	1904
Primary power, total.....	5,338	4,527	2,326	278,504	217,400	138,578	100.0	100.0	100.0
Owned.....	3,294	4,078	2,326	251,007	211,918	137,708	90.1	97.4	99.4
Steam engines and turbines <sup>1</sup> .....	2,309	3,330	1,804	210,970	184,591	124,735	77.9	84.0	90.0
Internal-combustion engines.....	770	574	312	28,537	16,705	6,599	10.2	7.7	4.8
Water wheels, turbines, and motors.....	140	168	150	6,554	10,617	6,404	2.0	4.8	4.6
Rented.....	2,044	449	( <sup>2</sup> )	27,437	5,583	870	9.9	2.6	0.6
Electric.....	2,044	440	( <sup>2</sup> )	27,152	5,330	776	9.8	2.5	0.5
Other.....				285	253	94	0.1	0.1	0.1
Electric.....	4,078	1,715	311	60,676	28,543	5,199	100.0	100.0	100.0
Rented.....	2,044	449	( <sup>2</sup> )	27,152	5,330	776	40.7	13.7	14.9
Generated by establishments reporting.....	2,034	1,266	311	39,524	23,213	4,423	59.3	81.3	85.1

<sup>1</sup> Figures for horsepower include for 1909 and 1904 the amounts reported under the head of "other" owned power.

<sup>2</sup> Not reported.

The power of motors operated by current generated in the same establishments was equivalent to 14.2 per cent of the total primary power in 1914, as against 10.6 per cent in 1909. The aggregate capacity of the electric motors in use—both those run by rented current and those run by current generated in the same establishments—in 1914 was 66,676 horsepower, equivalent to 20.3 per cent of the total primary power reported for that year. The use of electric power, both owned and rented, during the five-year period 1909-1914 increased by 133.6 per cent, while the increase in the total primary power amounted to only 28.1 per cent. The increase in the horsepower of motors operated by current generated in the same establishments was 70.3 per cent, and in the power of motors run by rented current, 409.4 per cent. Practically all industries reported electric power, the most important being steel works and rolling mills, with 10,573 horsepower; foundry and machine-shop products, with 9,093; and glass, with 5,836.

**Fuel consumed.**—The quantities of the several kinds of fuel consumed in all industries for the state and in several selected industries, as well as for the 10 cities, all industries combined, are given in Table 21 for 1914. Coal, coke, oil, and gas were the only kinds of fuel covered by the census inquiry.

The principal fuel used was gas, and except that reported for industries in the cities of Bluefield and Martinsburg, outside of natural gas, practically all the oil consumed in the state was gasoline, for internal-

combustion engines. There was no anthracite coal used by the manufacturers of the state.

INDUSTRY AND CITY.	Bituminous coal (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, including gasolene (barrels).	Gas (1,000 cubic feet).
All industries.....	3,627,404	208,374	18,221	51,808,840
Bone, carbon, and lamp black.....				19,450,500
Brick, tile, pottery, and other clay products.....	151,215	928	345	4,083,775
Bread and other bakery products.....	1,131	928	30	110,378
Cars and general shop construction and repairs by steam-railroad companies.....	114,036	807	985	1,039,718
Coke, not including gas-house coke.....	2,296,107			
Copper, tin, and sheet-iron products.....	4,819			431,959
Electrical machinery, apparatus, and supplies.....	119			438,040
Flour-mill and gristmill products.....	8,257	105	508	139,523
Foundry and machine-shop products.....	13,050	6,244	38	470,800
Glass.....	28,583	160		10,600,469
Ice, manufactured.....	28,350		20	1,132,120
Iron and steel, steel works and rolling mills.....	405,324	10,454		2,803,410
Leather, tanned, curried, and finished.....	40,016			5,174
Lime.....	47,170	15,348		58,974
Liquors, malt.....	18,802		51	133,520
Lumber and timber products.....	123,325		642	69,133
Paper and wood pulp.....	50,089	200		1,375,190
Printing and publishing.....	540		158	70,312
Salt.....	25,217			280,000
Slaughtering and meat packing.....	8,888			104,397
Tin plate and tereplate.....	11,633			558,480
All other industries.....	250,708	107,800	15,426	8,434,341
Total for cities.....	314,232	93,541	15,145	8,980,408
BLUEFIELD.....	27,915	1,133		174
CHARLESTON.....	3,757	601		400,394
CLARKSBURG.....	585	153		184,174
FAIRMONT.....	2,073	364		2,357,858
HUNTINGTON.....	21,418	3,883	350	1,791,656
MARTINSBURG.....	11,702	928	1,009	705
MORGANTOWN.....	25,134	609		1,183,751
MOUNDSVILLE.....	13,849			615,578
PARKERSBURG.....	17,622	1,513	5,656	1,570,826
WHEELING.....	190,177	84,357	7,530	904,292

### SPECIAL STATISTICS.

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantities and cost of materials, the quantities and values of products, and other information for securing which no provision is made on the general schedule. Certain data of this character for five important industries in West Virginia are here presented, together with statistics for power laundries.

**Steel works and rolling mills.**—Table 22 shows the quantities and values of the chief products reported for

1914 in comparison with similar data for 1909 and 1904. The year 1914 covered a period of marked depression and the output of the steel mills of West Virginia during that year was 7.5 per cent less in tonnage and 6 per cent less in value of products than in 1909. In the face of this industrial depression, however, there was a large increase in the black-plate product, from 111,152 tons in 1909 to 200,825 tons in 1914, or nearly 90 per cent. Of the total tonnage, black plate constituted 35.5 per cent in 1914, compared with 18.2 per cent in 1909.

	1914	1909	1904
Total value.....	\$21,185,559	\$22,435,411	\$13,454,802
Rolled, forged, and other classified products:			
Tons <sup>1</sup> .....	506,252	609,022	384,932
Value.....	\$19,610,516	\$20,060,576	\$11,243,473
Plates and sheets, not including nail and tuck plates:			
Tons <sup>1</sup> .....	100,277	98,322	34,036
Value.....	\$4,305,709	\$4,349,096	\$2,052,449
Black plates for tinning:			
Tons <sup>1</sup> .....	200,825	111,152	42,803
Value.....	\$8,803,540	\$4,887,291	\$2,098,954
Skelp:			
Tons <sup>1</sup> .....	114,020	201,704	192,644
Value.....	\$3,013,905	\$6,060,225	\$5,108,286
All other:			
Tons <sup>1</sup> .....	151,130	197,754	49,948
Value.....	\$3,487,362	\$4,772,964	\$1,983,784
Miscellaneous iron and steel products, including scrap sold and value added to rolling-mill products by further manufacture, value.....	\$1,483,988	\$2,209,563	\$2,208,329
All other products, value.....	\$91,055	\$156,272	\$3,000

<sup>1</sup> Of 2,000 pounds.

**Tin plate and terneplate.**—The tin plate and terneplate industry is closely allied to the rolling mills, and, in fact, most of the tin and terne dipping plants are departments of black-plate rolling mills and are operated in conjunction therewith. This is one of the leading industries of the state, ranking third in value of products. West Virginia ranks second among the states in combined production of tin plate and terneplate, being led in this respect by Pennsylvania only; and ranks first in output of terneplate alone, with 85 per cent of the total for the United States. Table 23 gives comparative statistics for 1914 and 1909.

	1914	1909
<b>MATERIALS.</b>		
Total cost.....	\$11,806,037	\$7,367,266
Black plates or sheets:		
Pounds.....	420,367,239	254,685,445
Cost.....	\$7,855,440	\$5,039,683
Pig tin:		
Pounds.....	5,831,235	4,663,663
Cost.....	\$2,295,177	\$1,370,592
Pig lead:		
Pounds.....	1,107,980	935,148
Cost.....	\$46,196	\$40,248
Terne mixture purchased:		
Pounds.....	5,252,717	2,328,903
Cost.....	\$921,605	\$259,225
All other materials, cost.....	\$1,048,219	\$657,608
<b>PRODUCTS.</b>		
Total value.....	\$15,130,551	\$9,257,524
Tin plate and terneplate:		
Pounds.....	417,891,666	257,807,156
Value.....	\$14,758,408	\$8,922,099
Tin plate:		
Pounds.....	303,561,325	180,239,233
Value.....	\$10,530,194	\$6,360,880
Terneplate:		
Pounds.....	114,300,341	68,567,923
Value.....	\$4,228,214	\$2,561,219
All other products, value.....	\$372,143	\$335,425
<b>EQUIPMENT.</b>		
Tin-plate and terneplate dipping sets at end of year:		
Number.....	150	99
Daily capacity, single turn, pounds.....	787,688	471,931

**Glass.**—Table 24 shows, for the census years 1914, 1909, and 1904, the values of the several products of this industry.

In 1914 the value of building glass manufactured amounted to \$4,410,710, showing an increase in annual production of 233.1 per cent in 10 years. The value of pressed and blown glass increased 139 per cent, and

of bottles and jars, 527.5 per cent, during the same period. In 1914 West Virginia produced more than one-half of the jelly glasses, tumblers, and goblets, and about 40 per cent of the stem ware made in the United States.

	1914	1909	1904
Total value.....	\$14,631,171	\$7,779,483	\$4,598,563
Building glass.....	4,410,710	2,751,133	1,323,896
Pressed and blown glass.....	6,293,554	4,306,628	2,820,665
Bottles and jars.....	3,777,445	646,521	602,002
All other products.....	179,462	75,801	52,000

The equipment in use during 1914 included 32 furnaces, with a total capacity of 341 pots; 54 continuous tanks, with a capacity of 615 rings; 12 intermittent tanks, with a capacity of 95 tons; and 44 machines. In addition, there were 2 furnaces, 4 continuous tanks, and 4 intermittent or day tanks which were idle.

**Leather, tanned, curried, and finished.**—Table 25 shows, for the tanning, currying, and finishing of leather, the quantities and values of the various grades produced in 1914, 1909, and 1904.

	1914	1909	1904
Total value.....	\$11,014,540	\$12,450,592	\$9,061,509
Sole leather:			
Sides.....	1,428,584	1,933,037	1,262,538
Value.....	\$9,035,266	\$10,276,164	\$5,270,545
Harness, belting, and rough leather, value.....	\$1,647,185	\$1,617,354	\$713,191
All other leather, value.....	\$5,677	\$4,866	\$21,188
All other products, including amount received for work done for others, value.....	\$326,412	\$552,718	\$56,585

Sole leather, the leading product of this industry in West Virginia, represented 82 per cent of the value of all products of the industry in the state in 1914, 82.5 per cent in 1909, and 87 per cent in 1904. Union and oak sole leather were the only kinds produced, and the former exceeded the latter in both quantity and value. The number of sides tanned, in 1914, shows a decrease as compared with the 1909 figures, but an increase over the 1904 product. The kinds of sole leather produced are not shown separately, since to do so would disclose the operations of individual establishments. Harness, belting, and rough leather, the production of which has more than doubled since 1904, are not shown separately for the same reason.

**Flour-mill and gristmill products.**—Table 26 gives the quantities and values of the products of this industry for the three census years 1914, 1909, and 1904.

Wheat flour contributed 38.7 per cent of the total value of products of this industry in 1914 and 47 per cent in 1909. During the five-year period the production of wheat flour decreased in quantity 17.8 per cent; buckwheat flour, 18.1 per cent; corn meal and corn flour, 26.6 per cent.

The equipment of the mills of the state in 1914 included 667 stands of rolls, 223 runs of stone, and 107 attrition mills. Four establishments manufactured barrels.

	1914	1909	1904
Total value.....	\$7,052,814	\$7,095,801	\$6,200,201
Wheat flour:			
Barrels.....	520,949	634,132	626,670
Value.....	\$2,732,780	\$3,015,913	\$3,300,150
Buckwheat flour:			
Pounds.....	3,680,671	4,497,690	2,213,010
Value.....	\$113,953	\$120,061	\$61,138
Corn meal and corn flour:			
Barrels.....	233,582	318,293	339,872
Value.....	\$775,034	\$930,375	\$911,827
Bran and middlings:			
Tons.....	20,111		
Value.....	\$570,807		
Feed and offal:			
Tons.....	82,677	101,533	81,922
Value.....	\$2,392,851	\$2,931,732	\$1,870,150
All other products, value.....	\$407,290	\$41,710	\$37,020

**Laundries.**—Statistics for power laundries were first presented at the census of 1909. These statistics, however, are not included in the general tables nor in the totals for all manufacturing industries.

Table 27 summarizes the power-laundry statistics for West Virginia for 1914 and 1909.

	POWER LAUNDRIES.		
	Number or amount.		Per cent of increase, 1909-1914.
	1914	1909	
Number of establishments.....	44	43	17.2
Persons engaged in the industry.....	920	703	
Proprietors and firm members.....	35	41	
Salaried employees.....	67	73	
Wage earners (average number).....	827	670	21.8
Primary horsepower.....	1,305	1,048	24.5
Capital.....	\$689,640	\$415,216	66.1
Salaries and wages.....	\$419,718	\$297,741	41.0
Salaries.....	\$61,417	\$51,819	12.0
Wages.....	\$358,301	\$245,922	47.5
Cost of materials (including fuel and rented power).....	\$135,119	\$102,057	32.4
Amount received for work done.....	\$785,782	\$581,805	35.0

† Percentages are omitted where base is less than 100.

In 1914 West Virginia ranked thirty-seventh among the states in amount received for work done and thirty-sixth in average number of persons engaged in the industry; in 1909 the rank was thirty-fifth for each of these items.

The foregoing summary shows increases during the five-year period in all items except number of proprietors and firm members and number of salaried employees.

Of the 44 laundries shown for the state in 1914, 23 were located in the 10 cities having a population of 10,000 and over—4 in Huntington, 3 each in Charleston, Clarksburg, Fairmont, Parkersburg, and Wheeling, and 1 each in Bluefield, Martinsburg, Morgantown, and Moundsville. These establishments repre-

sented 66.4 per cent of the capital invested and received 77.4 per cent of the total amount paid for work done in 1914.

Table 28 shows, for 1914 and 1909, the number of wage earners employed in the laundries on the 15th day of each month, or the nearest representative day, and the percentage which this number forms of the greatest number employed in any month of the same year. It will be noted that in the monthly employment of wage earners there was a greater variation in 1914 than in 1909.

MONTH.	WAGE EARNERS.			
	Number.		Per cent of maximum.	
	1914	1909	1914	1909
January.....	730	693	83.1	88.8
February.....	741	644	84.4	90.3
March.....	755	644	86.0	91.3
April.....	771	654	87.8	91.7
May.....	846	684	96.4	95.9
June.....	859	695	97.8	97.6
July.....	871	713	99.2	100.0
August.....	875	708	99.3	99.3
September.....	878	712	100.0	99.9
October.....	863	689	98.3	98.5
November.....	869	677	98.0	95.0
December.....	870	694	99.1	97.3

Table 29 shows the kinds and amounts of power used in the laundries of the state in 1914 and 1909, together with per cent of increase for the five-year period.

KIND.	NUMBER OF ENGINES OR MOTORS.		HORSEPOWER.		Per cent of increase, 1909-1914.
	1914	1909	Amount.		
			1914	1909	
Primary power, total.....	63	52	1,305	1,048	24.5
Owned.....	40	41	1,227	832	47.5
Steam.....	35	33	1,022	732	39.6
Internal combustion.....	11	8	205	150	36.7
Rented, electric.....	17	11	178	146	21.9
Electric power generated by establishment reporting.....	4		28		

Table 30 shows the kinds and amounts of fuel used in the laundries, as reported at the censuses of 1914 and 1909, with the percentages of increase.

KIND.	Unit.	QUANTITY.		Per cent of increase, 1909-1914.
		1914	1909	
Bituminous coal.....	Tons (2,000 lbs.)....	4,429	3,369	31.5
Gas.....	1,000 cubic feet.....	179,868	145,681	23.5

#### GENERAL TABLES.

Table 31 gives, for 1914, 1909, and 1904, 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 for the cities having more than 10,000 inhabitants, similar data for all industries combined.

Table 32 presents, for 1914, statistics in detail for each industry in the state that 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 more than 10,000 inhabitants.

MANUFACTURES—WEST VIRGINIA.

1623

TABLE 31.—COMPARATIVE SUMMARY FOR 1914, 1909, AND 1904.

INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments.	Wage earners (aver- age num- ber).	Pri- mary horse- power.	Wages. Cost of materials. Value of prod-ucts.			INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments.	Wage earners (aver- age num- ber).	Pri- mary horse- power.	Wages. Cost of materials. Value of prod-ucts.		
					Expressed in thousands.								Expressed in thousands.		
THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.															
All industries.....	1914	2,749	71,078	278,504	\$43,784	\$110,033	\$193,512	Iron and steel, steel works and rolling mills.	1914	15	5,348	63,002	\$4,326	\$14,658	\$21,186
	1909	2,586	63,293	217,496	33,000	92,378	161,950		1909	16	5,060	49,508	3,887	15,896	22,435
	1904	2,109	43,758	138,578	21,153	54,419	99,041		1904	12	4,409	34,250	2,813	8,742	13,455
Artificial stone products..	1914	31	263	460	150	198	448	Leather, tanned, curried, and finished.	1914	18	1,072	4,887	615	8,695	11,015
	1909	20	79	132	39	55	164		1909	20	1,571	5,305	775	10,383	12,451
	1904								1904	33	946	2,973	434	4,769	6,062
Bone, carbon, and lamp black.	1914	18	161	1,016	109	387	851	Lime.....	1914	10	773	4,026	378	434	980
	1909	16	101	641	66	249	596		1909	13	514	1,000	188	224	644
	1904	10	60	310	34	62	274		1904	5	120	10	52	39	116
Bread and other bakery products.	1914	138	569	824	346	1,327	2,305	Liquors, malt.....	1914	10	244	3,807	185	392	1,378
	1909	151	346	411	188	859	1,470		1909	13	415	610	293	619	2,271
	1904	111	263	198	127	527	912		1904	10	331	2,438	227	481	2,146
Brick, tile, pottery, and other clay products.	1914	55	4,700	8,925	3,235	2,222	6,788	Lumber and timber prod-ucts.	1914	995	17,417	68,046	9,708	9,582	28,994
	1909	50	2,916	6,657	1,639	1,061	3,629		1909	1,018	18,643	62,356	8,652	8,070	29,768
	1904	54	2,033	5,421	964	556	2,156		1904	795	11,610	37,685	5,390	6,202	18,697
Canning and preserving...	1914	29	216	552	44	264	351	Marble and stone work...	1914	27	224	734	132	199	488
	1909	30	271	484	58	430	605		1909	29	144	469	87	134	305
	1904	19	327	424	84	387	764		1904	13	65	167	31	62	155
Cars and general shop construction and repairs by steam-railroad compa-nies.	1914	37	8,437	5,060	5,540	4,985	10,990	Mattresses and spring beds	1914	9	198	299	57	222	365
	1909	24	5,652	5,394	3,170	3,063	6,733		1909	7	72	263	30	154	267
	1904	24	4,255	2,469	2,114	1,809	4,120		1904	4	68	125	25	96	142
Clothing, men's.....	1914	7	491	116	219	1,435	2,173	Mineral and soda waters..	1914	77	148	498	82	230	544
	1909	9	403	210	125	1,055	1,469		1909	63	104	370	49	95	304
	1904	9	314	98	76	578	855		1904	48	92	186	42	62	226
Coke, not including gas-house coke.	1914	54	1,392	2,920	692	1,893	2,978	Minerals and earths, ground.	1914	12	422	4,157	203	151	563
	1909	71	4,426	5,307	1,664	5,012	7,563		1909	3	58	795	45	43	116
	1904	74	2,533	3,507	1,004	2,647	4,174	Paper and wood pulp....	1914	8	1,033	11,735	509	1,735	2,804
Confectionery.....	1914	13	82	63	29	164	292		1909	9	1,162	11,025	478	1,683	2,652
	1909	10	82	38	33	147	244		1904	7	545	4,575	230	760	1,298
	1904	10	98	38	33	117	226	Printing and publishing...	1914	242	1,218	1,885	721	660	2,431
Copper, tin, and sheet-iron products.	1914	24	1,575	1,765	784	3,210	4,732		1909	235	1,255	1,500	634	541	1,992
	1909	19	816	973	383	1,354	2,151		1904	222	944	1,106	480	351	1,554
	1904	11	375	160	142	490	771	Saddlery and harness.....	1914	17	127	147	71	293	556
Electrical machinery, ap-paratus, and supplies.	1914	4	162	1,369	75	184	566		1909	8	127	120	53	277	472
	1909	5	137	1,115	77	135	308		1904	9	86	44	34	235	368
Flour-mill and gristmill products.	1914	229	381	9,996	218	5,928	7,053	Slaughtering and meat packing.	1914	7	214	1,557	140	4,447	4,788
	1909	207	452	9,950	210	6,601	7,696		1909	6	167	1,321	123	3,385	3,764
	1904	194	400	8,339	183	5,213	6,200		1904	8	133	635	74	1,698	1,928
Foundry and machine-shop products.	1914	118	1,908	8,784	1,294	2,670	5,080	Tin plate and ternplate..	1914	8	1,475	1,421	1,182	11,837	15,131
	1909	83	1,354	3,539	820	1,760	3,302		1909	6	1,335	890	887	7,367	9,258
	1904	76	1,278	2,892	721	1,413	2,863	Wood, turned and carved.	1914	7	198	1,395	75	317	450
	1909	25	578	1,409	253	324	905		1909	6	134	669	67	164	314
	1904	19	508	971	197	264	648		1904	6	173	883	64	231	391
Glass.....	1914	63	8,889	14,120	5,673	4,638	14,631	Woolen and worsted goods.	1914	8	276	672	118	417	679
	1909	51	6,190	5,233	3,628	2,296	7,779		1909	13	599	1,327	222	795	1,224
	1904	39	3,673	2,346	2,054	1,259	4,599		1904	912	200	726	106	218	469
Ice, manufactured.....	1914	47	364	8,380	200	185	756	All other industries...	1914	390	10,541	44,259	5,883	25,395	39,878
	1909	35	233	5,554	113	111	476		1909	317	8,307	30,301	4,069	17,870	29,333
	1904	30	176	2,704	94	61	353		1904	277	7,644	22,858	3,324	15,130	23,119

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED: 1914.

BLUEFIELD.....	1914	24	1,247	1,984	812	1,078	2,173	MARTINSBURG.....	1914	37	1,508	1,908	602	1,709	3,022
	1909	15	670	1,648	377	889	1,465		1909	39	1,420	1,598	520	1,277	2,515
CHARLESTON.....	1914	89	1,081	4,574	637	2,172	3,699	MORGANTOWN.....	1914	49	1,470	4,137	930	754	2,338
	1909	63	951	4,106	469	2,137	3,235								
	1904	54	887		403	998	2,100	MOUNDSVILLE.....	1914	27	1,508	1,897	707	2,095	3,629
CLARKSBURG.....	1914	43	316	1,414	213	1,010	1,654	PARKERSBURG.....	1914	83	1,820	5,939	1,061	4,745	7,143
									1909	75	1,495	4,031	767	3,560	5,498
FAIRMONT.....	1914	50	1,837	5,594	1,149	1,608	4,384		1904	68	1,444		694	2,438	3,778
HUNTINGTON.....	1914	102	4,641	8,951	2,996	6,777	11,400	WHEELING.....	1914	201	7,020	35,963	5,110	15,974	27,879
	1909	67	3,156	8,860	1,681	3,382	6,511		1909	176	7,809	29,486	4,427	16,025	27,077
	1904	44	2,229		1,033	2,676	4,407		1904	195	7,127		3,703	12,489	21,797

1 Figures can not be shown without disclosing individual operations.

2 Includes "canning and preserving, vegetables and dried fruits," and "pickles, preserves, and sauces."

3 Includes "stamped and enameled ware" and "tinware, not elsewhere specified."

4 Includes "automobile repairing," "plumbers' supplies, not elsewhere specified," and "structural ironwork, not made in steel works or rolling mills."

5 Statistics for 6 months' operation.

6 Includes "boxes, wooden packing," and "lumber, planing-mill products, not including planing mills connected with sawmills."

7 Includes "bookbinding and blank-book making," "engraving, steel and copper plate, including plate printing," and "lithographing."

8 Excludes statistics for one establishment, to avoid disclosure of individual operations.

9 Excludes statistics for two establishments, to avoid disclosure of individual operations.

TABLE 32.—DETAIL STATEMENT FOR THE STATE, BY INDUSTRIES,

INDUSTRY.	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.	10 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.

	2,740	79,353	2,559	2,109	2,930	608	71,078	Ap 76,077	De 62,572	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>3</sup> )	( <sup>4</sup> )	( <sup>5</sup> )	\$175,095,011
1 All industries.....	2,740	79,353	2,559	2,109	2,930	608	71,078	Ap 76,077	De 62,572	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>3</sup> )	( <sup>4</sup> )	( <sup>5</sup> )	\$175,095,011
2 Artificial stone products.....	31	343	42	21	13	4	263	My 202	No 218	291	200	1			483,928
3 Automobile repairing.....	34	151	27	13	4	3	104	Au 113	Fe 88	110	115	1			124,180
4 Awnings, tents, and sails.....	3	13	3	1	1		8	Je 7	Ja 4	12	4	8			5,528
5 Bone, carbon, and lamp black.....	18	229	12	43	9	4	161	No 212	Ap 127	195	194	1			4,213,139
6 Boxes, wooden packing.....	13	212	23	8	6	2	173	No 227	De 119	212	200	5	4	3	268,820
7 Brass, bronze, and copper products...	4	74	2	15	5	3	49	De 50	No 47	47	44	3			221,707
8 Bread and other bakery products.....	138	786	151	22	33	11	569	Jy 588	Ja 550	555	432	80	2	1	1,190,576
9 Brick and tile, terra-cotta, and fire-clay products.....	40	1,606	11	84	45	15	1,451			1,602	1,587	73	2		3,030,121
10 Building brick.....	32	1,301	11	63	34	6	1,187	My 1,405	Je 780	1,307	1,302	3	2		3,166,601
11 Fire brick and stove lining.....	3	76		5	2	1	68	Fe 83	Je 54	69	60				233,107
12 Architectural and fireproofing terra-cotta and roofing tiles.....	5	229		16	9	8	196	Ap 223	Je 122	226	150	70			539,323
13 Butter.....	3	6		1			5	No 6	De 3	6	6				14,105
14 Canning and preserving, vegetables and dried fruits.....	26	225	43	3	1		178	Oc 855	Ja 5	802	209	551	27	105	138,992
15 Carriages, wagons, and repairs.....	51	320	53	10	9	8	240			248	244	1	3		416,311
16 Carriages and wagons.....	41	280	39	10	9	8	214	Au 223	Fe 206	222	218	1	3		375,210
17 Repair work only.....	10	40	14				26	Ma 20	Ma 24	26	26				41,101
18 Cars and general shop construction and repairs by electric-railroad companies.....	9	163		8	3		152	Jy 164	De 134	145	145				175,485
19 Cars and general shop construction and repairs by steam-railroad companies.....	37	8,845		86	315	7	8,437	Se 9,006	De 7,523	8,266	8,250	11	5		3,787,701
20 Chemicals.....	3	62		5	5		52	My 57	Se 49	56	56				1,276,793
21 Clothing, men's and youths'.....	7	501	2	28	40	24	401	Mh 521	Au 440	513	108	405			824,054
22 Clothing, women's.....	6	211	3	13	18	3	160	Ap 189	No 142	147	35	112			339,721
23 Coffee and spice, roasting and grinding.....	3	11	3	1	1	1	5	( <sup>6</sup> )	( <sup>6</sup> )	5	5				73,099
24 Coke, not including gas-house coke.....	54	1,505		64	46	3	1,302	Ja 1,690	De 1,141	1,530	1,530				4,564,150
25 Confectionery and ice cream.....	45	311	43	22	35	16	195			226	190	34	2		493,062
26 Confectionery.....	13	110	13	10	12	2	82	Se 80	Ja 78	85	50	33	2		44,646
27 Ice cream.....	32	192	30	12	23	14	113	Au 162	Fe 63	141	146	1			448,416
28 Cooperage.....	30	273	23	12	4	2	232			262	266		2		599,442
29 Hogsheds and barrels.....	25	183	12	7	3	1	105	Je 188	No 134	101	190		1		368,878
30 All other.....	5	85	11	5	1	1	67	Ap 74	De 36	71	70		1		263,564
31 Copper, tin, and sheet-iron work.....	18	234	15	17	10	3	180	Au 218	Mh 162	185	183	1	1		398,954
32 Dyestuffs and extracts.....	4	83	6	9	2		66	Au 72	Ja 60	67	67				309,702
33 Electrical machinery, apparatus, and supplies.....	4	202		12	23	5	162	Fe 193	De 139	161	160	1			651,491
34 Explosives.....	7	75		6	11	4	54	De 61	Jy 51	56	56				815,959
35 Flour-mill and gristmill products.....	220	775	282	43	59	10	381	De 426	Ja 355	429	428	1			3,812,498
36 Foundry and machine-shop products.....	81	2,010	67	92	154	23	1,678			1,511	1,511				5,250,287
37 Boiler shops.....	7	184	8	5	8		103	Je 187	Oc 150	152	152				385,250
38 Foundries.....	10	184	5	12	5	1	161	My 137	No 132	166	166				367,753
39 Machine shops.....	64	1,651	54	75	141	27	1,354	Ja 1,506	De 1,084	1,193	1,193				4,517,284
40 Furniture, wooden, including store and office fixtures.....	22	647	10	21	32	15	560	Oc 507	Jy 433	571	598	10	3		1,325,062
41 Gas, illuminating and heating.....	5	57		4	15		38	Je 47	Ja 32	32	31	1			833,427
42 Glass.....	63	9,422	16	246	202	69	8,889	My 10,173	Jy 6,089	10,560	6,540	921	83	16	13,782,618
43 Glass, cutting, staining, and ornamenting.....	4	37		3		2	28	Ap 33	No 24	24	12				56,923
44 Ice, manufactured.....	47	456	13	46	27	6	364	Jy 538	Fe 213	414	408			6	2,550,517
45 Iron and steel, steel works and rolling mills.....	15	5,741		77	290	26	5,348	Ap 6,800	No 3,657	6,156	6,146	10			21,974,931
46 Leather, tanned, curried, and finished.....	18	1,139	14	28	22	3	1,072	Jy 1,218	Ja 828	1,066	1,065		1		7,725,342
47 Lime.....	10	814	5	11	25		773	My 897	De 655	704	704				1,338,838
48 Liquors, malt.....	10	321		31	44	2	244	Je 543	No 25	543	543				3,324,900
49 Lumber and timber products.....	868	17,774	1,022	307	300	54	16,001	My 18,319	De 12,481	18,257	18,205	21	31		27,053,092
50 Lumber, planing-mill products, not including planing mills connected with sawmills.....	124	1,417	107	87	51	19	1,153	Ap 1,245	De 1,004	1,194	1,180	4	10		3,135,764
51 Marble and stone work.....	27	276	31	7	8	6	224	Ap 237	De 208	221	221				491,366
52 Mattresses and spring beds.....	9	132	4	16	7	3	108	Ja 113	De 100	117	94	23			243,283
53 Mineral and soda waters.....	77	265	82	16	13	6	148	Ja 183	Fe 114	163	154	5	4		450,179
54 Minerals and earths, ground.....	12	405	1	21	14	7	422	Ap 592	De 270	431	430	1			3,796,682
55 Paints.....	3	28	4	3	1	1	19	Se 24	De 10	17	17				150,613
56 Paper and wood pulp.....	8	1,102		27	34	8	1,033			1,043	987	56			4,079,773
57 Paper and pulp.....	4	965		17	15	5	528	Ap 718	Au 552	632	576	56			2,261,030
58 Pulp exclusively.....	4	437		10	19	3	405	Au 419	Fe 382	411	411				1,818,743
59 Paving materials.....	13	457	9	17	8	1	422	Au 591	Fe 197	498	498				402,622
60 Pickles, preserves, and sauces.....	3	52		5	8	1	38	Oc 69	Fe 25	63	31	32			160,897
61 Pottery.....	15	3,501		66	59	37	3,339			3,404	2,310	1,052	28	14	5,429,678
62 China ware.....	7	2,024		44	42	27	2,511	Oc 2,658	Jy 2,277	2,660	1,693	925	28	14	3,300,686
63 All other.....	8	877		22	17	10	828	Ap 966	De 717	744	617	127			2,128,992

<sup>1</sup> Owned power only.

<sup>2</sup> Includes rented power, other than electric.

<sup>3</sup> No figures given for reasons stated under "Explanation of terms."

AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914.

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, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal-combustion engines. <sup>2</sup>	Water wheels and motors. <sup>1</sup>		Electric (rented).	

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

\$4,112,586	\$3,481,171	\$43,784,006	\$2,257,677	\$344,725	\$2,607,707	\$102,827,781	\$7,205,384	\$193,511,782	\$33,478,617	278,504	216,976	28,822	5,554	27,152	39,524	1
28,660	13,153	149,020	3,230	2,130	2,285	183,545	14,756	443,251	249,950	460	26	406		28	38	2
11,911	2,738	64,477		10,889	645	86,241	4,059	234,024	144,624	206	50	74		82	28	3
1,050	870	3,016		635	5	7,551	74	15,420	7,795	2				2		4
56,681	3,767	105,573	350	5,239	9,463	201,727	185,127	851,332	464,478	1,016	110	906		8	5	5
8,521	5,417	83,824	205	1,260	1,072	304,883	1,838	475,702	168,981	955	662	165	75	53	20	6
14,042	5,923	24,608	6,300	1,390	930	100,750	2,269	192,986	89,967	125	120			5		7
32,812	33,937	346,242	5,235	24,518	8,102	1,285,456	41,699	2,305,438	978,233	824	134	222		468	89	8
117,709	55,982	1,088,302	2,178	7,008	15,562	225,172	337,380	1,976,816	1,414,264	7,245	5,770	923		552	84	9
83,945	39,815	961,585	2,178	7,008	12,676	154,613	302,963	1,568,477	1,110,901	6,215	5,085	583		547	48	10
7,250	2,366	31,331		773	22,880	7,334	22,880	109,049	78,335	455	150	305		108	23	11
26,514	13,801	95,386		2,103	47,679	26,583		299,290	225,028	575	535	35		5	13	12
540		2,754	195		101	34,745	138	47,585	12,702	51	51					13
2,650	150	27,788	150	1,234	379	130,334	3,527	185,063	151,202	382	205	58		29		14
12,536	10,814	139,026	200	9,884	2,582	188,455	7,274	474,024	278,295	601	136	274	16	125	10	15
12,536	10,814	124,780	200	9,734	2,362	179,210	6,195	434,851	249,440	551	136	241	16	108	10	16
		14,246		160	220	9,245	1,079	39,173	28,849	50		33		17		17
9,080	1,590	99,708		1,159	65,805	1,770		183,259	115,684	89				19	65	18
128,102	299,294	5,539,753	1,901		13,649	4,778,787	206,465	10,990,193	6,004,941	5,060	4,555	65		440	2,639	19
13,694	8,400	33,208		45	8,015	188,533	12,190	482,049	232,220	150	100			50		20
56,806	36,550	219,244	186,848	35,970	4,203	1,429,999	4,873	2,172,955	738,083	116				116		21
16,340	11,532	55,721	77,000	2,396	1,212	595,255	3,271	867,425	268,899	64		25		39		22
1,000	620	3,100		800	126	59,460	486	70,806	10,860	24		21		280		23
61,673	32,591	691,753		501	23,784	92,015	1,801,401	2,977,520	1,084,110	2,920	2,640			3	940	24
22,745	42,114	117,827	957	21,210	2,469	569,122	15,064	984,015	399,829	1,105	102	423		575	75	25
9,760	21,000	29,249	501	9,410	594	101,765	2,141	291,593	127,687	63	8	31		24		26
12,995	21,114	88,578	456	11,800	1,875	407,357	12,923	692,422	272,142	1,042	94	397		651	75	27
15,405	3,851	121,298	2,377	1,458	3,678	438,378	2,413	644,423	203,632	651	454	180		57	2	28
10,485	2,033	89,153	1,540	978	2,363	332,206	1,235	478,660	145,219	451	359	50		42	2	29
4,920	1,818	32,145	837	508	1,315	106,172	1,178	165,793	58,413	200	85	80		25		30
25,070	10,183	133,854	385	3,304	2,059	985,128	3,993	1,253,595	264,474	206	3	166		37		31
23,060	1,208	40,241		100	619	309,936	8,617	363,920	44,473	581	565			18		32
20,696	29,443	75,100		2,467	5,413	167,870	16,192	566,368	332,306	1,309	375	310		104	1,088	33
17,469	17,085	48,829	947	959	2,967	304,097	6,542	461,173	150,534	864	864			470		34
61,842	43,525	217,891	675	8,367	24,333	5,876,321	51,607	7,062,814	1,124,336	9,996	4,793	2,490	1,970	743	116	35
181,529	173,935	1,152,391		8,935	26,582	2,327,872	130,037	4,598,487	2,140,578	8,048	1,149	2,326		4,573	4,520	36
14,650	12,772	93,582		333	2,184	239,105	6,001	424,717	179,551	397		217		180		37
13,059	3,650	87,017		54	2,421	71,972	9,885	217,391	135,444	310	144	102		64	55	38
153,820	167,533	971,492		8,548	21,927	2,010,795	114,151	3,966,469	1,825,583	7,411	1,005	2,007		4,829	4,465	39
39,960	44,583	302,180	50	2,186	6,430	638,574	10,526	1,278,174	629,074	1,628	1,332	136	1	159	70	40
6,100	10,089	20,929		2,304	8,723	40,495	40,495	107,936	58,718	167	97	40		30		41
544,005	278,511	5,672,672	26,460	9,823	2,806	3,918,023	720,118	14,631,171	9,993,030	14,120	3,595	8,807		1,658	4,178	42
2,760	906	9,727	2,705	550	253	39,014	1,559	51,123	16,550	11		10		1		43
52,888	22,725	199,789	61	1,009	17,566	84,420	100,532	755,922	570,961	8,380	7,753	532		95	68	44
315,026	342,681	4,825,930			75,741	13,834,625	823,743	21,185,559	6,627,191	63,002	61,690	585		727	9,846	45
65,329	24,477	614,752			52,550	8,624,630	70,284	11,014,540	2,319,626	4,887	4,489	398			632	46
19,671	24,393	377,812		15	5,023	212,318	221,628	980,317	546,471	4,026	781	88		3,157	75	47
70,771	33,933	184,339	1,353		183,144	349,395	42,443	1,378,080	980,242	3,807	3,684			123	460	48
597,884	404,402	8,936,002	1,786,545	35,605	266,140	6,084,634	183,535	23,857,793	17,589,624	59,819	59,172	355	107	185	852	49
123,345	61,900	683,322	19,650	9,278	22,869	2,982,853	24,659	4,660,746	1,553,233	7,271	5,757	1,064		450	489	50
13,121	9,411	132,193	298	1,839	1,713	193,363	5,554	487,541	288,624	734	450	256	15	13		51
12,635	7,710	57,065		3,078	951	219,704	1,981	364,934	143,240	280		210		89		52
17,395	12,774	81,638		8,646	3,267	222,981	7,154	543,501	313,366	498	299	127	2	70	6	53
40,189	16,954	202,899		1,762	5,998	101,592	59,580	562,028	401,756	4,157	1,680			2,477	93	54
6,854	3,385	14,161		540	787	57,877	2,644	111,440	50,919	195	150	40		5	123	55
75,954	54,411	506,133			27,997	1,546,450	183,340	2,804,429	1,069,639	11,735	7,550	650	3,250	285	2,340	56
28,520	25,947	208,005			15,409	823,205	92,804	1,888,424	472,325	5,335	2,635		3,200	20	57	
46,834	28,464	297,523			12,588	723,155	95,536	1,410,005	597,314	5,900	4,015	650	50	285	2,320	58
26,179	7,020	230,286		1,811	7,170	105,692	32,574	571,410	433,144	2,594	1,673	16		905		59
6,530	5,385	16,235		1,000	984	127,908	1,962	166,430	36,560	170	170			10	60	
155,303	116,111	2,146,677		1,320	19,292	1,349,315	310,078	4,821,302	3,161,009	1,680	945	228	5	502	11	61
102,511	92,735	1,531,135			13,527	809,884	250,045	3,266,441	2,206,512	1,135	645	133	5	352	11	62
52,792	23,376	615,542		1,320	5,765	539,431	60,033	1,554,861	955,397	545	300	95		150		63

<sup>1</sup> Same number reported for one or more months.

<sup>2</sup> None reported for one or more other months.

<sup>3</sup> Same number reported throughout the year.

MANUFACTURES—WEST VIRGINIA.

TABLE 32.—DETAIL STATEMENT FOR THE STATE, BY 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.

1	Printing and publishing, job work only	58	456	56	29	19	10	342	De	355	Ap	331	358	259	92	4	3	\$667,448
2	Printing and publishing, newspapers and periodicals.	181	1,295	170	81	153	40	846					911	691	179	41		2,013,232
3	Printing and publishing.....	10	258	10	12	77	9	150	Jy	150	De	150	150	144	6			206,948
4	Printing, publishing, and job printing.	150	1,019	150	65	80	28	696	De	728	Au	673	761	547		41		1,740,947
5	Publishing without printing.....	15	18	10	4	1	3											5,337
6	Saddlery and harness.....	17	171	20	0	15	3	127	Je	133	No	119	135	126	0			628,158
7	Salt.....	3	132	1	0	8		117	No	126	Ja	107	126	126				167,915
8	Shipbuilding, wooden, including boat building.	4	132	4	4	5		110	Ap	153	Oc	80	120	120				187,420
9	Slaughtering and meat packing.....	7	281	2	23	39	3	214	De	220	Se	210	218	211	7			1,374,157
10	Stoves and ranges.....	3	61		5	2		54	Ja	58	Jy	48	52	52				78,163
11	Stoves, gas and oil.....	4	39		0	3	2	28	Oc	32	Ja	24	25	24	4			126,769
12	Tin plate and ternoplate.....	8	1,012		20	102	15	1,475	Se	1,637	No	1,121	1,640	1,393	147			5,199,001
13	Vinegar and cider.....	9	18	10	2			0	Oc	20	Ja	1	16	16				56,200
14	Wood, turned and carved.....	7	224	2	8	11	5	198	Mh	224	De	152	162	162				402,130
15	Woolen and worsted goods.....	8	303	0	12	5	4	270	Oc	374	Au	235	402	204	134	4		691,484
16	All other industries*	199	11,201	141	235	564	104	10,107										31,803,490

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

1	BLUEFIELD.....	24	1,337	0	15	61	5	1,247	Oc	1,400	Ap	1,143	1,267	1,258	4	5		\$1,120,602
2	CHARLESTON.....	89	1,333	61	79	96	10	1,081	Je	1,163	No	1,000	1,209	1,058	140	11		3,226,595
3	CLARKSBURG.....	43	422	26	30	39	11	316	Au	372	Fe	270	366	345	21			948,306
4	FAIRMONT.....	50	2,048	29	75	87	20	1,837	Se	2,081	Jy	1,511	2,289	2,082	202	5		5,276,426
5	HUNTINGTON.....	102	5,079	64	139	188	47	4,641	Ja	5,005	No	4,172	4,789	4,539	243	7		7,843,648
6	MARTINSBURG.....	37	1,709	32	37	54	18	1,568	Se	1,604	Fe	1,444	1,025	708	777	40	40	2,629,707
7	MORGANTOWN.....	49	1,690	36	60	37	7	1,470	Se	1,607	Jy	937	1,573	1,351	184	31	7	2,306,383
8	MOUNDSVILLE.....	27	1,692	22	57	67	38	1,508	Mh	1,720	Ja	968	1,438	1,136	282	14	6	2,530,369
9	PARKERSBURG.....	83	2,179	74	83	160	42	1,820	My	2,031	De	1,578	1,768	1,405	354	7	2	5,741,036
10	WHEELING.....	201	6,098	142	202	601	173	7,920	Ap	8,660	No	6,370	8,067	6,547	1,410	66	35	26,857,896

\* All other industries embrace—

<sup>1</sup> Owned power only.

Agricultural implements.....	1	Buttons.....	2	Electroplating.....	1
Artificial limbs.....	1	Carpets, rag.....	1	Engraving and diesinking.....	1
Baskets, and rattan and willow ware.....	1	Carriage and wagon materials.....	2	Engraving, steel and copper plate, including plate printing.....	1
Blacking, stains, and dressings.....	1	Cars, steam-railroad, not including operations of railroad companies.....	1	Fertilizers.....	1
Bluing.....	1	Cement.....	1	Fire extinguishers.....	1
Bookbinding and blank-book making.....	1	Coffins, burial cases, and undertakers' goods.....	1	Food preparations, not elsewhere specified.....	3
Boots and shoes.....	2	Cutlery and edge tools.....	2	Galvanizing.....	2
Boxes, cigar.....	1	Dairymen's and apfarists' supplies.....	1	Hand stamps.....	1
Boxes and cartons, paper.....	2	Druggists' preparations.....	2	Hats, fur-felt.....	1
Brooms, from broom corn.....	6	Dyeing and finishing textiles.....	1	Hosiery and knit goods.....	1
Butter, reworking.....	1				

AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914—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, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal-combustion engines. <sup>2</sup>	Water wheels and motors. <sup>1</sup>	

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

\$38,631	\$25,702	\$211,904	\$1,578	\$16,679	\$5,877	\$177,325	\$9,825	\$647,115	\$459,965	520	15	129	376	166
94,596	124,009	491,582	40,808	41,632	13,828	426,820	21,497	1,729,075	1,280,758	1,315	78	607	597	52
19,285	42,480	80,094	22,833	5,480	8,525	95,943	4,051	398,989	298,995	295	75	6	214	114
72,581	79,549	411,488	4,527	35,680	10,286	329,406	17,446	1,302,123	955,271	1,020	3	601	383	40
2,730	1,980	13,448	472	17	1,471	27,963	26,492	147	125	3	19	40	95	7
9,000	15,820	70,895	6,772	2,245	201,668	1,784	555,666	168,691	74,922	515	615	19	95	7
11,291	4,830	51,105	1,240	57,148	36,521	77,148	168,691	74,922	515	615	19	95	7	7
7,009	3,921	56,590	736	80,261	752	160,898	79,885	138	138	138	138	138	138	8
33,438	30,612	139,554	3,800	7,993	4,426,609	20,287	4,787,660	340,764	1,557	1,080	437	40	102	9
3,951	1,000	38,438	150	784	23,228	2,686	91,038	65,124	115	85	10	20	10	10
7,850	3,720	15,474	2,375	773	57,952	883	87,167	28,332	60	10	50	806	11	
82,432	142,855	1,181,933	22,166	11,818,650	47,987	15,130,551	3,263,914	1,421	1,271	160	160	160	160	12
1,800	2,453	2,453	309	22,175	811	38,640	15,654	153	105	48	48	48	48	13
10,421	7,886	74,874	1,270	1,585	311,040	3,395	449,541	132,106	1,395	1,295	75	25	50	14
15,895	6,430	118,309	2,732	5,163	406,800	9,909	262,692	672	505	42	20	105	105	15
674,247	783,043	5,530,351	85,030	45,129	1,586,666	23,091,068	1,336,696	37,774,809	13,346,845	33,206	27,433	4,180	6,508	8,694

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

\$24,664	\$67,189	\$811,999	\$775	\$1,708	\$17,319	\$1,036,446	\$41,918	\$2,173,008	\$1,094,644	1,984	1,648	349	341	895
115,428	83,150	637,203	8,762	25,699	31,433	2,121,589	50,207	3,699,447	1,527,501	4,574	3,398	381	707	540
35,505	41,907	212,671	2,923	18,148	22,802	988,022	21,953	1,653,859	643,884	1,414	735	381	273	10
157,528	95,839	1,149,432	676	13,870	90,795	1,466,199	142,072	4,383,674	2,775,403	5,594	1,543	3,540	497	1,842
202,224	222,288	2,995,699	5,571	27,915	72,333	6,021,932	155,107	11,400,468	4,623,369	8,951	7,036	717	1,198	2,316
57,926	59,473	601,738	2,541	6,066	308,848	1,654,988	53,606	3,021,938	1,313,344	1,908	580	56	15	1,257
108,900	28,501	930,032	7,691	10,874	15,108	591,363	162,313	2,337,990	1,584,314	4,137	2,020	441	1,676	300
115,139	105,272	706,988	316,127	2,344	17,851	1,988,094	107,373	3,628,793	1,533,326	1,897	576	1,245	76	175
159,896	146,404	1,060,676	17,325	43,699	59,866	4,579,469	165,662	7,142,990	2,397,869	5,939	3,904	1,790	236	607
586,110	731,978	5,109,757	69,839	74,699	1,261,890	15,239,894	733,668	27,878,933	11,905,411	35,963	29,433	3,911	5	2,564

<sup>2</sup> Includes rented power other than electric.

<sup>3</sup> Same number reported for one or more other months.

* All other industries embrace—Continued.	2	Plumbers' supplies, not elsewhere specified.....	1	Suspenders, garters, and elastic woven goods.....	1
Iron and steel, blast furnaces.....	1	Refrigerators.....	1	Tinware, not elsewhere specified.....	3
Iron and steel, wrought pipe.....	2	Sausage.....	1	Tobacco manufactures.....	92
Lamps and reflectors.....	1	Shipbuilding, iron and steel.....	1	Tools, not elsewhere specified.....	3
Liquors, distilled whisky.....	1	Shirts.....	1	Upholstering material, excelsior.....	1
Lithographing.....	1	Signs and advertising novelties.....	3	Wall plaster.....	2
Looking-glasses and picture frames.....	1	Silk goods, throwsters.....	1	Window shades and fixtures.....	1
Models and patterns, not including paper patterns.....	1	Smelting and refining, zinc.....	2	Wirework.....	1
Oil, not elsewhere specified.....	1	Smelting and refining, not from the ore.....	1	Wood distillation.....	1
Paper goods, not elsewhere specified.....	1	Stamped and enameled ware.....	3	Wood preserving.....	1
Patent medicines and compounds.....	16	Structural ironwork, not made in steel works or rolling mills.....	2	Wooden goods, not elsewhere specified.....	1
Petroleum, refining.....	3				
Photo-engraving.....	1				

# WISCONSIN.

By GEORGE W. FULLER.

## GENERAL STATISTICS.

General character of the state.—Wisconsin was admitted to the Union as a state in 1846. With a gross area of 56,066 square miles, of which 55,256 represent land surface, it ranks twenty-fifth in size among the states. Its inhabitants in 1900 numbered 2,069,042, and in 1910, 2,333,860; and its estimated population in 1914 was 2,447,000. In total population Wisconsin ranked thirteenth among the states in 1910, and in density of population it ranked twenty-second, with 42.2 inhabitants per square mile, the corresponding figure for 1900 being 37.4.

The urban population in 1910—that is, the population residing in incorporated places of 2,500 or more—was 1,004,320, or 43 per cent of the total, as against 38.2 per cent in 1900. There were in the state in 1914, 18 cities, each with an estimated population of more than 10,000. (See Table 12.) These cities, whose aggregate population in that year formed 34.1 per cent of the estimated population of Wisconsin, reported 60.7 per cent of the state's manufactured products.

The steam-railway mileage in 1914 was 7,611, and the electric-railway mileage in 1912 was 768. On the northern and eastern borders of the state are many harbors which afford excellent facilities for coastwise and foreign traffic.

The total value of all farm crops grown in Wisconsin in 1909 was \$148,359,216, and of cereal crops alone, \$73,141,919. The value of dairy products made on farms during the same year amounted to \$53,868,028 and of domestic animals sold or slaughtered on farms, \$49,804,636. Wisconsin ranked sixteenth among the states in that year in total value of farm crops, second in value of dairy products made on farms, and twelfth in value of domestic animals sold or slaughtered on farms.

Importance and growth of manufactures.—Table 1 summarizes the more important data relative to all classes of manufactures combined in the state, for the censuses of 1914, 1909, 1904, and 1899, and gives percentages of increase from census to census.

Table 1

	MANUFACTURING INDUSTRIES.				PER CENT OF INCREASE. <sup>1</sup>		
	1914	1909	1904	1899	1909-1914	1904-1909	1899-1904
Number of establishments.....	9,104	9,721	8,558	7,841	-0.3	13.6	0.1
Persons engaged.....	230,273	213,426	173,572	( <sup>2</sup> )	7.9	23.0	.....
Proprietors and firm members.....	7,425	8,556	7,961	( <sup>2</sup> )	-13.2	7.5	.....
Salariated employees.....	28,538	22,287	14,220	10,480	28.0	56.7	85.7
Wage earners (average number).....	194,310	182,583	151,301	137,525	6.4	20.6	10.1
Primary horsepower.....	682,339	554,179	440,234	304,380	23.1	25.9	20.8
Capital.....	\$754,287,116	\$605,657,324	\$412,647,051	\$280,000,566	24.5	46.8	44.3
Salaries and wages.....	149,762,032	119,641,684	86,970,037	66,188,373	25.2	37.6	31.4
Salaries.....	37,568,869	25,736,876	15,498,232	10,492,562	46.0	66.1	47.7
Wages.....	112,193,163	93,904,808	71,471,805	55,695,816	19.5	31.4	28.3
Paid for contract work.....	3,463,920	2,624,700	2,800,171	( <sup>2</sup> )	31.6	-9.5	.....
Rent and taxes (including internal revenue).....	17,343,039	12,832,391	* 3,551,913	( <sup>2</sup> )	35.2	.....	.....
Cost of materials.....	417,415,074	346,356,533	227,255,092	185,695,393	20.5	52.4	22.4
Value of products.....	695,172,002	590,305,538	411,139,681	326,752,378	17.8	43.6	25.8
Value added by manufacture (value of products less cost of materials).....	277,756,928	243,948,955	183,884,589	141,057,485	13.9	32.7	30.4

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

<sup>2</sup> Figures not available.

<sup>3</sup> Exclusive of internal revenue.

There was a decrease in the number of establishments and proprietors and firm members during the period from 1909 to 1914. With this exception, there was a substantial increase in the manufactures of the state during the 15 years covered by Table 1. The decrease in the number of establishments is due primarily to the decrease in the number of lumber and flour mills (see Table 36). It is evident that a number of the small lumber mills discontinued operations during the period between the censuses, and as the majority of such mills were operated by individuals or firms there was a decrease in the number of proprietors and firm members. The decrease in this class is also

due in part to the fact that some establishments operated by individuals or firms in 1909 were incorporated during the period between the censuses, and the proprietors or firm members reported as salariated officials at the census of 1914. In 1914 the state had 9,104 manufacturing establishments, which gave employment to an average of 230,273 persons during the year and paid out \$149,762,032 in salaries and wages. Of the persons employed, 194,310 were wage earners.

These establishments turned out products to the value of \$695,172,002, to produce which, materials costing \$417,415,074 were used. The value added by

manufacture was \$277,756,928, which figure, as explained in the "Explanation of terms," best represents the net wealth created by manufacturing operations during the year.

Table 2 shows the relative importance and growth of the leading manufacturing industries in 1914, and gives percentages of increase for the three five-year periods from 1899 to 1914.

INDUSTRY.	CENSUS OF 1914.						PER CENT OF INCREASE. <sup>1</sup>									
	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1909-1914	1904-1909	1899-1904	1909-1914	1904-1909	1899-1904	1909-1914	1904-1909	1899-1904
All Industries.....	9,104	194,310	100.0	\$995,172,002	100.0	\$277,756,928	100.0	6.4	20.6	10.1	17.8	43.6	25.8	13.9	32.7	30.4
Butter, cheese, and condensed milk.	2,431	3,717	1.9	72,888,592	10.5	7,533,054	2.7	29.8	24.0	29.1	35.3	79.6	40.1	29.1	62.0	2.7
Foundry and machine-shop products.	494	26,521	13.6	60,098,391	8.7	82,536,506	11.7	9.5	58.0	5.1	12.1	72.5	20.6	3.0	78.0	20.7
Lumber and timber products.....	635	32,282	16.6	65,362,511	8.0	29,894,018	10.8	-5.3	-1.1	-12.8	-4.5	-1.0	-14.3	-7.7	-4.0	0.7
Leather, tanned, curried, and finished.....	27	5,869	3.0	42,204,202	6.1	9,151,016	3.3	-22.2	35.0	6.6	-5.5	72.8	48.7	-7.0	64.7	43.1
Liquors, malt.....	132	5,414	2.8	40,884,284	5.9	27,181,523	9.8	7.0	3.9	24.8	27.3	12.0	27.0	12.2	3.1	55.1
Slaughtering and meat packing.....	46	2,236	1.2	34,697,655	5.0	4,157,115	1.5	18.3	19.0	5.3	27.5	64.3	17.2	0.0	52.7	31.0
Paper and wood pulp.....	58	8,908	4.6	31,205,395	4.5	10,637,307	3.8	20.1	17.8	49.5	20.2	45.6	63.8	14.8	29.6	71.0
Flour-mill and gristmill products.....	252	1,110	0.6	28,697,413	4.1	3,717,512	1.3	-5.7	-12.4	0.0	-0.4	11.7	19.6	-10.7	28.7	16.8
Furniture and refrigerators.....	114	11,792	6.1	22,586,531	3.2	11,944,523	4.3	6.1	34.6	16.3	21.1	50.8	30.6	21.1	40.3	27.3
Agricultural implements.....	46	3,143	1.6	20,119,068	2.9	11,443,424	4.1	16.2	-24.2	8.5	76.3	13.2	27.8	53.1	14.0	42.7
Automobiles, including bodies and parts.....	43	4,880	2.5	18,478,166	2.0	8,012,953	2.9	13.8	726.5	.....	61.5	510.1	.....	31.4	492.2	.....
Boots and shoes, including findings..	65	5,814	3.0	17,832,193	2.6	5,706,700	2.1	7.1	65.4	18.8	31.1	98.7	31.9	17.8	99.8	39.5
Malt.....	25	637	0.3	15,533,339	2.2	3,044,402	1.1	39.7	-14.8	40.2	61.9	9.8	113.7	71.0	-1.0	97.0
Printing and publishing.....	829	5,653	2.9	14,455,110	2.1	9,607,811	3.5	6.5	5.1	15.5	21.9	28.2	44.4	13.4	28.2	41.2
Hosiery and knit goods.....	68	6,244	3.2	13,292,305	1.9	6,207,073	2.2	45.8	0.7	55.8	60.5	57.5	98.5	68.4	47.6	102.8
Cars and general shop construction and repairs by steam-railroad companies.....	35	9,011	4.6	10,920,880	1.0	6,380,445	2.3	0.2	65.2	20.9	-23.8	120.1	3.2	12.8	64.4	23.7
Copper, tin, and sheet-iron products.	111	3,372	1.7	10,202,555	1.5	4,019,020	1.7	21.3	11.1	-51.7	43.0	43.9	-23.6	80.3	147.3	-29.6
Clothing, men's, including shirts.....	59	3,584	1.8	8,088,462	1.2	3,994,621	1.3	-15.7	45.6	13.4	-7.9	46.2	44.8	-6.0	25.2	46.1
Bread and other bakery products.....	704	2,197	1.2	8,057,702	1.2	3,521,701	1.3	25.5	2.2	29.0	17.3	27.7	48.7	23.6	27.8	27.0
Carriages and wagons and materials.	185	2,938	1.4	7,544,321	1.1	3,285,105	1.2	-23.2	-6.7	5.9	-15.2	10.0	15.0	-12.1	-6.5	10.4
Rubber goods.....	5	1,637	0.8	7,382,108	1.1	3,287,054	1.2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Canning and preserving.....	112	2,687	1.5	7,335,338	1.1	2,705,051	1.0	51.3	35.5	70.3	52.6	46.1	142.2	50.3	43.9	94.7
Tobacco manufactures.....	769	2,485	1.3	6,778,980	1.0	4,152,730	1.5	3.9	-14.9	23.8	10.4	-3.2	29.3	11.3	-12.6	30.4
Confectionery.....	65	2,242	1.2	6,228,730	0.9	2,348,403	0.8	20.0	48.8	72.6	41.1	88.0	64.9	34.5	92.2	77.9
Iron and steel, steel works and rolling mills.....	12	2,029	1.0	6,008,549	0.9	2,453,409	0.9	-4.5	10.9	39.8	-44.0	45.5	22.9	-13.2	-1.8	10.3
Brass, bronze, and copper products..	30	1,122	0.6	5,400,260	0.8	1,014,272	0.4	-13.0	68.5	.....	0.4	143.3	.....	-45.8	136.5	.....
Electrical machinery, apparatus, and supplies.....	20	2,115	1.1	5,396,802	0.8	3,333,082	1.2	50.1	17.0	135.3	40.7	20.1	245.7	30.7	0.7	284.8
Leather goods.....	111	1,400	0.6	5,323,246	0.8	2,088,993	0.8	-29.0	15.1	18.4	-1.1	32.7	62.3	-0.2	46.1	55.3
Gas, illuminating and heating.....	47	1,240	0.6	5,294,983	0.8	3,479,330	1.2	16.7	16.7	71.2	32.3	37.4	108.4	33.2	24.9	94.4
Food preparations.....	30	478	0.2	4,852,893	0.7	3,400,031	1.2	-0.1	45.3	45.4	-12.3	150.3	65.0	28.9	125.9	23.9
Iron and steel, blast furnaces.....	5	482	0.2	3,793,442	0.5	541,632	0.2	-36.4	57.3	-12.5	-20.9	55.0	6.0	-88.2	6.3	-6.9
Gloves and mittens, leather.....	24	1,711	0.9	2,621,587	0.4	1,175,584	0.4	4.2	17.6	337.6	-4.4	23.7	335.7	1.2	33.6	362.8
Marble and stone work.....	117	1,390	0.7	2,013,921	0.4	1,740,156	0.6	-46.4	134.2	15.8	-29.2	105.8	15.0	-30.7	124.1	20.7
Soap.....	11	272	0.1	2,894,193	0.4	1,524,453	0.5	27.7	13.9	70.7	13.0	117.0	117.0	90.0	.....	.....
Boxes, fancy and paper.....	18	1,319	0.7	2,326,767	0.3	1,208,292	0.4	60.1	68.2	49.4	76.7	164.5	106.6	78.2	138.7	136.7
Millinery and lace goods.....	10	656	0.3	2,154,658	0.3	950,834	0.3	113.7	-10.8	28.8	287.0	0.2	4.0	339.0	-8.4	3.5
Mineral and soda waters.....	176	375	0.2	1,860,237	0.3	1,024,350	0.4	8.4	-3.1	.....	.....	-9.0	.....	14.3	-17.1	.....
Dairymen's, poultrymen's, and appliance suppliers.....	28	345	0.2	1,695,700	0.2	835,121	0.3	-34.4	157.8	.....	25.4	264.1	.....	35.1	216.9	.....
Clothing, horse.....	6	557	0.3	1,657,784	0.2	522,373	0.2	12.8	14.9	.....	30.0	50.8	.....	28.0	50.7	.....
Paint.....	9	192	0.1	1,586,156	0.2	450,007	0.2	-0.5	27.0	94.9	6.3	42.4	8.8	-5.0	70.1	37.9
Lime.....	30	828	0.4	1,570,310	0.2	743,230	0.3	6.7	42.6	.....	23.4	62.9	.....	-2.9	68.5	.....
Patent medicines and compounds, and druggists' preparations.....	62	278	0.1	1,442,342	0.2	632,334	0.3	3.3	2.7	-11.8	-15.5	38.4	82.9	-26.1	44.9	95.3
Wirework, including wire rope and cable.....	18	327	0.2	1,298,855	0.2	488,157	0.2	44.7	-26.1	.....	45.6	36.7	.....	40.4	10.1	.....
Shipbuilding, including boat building.....	34	695	0.4	1,254,088	0.2	802,933	0.3	-23.3	97.4	-18.3	-16.0	80.2	-15.3	-25.7	153.8	-13.9
Brick, tile, pottery, and other clay products.....	78	875	0.5	1,229,934	0.2	887,516	0.3	-14.8	-37.3	11.5	3.3	-35.6	2.9	-2.4	-20.8	21.5
Cooperage and wooden goods, not elsewhere specified.....	35	638	0.3	1,212,831	0.2	523,012	0.2	-47.2	-38.4	-5.8	-40.3	-22.2	6.5	-58.9	-7.1	-9.4
Paving materials.....	16	872	0.4	1,115,892	0.2	796,895	0.3	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mattresses and spring beds.....	18	384	0.2	1,089,425	0.2	441,808	0.2	-23.8	-64.4	36.1	-24.6	-59.1	92.9	-24.7	-71.0	211.2
Mats and matting, from cocon fiber and grass.....	4	455	0.2	1,029,996	0.2	505,167	0.2	252.7	.....	.....	185.7	.....	.....	184.7	.....	.....
Upholstering materials.....	15	339	0.2	994,070	0.1	365,426	0.1	68.7	50.0	.....	110.5	24.4	.....	82.3	16.1	.....
Clothing, women's.....	21	521	0.3	979,800	0.1	428,730	0.2	-7.8	13.5	96.8	5.6	10.5	208.8	0.9	9.8	126.3
Coffins, burial cases, and undertakers' goods.....	5	356	0.2	904,391	0.1	490,140	0.2	2.0	162.4	75.0	20.0	131.3	89.5	-32.4	111.4	90.2
Coffee and spice, roasting and grinding.....	8	70	(2)	809,186	0.1	200,400	0.1	-5.4	48.0	.....	3.7	55.3	.....	12.0	.....	.....
Paper goods, not elsewhere specified..	7	188	0.1	743,426	0.1	351,698	0.1	-42.9	135.0	.....	-24.7	188.9	.....	-10.5	109.7	.....
Artificial stone products.....	130	404	0.2	714,122	0.1	436,172	0.2	7.2	685.4	.....	14.4	457.1	.....	12.1	455.7	.....
Fur goods.....	36	225	0.1	710,526	0.1	342,710	0.1	-45.5	16.0	-14.8	-53.3	67.7	6.8	-42.5	30.6	33.6
Cleaning and polishing preparations.	11	103	0.1	703,338	0.1	307,848	0.1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cars and general shop construction and repairs by electric-railroad companies.....	16	401	0.2	648,545	0.1	273,403	0.1	86.5	141.6	.....	216.6	130.7	.....	33.1	167.0	.....

<sup>1</sup> Percentages are based on figures in Table 36; a minus sign (-) denotes decrease; percentages are omitted where base is in less than 100, or where comparable figures can not be given.  
<sup>2</sup> Less than one-tenth of 1 per cent.

Table 2—Continued.

INDUSTRY.	CENSUS OF 1914.							PER CENT OF INCREASE. <sup>1</sup>								
	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1909-1914	1904-1909	1899-1904	1909-1914	1904-1909	1899-1904	1909-1914	1904-1909	1899-1904
Carrriages and sleds, children's.....	4	454	0.2	\$648,030	0.1	\$339,367	0.1	27.2	31.7	.....	42.7	38.5	.....	40.5	64.6	.....
Gas and electric fixtures and lamps and reflectors.....	7	222	0.1	647,999	0.1	362,091	0.1	-59.8	126.2	62.7	-55.8	156.0	82.5	-52.3	173.0	91.7
Fuel, manufactured.....	3	57	(2)	474,606	0.1	131,749	0.1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chemicals.....	7	60	(2)	436,222	0.1	206,388	0.1	-21.1	16.9	.....	-15.0	93.6	4.3	-24.0	111.7	4.1
Cutlery and tools, not elsewhere specified.....	19	208	0.1	382,170	0.1	231,573	0.1	76.3	38.8	1.2	34.0	80.4	6.0	43.2	105.1	2.6
Grease and tallow.....	10	50	(2)	328,250	(2)	75,700	(2)	38.9	20.0	.....	16.7	64.3	.....	-8.0	101.7	.....
Photo-engraving.....	9	134	0.1	307,617	(2)	214,799	0.1	-21.6	66.0	102.0	-1.3	88.0	225.5	-19.2	82.2	239.5
Mirrors, framed and unframed.....	4	81	(2)	274,091	(2)	106,561	(2)	-6.9	52.6	.....	-13.2	88.0	.....	-8.6	144.5	.....
Brushes, exclusive of paint and varnish.....	11	129	0.1	270,479	(2)	177,055	0.1	-9.2	.....	.....	8.4	.....	.....	4.5	.....	.....
Brooms, from broom corn.....	26	96	(2)	266,305	(2)	106,786	(2)	-5.0	.....	.....	-14.9	.....	.....	-13.0	.....	.....
Boxes, cigar.....	8	166	0.1	266,016	(2)	148,040	0.1	-10.8	-3.6	.....	-6.0	14.4	.....	2.7	24.2	.....
All other industries.....	502	14,773	7.6	54,307,219	7.8	25,525,079	9.2	.....	.....	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> Percentages are based on figures in Table 36; a minus sign (-) denotes decrease; percentages are omitted where base is in less than 100, or where comparable figures can not be given.

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

Separate statistics are presented for 69 industries, or industry groups, for each of which products valued at more than \$250,000 were reported for 1914. These industries include 10 with products exceeding \$20,000,000 in value, 7 with products between \$10,000,000 and \$20,000,000, 12 with products between \$5,000,000 and \$10,000,000, 20 with products between \$1,000,000 and \$5,000,000, and 20 with products valued at less than \$1,000,000. Among those included under the head of "all other industries" are a number which have products exceeding in value some for which figures are shown in the table, but for which statistics can not be shown separately without the possibility of disclosing the operations of individual establishments, as follows: Aluminum ware; bags, paper; cars, steam-railroad, not including the operations of railroad companies; coke, not including gas-house coke; explosives; glue; instruments, professional and scientific; liquors, distilled; matches; motorcycles, bicycles, and parts; linseed oil; smelting and refining, zinc; steam packing; beet sugar; and windmills.

The industries in this table are arranged in the order of their importance as shown by value of products, but the arrangement would vary considerably from that given if based on the average number of wage earners or value added by manufacture. Butter, which ranks first in value of products, is twelfth in average number of wage earners and tenth in value added by manufacture, while furniture and refrigerators ranks ninth in value of products, third in number of wage earners, and fourth in value added by manufacture. Although a few industries greatly predominate in importance, it will be seen from Table 2 that there is, on the whole, considerable diversity in the manufacturing activities of the state. The most important industries call for brief consideration.

*Butter, cheese, and condensed milk.*—At the 1914 census 2,431 establishments were reported as engaged in the manufacture of butter, cheese, and condensed

milk in Wisconsin. The value of products of these establishments, \$72,859,000, represented 10.5 per cent of the total value of the state's manufactures. The state ranks first among the states in the production of butter and cheese and second in the manufacture of condensed milk. During the five-year period 1909-1914 the total value of products increased from \$53,843,000 to \$72,859,000, or by 35.3 per cent; the average number of wage earners from 2,863 to 3,717, or by 29.8 per cent; and the value added by manufacture from \$5,837,000 to \$7,533,000, or 29.1 per cent.

*Foundry and machine-shop products.*—This industry embraces, in addition to the foundries and machine shops, the establishments engaged in the manufacture of engines, steam, gas, and water; gas machines and gas and water meters; hardware; cast-iron and cast-steel pipe; plumbers' supplies; steam fittings and heating apparatus; structural ironwork; and in automobile repairing. During the five-year period 1909-1914 the total value of products increased from \$54,124,000 to \$60,698,000, or 12.1 per cent; the average number of wage earners from 24,219 to 26,521, or 9.5 per cent; and the value added by manufacture from \$31,590,000 to \$32,537,000, or 3 per cent.

The industry is really of greater importance in the state than indicated by the statistics, as some machine shops manufactured distinctive products, and as a result were assigned to other classifications.

*Lumber and timber products.*—This industry, embracing the operations of logging camps, sawmills, planing mills, and wooden-box factories, was third in importance in 1914, while in 1909 it ranked first among the industries of the state, the decrease being due to the depletion of the forests. In 1909 the industry gave employment to an average of 34,093 wage earners and in 1914 to 32,282, a decrease of 5.3 per cent. The value of products in 1909 amounted to \$57,969,000 and in 1914 to \$55,363,000, a decrease of 4.5 per cent.

*Leather, tanned, curried, and finished.*—The number of tanneries, the average number of wage earners, the value of products, and the value added by manufacture show a decrease during the five years ending with 1914. The industry, however, retains its rank, fourth, in value of products in the state. The decrease reduced the standing of Wisconsin from second to third place among the leather-producing states. In 1914 the industry gave employment to an average of 5,869 wage earners and reported products valued at \$42,204,000.

*Malt and malt liquors.*—The number of breweries decreased from 136 in 1909 to 132 in 1914. During the same period there was an increase of 27.3 per cent in value of products. In 1914 the industry ranked fifth in value of products and third in value added by manufacture. While the same number of establishments, 25, were reported for the manufacture of malt in 1914 and 1909, the value of products increased by 61.9 per cent. During the five-year period 1909–1914 the average number of wage earners for the two industries increased from 5,517 to 6,051, or 9.7 per cent; the value of products from \$41,723,000 to \$56,418,000, or 35.2 per cent; and the value added by manufacture from \$26,003,000 to \$30,226,000, or 16.2 per cent. The figures for value of products and value added by manufacture in case of the brewing industry, included the internal-revenue tax and are, therefore, misleading as an indication of the relative importance of the industry from a manufacturing standpoint. In 1914 Wisconsin reported 9.2 per cent of the total value of malt liquors and 32.3 per cent of the total value of malt produced in the United States, ranking third among the states in the production of malt liquors and second in the output of malt.

*Slaughtering and meat packing.*—This classification includes wholesale slaughtering and meat-packing establishments and also those engaged primarily in the manufacture of sausage. It does not include the numerous retail butcher shops which slaughter a large number of animals. The products of the slaughtering and meat-packing establishments amounted to \$32,181,000 and those of the sausage manufactures to \$2,517,000. Since 1904 the value of products for the industry has more than doubled. During the five-year period 1909–1914 the total value of products increased from \$27,217,000 to \$34,698,000, or 27.5 per cent; the average number of wage earners from 1,890 to 2,236, or 18.3 per cent; and the value added by manufacture from \$3,814,000 to \$4,157,000, or 9 per cent.

*Paper and wood pulp.*—This industry has increased rapidly in Wisconsin, and the state ranked fourth at the census of 1914 in value of products and average number of wage earners. The value of products increased from \$25,962,000 in 1909 to \$31,205,000 in 1914, or 20.2 per cent; and the average number of wage earners from 7,467 in 1909 to 8,968 in 1914, or 20.1 per cent.

*Flour-mill and gristmill products.*—The statistics for all merchant mills grinding wheat, rye, buckwheat, corn, or other grains, are included in this classification. The industry was not as prosperous during 1914 as in prior census years. As compared with 1909, there was a decrease of 70 in number of establishments, of 68 in the average number of wage earners, and of \$2,970,000 in value of products. Table 14 shows that the decrease in the number of wage earners and value of products occurred in establishments operated by individuals and firms. The increase in the number employed and value of products for corporations was not sufficient to overcome the decreases for establishments operated under other forms of ownership.

*Furniture and refrigerators.*—In 1914 this industry gave employment to an average of 11,792 wage earners, an increase of 6.1 per cent over 1909. The value of products increased from \$18,656,000 in 1909 to \$22,587,000 in 1914, or 21.1 per cent. The value of products reported for this industry places Wisconsin fifth in order of importance among the furniture-manufacturing states.

*Agricultural implements.*—This is one of the rapidly growing industries and the state ranked second in value of products among the states manufacturing agricultural implements in 1914. During the five-year period from 1909 to 1914 the total value of products increased from \$11,411,000 to \$20,119,000, or 76.3 per cent; the average number of wage earners from 2,704 to 3,143, or 16.2 per cent; and the value added by manufacture from \$7,474,000 to \$11,443,000, or 53.1 per cent.

*Automobiles, including bodies and parts.*—In 1904 reports were received for 6 establishments engaged in this industry, with products valued at \$1,875,000. During the decade ending with 1914, the industry developed rapidly, the number of establishments increasing to 43 and the value of products to \$18,478,000. There were 12 establishments that manufactured the complete vehicles and 31 engaged primarily in the manufacture of bodies and parts. The combination of the products for the two branches of the industry results in considerable duplication, as the bodies and parts made in the state are largely utilized in the completion of vehicles in the local factories.

*Boots and shoes, including cut stock and findings.*—This classification consists of 58 establishments engaged in the manufacture of leather boots and shoes; 3 engaged primarily in manufacture of other kinds of footwear, such as moccasins, felt slippers, and wooden shoes; and 4 that made a specialty of boot and shoe findings in 1914. In addition, there were 2 establishments that manufactured boot and shoe cut stock, but the statistics for them are omitted from Table 2 and included in the group of "all other industries," Table 37, in order to avoid the disclosure of the data reported by individual establishments.

Persons engaged in manufacturing industries.— Table 3 shows, for 1909 and 1914, the number of persons engaged in manufactures, distributed by sex, the average number of wage earners being distributed also by age. The sex and 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."

Of the 230,273 persons engaged in the manufactures

of the state during 1914, 86.5 per cent were males and 13.5 were females. The relative number of females employed increased during the period covered by the table for all of the classes shown, except superintendents and managers, and children under 16 years of age. The largest proportion of females in both years is shown for children under 16 years of age. Figures corresponding to those in this table, but for individual industries, will be found in Table 37.

CLASS.	Cen- sus year.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.					CLASS.	Cen- sus year.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.				
		Total.	Male.	Fe- male.	Per cent of total.				Total.	Male.	Fe- male.	Per cent of total.	
					Male.	Fe- male.						Male.	Fe- male.
All classes.....	1914 1909	230,273 213,426	199,232 186,350	31,041 27,076	86.5 87.3	13.5 12.7	Clerks and other subordinate salaried employees.	1914 1909	20,942 16,221	16,100 12,955	4,842 3,266	76.9 79.9	23.1 20.1
Proprietors and officials.....	1914 1909	15,021 14,622	14,601 14,294	420 328	97.2 97.8	2.8 2.2	Wage earners (average number).....	1914 1909	194,310 182,583	168,531 150,101	25,779 23,482	86.7 87.1	13.3 12.9
Proprietors and firm members..	1914 1909	7,425 8,556	7,144 8,327	281 229	96.2 97.3	3.8 2.7	16 years of age and over.....	1914 1909	191,301 178,316	160,800 150,734	24,501 21,582	87.2 87.9	12.8 12.1
Salaried officers of corporations..	1914 1909	3,127 2,351	3,039 2,299	88 52	97.2 97.8	2.8 2.2	Under 16 years of age.....	1914 1909	3,009 4,207	1,731 2,367	1,278 1,900	57.5 55.5	42.5 44.5
Superintendents and managers..	1914 1909	4,469 3,715	4,418 3,668	51 47	98.9 98.7	1.1 1.3							

Table 4 gives for the several classes of persons engaged in manufactures the percentages of increase

from 1909 to 1914 and the per cent distribution at the two censuses.

CLASS.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.								
	Per cent of increase, <sup>1</sup> 1909-1914.			Per cent distribution.					
	Total.	Male.	Female.	Total.		Male.		Female.	
				1914	1909	1914	1909	1914	1909
All classes.....	7.9	6.9	14.6	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials.....	2.7	2.1	28.0	6.5	6.9	7.3	7.7	1.4	1.2
Proprietors and firm members.....	-13.2	-14.2	22.7	3.2	4.0	3.6	4.5	0.9	0.8
Salaried officers of corporations.....	33.0	32.2	.....	1.4	1.1	1.5	1.2	0.3	0.2
Superintendents and managers.....	20.3	20.4	.....	1.9	1.7	2.2	2.0	0.2	0.2
Clerks and other subordinate salaried employees.....	29.1	24.3	48.3	9.1	7.6	8.1	7.0	15.6	12.1
Wage earners (average number).....	6.4	5.9	9.8	84.4	85.5	84.0	85.4	83.0	86.7
16 years of age and over.....	7.3	6.4	13.5	83.1	83.5	83.7	84.1	78.9	79.7
Under 16 years of age.....	-29.5	-26.9	-32.7	1.3	2.0	0.9	1.3	4.1	7.0

<sup>1</sup> A minus sign (-) denotes decrease; percentages are omitted where base is less than 100.

This table shows an increase during the five-year period for each of the several classes of employees, with the exception of proprietors and firm members and wage earners under 16 years of age. The largest percentage of increase, 33 per cent, is shown for salaried officers of corporations. Wage earners 16 years of age and over represented 83.1 per cent of the total number of persons engaged in manufacturing industries in the state in 1914 and 83.5 per cent in 1909.

In order to compare the distribution of persons engaged in manufactures in 1914 with that shown in the census of 1904, it is necessary to use the classification employed in the earlier census (see "Explanation of terms"). Table 5 makes this comparison according to occupational status.

CLASS.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.							
	Number.			Per cent distribution.			Per cent of increase. <sup>1</sup>	
	1914	1909	1904	1914	1909	1904	1909-1914	1904-1909
Total.....	230,273	213,426	173,572	100.0	100.0	100.0	7.9	23.0
Proprietors and firm mem- bers.....	7,425	8,556	7,061	3.2	4.0	4.0	-13.2	7.5
Salaried employees.....	28,538	22,287	14,220	12.4	10.4	8.2	28.0	56.7
Wage earners (average).....	194,310	182,583	151,391	84.4	86.5	87.2	6.4	20.6

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

Each of the three classes shown in this table and the total for all classes combined show increases, except proprietors and firm members where a decrease of 13.2 per cent during 1909-1914 was reported.

The average number of wage earners employed and their per cent distribution as males and females 16 years of age and over and children under 16 years of age are given in Table 6, for 1914, 1909, and 1904. The table also shows, for some of the important industries separately, a similar distribution of wage earners for 1914 and 1909.

For all industries combined, the proportion of male wage earners 16 years of age and over has remained practically the same at each successive census, while only a small increase is shown for the females employed. The proportion of children under 16 years employed as wage earners has decreased from 2.3 per cent in 1909 to 1.5 per cent in 1914. Of the 31 indus-

tries, for which separate figures are given in this table, 21 show an increase from 1909 to 1914 in proportion of males and 13, an increase in proportion of females, while in only 7 industries was there an increase in proportion of children under 16 years of age employed. In practically all of the industries of the state the number of men employed as wage earners exceeds the number of women, but in the manufacture of fancy and paper boxes, men's clothing, confectionery, leather gloves and mittens, and hosiery and knit goods, the number of women exceeds the number of men. The largest proportion of children under 16 years of age is shown for the manufacture of confectionery.

INDUSTRY.	Census year.	WAGE EARNERS.					INDUSTRY.	Census year.	WAGE EARNERS.				
		Average number. <sup>1</sup>	Per cent of total.			Under 16 years of age.			Average number. <sup>1</sup>	Per cent of total.			Under 16 years of age.
			16 years of age and over.	Male.	Female.					16 years of age and over.	Male.	Female.	
All industries.....	1914	194,310	85.8	12.6	1.5	Foundry and machine-shop products.....	1914	26,521	98.9	0.8	0.2		
	1909	182,583	85.8	11.8	2.3		1909	24,210	98.3	0.8	0.9		
	1904	151,391	85.4	11.0	2.7								
Agricultural implements.....	1914	3,143	97.1	2.8	0.1	Furniture and refrigerators.....	1914	11,792	94.8	3.0	2.2		
	1909	2,704	96.0	1.6	1.5		1909	11,118	92.9	3.4	3.7		
Automobiles, including bodies and parts.	1914	4,389	98.8	1.1	0.2	Gas, illuminating and heating.....	1914	1,240	100.0	.....	.....		
	1909	4,298	99.1	0.3	0.6		1909	1,063	99.2	0.8	.....		
Boots and shoes, including findings.....	1914	5,814	62.7	33.0	3.6	Gloves and mittens, leather.....	1914	1,711	33.4	62.7	3.9		
	1909	5,431	67.7	33.7	8.6		1909	1,642	31.3	62.9	5.8		
Boxes, fancy and paper.....	1914	1,319	39.6	49.9	10.5	Hosiery and knit goods.....	1914	6,244	21.8	72.6	5.6		
	1909	824	27.3	54.4	18.3		1909	4,282	17.7	71.7	10.6		
Brass, bronze, and copper products.....	1914	1,122	99.3	0.0	0.1	Iron and steel, steel works and rolling mills.	1914	2,029	99.8	.....	0.2		
	1909	1,289	97.8	0.9	1.4		1909	2,124	99.7	.....	0.3		
Bread and other bakery products.....	1914	2,197	76.5	22.2	1.3	Leather goods.....	1914	1,490	70.7	17.7	2.4		
	1909	1,751	77.3	19.5	3.3		1909	2,090	71.7	23.6	4.7		
Butter, cheese, and condensed milk.....	1914	3,717	94.1	5.5	0.4	Leather, tanned, curried, and finished....	1914	5,899	94.6	5.3	(?)		
	1909	2,893	97.1	2.2	0.7		1909	7,548	95.7	3.9	0.4		
Canning and preserving.....	1914	2,637	68.8	20.7	4.5	Liquors, malt.....	1914	5,414	97.2	2.8	(?)		
	1909	1,770	67.0	28.0	3.2		1909	5,061	93.8	6.2	.....		
Carriages and wagons and materials.....	1914	2,038	98.5	1.3	0.2	Lumber and timber products.....	1914	32,282	98.3	1.1	0.6		
	1909	3,437	98.5	0.9	0.7		1909	34,093	98.0	0.9	1.1		
Cars and general shop construction and repairs by steam-railroad companies.	1914	9,011	99.9	0.1	.....	Marble and stone work.....	1914	1,390	99.6	0.1	0.3		
	1909	8,994	99.0	0.1	.....		1909	2,593	100.0	.....	(?)		
Clothing, men's, including shirts.....	1914	3,584	22.7	75.1	2.2	Paper and wood pulp.....	1914	8,968	89.8	10.1	0.1		
	1909	4,252	22.3	73.3	4.5		1909	7,467	87.2	12.0	0.2		
Confectionery.....	1914	2,242	29.8	57.3	12.9	Printing and publishing.....	1914	5,653	69.9	24.3	5.7		
	1909	1,780	25.2	54.8	10.9		1909	5,309	68.8	25.7	5.5		
Copper, tin, and sheet-iron products.....	1914	3,372	37.9	11.5	0.6	Rubber goods.....	1914	1,637	90.0	9.7	0.2		
	1909	2,780	31.8	17.2	1.0		1909	212	75.3	15.6	6.1		
Electrical machinery, apparatus, and supplies.	1914	2,115	91.7	7.2	1.0	Slaughtering and meat packing.....	1914	2,236	94.6	3.8	1.6		
	1909	1,409	93.5	5.8	0.6		1909	1,890	93.2	5.1	1.6		
Flour-mill and gristmill products.....	1914	1,116	99.3	0.4	0.4	Tobacco manufactures.....	1914	2,485	71.4	28.0	0.6		
	1909	1,184	99.5	0.4	0.1		1909	2,391	73.1	26.3	0.5		
						All other industries.....	1914	23,383	82.4	16.3	1.4		
							1909	24,649	80.9	16.3	2.3		

<sup>1</sup> For method of estimating the distribution, by sex and age periods of the average number in all industries combined, see "Explanation of terms."

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

Table 7 shows the average number and the per cent distribution of wage earners employed in each of the 18 cities having more than 10,000 inhabitants, classi-

fied according to age periods, and in the case of those 16 years of age and over, according to sex, for 1914, 1909, and 1904.

Table 7

AVERAGE NUMBER OF WAGE EARNERS IN MANUFACTURING INDUSTRIES.

CITY.	Total.			16 years of age and over.									Per cent of total.								
				Male.			Female.			Under 16 years of age.			16 years of age and over.			Under 16 years of age.					
	1914	1909	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904
Appleton.....	2,144	2,125	2,486	1,785	1,687	1,950	344	400	487	15	38	49	83.3	79.4	78.4	16.0	18.8	19.6	0.7	1.8	2.0
Ashland.....	707	1,116	1,361	765	1,000	1,338	28	15	22	4	11	1	96.0	97.7	98.3	3.5	1.3	1.6	0.5	1.0	0.1
Beloit.....	3,527	2,986	2,471	3,249	2,774	2,259	270	188	176	8	24	36	92.1	92.9	91.4	7.7	6.3	7.1	0.2	0.8	1.5
Eau Claire.....	2,315	2,524	1,985	2,114	2,327	1,826	174	177	147	27	20	12	91.3	92.2	92.0	7.5	7.0	7.4	1.2	0.8	0.6
Fond du Lac.....	1,925	2,707	2,566	1,594	2,271	2,171	313	376	363	18	60	42	82.8	83.9	84.6	16.3	13.9	13.8	0.9	2.2	1.6
Green Bay.....	2,724	2,579	2,111	2,318	2,267	1,829	390	273	230	16	39	52	85.1	87.9	86.0	14.3	10.6	10.9	0.6	1.5	2.5
Janesville.....	1,495	1,451	1,348	1,088	1,001	971	386	441	367	21	9	20	72.8	69.0	72.0	25.8	30.4	26.5	1.4	0.6	1.5
Kenosha.....	7,155	6,449	4,354	6,237	5,598	3,411	858	683	913	60	168	30	87.2	86.8	78.3	12.0	10.6	21.0	0.8	2.6	0.7
La Crosse.....	3,340	3,329	2,044	2,474	2,370	1,929	896	626	60	63	89	74.1	71.2	73.0	24.1	26.9	23.7	1.8	1.9	3.4	
Madison.....	2,084	1,792	1,476	1,747	1,593	1,279	323	170	161	14	29	36	83.8	85.9	86.7	15.5	9.5	10.9	0.7	1.6	2.4
Manitowoc.....	2,012	1,525	1,321	1,660	1,255	1,029	294	242	273	58	28	19	82.5	82.3	77.9	14.6	15.9	20.7	2.9	1.8	1.4
Marinette.....	2,112	1,491	1,045	1,846	1,347	1,577	249	143	28	17	1	40	87.4	90.3	95.9	11.8	9.6	1.7	0.8	0.1	2.4
Milwaukee.....	61,839	59,602	43,366	48,562	46,981	33,028	11,722	10,118	8,093	1,555	2,403	2,245	78.5	79.0	76.2	19.0	17.0	18.7	2.5	4.0	5.2
Oshkosh.....	5,782	5,778	4,840	4,697	4,692	4,174	1,001	774	505	84	312	161	81.2	81.2	86.2	17.3	13.4	10.4	1.5	5.4	3.8
Racine.....	10,079	8,381	6,504	8,647	7,132	5,453	1,201	1,106	946	231	143	105	85.8	85.1	83.8	11.9	13.2	14.5	2.3	1.7	1.6
Sheboygan.....	7,152	5,988	5,903	6,307	5,030	4,952	632	683	646	213	275	305	88.2	84.0	83.9	8.8	11.4	10.9	3.0	4.6	5.2
Superior.....	2,121	1,847	1,343	1,992	1,723	1,266	123	118	60	1	6	17	93.9	93.3	94.3	6.0	6.4	4.5	(?)	0.3	1.3
Wausau.....	2,492	2,092	1,945	2,108	1,948	1,808	306	71	40	18	73	97	87.0	93.1	93.0	12.3	3.4	2.1	0.7	3.5	4.9

<sup>1</sup> Figures do not agree with those published because it was necessary to revise them in order to include data only for those establishments located within the corporate limits of the city.  
<sup>2</sup> Less than one-tenth of 1 per cent.

Table 8 gives percentages of increase from census to census, based on the figures in Table 7, for the 18 cities shown in that table.

For all cities combined, there is little variation in the proportion of the different classes of wage earners reported at the three censuses, 1914, 1909, and 1904, the proportion of males being 82 per cent in 1914; 81.9 per cent in 1909; and 80.6 per cent in 1904. With the

exception of Appleton, Ashland, and Fond du Lac all of the cities show substantial increases in the number of wage earners employed in manufactures. Milwaukee, by far the most important city in the state in respect to number of wage earners employed, shows a small increase in 1914 over 1909 in the number of male and female wage earners but a decrease in the number of children under 16 years of age employed.

Table 8

CITY.	PER CENT OF INCREASE IN AVERAGE NUMBER OF WAGE EARNERS. <sup>1</sup>					CITY.	PER CENT OF INCREASE IN AVERAGE NUMBER OF WAGE EARNERS. <sup>1</sup>				
	Period.	Total.	16 years of age and over.		Under 16 years of age.		Period.	Total.	16 years of age and over.		Under 16 years of age.
			Male.	Female.					Male.	Female.	
Appleton.....	1904-1914	-13.8	-8.5	-29.4	.....	Madison.....	1904-1914	41.2	36.6	100.6	.....
	1909-1914	0.9	5.8	-14.0	.....		1909-1914	16.3	9.7	90.0	.....
	1904-1909	-14.5	-13.5	-17.9	.....		1904-1909	21.4	24.6	5.6	.....
Ashland.....	1904-1914	-41.4	-42.8	.....	.....	Manitowoc.....	1904-1914	52.3	61.3	7.7	.....
	1909-1914	-28.6	-29.8	.....	.....		1909-1914	31.9	32.3	21.5	.....
	1904-1909	-18.0	-18.5	.....	.....		1904-1909	15.4	22.0	-11.4	.....
Beloit.....	1904-1914	42.7	43.8	53.4	.....	Marinette.....	1904-1914	28.4	17.1	.....	.....
	1909-1914	18.1	17.1	43.6	.....		1909-1914	41.6	37.0	74.1	.....
	1904-1909	20.8	22.8	6.8	.....		1904-1909	-9.4	-14.6	.....	.....
Eau Claire.....	1904-1914	16.6	15.8	18.4	.....	Milwaukee.....	1904-1914	42.6	47.0	44.8	-30.7
	1909-1914	-8.3	-9.2	-1.7	.....		1909-1914	3.9	3.4	15.9	-35.3
	1904-1909	27.2	27.4	20.4	.....		1904-1909	37.2	42.2	25.0	7.0
Fond du Lac.....	1904-1914	-25.0	-26.6	-11.3	.....	Oshkosh.....	1904-1914	19.5	12.5	93.2	-47.8
	1909-1914	-28.9	-29.8	-16.8	.....		1909-1914	0.1	0.1	29.3	-73.1
	1904-1909	5.5	4.6	6.5	.....		1904-1909	19.4	12.4	53.3	93.8
Green Bay.....	1904-1914	29.0	26.7	69.6	.....	Racine.....	1904-1914	55.0	58.6	27.0	120.0
	1909-1914	5.6	2.2	42.9	.....		1909-1914	20.3	21.2	8.6	61.5
	1904-1909	22.2	23.9	18.7	.....		1904-1909	28.9	30.8	16.9	36.2
Janesville.....	1904-1914	10.9	12.0	8.1	.....	Sheboygan.....	1904-1914	21.2	27.4	-2.2	-30.2
	1909-1914	3.0	8.7	-12.5	.....		1909-1914	19.4	25.4	-7.5	-22.5
	1904-1909	7.6	3.1	23.5	.....		1904-1909	1.4	1.6	5.7	-9.8
Kenosha.....	1904-1914	64.3	82.8	-6.0	.....	Superior.....	1904-1914	57.9	57.3	.....	.....
	1909-1914	10.9	11.4	25.6	-64.3		1909-1914	14.8	15.6	8.5	.....
	1904-1909	48.1	64.1	-25.2	.....		1904-1909	37.5	36.1	.....	.....
La Crosse.....	1904-1914	26.3	28.3	28.8	.....	Wausau.....	1904-1914	28.1	19.9	.....	.....
	1909-1914	0.3	4.4	-10.0	.....		1909-1914	19.1	11.3	.....	.....
	1904-1909	25.9	22.9	43.1	.....		1904-1909	7.6	7.7	.....	.....

<sup>1</sup> A minus sign (-) denotes decrease; percentages are omitted where base is less than 100.

Racine is the only city showing increases, for the 1904-1909-1914 census periods, in the proportion of children under 16 years of age. There were 231 children reported for 1914, and they were employed largely in the canning and printing industries.

Marinette shows the greatest per cent of increase in the number of males 16 years of age and over, for the last five-year period, 1909-1914, and Kenosha the greatest percentage of increase for the decade in total wage earners, 64.3 per cent.

**Wage earners employed, by months.**—The following table gives, for all industries combined, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for the years 1914 and 1909, and the average number employed each month in 1904, together with the percentage which the number reported each month forms of the greatest number reported for any month.

For 1914 the spring months show the greatest activity in the combined industries of the state, the maximum number of wage earners appearing for March and the minimum for December. In 1909 the maximum number was employed in December and the minimum during April. In 1904 the maximum number was reported for June and the minimum for January. The greatest difference between the maximum

and the minimum number reported for any of the three census years is shown for 1914, when the maximum exceeded the minimum by 23,457.

MONTH.	WAGE EARNERS IN MANUFACTURING INDUSTRIES.					
	Number. <sup>1</sup>			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January.....	197,347	174,637	140,685	96.0	90.9	94.6
February.....	203,166	178,091	149,001	98.9	92.5	96.1
March.....	205,512	179,067	151,121	100.0	93.0	97.5
April.....	199,210	173,561	149,669	96.9	90.1	96.5
May.....	196,041	176,025	153,263	95.4	91.7	98.9
June.....	196,523	180,091	155,028	95.0	93.9	100.0
July.....	198,170	184,290	153,160	96.4	95.7	98.8
August.....	193,475	185,556	153,901	91.1	90.4	99.3
September.....	190,652	185,502	152,470	92.8	90.4	98.3
October.....	187,342	188,064	151,791	91.2	98.0	97.9
November.....	182,227	191,417	151,399	88.7	99.4	97.7
December.....	182,055	192,527	149,204	88.6	100.0	96.2

<sup>1</sup> The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

Table 10 gives the total average number of wage earners employed during 1914, together with the total number employed on the 15th of each month, or the nearest representative day, for the combined industries of the state, for a number of selected industries, and for the total industries of each of the 18 cities having more than 10,000 inhabitants.

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.....	194,310	197,347	203,166	<b>205,512</b>	199,210	196,041	196,523	198,170	193,475	190,652	187,342	182,227	<i>182,055</i>	88.0
Agricultural implements.....	3,143	<b>4,643</b>	4,241	3,978	3,655	3,078	2,807	2,469	2,312	<i>1,018</i>	2,093	2,017	3,542	41.3
Automobiles, including bodies and parts.....	4,880	5,096	5,417	5,704	<b>5,820</b>	5,280	5,044	4,357	4,405	4,513	4,072	<i>4,095</i>	4,100	70.4
Boots and shoes, including findings.....	5,814	<b>6,113</b>	5,831	5,958	6,001	5,854	<i>5,616</i>	5,829	5,687	5,761	5,817	5,506	5,835	90.2
Boxes, fancy and paper.....	1,319	1,300	<i>1,277</i>	1,309	1,328	1,322	1,299	1,319	1,344	1,344	1,378	1,311	1,297	92.7
Brass, bronze, and copper products.....	1,122	<i>1,040</i>	1,100	1,100	1,210	1,167	1,158	1,147	1,125	1,081	1,094	1,081	1,083	86.0
Bread and other bakery products.....	2,197	<i>2,074</i>	2,080	2,188	2,140	2,182	2,241	<b>2,277</b>	2,258	2,261	2,251	2,240	2,204	91.1
Butter, cheese, and condensed milk.....	3,717	<b>2,850</b>	2,862	2,970	3,581	4,156	4,402	4,282	4,143	3,907	3,663	3,663	3,348	63.6
Canning and preserving.....	2,087	<i>673</i>	699	750	814	1,043	3,418	9,124	6,086	5,383	2,189	1,194	865	7.4
Carriages and wagons and materials.....	2,638	<i>2,045</i>	2,034	<b>2,994</b>	2,941	2,708	2,670	2,680	2,657	2,563	2,502	2,515	2,341	68.2
Cars and general shop construction and repairs by steam-railroad companies.....	0,011	<b>0,299</b>	3,809	3,970	3,977	0,014	0,118	3,881	0,052	9,214	0,134	8,925	<i>8,649</i>	93.0
Clothing, men's, including shirts.....	3,584	3,790	3,704	3,710	3,613	3,718	3,678	3,605	3,565	3,467	3,287	3,393	3,400	86.7
Confectionery.....	2,242	2,258	2,217	2,218	2,061	2,038	1,968	<i>1,928</i>	2,132	2,357	2,555	2,619	2,553	73.6
Copper, tin, and sheet-iron products.....	3,372	3,297	3,410	3,466	3,471	3,533	3,531	3,358	3,302	3,457	3,421	3,165	<i>3,044</i>	86.2
Electrical machinery, apparatus, and supplies.....	2,115	2,307	<b>2,332</b>	2,200	2,189	2,127	2,085	2,046	2,061	<i>1,987</i>	1,995	2,027	2,015	85.2
Flour-mill and gristmill products.....	1,116	1,090	1,085	1,100	1,057	1,048	1,047	<i>1,045</i>	1,084	1,209	1,199	1,107	<b>1,216</b>	85.9
Foundry and machine-shop products.....	26,521	28,700	28,041	<b>28,975</b>	28,305	27,240	26,783	26,457	26,691	25,210	24,071	23,497	<b>23,513</b>	80.5
Furniture and refrigerators.....	11,792	12,041	12,531	12,787	12,410	11,953	11,894	11,577	11,826	11,576	11,582	10,817	<b>10,510</b>	82.2
Gas, illuminating and heating.....	1,240	1,110	1,069	1,103	1,258	1,330	1,455	1,395	1,395	1,239	1,250	1,149	<i>1,030</i>	71.2
Gloves and mittens, leather.....	1,711	1,953	1,917	1,886	1,826	1,715	1,704	1,665	1,670	1,640	1,604	1,497	<i>1,455</i>	74.5
Hosiery and knit goods.....	6,244	6,373	<b>6,523</b>	6,430	6,435	6,200	6,218	6,182	6,197	6,069	6,174	6,017	6,021	92.2
Iron and steel, steel works and rolling mills.....	2,029	1,904	<b>2,031</b>	2,210	2,211	<b>2,226</b>	1,960	2,104	2,093	2,073	1,896	<i>1,815</i>	1,816	81.5
Leather goods.....	1,490	1,528	1,544	1,530	1,538	1,472	1,487	1,467	1,551	<i>1,444</i>	1,463	1,458	1,498	93.1
Leather, tanned, curled, and finished.....	5,899	6,145	6,318	6,530	6,197	5,873	6,028	5,550	5,564	<i>5,339</i>	5,608	5,731	5,945	81.8
Liquors, malt.....	5,414	5,197	5,175	5,227	5,305	5,409	5,927	5,680	5,813	5,476	5,250	5,063	<i>5,016</i>	83.3
Lumber and timber products.....	32,282	34,871	<b>37,842</b>	37,472	31,825	30,886	31,066	30,712	<b>29,870</b>	29,931	30,486	31,036	31,387	78.9
Marble and stone work.....	1,390	1,250	<i>1,216</i>	1,305	1,385	1,410	1,434	1,450	1,498	1,521	1,493	1,400	1,309	79.9
Paper and wood pulp.....	8,908	8,751	9,141	<b>9,849</b>	9,082	9,030	8,943	8,770	8,808	8,777	9,182	8,777	8,840	93.6
Printing and publishing.....	5,653	5,696	5,687	5,668	5,684	5,700	5,623	<i>5,476</i>	5,515	5,662	5,704	5,667	5,755	95.1
Rubber goods.....	1,637	<i>1,566</i>	1,582	1,717	1,768	1,920	1,855	1,774	1,580	1,587	1,587	1,464	1,454	70.6
Slaughtering and meat packing.....	2,236	2,751	2,425	2,206	2,096	1,942	1,993	1,956	1,897	1,860	2,326	2,440	2,971	92.6
Tobacco manufactures.....	2,485	2,513	2,548	2,556	2,583	2,446	2,480	2,488	2,409	2,500	2,502	2,450	2,474	93.4
All other industries.....	28,383	27,289	28,498	29,099	30,631	<b>30,742</b>	30,021	28,592	27,596	27,980	27,070	26,033	<i>26,748</i>	83.8

Table 10—Continued.

WAGE EARNERS: 1914.  
[Month of maximum employment for each industry is indicated by boldface figures and that of minimum 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.	
Total for cities.....	121,095	123,785	127,111	128,048	127,231	124,046	122,034	120,455	119,600	117,466	115,809	<i>112,864</i>	113,037	87.5
APPLETON.....	2,144	2,119	2,164	2,218	2,255	2,236	2,179	2,130	2,139	2,100	2,133	2,038	<i>2,017</i>	89.4
ASHLAND.....	797	810	<b>844</b>	825	815	820	794	812	802	740	811	828	<i>663</i>	78.0
BELOIT.....	3,527	3,919	<b>3,926</b>	3,903	3,736	3,305	3,406	3,440	3,458	3,478	3,294	3,207	<i>3,192</i>	81.3
EAU CLAIRE.....	2,315	2,510	2,555	<b>2,578</b>	2,227	2,195	<i>2,163</i>	2,179	2,178	2,329	2,217	2,338	2,321	83.5
FOND DU LAC.....	1,925	<i>1,739</i>	1,850	1,890	1,924	1,948	1,942	1,851	1,888	1,993	<b>2,092</b>	2,019	1,964	83.1
GREEN BAY.....	2,724	2,702	2,699	2,716	2,757	2,816	2,693	<b>2,836</b>	2,802	2,702	2,671	2,684	<i>2,610</i>	92.0
JANESVILLE.....	1,495	1,479	1,552	1,592	1,617	1,556	1,523	1,422	1,395	1,473	1,525	1,427	<i>1,379</i>	85.3
KENOSHA.....	7,155	7,144	7,760	<b>7,997</b>	7,973	7,406	7,243	6,976	7,080	6,761	6,886	6,536	<i>6,098</i>	76.3
LA CROSSE.....	3,340	3,315	3,366	3,386	3,347	3,366	3,404	3,326	3,358	3,290	3,334	3,343	<i>3,245</i>	95.3
MADISON.....	2,084	2,158	2,173	2,165	2,188	2,097	2,020	2,028	2,110	1,979	1,960	2,033	2,097	89.6
MANITOWOC.....	2,612	1,672	1,980	2,260	2,197	2,043	1,917	2,034	2,244	<b>2,268</b>	2,095	<i>1,644</i>	1,731	72.5
MARINETTE.....	2,112	2,326	2,374	2,417	2,249	2,089	1,976	1,960	<i>1,836</i>	1,956	2,129	2,014	1,971	78.0
MILWAUKEE.....	61,839	64,429	64,547	65,297	64,917	64,540	62,838	61,542	60,468	59,829	58,587	<i>57,050</i>	58,024	87.4
OSKOSH.....	5,782	<i>4,934</i>	6,193	6,316	6,153	6,028	5,980	5,832	5,798	5,626	5,653	5,518	5,353	78.1
RACINE.....	10,079	11,022	11,241	11,360	11,093	10,475	10,220	9,666	9,655	8,995	<i>8,718</i>	8,993	9,515	76.7
SHEBOYGAN.....	7,152	7,189	7,144	7,187	7,101	6,877	6,865	7,315	7,573	7,544	7,225	6,994	<i>6,810</i>	89.9
SUPERIOR.....	2,121	1,938	2,066	2,166	2,155	2,178	2,267	2,240	2,967	2,118	2,250	2,081	<i>1,926</i>	85.0
WAUSAU.....	2,492	2,380	2,668	2,775	2,527	2,614	2,614	2,816	2,759	2,288	2,234	<b>2,108</b>	2,121	74.9

Of the 31 industries for which statistics are given in Table 10, the greatest stability of employment during 1914 was reported for printing and publishing. The maximum number of wage earners, 5,755, was employed in December and the minimum number, 5,475, in July. Of the seasonal industries, canning and preserving shows the greatest variations in the number of wage earners employed, the maximum month being July, when 9,124 were reported, and the minimum month, January, with 673. Of the 18 cities, Manitowoc shows the greatest fluctuation in the numbers employed, the percentage that the minimum number formed of the maximum for the city being 72.5 per cent. The greatest stability of employment was

reported for La Crosse, for which the minimum number formed 95.3 per cent of the maximum.

Prevailing hours of labor.—In Table 11 the average number of wage earners reported, for 1914 and 1909, for all industries combined, and for selected industries separately throughout the state, have been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. A similar classification is given for 1914 only for all industries combined in each city having more than 10,000 inhabitants. The number employed in each establishment is classified as a total, even though a few employees worked a greater or a smaller number of hours.

Table 11

INDUSTRY AND CITY.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.								
		Total.	In establishments where the prevailing hours of labor per week were—							
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries.....	1914	194,310	27,905	9,135	18,461	62,102	66,958	6,861	2,046	842
	1909	182,583	12,057	4,426	20,759	40,010	93,072	5,366	4,732	2,170
Agricultural implements.....	1914	3,143	4	65	88	802	2,133	1		
	1909	2,704				1,906	798			
Automobiles, including bodies and parts.....	1914	4,889	83	128	55	4,431	192			
	1909	4,298	4		278	2,121	985		915	
Boots and shoes, including findings.....	1914	5,814	312	16	523	2,446	2,512			
	1909	5,431	3	28	430	1,458	3,512			
Boxes, fancy and paper.....	1914	1,319	37		178	1,041	63			
	1909	824		17	411	76	320			
Brass, bronze, and copper products.....	1914	1,122	143	44	51	881	3			
	1909	1,280	4		28	793	464			
Bread and other bakery products.....	1914	2,107	163	42	232	431	1,094	206	19	10
	1909	1,751	60	186	136	27	1,081	198	44	19
Butter, cheese, and condensed milk.....	1914	3,717	208	73	243	251	1,350	1,361	41	100
	1909	2,883	251	22	68	192	766	1,193	94	367
Canning and preserving.....	1914	2,087	109	207	421	442	1,311	51	131	15
	1909	1,776		47	13	125	1,051	217	251	72
Carriages and wagons and materials.....	1914	2,638	16	78	89	1,921	534			
	1909	3,437	8		119	1,241	2,069			
Cars and general shop construction and repairs by steam-railroad companies.....	1914	9,011	6,693		729	121	1,156	312		
	1909	8,904	124	977	7,120		268	409		

Table 11—Continued.

INDUSTRY AND CITY.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.								
		Total.	In establishments where the prevailing hours of labor per week were—							
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
Clothing, men's, including shirts.....	1914 1909	3,584 4,252	950 884	1,965 80	192 1,700	477 1,251	322			
Confectionery.....	1914 1909	2,242 1,780	100 6	55	73 350	1,098 409	8 1,016	8		
Copper, tin, and sheet-iron products.....	1914 1909	3,372 2,780	901 318	173	104 08	1,434 1,054	760 1,340			
Electrical machinery, apparatus, and supplies.....	1914 1909	2,115 1,409	3 7	56 41	685 351	1,345 939	26 71			
Flour-mill and gristmill products.....	1914 1909	1,116 1,184	168 248	1 5	70 4	6 2	722 837	36 70	165 10	2 2
Foundry and machine-shop products.....	1914 1909	26,521 24,219	1,558 44	980 295	1,193 511	18,514 14,540	3,714 8,816	540 4		10
Furniture and refrigerators.....	1914 1909	11,792 11,118	178 40	50 20	1,213 161	4,879 1,121	5,464 9,780	1		
Gas, illuminating and heating.....	1914 1909	1,240 1,063	38 0		27 14	44 49	350 793	671 35		110 253
Gloves and mittens, leather.....	1914 1909	1,711 1,643	224 53	384 64	551 188	381 875	171 462			
Hosiery and knit goods.....	1914 1909	6,244 4,282	1,085 24	300 96	1,660 920	3,100 2,876	39 360			
Iron and steel, steel works, and rolling mills.....	1914 1909	2,020 2,124	80 10	171	32 10	925 102	812 977		1,025	
Leather goods.....	1914 1909	1,400 2,069	6 25	78 73	68 321	1,105 1,082	232 594	1 4		
Leather, tanned, curried, and finished.....	1914 1909	5,860 7,548	20		67 13	1,319 717	4,448 6,818	15		
Liquors, malt.....	1914 1909	5,414 5,061	3,674 3,423	60 2	1,038 614	37 36	562 913	36 64	7 4	5
Lumber and timber products.....	1914 1909	32,282 34,003	1,897 280	420 74	1,755 808	2,622 1,202	25,320 31,217	15 547	9	343 6
Marble and stone work.....	1914 1909	1,300 2,593	307 408	324 490	509 603	93 40	64 678	3 8		
Paper and wood pulp.....	1914 1909	8,008 7,467	378 661			485	4,473 3,495	2,136 1,412	1,496 2,043	126
Printing and publishing.....	1914 1909	5,653 5,360	3,421 2,219	604 744	1,165 1,613	316 333	128 415	15 22	2	2 14
Rubber goods.....	1914 1909	1,637 212		17 38		1,245	375 169	5		
Slaughtering and meat packing.....	1914 1909	2,236 1,890	13 135		866 734	112	1,244 1,021		1	
Tobacco manufactures.....	1914 1909	2,485 2,391	1,053 1,863	130 21	135 173	201 31	58 288	8 15		
All other industries.....	1914 1909	28,383 24,649	3,326 931	2,009 1,085	4,348 2,706	8,637 5,403	7,560 11,700	1,406 1,217	184 337	190 1,210
Total for cities.....	1914	121,095	23,221	7,243	11,467	45,814	20,850	2,393	871	236
APPLETON.....	1914	2,144	61	122	103	106	1,173	131	369	19
ASHLAND.....	1914	797	134	6	33	39	362		104	110
BELOIT.....	1914	3,527	7	2	203	3,065	169	61		20
EAU CLAIRE.....	1914	2,315	66	10	118	553	1,483	82	3	
FOND DU LAC.....	1914	1,925	62	163	91	270	1,328	11		
GREEN BAY.....	1914	2,724	149	74	203	679	1,321	208		
JANESVILLE.....	1914	1,495	52	114	246	861	208	14		
KENOSHA.....	1914	7,155	440	14	158	0,203	334	6		
LA CROSSE.....	1914	3,340	733	200	703	817	848	38	1	
MADISON.....	1914	2,084	187	48	162	1,058	556	73		
MANTOWOC.....	1914	2,012	56	105	773	313	761		4	
MARINETTE.....	1914	2,112	202	15	8	180	1,637	1	100	6
MILWAUKEE.....	1914	61,830	14,713	5,465	5,804	23,555	10,482	1,583	230	7
OSHKOSH.....	1914	5,782	2,743	79	606	869	1,480	5		
RACINE.....	1914	10,079	1,045	530	571	5,141	2,792			
SHEBOYGAN.....	1914	7,152	1,479	199	1,113	1,946	2,321	37		52
SUPERIOR.....	1914	2,121	890	36	411	15	710	43		10
WAUSAU.....	1914	2,492	199	61	96	144	1,085	10		

The figures in this table, for the state as a whole and for the selected industries, show a tendency toward a shortening of the working day of wage earners. In 1909, 105,340, or nearly three-fifths of the total

average number of wage earners for all industries combined, were employed in establishments where the prevailing hours of labor were 60 hours or more per week, whereas 76,707, or less than two-fifths, were so

employed in 1914. Among the separate industries, foundry and machine-shop products shows the most pronounced decrease in hours of labor. In 1909 only 63.6 per cent of the total number of wage earners were employed less than 60 hours per week, while in 1914 the proportion thus employed had increased to 83.9 per cent. A perceptible change in the same direction is shown for most of the industries.

In 1914, for all industries combined and a number of the important industries, the largest number of wage earners for any of the groups shown were employed in establishments in which the prevailing hours of labor were 60 per week. In the manufacture of hosiery and knit goods and in the foundry and machine-shop industry, the prevailing hours of labor were between 54 and 60 per week. In the repair shops of the steam-railroad companies 74.3 per cent of the wage

earners were employed by establishments reporting 48 hours per week as the prevailing time of work, and in the printing and publishing industry 60.5 per cent of the wage earners were employed in establishments in the same group.

Of the combined total average number of wage earners, 121,095 for the 18 cities in 1914, 87,745, or 72.5 per cent, were in establishments where the prevailing hours were less than 60 per week. In most of the cities in the state, the largest number of wage earners were employed in establishments reporting 54 and 60 hours per week as the prevailing time of employment.

**Location of establishments.**—Table 12 shows, for 1914, 1909, and 1899, the extent to which the manufactures in Wisconsin were centralized in the cities having more than 10,000 inhabitants.

**Table 12**

	Census year.	Aggregate.	CITIES HAVING A POPULATION OF 10,000 OR OVER.								DISTRICTS OUTSIDE OF CITIES HAVING A POPULATION OF 10,000 OR OVER.	
			Total.		10,000 to 25,000.		25,000 to 100,000.		100,000 and over.		Number or amount.	Per cent of aggregate.
			Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.		
Number of places.....	1914	.....	18	.....	9	.....	8	.....	1	.....	.....	.....
	1910	.....	18	.....	10	.....	7	.....	1	.....	.....	.....
	1900	.....	18	.....	13	.....	4	.....	1	.....	.....	.....
Population <sup>1</sup> .....	1914	2,446,716	835,277	34.1	145,932	6.0	269,756	11.0	419,589	17.1	1,611,439	65.9
	1910	2,333,880	752,948	32.3	160,061	6.9	219,030	9.4	373,857	16.0	1,580,912	67.7
	1900	2,069,042	599,845	29.0	197,158	9.5	117,872	5.7	285,315	13.8	1,469,197	71.0
Number of establishments.....	1914	9,104	3,457	38.0	672	7.4	1,057	11.6	1,728	19.0	5,047	62.0
	1909	9,721	3,330	34.2	688	7.1	878	9.0	1,764	18.1	6,391	65.7
	1899	7,841	2,700	34.4	811	10.3	470	6.0	1,419	18.1	5,141	65.6
Average number of wage earners.....	1914	194,310	121,095	62.3	18,819	9.7	40,437	20.8	61,839	31.8	73,215	37.7
	1909	182,583	113,662	62.3	24,466	13.4	29,694	16.3	59,602	32.6	68,921	37.7
	1899	137,525	82,056	59.7	25,944	18.9	14,892	10.8	41,220	30.0	55,469	40.3
Value of products.....	1914	\$695,172,002	\$422,301,023	60.7	\$55,906,682	8.0	\$142,779,199	20.5	\$223,555,142	32.2	\$272,870,979	39.3
	1909	590,305,538	364,736,784	61.8	73,322,285	12.4	83,000,889	14.1	208,323,030	35.3	225,568,754	38.2
	1899	326,752,378	194,671,599	59.6	49,548,271	15.2	34,269,226	10.5	110,854,102	33.9	132,081,279	40.4
Value added by manufacture.....	1914	277,756,928	185,835,975	66.9	22,900,386	8.3	64,166,382	23.1	98,679,207	35.5	91,920,953	33.1
	1909	243,943,055	158,283,857	64.9	30,451,355	12.5	40,110,295	16.4	87,702,207	36.0	85,685,008	35.1
	1899	141,057,485	88,677,429	62.9	23,127,463	16.4	14,880,564	10.2	51,160,492	36.3	52,380,056	37.1

<sup>1</sup> Census estimate of population for 1914.

In 1914, 60.7 per cent of the total value of manufactured products were reported from cities having over 10,000 inhabitants, and 62.3 per cent of the average wage earners in manufacturing establishments were employed in such cities. The figures indicate that, while very little relative change took place during the fifteen years, the manufacturing industries of the cities in question grew somewhat more rapidly than those of the districts outside. The group of cities having a population of 10,000 but less than 25,000 in 1914 shows a decrease in the value of products and average number of wage earners. This is caused by the population of the city of Kenosha increasing to such an extent that it was included with the cities having a population of 25,000 but less than 100,000 in 1914. There was only one city in the state, Milwaukee, that had a population of 100,000 and over. Of the total value of products for the state in 1914, 8 per cent was reported from nine cities having 10,000 but under 25,000 inhabitants, 20.5 per cent from the

eight cities having 25,000 but under 100,000 inhabitants, and 32.2 per cent from Milwaukee.

The relative importance in manufactures of each of the 18 cities having more than 10,000 inhabitants, as measured by average number of wage earners and by value of products, in 1914, 1909, and 1904, is shown in Table 13. The cities are listed in the order of their importance as shown by value of products.

Every city, except Oshkosh, Fond du Lac, and Ashland, shows an increase in the value of products from 1909 to 1914, and for the five-year period 1904-1909 Ashland and Marinette were the only cities showing decreases. The greatest percentages of gain from 1909 to 1914 were 76.8 per cent in Racine and 77.3 per cent in Superior; the greatest from 1904 to 1909 was 87.5 per cent in Kenosha. Milwaukee, the largest and most important city in the state, shows an increase of 7.3 per cent in value of products and 3.9 per cent in the average number of wage earners from 1909 to 1914. The city reported 32.2 per cent of the

total value of products of the state in 1914 and employed 31.8 per cent of the total number of wage earners. One-third of the total value of the foundry and machine-shop products of the state, more than one-half of the value of the products for the leather and printing and publishing industries, two-thirds of the brewing industry, and the entire output of the millinery and lace goods were reported by Milwaukee. The city ranked twelfth among the cities of the United States in value of products in 1904 and tenth in 1909 and 1914.

**Table 13**

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1914	1909	1904	1914	1909	1904
Milwaukee.....	61,839	50,502	43,300	\$223,555,142	\$208,323,030	\$137,004,955
Racine.....	10,079	8,381	6,504	43,632,384	21,072,609	16,458,955
Kenosha.....	7,155	6,440	4,354	28,341,150	23,181,072	12,302,000
Sheboygan.....	7,152	6,088	5,003	17,500,450	11,200,020	9,761,110
La Crosse.....	3,340	3,329	2,644	14,730,232	14,103,148	8,130,432
Oshkosh.....	5,782	5,778	4,840	13,880,930	14,730,252	8,052,402
Superior.....	2,121	1,817	1,343	11,062,590	6,574,457	6,350,981
Manitowoc.....	2,012	1,625	1,321	8,460,094	5,938,887	4,427,810
Appleton.....	2,144	2,125	2,486	7,557,073	6,734,405	6,072,467
Wausau.....	2,492	2,092	1,945	7,325,304	6,286,532	4,644,457
Beloit.....	3,527	2,986	2,471	6,027,001	5,885,001	4,485,224
Green Bay.....	2,724	2,679	2,111	6,797,505	6,235,209	4,873,027
Eau Claire.....	2,315	2,624	1,986	6,773,829	5,851,733	3,201,143
Fond du Lac.....	1,025	2,707	2,506	6,780,850	8,226,908	5,599,006
Madison.....	2,081	1,792	1,476	6,206,070	5,407,105	3,201,143
Janesville.....	1,495	1,451	1,348	5,650,226	5,155,731	3,846,038
Marinette.....	2,112	1,491	1,045	4,074,473	3,809,378	3,033,309
Ashland.....	707	1,110	1,361	1,827,032	2,748,438	4,210,355

Eau Claire. In Fond du Lac the tanning and currying of leather was the predominating industry, and in Green Bay the manufacture of paper and pulp.

In Janesville the manufacture of agricultural implements was the leading industry, as in 1909. The principal industries in Kenosha were the tanning, currying, and finishing of leather, and the manufacture of furniture, refrigerators, and automobiles; in La Crosse, flour mills and gristmills and the brewing industry; in Madison, the manufacture of electrical machinery, apparatus, and supplies, and foundry and machine-shop products; in Manitowoc, the aluminum ware and malt industries; in Marinette, the lumber and timber industry; in Oshkosh, the manufacture of matches, and lumber and planing-mill products; in Racine, the manufacture of agricultural implements, automobiles, including bodies and parts, food preparations, foundry and machine-shop products, and rubber goods; in Sheboygan, furniture and refrigerators, leather, tanned, curried, and finished, and the manufacture of plumbers' supplies; in Superior, flour mills and gristmills; in Wausau, the lumber and timber and flour-mill and gristmill industries.

**Character of ownership.**—Table 14 presents statistics concerning the character of ownership, or legal organization, of manufacturing enterprises. For all industries combined, for the state as a whole, comparative figures are given for 1914, 1909, and 1904; for selected industries, statistics for 1914 and 1909 are shown; and for individual cities the figures are for all industries combined and relate only to 1914. In order to avoid disclosing operations of individual establishments, it is necessary to omit several important industries from this table.

**Table 14**

INDUSTRY AND CITY.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.								
		NUMBER OF ESTABLISHMENTS OWNED BY—			Total.	In establishments owned by—			Per cent of total.			Total.	Of establishments owned by—			Per cent of total.			
		Indiv- iduals.	Cor- pora- tions.	All oth- ers.		Indiv- iduals.	Cor- pora- tions.	All oth- ers.	Indiv- iduals.	Cor- pora- tions.	All oth- ers.		Indiv- iduals.	Corpora- tions.	All others.	Indiv- iduals.	Corpora- tions.	All oth- ers.	
All industries.....	1914	4,416	2,523	2,135	104,310	11,402	172,909	9,030	5.9	80.0	5.1	\$695,172,002	\$54,000,553	\$582,284,229	\$68,887,220	7.8	83.8	8.5	
	1909	4,975	2,422	2,324	182,583	14,256	156,027	12,300	7.8	85.5	6.7	690,305,538	53,714,983	471,360,437	65,230,118	9.1	79.8	11.1	
	1904	4,420	1,981	2,157	151,301	15,224	119,097	16,470	10.1	79.1	10.8	411,139,681	43,609,849	310,112,592	56,617,240	10.6	75.6	13.8	
Agricultural implements..	1914	13	24	9	3,143	21	3,100	22	0.7	98.6	0.7	20,110,058	112,234	19,028,045	77,879	0.6	99.1	0.4	
	1909	13	27	5	2,704	41	2,628	35	1.5	97.2	1.3	11,411,303	124,187	11,208,200	78,916	1.1	98.2	0.7	
Automobiles, including bodies and parts.	1914	10	31	2	4,879	120	4,850	.....	0.6	99.4	.....	18,478,196	118,750	18,350,446	.....	0.6	99.4	.....	
	1909	6	19	5	4,208	29	3,508	701	0.7	83.0	16.3	11,440,242	91,846	7,795,719	3,552,077	0.8	68.1	31.1	
Boots and shoes, includ- ing findings.	1914	11	48	6	5,814	117	5,573	124	2.0	95.9	2.1	17,832,193	277,103	17,123,879	431,211	1.6	96.0	2.4	
	1909	16	48	4	5,431	161	5,123	117	3.5	94.3	2.2	13,062,234	305,121	12,972,822	264,201	2.7	95.4	1.9	
Bread and other bakery products.	1914	607	27	70	2,197	1,215	788	194	55.3	35.9	8.8	8,057,702	4,642,482	2,704,150	711,064	57.6	33.6	8.8	
	1909	602	10	55	1,751	1,247	325	179	71.2	18.6	10.2	6,871,589	4,887,101	1,231,323	753,105	71.1	17.9	11.0	
Butter, cheese, and con- densed milk.	1914	1,129	253	1,049	3,717	874	1,355	1,488	23.5	36.5	40.0	72,858,592	22,849,459	20,068,090	29,941,034	31.4	27.5	41.1	
	1909	1,242	283	1,105	2,863	709	808	1,286	26.9	28.2	44.9	53,843,249	19,332,700	10,438,592	24,071,957	35.9	10.4	44.7	
Canning and preserving...	1914	10	89	13	2,087	77	2,586	24	2.9	96.2	0.9	7,335,338	359,236	6,830,781	145,321	4.9	93.1	2.0	
	1909	17	61	5	1,770	200	1,555	21	11.3	87.0	1.2	4,807,454	656,235	4,021,358	129,861	13.7	83.6	2.7	
Carriages and wagons and materials.	1914	100	25	54	2,038	302	2,120	216	11.4	80.4	8.2	7,544,321	639,369	6,350,783	554,169	8.5	84.2	7.3	
	1909	184	32	70	3,437	457	2,731	249	13.3	79.5	7.2	8,899,171	987,657	7,000,575	820,939	11.1	79.7	9.2	
Cars and general shop con- struction and repairs by steam-railroad compan- ies.	1914	.....	35	.....	9,011	.....	9,011	.....	.....	100.0	.....	10,020,886	.....	10,020,886	.....	.....	100.0	.....	
	1909	.....	22	.....	8,694	.....	8,694	.....	.....	100.0	.....	14,332,152	.....	14,332,152	.....	.....	100.0	.....	

<sup>1</sup> Includes the group "all others."

Table 14—Continued.

INDUSTRY AND CITY.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.								
		NUMBER OF ESTABLISHMENTS OWNED BY—			Total.	In establishments owned by—			Per cent of total.			Total.	Of establishments owned by—			Per cent of total.			
		Individuals.	Corporations.	All others.		Individuals.	Corporations.	All others.	Individuals.	Corporations.	All others.		Individuals.	Corporations.	All others.	Individuals.	Corporations.	All others.	
Clothing, mens', including shirts.	1914 1909	16 53	31 31	12 10	3,584 4,252	190 739	2,933 3,089	451 474	5.3 17.4	81.8 71.5	12.9 11.1	\$8,688,402 9,405,184	\$147,423 443,847	\$7,447,743 7,874,838	\$1,093,296 1,080,499	1.7 4.7	85.7 83.7	12.6 11.6	
Copper, tin, and sheet-iron products.	1914 1909	56 49	30 20	25 30	3,372 2,780	180 170	3,005 2,380	181 230	5.5 6.1	89.1 85.0	5.4 8.3	10,202,355 7,130,453	495,032 434,887	9,246,486 6,117,785	460,837 583,781	4.9 6.1	90.0 85.7	4.5 8.2	
Flour-mill and gristmill products.	1914 1909	122 143	60 75	70 104	1,116 1,184	170 180	709 663	237 341	15.2 15.2	63.5 65.0	21.2 28.3	28,697,413 31,667,434	2,981,868 4,094,813	21,417,056 19,574,951	4,297,889 7,997,670	10.4 12.9	74.9 61.8	15.0 25.3	
Foundry and machine-shop products.	1914 1909	125 120	294 248	75 76	25,521 24,219	553 523	25,115 22,851	853 845	2.1 2.2	94.7 94.4	3.2 3.5	60,698,891 54,124,000	1,813,787 1,085,594	57,283,892 51,244,270	2,100,742 1,794,170	2.2 2.0	94.4 94.7	3.5 3.3	
Furniture and refrigerators.	1914 1909	27 24	80 81	7 9	11,792 11,118	280 342	11,405 10,880	107 190	2.4 3.1	96.7 95.2	0.9 1.8	22,580,531 18,656,535	488,600 465,550	21,853,922 17,808,053	243,949 381,932	2.2 2.5	96.8 95.5	1.1 2.0	
Hosiery and knit goods.	1914 1909	21 22	41 36	6 3	6,244 4,282	55 97	6,070 4,166	119 19	0.9 2.3	97.2 97.3	1.9 0.3	13,292,305 7,843,389	101,369 119,081	12,062,300 7,602,599	228,576 61,709	0.8 1.5	97.5 97.7	1.7 0.8	
Leather, tanned, curried, and finished.	1914 1909	2 3	16 21	0 8	5,869 7,548	..... 10	5,869 6,115	1,782 1,423	..... 0.1	86.7 81.0	13.3 18.9	42,204,202 44,667,676	..... 17,560	37,214,155 35,754,905	4,490,047 8,895,151	..... (*)	88.2 80.0	11.8 20.0	
Liquors, malt.	1914 1909	27 38	88 74	17 24	5,414 5,061	150 224	5,160 4,713	98 124	2.0 4.4	95.3 93.1	1.8 2.5	40,884,284 32,125,919	940,266 1,013,956	39,323,705 30,565,935	620,313 546,028	2.3 3.2	96.2 95.1	1.5 1.7	
Lumber and timber products.	1914 1909	238 471	257 310	140 239	32,282 34,093	1,502 2,988	28,089 28,693	2,091 2,412	4.7 8.8	88.9 84.2	6.5 7.1	55,362,511 57,969,170	2,530,331 4,699,295	49,363,311 40,365,265	3,468,869 3,004,610	4.6 8.1	89.2 85.2	6.3 6.7	
Malt.	1914 1909	1 2	22 20	2 3	637 456	..... .....	618 433	119 123	..... .....	97.0 95.0	3.0 5.0	15,533,339 9,597,440	..... .....	15,350,596 9,385,633	182,743 1,210,857	..... .....	98.8 97.8	1.2 2.2	
Printing and publishing.	1914 1909	477 501	207 191	145 141	5,653 5,360	1,117 1,301	3,951 3,567	585 492	10.8 24.3	69.9 66.5	10.3 9.2	14,455,116 11,880,644	2,159,784 2,189,286	11,145,402 8,778,576	1,145,870 892,782	14.9 18.5	77.1 74.0	7.9 7.5	
Slaughtering and meat packing.	1914 1909	21 24	13 10	12 14	2,236 1,890	149 122	2,019 1,676	68 92	6.7 6.5	90.3 88.7	3.0 4.0	34,697,955 27,216,864	1,875,208 1,260,368	32,005,258 25,058,909	817,489 897,587	5.4 4.6	92.2 92.1	2.4 3.3	
Total for cities.	1914	1,627	1,350	474	121,095	6,139	110,470	4,477	5.1	91.2	3.7	422,301,023	18,375,092	385,009,681	18,015,650	4.4	91.2	4.5	
APPLETON.	1914	49	44	14	2,144	127	1,939	78	5.9	90.4	3.0	7,557,673	340,782	7,035,648	181,243	4.5	93.1	2.4	
ASHLAND.	1914	15	16	6	707	32	742	23	4.0	93.1	2.9	1,827,032	71,841	1,679,527	75,664	3.9	91.0	4.1	
BELOIT.	1914	17	21	12	3,527	45	3,347	135	1.3	94.9	3.8	6,927,601	116,534	6,376,662	435,405	1.7	92.0	6.3	
EAU CLAIRE.	1914	39	43	12	2,315	114	2,174	27	4.9	93.9	1.2	6,773,829	446,253	6,214,047	111,529	6.0	91.8	1.6	
FOND DU LAC.	1914	49	33	18	1,925	126	1,730	69	6.5	89.9	3.0	6,700,850	334,000	6,215,596	210,654	4.9	91.9	3.1	
GREEN BAY.	1914	44	47	13	2,724	253	2,371	100	9.3	87.0	3.7	6,707,505	764,625	5,773,755	269,122	11.2	84.9	3.8	
JANESVILLE.	1914	24	35	12	1,495	59	1,378	58	3.9	92.2	3.9	5,699,226	194,504	5,273,025	191,694	3.4	93.2	3.4	
KENOSHA.	1914	38	23	14	7,155	124	6,981	50	1.7	97.0	0.7	28,341,156	340,186	27,826,606	168,304	1.2	98.2	0.6	
LA CROSSE.	1914	74	65	28	3,340	255	3,340	141	7.6	88.1	4.2	14,739,232	751,751	13,449,687	537,794	5.1	91.3	3.6	
MADISON.	1914	35	57	30	2,084	172	1,782	130	8.3	85.5	6.2	6,206,970	650,593	4,958,527	597,850	10.5	79.9	9.6	
MANITOWOC.	1914	37	28	12	2,012	193	1,750	60	9.6	87.4	3.0	8,400,694	398,484	7,794,614	297,596	4.7	92.1	3.2	
MARINETTE.	1914	26	20	5	2,112	67	2,007	38	3.2	95.0	1.8	4,674,473	185,305	4,391,438	97,670	4.0	93.9	2.1	
MILWAUKEE.	1914	901	619	208	61,839	3,430	55,628	2,781	5.5	90.0	4.5	223,555,142	10,715,786	200,989,078	11,849,738	4.8	89.9	5.3	
OSHKOSH.	1914	70	64	23	5,782	270	5,254	258	4.7	90.0	4.5	13,880,936	638,894	12,920,043	830,399	4.0	89.4	6.0	
RACINE.	1914	65	95	29	10,079	304	9,533	242	3.0	94.6	2.4	43,032,384	1,174,533	41,368,152	1,089,699	2.7	94.8	2.5	
SHEBOYGAN.	1914	49	70	13	7,152	283	6,779	90	4.0	94.8	1.2	17,509,450	576,760	16,745,267	187,423	3.3	95.6	1.1	
SUPERIOR.	1914	54	39	18	2,121	159	1,870	92	7.5	88.2	4.3	11,662,560	422,138	9,629,840	1,610,588	3.0	82.6	13.8	
WAUSAU.	1914	41	37	7	2,402	126	2,261	105	5.1	90.7	4.2	7,325,304	240,063	6,866,263	212,078	3.4	93.7	2.9	

\* Includes the group "individuals."

† Less than one-tenth of 1 per cent.

For all industries combined, this table shows a decrease in individual and "all other" forms of ownership, but an increase in corporations, in the number of establishments, average number of wage earners, and value of products. While the establishments operated by corporations at the census of 1914 formed only 27.7 per cent of the total number of establishments, they reported 83.8 per cent of the total value of manufactured products. In 1909 such establishments constituted 24.9 per cent of the total number reported and 79.8 per cent of the total value of products. In both census periods corporations controlled about four-fifths of the manufacturing activities of the state, as measured either by average number of wage earners or value of products. In 12 of the 20 industries shown separately in this table, a majority of the establishments were under corporate ownership. The bread and bakery and the butter, cheese, and condensed-milk industries were the only two in which corpora-

tions did not report the greater part of the products, the establishments in the former industry being operated mostly by individuals, and in the latter group of industries by individuals or by corporative associations. In each of the 18 cities reported separately, practically the same condition exists as in the state. The total for these cities shows, both for average number of wage earners and for value of products, 91.2 per cent reported for establishments under corporate ownership.

**Size of establishments.**—The tendency for manufacturing to become concentrated in large establishments is indicated by the statistics given in Table 15.

For 1914, 1,008 establishments, or 11 per cent of the total number in the state, each reported products exceeding \$100,000 in value, as compared with 879, or 9.1 per cent of the total, for 1909, and 679, or 8 per cent, for 1904. For 1914 these establishments reported 80.4 per cent of the total average number of wage earners

and of the total value of products. In the same year the small establishments—those having products of less than \$5,000 in value—although representing 28.9 per cent of the total number of establishments, reported only nine-tenths of 1 per cent of the total value

of products. The establishments having products valued at \$100,000 and over reported an increased proportion of the total value of products at each successive census, from 73.5 per cent in 1904 to 77.2 per cent in 1909, and 80.4 per cent in 1914.

**Table 15**

VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			VALUE ADDED BY MANUFACTURE.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904
	All classes.....	9,104	9,721	8,558	194,310	182,583	151,391	\$695,172,002	\$590,305,538	\$411,130,081	\$277,750,028	\$243,948,055
Less than \$5,000.....	2,031	3,071	2,955	2,779	3,458	3,598	6,627,110	7,615,812	7,730,277	3,819,033	4,457,314	4,008,503
\$5,000 to \$20,000.....	3,213	3,707	3,355	9,109	11,417	11,220	35,232,417	30,712,019	33,425,147	11,825,632	13,837,408	12,305,583
\$20,000 to \$100,000.....	2,252	2,004	1,569	20,189	20,005	20,882	94,373,503	80,057,000	67,778,742	32,210,841	32,235,306	28,705,305
\$100,000 to \$1,000,000.....	395	793	621	90,601	88,003	78,320	256,945,889	227,034,734	177,248,223	107,330,339	102,700,303	81,687,022
\$1,000,000 and over.....	112	86	58	65,632	52,740	31,365	302,993,493	228,084,707	124,948,292	122,605,083	90,718,414	57,058,056
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.....	28.9	31.0	34.5	1.4	1.9	2.4	0.9	1.3	1.9	1.4	1.8	2.2
\$5,000 to \$20,000.....	35.3	38.1	30.2	4.7	6.3	7.4	5.1	6.7	8.1	4.3	5.7	6.7
\$20,000 to \$100,000.....	24.7	21.2	18.3	13.6	14.8	17.8	13.0	14.7	16.5	11.6	13.2	15.0
\$100,000 to \$1,000,000.....	9.8	8.2	7.3	46.0	48.2	51.7	36.8	38.0	43.1	38.0	42.1	44.4
\$1,000,000 and over.....	1.2	0.0	0.7	33.8	28.0	20.7	43.0	38.6	30.4	44.1	37.2	31.0

Table 16 gives, for 1914 and 1909, for 14 of the more important industries, a classification of establishments, wage earners, value of products, and value added by

manufacture, similar to that presented in Table 15, for all industries combined.

**Table 16**

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.				AVERAGE NUMBER OF WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.			
	1914		1909		1914		1909		1914		1909		1914		1909	
	1914	1909	Per cent distribution.	1914	1909	Per cent distribution.	1914	1909	Per cent distribution.	1914	1909	Per cent distribution.	1914	1909	Per cent distribution.	
AGRICULTURAL IMPLEMENTS.....	46	45	100.0	100.0	3,143	2,704	100.0	100.0	\$20,119,058	\$11,411,303	100.0	100.0	\$11,443,424	\$7,473,967	100.0	100.0
Less than \$5,000.....	16	13	34.8	28.0	16	11	0.5	0.4	41,058	33,741	0.2	0.3	22,632	20,192	0.2	0.3
\$5,000 to \$20,000.....	11	9	23.9	20.0	51	39	1.6	1.4	140,183	108,374	0.7	0.9	68,723	49,214	0.6	0.7
\$20,000 to \$100,000.....	7	13	15.2	28.9	100	212	3.2	7.8	341,337	597,647	1.7	5.2	171,375	320,241	1.5	4.3
\$100,000 and over <sup>1</sup> .....	12	10	26.1	22.2	2,976	2,442	94.7	90.3	19,599,480	10,971,641	97.4	93.5	11,180,694	7,084,320	97.7	94.8
BOOTS AND SHOES, INCLUDING FINDINGS.....	65	68	100.0	100.0	5,814	5,431	100.0	100.0	17,832,103	13,002,234	100.0	100.0	5,709,760	4,849,398	100.0	100.0
Less than \$5,000.....	6	9	9.2	13.2	7	12	0.1	0.2	24,068	21,115	0.1	0.2	12,884	10,006	0.2	0.2
\$5,000 to \$20,000.....	9	9	13.8	13.2	41	55	0.7	1.0	81,606	117,543	0.5	0.9	28,733	41,704	0.5	0.9
\$20,000 to \$100,000.....	18	18	24.6	20.5	316	503	5.4	9.3	830,044	957,321	4.7	7.0	302,353	333,043	5.3	6.9
\$100,000 to \$1,000,000.....	30	20	46.2	42.0	3,025	3,272	52.0	60.2	8,961,633	7,710,025	50.3	56.7	1,776,464	2,700,754	31.1	57.1
\$1,000,000 and over.....	4	3	6.2	4.4	2,425	1,689	41.7	29.3	7,025,842	4,787,230	44.4	35.2	3,589,326	1,694,291	62.0	34.9
BUTTER, CHEESE, AND CONDENSED MILK.....	2,431	2,630	100.0	100.0	3,717	2,863	100.0	100.0	72,858,592	53,843,249	100.0	100.0	7,533,054	5,837,619	100.0	100.0
Less than \$5,000.....	113	217	4.6	8.2	45	78	1.2	2.7	389,369	750,024	0.5	1.4	35,691	99,094	0.5	1.7
\$5,000 to \$20,000.....	1,305	1,645	53.7	62.5	904	1,124	24.3	39.3	10,198,515	19,089,387	22.2	35.5	1,475,887	2,192,013	19.0	37.5
\$20,000 to \$100,000.....	923	723	38.0	27.5	1,418	1,214	38.1	42.4	32,903,225	26,172,283	45.2	48.6	2,892,022	2,419,293	38.4	41.4
\$100,000 and over <sup>1</sup> .....	90	45	3.7	1.7	1,350	447	36.3	15.6	28,370,482	7,831,555	32.1	14.5	3,129,554	1,127,219	41.5	19.3
CLOTHING, MEN'S, INCLUDING SHIRTS.....	59	94	100.0	100.0	3,584	4,252	100.0	100.0	8,688,462	9,405,184	100.0	100.0	3,694,621	3,956,977	100.0	100.0
Less than \$5,000.....	6	20	10.2	21.3	37	79	1.0	1.9	17,547	49,900	0.2	0.5	13,799	40,839	0.4	1.0
\$5,000 to \$20,000.....	15	39	25.4	41.5	232	674	6.5	15.9	183,788	380,402	2.1	4.0	122,540	301,658	3.3	7.6
\$20,000 to \$100,000.....	18	14	30.5	14.9	416	440	11.6	10.3	723,788	643,130	8.3	6.8	270,030	320,914	7.3	8.1
\$100,000 and over <sup>1</sup> .....	20	21	33.9	22.3	2,899	3,059	80.9	71.9	7,763,339	8,331,662	89.4	88.0	3,288,252	3,293,566	89.0	83.2
COPPER, TIN, AND SHEET-IRON PRODUCTS.....	111	105	100.0	100.0	3,372	2,780	100.0	100.0	10,202,355	7,130,453	100.0	100.0	4,619,026	2,430,265	100.0	100.0
Less than \$5,000.....	34	29	30.6	27.6	41	39	1.2	1.4	90,801	74,809	0.9	1.0	56,466	45,800	1.2	1.8
\$5,000 to \$20,000.....	46	49	41.4	46.7	164	233	4.9	8.4	458,403	598,514	4.5	8.0	254,258	289,172	5.5	11.7
\$20,000 to \$100,000.....	21	17	18.9	16.2	276	240	8.2	8.6	778,894	729,241	7.6	10.2	363,438	315,131	7.9	12.7
\$100,000 to \$1,000,000.....	6	7	5.4	6.7	1,301	905	41.3	21.8	1,382,117	1,295,137	13.5	18.1	513,377	473,811	11.1	19.1
\$1,000,000 and over.....	4	3	3.6	2.9	1,590	1,663	44.5	59.8	7,492,140	4,408,752	73.4	62.6	3,430,987	1,356,351	74.3	54.7
FLOUR-MILL AND GRIST-MILL PRODUCTS.....	252	322	100.0	100.0	1,116	1,184	100.0	100.0	28,607,413	31,067,434	100.0	100.0	3,717,512	4,620,206	100.0	100.0
Less than \$5,000.....	22	16	8.7	5.0	15	6	1.3	0.5	60,650	46,736	0.2	0.1	10,782	7,996	0.3	0.2
\$5,000 to \$20,000.....	84	92	33.3	28.6	92	80	3.2	6.8	990,683	1,180,087	3.5	3.7	162,138	197,852	4.4	4.3
\$20,000 to \$100,000.....	115	180	45.6	55.9	273	352	24.5	29.7	4,689,023	7,731,494	16.3	24.4	664,332	1,150,910	15.2	24.9
\$100,000 to \$1,000,000.....	25	27	9.9	8.4	237	294	21.2	24.8	5,895,537	6,570,875	20.5	20.8	784,024	783,233	21.1	16.9
\$1,000,000 and over.....	6	7	2.4	2.2	499	452	44.7	38.2	17,049,620	16,129,242	60.4	50.9	2,195,336	2,489,215	59.1	53.8

<sup>1</sup> Includes the group "\$1,000,000 and over."

**Table 16—Continued.**

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.				AVERAGE NUMBER OF WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.			
	1914		1909		1914		1909		1914		1909		1914		1909	
			Per cent distribution.	Per cent distribution.			Per cent distribution.	Per cent distribution.			Per cent distribution.	Per cent distribution.			Per cent distribution.	Per cent distribution.
<b>FOUNDRY AND MACHINE-SHOP PRODUCTS.....</b>	494	444	100.0	100.0	26,521	24,219	100.0	100.0	\$60,698,391	\$54,124,000	100.0	100.0	\$32,536,506	\$31,590,204	100.0	100.0
Less than \$5,000.....	119	122	24.1	27.5	142	152	0.5	0.6	273,795	311,892	0.5	0.6	185,602	209,464	0.6	0.7
\$5,000 to \$20,000.....	119	105	24.1	23.6	655	626	2.2	2.6	1,290,018	1,163,410	2.1	2.1	748,811	786,282	2.3	2.3
\$20,000 to \$100,000.....	154	135	31.2	30.4	3,201	2,962	12.4	12.2	7,554,304	6,340,733	12.4	11.7	4,131,403	3,695,281	12.7	11.7
\$100,000 to \$1,000,000.....	92	73	18.6	16.4	12,085	10,686	45.6	44.1	25,952,826	22,159,536	42.8	40.9	14,388,546	12,331,491	44.2	39.0
\$1,000,000 and over.....	10	9	2.0	2.0	10,418	9,793	39.3	40.4	25,667,388	24,152,420	42.3	44.6	13,082,244	14,617,766	40.2	46.3
<b>FURNITURE AND REFRIGERATORS.....</b>	114	114	100.0	100.0	11,792	11,118	100.0	100.0	22,580,531	18,655,535	100.0	100.0	11,944,523	9,860,222	100.0	100.0
Less than \$5,000.....	13	10	11.4	8.8	10	13	0.2	0.1	29,023	28,915	0.1	0.2	16,448	19,082	0.1	0.2
\$5,000 to \$20,000.....	16	17	14.0	14.9	91	145	0.8	1.3	171,134	208,549	0.8	1.1	101,241	126,600	0.8	1.3
\$20,000 to \$100,000.....	41	46	36.0	39.5	1,158	1,601	9.8	14.4	2,117,817	2,393,216	9.4	12.8	1,115,414	1,388,105	9.3	14.1
\$100,000 to \$1,000,000.....	41	41	36.0	36.0	7,150	9,359	60.6	84.2	12,242,227	10,024,855	54.2	85.0	6,739,380	8,320,435	56.4	84.4
\$1,000,000 and over.....	3	1	2.6	0.8	3,374	.....	28.6	.....	8,026,325	.....	35.5	.....	3,975,040	.....	33.3	.....
<b>HOSIERY AND KNIT GOODS.....</b>	68	61	100.0	100.0	6,244	4,282	100.0	100.0	13,292,305	7,843,389	100.0	100.0	6,207,073	3,950,193	100.0	100.0
Less than \$5,000.....	20	18	29.4	29.5	31	32	0.5	0.7	37,546	40,545	0.3	0.5	19,574	20,353	0.3	0.5
\$5,000 to \$20,000.....	9	10	13.2	16.4	84	84	1.3	2.0	119,485	105,123	0.9	1.4	58,662	53,118	0.9	1.3
\$20,000 to \$100,000.....	20	13	29.4	21.3	732	467	11.7	10.9	1,120,043	623,808	8.4	8.0	528,323	323,529	8.4	8.3
\$100,000 to \$1,000,000.....	15	18	22.1	29.5	2,068	3,690	33.1	86.4	4,379,856	17,072,855	32.9	90.2	1,788,782	13,569,168	28.5	90.0
\$1,000,000 and over.....	4	2	5.9	3.3	3,329	.....	53.3	.....	7,934,760	.....	67.4	.....	3,870,782	.....	61.8	.....
<b>LEATHER, TANNED, CURRIED, AND FINISHED.....</b>	27	32	100.0	100.0	5,890	7,548	100.0	100.0	42,204,202	44,667,076	100.0	100.0	9,151,016	9,839,091	100.0	100.0
\$5,000 to \$20,000.....	3	6	11.1	18.8	21	260	0.4	0.8	30,397	217,551	0.1	0.4	14,164	246,192	0.2	0.5
\$20,000 to \$100,000.....	3	2	11.1	6.2	54	.....	0.9	.....	147,367	.....	0.3	.....	41,770	.....	0.5	.....
\$100,000 to \$1,000,000.....	14	13	51.9	40.6	858	324	14.6	10.9	7,814,875	5,577,590	18.5	12.5	1,789,554	1,128,010	19.6	11.5
\$1,000,000 and over.....	7	11	25.9	34.4	4,936	6,664	84.1	88.3	34,212,163	38,018,535	81.1	87.1	7,305,528	8,664,880	79.8	88.1
<b>LIQUORS, MALT.....</b>	132	136	100.0	100.0	5,414	5,061	100.0	100.0	40,884,284	32,125,919	100.0	100.0	27,181,523	24,228,235	100.0	100.0
Less than \$5,000.....	4	5	3.0	3.7	4	4	0.1	0.1	7,070	16,273	(3)	0.1	5,511	10,338	(3)	(3)
\$5,000 to \$20,000.....	28	37	21.2	27.2	88	119	1.6	2.4	357,060	430,469	0.9	1.3	231,206	299,072	0.9	1.2
\$20,000 to \$100,000.....	60	58	45.5	42.6	585	525	10.8	10.4	2,999,804	2,647,394	7.3	7.9	1,023,891	1,824,832	7.1	7.5
\$100,000 to \$1,000,000.....	33	31	25.0	22.8	1,053	1,167	19.4	23.1	7,794,630	7,928,183	19.1	21.7	5,246,476	5,812,705	19.3	24.0
\$1,000,000 and over.....	7	5	5.3	3.7	3,684	3,246	68.0	64.1	29,724,814	21,203,600	72.7	66.0	19,774,439	16,281,198	72.7	67.2
<b>LUMBER AND TIMBER PRODUCTS.....</b>	635	1,020	100.0	100.0	32,282	34,093	100.0	100.0	55,362,511	57,969,170	100.0	100.0	29,894,018	32,381,700	100.0	100.0
Less than \$5,000.....	203	409	32.0	40.1	844	718	1.1	2.1	455,155	901,849	0.8	1.0	304,039	636,325	1.0	2.0
\$5,000 to \$20,000.....	150	291	23.6	28.5	1,000	1,979	3.1	5.8	1,679,842	2,972,757	2.9	5.1	895,667	1,807,194	3.0	5.6
\$20,000 to \$100,000.....	156	190	24.6	18.6	4,103	5,971	12.9	17.5	7,161,766	8,562,021	12.9	14.8	3,733,965	4,881,382	12.5	15.1
\$100,000 to \$1,000,000.....	119	122	18.7	12.0	21,348	20,632	66.1	60.5	35,560,743	34,655,747	64.2	69.8	19,152,177	19,340,702	64.1	59.7
\$1,000,000 and over.....	7	8	1.1	0.8	5,427	4,793	16.8	14.1	10,605,505	10,876,790	19.2	18.8	5,807,570	5,716,097	19.4	17.7
<b>PRINTING AND PUBLISHING.....</b>	829	833	100.0	100.0	5,653	5,360	100.0	100.0	14,455,116	11,860,644	100.0	100.0	9,607,841	8,474,588	100.0	100.0
Less than \$5,000.....	478	493	57.7	59.2	644	705	11.4	13.2	1,216,037	1,212,110	8.4	10.2	927,770	934,731	9.7	11.0
\$5,000 to \$20,000.....	220	233	27.0	28.0	1,136	1,231	20.1	23.0	2,145,700	2,110,030	14.8	17.8	1,542,836	1,584,211	16.1	18.7
\$20,000 to \$100,000.....	86	82	10.4	9.8	1,500	1,614	27.6	30.1	3,805,512	3,553,981	26.3	30.0	2,553,173	2,563,239	26.6	30.2
\$100,000 and over.....	30	25	4.3	3.0	2,313	1,810	40.9	33.8	7,287,777	4,978,523	50.4	42.0	4,584,062	3,392,377	47.7	40.0
<b>SLAUGHTERING AND MEAT PACKING.....</b>	40	48	100.0	100.0	2,236	1,800	100.0	100.0	34,097,955	27,216,864	100.0	100.0	4,187,115	3,813,420	100.0	100.0
Less than \$5,000.....	7	11	15.2	22.9	5	11	0.2	0.6	19,268	32,508	0.1	0.1	7,553	9,366	0.2	0.2
\$5,000 to \$20,000.....	5	10	10.9	20.8	7	22	0.3	1.2	55,702	131,086	0.2	0.5	17,010	32,378	0.4	0.8
\$20,000 to \$100,000.....	18	11	39.1	22.9	70	43	3.1	2.3	876,517	597,963	2.5	2.2	143,825	115,204	3.5	3.0
\$100,000 to \$1,000,000.....	12	12	26.1	25.0	315	336	14.1	17.8	3,931,566	3,204,495	11.3	11.8	646,070	653,015	15.5	17.1
\$1,000,000 and over.....	4	4	8.7	8.3	1,839	1,478	82.2	78.2	29,814,812	23,250,812	85.9	85.4	3,342,657	3,003,406	80.4	78.8

<sup>1</sup> Includes the group "\$1,000,000 and over."

<sup>2</sup> Includes the group "\$20,000 to \$100,000."

<sup>3</sup> Less than one-tenth of 1 per cent.

The industries selected for presentation in the above table reflect the same condition as that shown for all industries combined, namely, a concentration into large establishments, those with products valued at \$100,000 and over. In the leather industry 99.6 per cent of the value of products was reported by establishments in this class. The remainder of the industries, with the exception of butter, cheese, and condensed milk and printing and publishing, each reported more than 75 per cent of the total value of products as being the output of such establishments. For 1914, as compared with 1909, only one industry, foundry and machine shops, shows a decrease in the proportion which this class formed of the total value of products. Comparison of the small establish-

ments—those with products of less than \$5,000—for the same period, shows an increase in the proportion of output for 1914 in only one industry, flour-mills and gristmills. The largest proportion of manufactures produced by this class in 1914 was reported by the printing and publishing industry, 8.4 per cent of the value of products, each of the other industries reporting less than 1 per cent.

Table 17 presents, for 1914, for all industries combined in each of the 18 cities having more than 10,000 inhabitants, statistics similar to those given in Table 15 for the state as a whole.

In the cities the same condition is found that prevails throughout the state, namely, a preponderance as to number of wage earners, value of products, and

value added by manufacture for establishments having products valued at \$100,000 and over. The highest percentages of total value of products reported by

establishments in this class, 94.9 per cent and 92.5 per cent, appear for Kenosha and Racine, respectively; and the lowest, 68.3 per cent, is shown in Madison.

Table 17		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.		
CITY AND VALUE OF PRODUCT.			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.	
APPLETON.....		107	2,144	100.0	\$7,557,073	100.0	\$2,797,170	100.0	MADISON.....		122	2,084	100.0	\$6,206,970	100.0	\$3,412,398	100.0
Less than \$5,000.....		32	35	1.6	76,258	1.0	46,045	1.7	Less than \$5,000.....		42	30	1.4	106,551	1.7	76,208	2.2
\$5,000 to \$20,000.....		35	183	8.5	368,075	4.9	210,830	7.5	\$5,000 to \$20,000.....		31	116	5.6	367,691	5.9	228,170	6.7
\$20,000 to \$100,000.....		22	406	18.9	1,050,352	13.9	547,057	19.6	\$20,000 to \$100,000.....		31	404	23.7	1,495,702	24.1	728,637	21.4
\$100,000 and over.....		18	1,521	70.9	6,062,988	80.2	1,992,047	71.2	\$100,000 and over.....		18	1,444	69.3	4,237,026	68.3	2,379,783	69.7
ASHLAND.....		37	797	100.0	1,827,032	100.0	749,690	100.0	MANITOWOC.....		77	2,012	100.0	8,460,694	100.0	3,102,778	100.0
Less than \$5,000.....		11	10	1.3	25,274	1.4	12,577	1.7	Less than \$5,000.....		24	20	1.0	57,112	0.7	35,800	1.1
\$5,000 to \$20,000.....		16	66	8.3	182,000	10.0	96,338	12.9	\$5,000 to \$20,000.....		24	138	6.9	240,800	2.8	148,381	4.8
\$20,000 to \$100,000.....		4	139	17.4	340,670	19.1	159,327	21.2	\$20,000 to \$100,000.....		17	318	15.8	930,153	11.0	307,054	12.8
\$100,000 and over.....		6	582	73.0	1,270,082	69.5	481,304	64.2	\$100,000 and over.....		0	902	44.8	2,036,686	24.1	1,023,730	33.0
BELOIT.....		50	3,527	100.0	6,927,901	100.0	3,914,600	100.0	\$1,000,000 and over.....		3	634	31.5	5,195,897	61.4	1,497,813	48.3
Less than \$5,000.....		16	10	0.3	20,690	0.3	12,921	0.3	MARINETTE.....		51	2,112	100.0	4,074,473	100.0	2,329,692	100.0
\$5,000 to \$20,000.....		9	53	1.5	106,990	1.5	73,855	1.9	Less than \$5,000.....		17	22	1.0	42,322	0.9	27,616	1.2
\$20,000 to \$100,000.....		13	270	7.0	680,886	10.0	351,022	9.0	\$5,000 to \$20,000.....		13	52	2.5	124,615	2.7	68,806	3.0
\$100,000 and over.....		12	3,194	90.0	6,196,017	88.2	3,476,902	88.8	\$20,000 to \$100,000.....		8	135	6.4	350,514	7.7	153,699	6.6
EAU CLAIRE.....		94	2,316	100.0	6,773,829	100.0	2,566,270	100.0	\$100,000 and over.....		13	1,903	90.1	4,148,022	88.7	2,079,551	89.3
Less than \$5,000.....		31	33	1.4	83,290	1.2	48,836	1.9	MILWAUKEE.....		1,728	61,839	100.0	223,555,142	100.0	98,679,207	100.0
\$5,000 to \$20,000.....		27	112	4.8	249,818	3.7	111,270	4.3	Less than \$5,000.....		550	530	0.9	1,381,130	0.6	815,842	0.8
\$20,000 to \$100,000.....		21	304	15.7	631,353	13.7	460,697	17.8	\$5,000 to \$20,000.....		514	2,167	3.5	5,044,706	2.3	2,819,382	2.9
\$100,000 and over.....		16	1,866	78.0	5,509,398	81.3	1,940,468	70.0	\$20,000 to \$100,000.....		304	6,202	10.0	15,843,833	7.1	7,959,233	8.1
FOND DU LAC.....		100	1,025	100.0	6,760,850	100.0	2,141,994	100.0	\$100,000 to \$1,000,000.....		240	22,858	37.0	70,470,200	31.5	30,222,317	30.6
Less than \$5,000.....		45	40	2.4	109,885	1.6	61,232	2.9	\$1,000,000 and over.....		45	30,082	48.6	130,825,174	58.5	50,802,433	57.6
\$5,000 to \$20,000.....		19	72	3.7	101,301	2.8	77,014	3.6	OSHKOSH.....		157	5,782	100.0	13,889,936	100.0	7,082,946	100.0
\$20,000 to \$100,000.....		25	438	22.8	1,060,287	15.8	570,777	26.0	Less than \$5,000.....		30	39	0.7	96,240	0.7	61,229	0.9
\$100,000 and over.....		11	1,309	71.1	5,390,317	79.7	1,432,971	66.0	\$5,000 to \$20,000.....		57	277	4.8	578,052	4.2	320,790	4.5
GREEN BAY.....		104	2,724	100.0	6,707,656	100.0	2,737,511	100.0	\$20,000 to \$100,000.....		39	672	11.6	1,787,050	12.9	703,020	11.2
Less than \$5,000.....		32	49	1.8	95,066	1.4	57,180	2.1	\$100,000 to \$1,000,000.....		22	2,277	39.4	6,042,309	43.5	2,872,295	40.0
\$5,000 to \$20,000.....		30	98	3.6	181,439	2.7	107,541	3.9	\$1,000,000 and over.....		3	2,517	43.5	5,385,328	38.8	3,034,726	42.8
\$20,000 to \$100,000.....		36	602	24.3	1,704,400	25.4	792,395	27.8	RACINE.....		180	10,070	100.0	43,632,384	100.0	23,370,805	100.0
\$100,000 and over.....		16	1,945	70.3	4,725,594	69.5	1,810,380	66.1	Less than \$5,000.....		38	34	0.3	102,545	0.2	63,282	0.3
JANESVILLE.....		71	1,405	100.0	5,059,226	100.0	2,592,972	100.0	\$5,000 to \$20,000.....		55	225	2.2	670,570	1.3	332,607	1.4
Less than \$5,000.....		15	10	1.1	43,216	0.8	26,487	1.0	\$20,000 to \$100,000.....		54	1,158	11.5	2,635,345	6.0	1,482,282	6.3
\$5,000 to \$20,000.....		24	101	6.7	231,555	4.1	141,128	5.4	\$100,000 to \$1,000,000.....		36	4,218	41.8	11,706,710	27.0	5,828,119	24.9
\$20,000 to \$100,000.....		15	309	20.7	867,298	15.3	428,604	16.5	\$1,000,000 and over.....		0	4,444	44.1	28,557,214	65.4	15,064,576	67.0
\$100,000 and over.....		17	979	65.5	4,517,147	79.8	1,996,753	77.0	SHEBOYGAN.....		132	7,152	100.0	17,509,450	100.0	8,347,405	100.0
KENOSHA.....		75	7,155	100.0	28,341,150	100.0	9,073,731	100.0	Less than \$5,000.....		20	37	0.5	84,133	0.5	47,161	0.6
Less than \$5,000.....		21	21	0.3	58,064	0.2	36,713	0.4	\$5,000 to \$20,000.....		41	210	2.9	469,074	2.7	206,521	3.2
\$5,000 to \$20,000.....		30	94	1.3	206,623	1.0	153,030	1.7	\$20,000 to \$100,000.....		30	1,096	15.3	1,813,378	10.4	884,153	10.0
\$20,000 to \$100,000.....		11	360	5.0	1,088,939	3.8	584,973	6.4	\$100,000 to \$1,000,000.....		22	3,805	54.0	7,687,603	43.8	3,084,439	44.1
\$100,000 to \$1,000,000.....		8	1,256	17.6	3,147,703	11.1	1,294,551	14.3	\$1,000,000 and over.....		4	1,944	27.2	7,475,292	42.7	3,465,191	41.5
\$1,000,000 and over.....		5	5,424	75.8	23,749,824	83.8	7,004,464	77.2	SUPERIOR.....		111	2,121	100.0	11,662,586	100.0	3,210,360	100.0
LA CROSSE.....		107	3,340	100.0	14,730,232	100.0	6,025,100	100.0	Less than \$5,000.....		40	35	1.6	89,728	0.8	51,807	1.6
Less than \$5,000.....		47	52	1.6	123,051	0.8	70,687	1.1	\$5,000 to \$20,000.....		39	162	7.2	416,958	3.6	243,617	7.6
\$5,000 to \$20,000.....		45	217	6.5	508,813	3.5	304,783	4.4	\$20,000 to \$100,000.....		15	272	12.8	658,842	5.6	336,953	10.5
\$20,000 to \$100,000.....		19	1,827	54.7	5,740,871	38.9	2,565,021	37.1	\$100,000 and over.....		17	1,662	78.4	10,407,038	90.0	2,583,933	80.3
\$100,000 and over.....		3	454	13.6	6,310,071	42.9	2,978,012	43.0	WAUSAU.....		85	2,492	100.0	7,325,304	100.0	2,795,325	100.0
									Less than \$5,000.....		31	52	2.1	85,598	1.2	55,578	2.0
									\$5,000 to \$20,000.....		22	115	4.6	209,113	2.8	121,892	4.4
									\$20,000 to \$100,000.....		13	362	14.5	653,216	8.9	353,126	12.6
									\$100,000 and over.....		19	1,963	78.8	6,377,393	87.1	2,264,720	81.0

<sup>1</sup> Includes the group "\$1,000,000 and over."

Table 18 shows the size of establishment in 1914 as measured by the number of wage earners employed, for all industries combined, for 31 of the more important industries individually, and for each of the 18 cities having more than 10,000 inhabitants.

Table 19 presents, for 1914, percentages based on the figures in Table 18, and for 1909, similar percentages for all industries and for individual industries in the state as a whole.

Of the total number of establishments for all industries in the state combined, 1,234, or 13.6 per cent, employed no wage earners in 1914. These are small establishments and for the majority of them the work is done by the proprietors, firm members, or

persons classed as salaried employees. For some of them the number of wage earners employed was so small and the term of employment so short that in computing the average as described in the "Explanation of terms" the number was less than 1 person and the establishment was classed as one having "no wage earners."

The establishments employing more than 100 wage earners, although representing only 4.4 per cent of the number in the state, gave employment to 67.1 per cent of the total number of wage earners. For 1909 the establishments in this class formed 3.9 per cent of the total and gave employment to 64.5 per cent of the wage earners.

Table 18

INDUSTRY AND CITY.	TOTAL.		ESTABLISHMENTS EMPLOYING—																
	Establishments.	Wage earners (average number).	No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		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.	Establishments.
All industries.....	9,104	104,310	1,234	5,369	9,732	1,234	14,108	509	18,621	295	21,420	247	39,059	93	82,139	48	32,310	15	26,261
Agricultural implements.....	46	3,143	3	22	41	8	91	4	148	4	277	2	327	2	678			1	1,581
Automobiles, including bodies and parts.....	43	4,889		16	28	12	154	5	181	1	72	4	517		1,333			1	2,004
Boots and shoes, including findings.....	65	5,814	1	14	37	8	114	15	484	10	719	13	2,035		831	1	571	1	1,023
Boxes, fancy and paper.....	18	1,319				10	145	2	63	1	78	3	357		670				
Brass, bronze, and copper products.....	30	1,122	1	11	28	9	95	6	197	2	159					1	643		
Bread and other bakery products.....	704	2,197	121	519	998	53	510	7	189	2	189	2	311						
Butter, cheese, and condensed milk.....	2,431	3,717	372	1,990	2,353	51	484	13	430	4	262	1	188						
Canning and preserving.....	112	2,687	5	22	46	44	557	28	849	10	669	3	566						
Carriages and wagons and materials.....	185	2,638	25	116	241	27	303	3	275	5	269	3	574	1	424	1	552		
Cars and general shop construction and repairs by steam-railroad companies.....	35	0,011		5	13	5	67	3	134	5	409	11	1,050	2	531	3	1,803	1	4,404
Clothing, men's, including shirts.....	59	3,584	1	7	23	20	246	13	405	13	844	4	329	1	298	1	849		
Confectionery.....	55	2,242	6	22	49	8	86	11	375	3	217	2	324	2	572	1	609		
Copper, tin, and sheet-iron products.....	111	3,372	6	70	172	23	245	7	185			2	348	1	410	3	2,012		
Electrical machinery, apparatus, and supplies.....	20	2,115	1	5	8	9	127	7	264	4	270	1	155						
Flour-mill and gristmill products.....	252	1,116	40	179	335	27	282	1	40	4	286	1	173			2	1,291		
Foundry and machine-shop products.....	494	26,521	36	173	411	127	1,567	72	2,405	34	2,446	31	5,003	11	3,763	7	4,240	3	6,686
Furniture and refrigerators.....	114	11,792	3	17	41	21	278	27	533	16	1,208	19	2,819	6	2,010	4	2,889	1	1,704
Gas, illuminating and heating.....	47	1,240		25	57	14	175	5	168		52			1	255	1	535		
Gloves and mittens, leather.....	24	1,711		1	5	6	73	6	109	1	277	7	1,157						
Hosiery and knit goods.....	68	6,244	4	20	38	13	161	9	345	9	604	7	1,150	2	617	4	3,329		
Iron and steel, steel works and rolling mills.....	12	2,029				4	48	3	121	1	86	2	345			2	1,429		
Leather goods.....	111	1,480	27	61	84	8	97	7	219	4	274	3	480	1	336				
Leather, tanned, curried, and finished.....	27	5,869		2	6	5	78	5	171	6	415	3	433		1,170	2	1,295	1	2,301
Liquors, malt.....	132	6,414	1	45	159	59	717	13	398	7	456	3	513	3	1,253	1	617	2	2,201
Lumber and timber products.....	635	32,282	21	269	618	143	1,730	72	2,214	42	3,153	56	9,394	23	8,189	8	5,499	1	1,485
Marble and stone work.....	117	1,390	13	73	153	20	189	4	140	4	333	3	570						
Paper and wood pulp.....	58	8,968				4	63	9	312	14	995	19	3,270	10	3,210	2	1,118		
Printing and publishing.....	829	6,653	139	509	1,181	125	1,330	31	1,109	21	1,568	4	405						
Rubber goods.....	5	1,637				2	34	6	65	2	137	1	174	1	375			1	1,054
Slaughtering and meat packing.....	46	2,236	4	25	69	6	65	6	186	2	137	1	102			2	1,677		
Tobacco manufacturers.....	756	2,485	251	415	953	75	708	11	310	1	94	3	415						
All other industries.....	1,454	28,383	153	736	1,580	288	3,401	160	5,182	63	4,597	33	5,005	18	6,108	2	1,362	1	1,158
Total for cities.....	3,457	121,095	427	1,549	3,600	717	8,525	330	10,031	190	13,650	147	23,282	54	18,574	29	10,287	14	23,246
APPLETON.....	107	2,144	11	49	116	24	288	10	339	8	540	4	606	1	255				
ASHLAND.....	37	797	4	20	58	6	60	3	117	2	147	1	115	1	300				
BELLOTT.....	50	3,527	7	13	24	16	173	7	227	2	131	3	476			1	599	1	1,892
EAU CLAIRE.....	94	2,315	10	46	99	18	186	7	232	7	470	3	399	3	929				
FOND DU LAC.....	100	1,925	12	52	94	10	222	7	254	6	398	3	535	1	422				
GREEN BAY.....	104	2,724	7	43	107	25	278	16	480	4	211	7	1,033	2	615				
JANESVILLE.....	71	1,495	4	31	71	15	187	10	311	9	620	2	306						
KENOSHA.....	75	7,155	6	46	107	8	111	2	70	2	181	4	679	2	584	2	1,397	3	4,026
LA CROSSE.....	167	3,340	17	83	225	37	439	16	600	5	392	8	1,342	1	342				
MADISON.....	122	2,084	31	44	109	29	327	10	382	3	213	4	678	1	375				
MANITOWOC.....	77	2,012	12	29	74	21	249	6	189	4	297	3	491	2	712				
MARINETTE.....	51	2,112	3	25	58	10	116	3	97	4	313	5	809						
MILWAUKEE.....	1,728	61,839	256	768	1,745	333	4,092	170	5,544	88	6,467	63	9,785	24	8,315	19	12,899	7	13,019
OSHKOSH.....	157	5,782	10	74	198	37	385	14	417	11	810	7	1,159	2	788	1	540	1	1,485
RACINE.....	189	10,079	12	77	188	45	580	21	763	11	780	13	2,026	7	2,363	1	552	2	2,824
SHEBOYGAN.....	132	7,152	9	50	122	20	306	18	562	10	679	7	1,213	6	2,171	3	2,099		
SUPERIOR.....	111	2,121	14	57	118	24	276	7	234	3	186	5	795			1	512		
WAUSAU.....	85	2,492	2	42	87	21	245	3	113	11	815	5	832	1	400				

The largest proportions of small establishments, those employing from 1 to 5 wage earners, are shown for bread and other bakery products; butter, cheese, and condensed milk; carriages and wagons and materials; copper, tin, and sheet-iron products; flour-mill and gristmill products; gas, illuminating and heating; leather goods; marble and stone work; printing and

publishing; slaughtering and meat packing; and the tobacco manufacturing industry. Among the cities the highest percentages of the total number of wage earners reported by establishments employing more than 100 wage earners each, are shown for Kenosha, 93.5, and Racine, 77 per cent, respectively.

MANUFACTURES—WISCONSIN.

**Table 19**

INDUSTRY AND CITY.	Cen- sus year.	PER CENT OF TOTAL AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS EMPLOYING SPECIFIED NUMBER.								INDUSTRY AND CITY.	Cen- sus year.	PER CENT OF TOTAL AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS EMPLOYING SPECIFIED NUMBER.								
		1 to 5	6 to 20	21 to 50	51 to 100	101 to 250	251 to 500	501 to 1,000	Over 1,000			1 to 5	6 to 20	21 to 50	51 to 100	101 to 250	251 to 500	501 to 1,000	Over 1,000	
All industries.....	1914 1909	5.0 5.6	7.3 8.1	9.9 9.5	11.0 12.2	20.4 20.1	16.5 18.5	16.0 13.4	13.5 12.5	Iron and steel, steel works and rolling mills.	1914 1909	0.2 0.2	2.4 1.8	6.0 5.2	4.2 11.1	17.0 6.0	.....	70.4 26.7	..... 48.3	
Agricultural implements.....	1914 1909	1.3 1.0	2.9 5.0	4.7 4.7	8.8 6.6	10.4 25.3	21.0 22.1	39.8 .....	50.3 .....	Leather goods.....	1914 1909	5.0 2.4	6.5 7.5	14.7 6.4	18.4 9.3	32.2 48.8	22.0 25.6	.....	.....	.....
Automobiles, including bodies and parts.	1914 1909	0.6 0.7	3.1 2.7	3.7 2.1	1.5 2.0	10.6 9.3	27.3 69.3	53.3 23.9	.....	Leather, tanned, curried, and finished.	1914 1909	0.1 0.2	1.3 0.7	2.9 2.1	7.1 5.2	7.4 9.6	19.9 19.8	22.1 25.3	30.2 37.2	
Boots and shoes, including find- ings.	1914 1909	0.6 0.5	2.0 2.5	8.3 8.0	12.4 16.9	35.0 37.0	14.3 18.2	9.8 17.0	17.0 .....	Liquors, malt.....	1914 1909	2.9 3.7	13.2 12.3	7.4 9.7	8.4 5.6	0.5 9.0	6.5 6.0	11.4 23.7	40.7 20.3	
Boxes, fancy and paper.....	1914 1909	.....	11.0 13.5	4.8 6.1	5.9 31.1	27.1 .....	51.3 48.8	.....	.....	Lumber and timber products...	1914 1909	1.0 3.5	5.4 6.9	6.9 9.0	9.8 12.3	29.1 27.7	25.4 20.7	17.0 6.0	4.6 6.6	
Brass, bronze, and copper prod- ucts.	1914 1909	2.5 2.1	8.5 8.1	17.6 15.8	14.2 6.4	.....	57.3 25.6	.....	.....	Marble and stone work.....	1914 1909	11.0 5.7	13.0 12.0	10.1 13.0	24.3 5.0	41.0 48.7	.....	.....	.....	
Bread and other bakery prod- ucts.	1914 1909	45.4 47.7	23.2 22.7	8.0 5.7	8.6 6.1	14.2 17.0	.....	.....	.....	Paper and wood pulp.....	1914 1909	.....	0.7 0.5	3.5 4.2	11.1 17.4	36.5 45.3	35.8 32.0	12.5 .....	.....	
Butter, cheese, and condensed milk.	1914 1909	63.3 82.4	13.0 10.0	11.0 3.6	7.0 4.0	5.1 .....	.....	.....	.....	Printing and publishing.....	1914 1909	20.9 21.2	23.5 25.7	19.0 20.8	27.7 10.4	8.2 12.8	.....	.....	.....	
Canning and preserving.....	1914 1909	1.7 2.3	20.7 27.3	31.6 32.8	24.9 24.8	21.1 12.8	.....	.....	.....	Rubber goods.....	1914 1909	.....	2.1 2.4	.....	.....	10.6 70.7	22.0 .....	.....	64.4 .....	
Carrriages and wagons and ma- terials.	1914 1909	9.1 9.9	11.5 12.0	10.4 10.3	10.2 2.0	21.8 24.1	16.1 24.9	20.0 16.8	.....	Slaughtering and meat packing.	1914 1909	3.1 3.5	2.9 2.0	8.3 10.4	6.1 9.9	4.0 5.8	.....	75.0 68.4	.....	
Cars and general shop construc- tion and repairs by steam- railroad companies.	1914 1909	0.1 0.1	0.7 0.1	1.5 0.3	4.5 4.0	18.3 9.9	5.0 10.9	20.0 13.3	48.9 60.8	Tobacco manufactures.....	1914 1909	38.0 35.0	28.5 38.9	12.5 13.7	3.8 .....	16.7 11.5	.....	.....	.....	
Clothing, men's, including shirts.	1914 1909	0.6 0.9	6.9 13.1	13.8 11.0	23.5 17.8	23.1 15.2	8.3 20.5	23.7 20.8	.....	All other industries.....	1914 1909	5.0 6.7	12.0 14.5	18.2 18.2	16.2 18.3	17.0 10.0	21.5 17.7	4.8 5.1	4.1 .....	
Confectionery.....	1914 1909	2.2 1.0	3.8 2.0	16.7 18.4	9.7 16.0	14.9 8.0	25.5 54.0	27.2 .....	.....	Total for cities.....	1914	3.0	7.0	9.0	11.3	10.2	15.3	15.0	19.2	
Copper, tin, and sheet-iron products.	1914 1909	5.1 6.5	7.3 10.4	5.5 4.4	.....	10.3 20.3	12.2 54.0	59.7 54.0	.....	APPLETON.....	1914	5.4	13.4	15.8	25.2	28.3	11.9	.....	.....	
Electrical machinery, apparatus, and supplies.	1914 1909	0.4 2.9	6.0 5.0	12.5 13.4	12.8 8.8	7.3 15.8	.....	61.0 63.5	.....	ASHLAND.....	1914	7.3	7.5	14.7	18.4	14.4	37.0	.....	.....	
Flour-mill and gristmill prod- ucts.	1914 1909	30.9 37.3	25.3 21.4	3.0 9.9	25.0 31.4	15.5 .....	.....	.....	.....	BELOIT.....	1914	0.7	5.0	6.4	3.7	13.5	.....	17.0	53.6	
Foundry and machine-shop products.	1914 1909	1.5 1.6	5.9 5.5	9.1 7.6	9.2 12.0	18.9 12.7	14.2 16.9	16.0 15.6	25.2 28.1	EAU CLAIRE.....	1914	4.3	8.0	10.0	20.3	17.2	40.1	.....	.....	
Furniture and refrigerators....	1914 1909	0.3 0.3	1.9 2.9	7.1 8.6	10.2 13.1	23.9 20.5	17.0 26.0	24.5 11.9	15.0 15.7	FOND DU LAC.....	1914	4.9	11.5	13.2	20.7	27.8	21.9	.....	.....	
Gas, illuminating and heating..	1914 1909	4.6 4.5	14.0 15.0	13.5 13.3	4.2 18.0	.....	20.0 40.3	43.1 .....	.....	GREEN BAY.....	1914	3.9	10.2	17.6	7.7	37.9	22.6	.....	.....	
Gloves and mittens, leather....	1914 1909	0.3 1.0	4.3 3.4	11.0 5.9	16.2 16.0	67.6 34.2	39.4 .....	.....	.....	JANESVILLE.....	1914	4.7	12.5	20.8	41.5	20.5	.....	.....	.....	
Hosiery and knit goods.....	1914 1909	0.6 0.8	2.0 3.8	5.5 7.2	9.7 12.0	18.4 32.2	9.9 25.0	53.3 19.1	.....	KENOSHA.....	1914	1.5	1.0	1.0	2.5	9.5	8.2	19.5	66.3	
										LA CROSSE.....	1914	6.7	13.1	18.0	11.7	40.2	10.2	.....	.....	
										MADISON.....	1914	5.2	15.7	18.3	10.2	32.5	18.0	.....	.....	
										MANITOWOC.....	1914	3.7	12.4	9.4	14.8	24.4	35.4	.....	.....	
										MARINETTE.....	1914	2.7	5.5	4.6	14.8	34.3	.....	34.0	.....	
										MILWAUKEE.....	1914	2.8	6.0	9.0	10.5	15.8	13.5	20.8	21.1	
										OSHKOSH.....	1914	3.4	6.7	7.2	14.0	20.0	13.0	9.3	25.7	
										RACINE.....	1914	1.9	5.8	7.0	7.7	20.1	23.4	5.5	28.0	
										SHEBOYGAN.....	1914	1.7	4.3	7.9	9.5	17.0	30.4	29.3	.....	
										SUPERIOR.....	1914	5.0	13.0	11.0	8.8	37.5	.....	21.1	.....	
										WAUSAU.....	1914	3.5	9.8	4.5	32.7	33.4	16.1	.....	.....	

Engines and power.—Table 20 shows, for 1914, 1909, and 1904, for all industries combined, the number and total horsepower of engines or motors employed in generating power (including electric motors operated

by purchased current). The table also shows separately the number and horsepower of electric motors operated by current generated in the establishments reporting.

**Table 20**

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
				Amount.			Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total.....	18,588	11,561	6,894	682,339	554,170	440,234	100.0	100.0	100.0
Owned.....	7,609	7,660	6,894	590,804	527,431	429,810	87.5	95.2	97.6
Steam engines and turbines <sup>1</sup> .....	5,052	4,974	4,620	420,065	378,169	305,789	61.6	68.2	69.4
Internal-combustion engines.....	1,564	1,578	1,037	28,004	19,531	11,356	4.1	3.5	2.6
Water wheels, turbines, and motors.....	993	1,108	1,231	148,705	129,731	112,065	21.8	23.4	25.0
Rented.....	10,979	3,901	(2)	85,475	26,748	10,424	12.5	4.8	2.4
Electric.....	10,979	3,901	(2)	79,984	25,459	8,558	11.7	4.6	1.9
Other.....	.....	.....	.....	5,491	1,289	1,866	0.8	0.2	0.4
Electric.....	23,920	11,402	(2)	255,688	114,725	48,878	100.0	100.0	100.0
Rented.....	10,979	3,901	(2)	79,984	25,459	8,558	31.3	22.2	17.5
Generated by establishments reporting.....	12,941	7,501	2,909	175,684	89,266	40,320	68.7	77.8	82.5

<sup>1</sup> Figures for horsepower include for 1909 and 1904 the amount reported under the head of "other" owned power.

<sup>2</sup> Not reported.

This table shows an increase in primary power of 128,160 horsepower, or 23.1 per cent, from 1909 to 1914. The use of rented power, now almost wholly electric, has greatly increased since 1904, when it represented only 2.4 per cent of the total primary power reported. In 1909 the amount of rented power had increased to 4.8 per cent of the total and in 1914 to 12.5 per cent of the total. The use of electric motors run by current generated within the same establishments also shows a large increase, the horsepower of such motors having increased 96.8 per cent from 1909 to 1914.

In spite of the great increase in rented power, owned power increased by 38.9 per cent during the decade 1904-1914 and by 13.2 per cent during the last five-year period. This was due in part to the fact that some of the large factories have installed electricity

as emergency power, while others are using electric power and hold the steam engines for emergency.

The use of internal-combustion engines increased rapidly during the decade, but not so rapidly as that of rented electric power. The horsepower of internal-combustion engines, however, represented only 4.1 per cent of the total primary power reported in 1914.

Fuel.—Closely related to the subject of power employed in manufactures, is that of the fuel consumed in generating this power or otherwise used in the manufacturing processes.

Table 21 shows, for 1914, the quantity of each kind of fuel used, for which data were obtained, for all industries combined and for selected industries in the state as a whole, and for all industries combined in each city.

INDUSTRY AND CITY.	COAL.					INDUSTRY AND CITY.	COAL.				
	Anthracite (tons, 2,240 lbs.).	Bituminous (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, including gasoline (barrels.)	Gas (1,000 cubic feet).		Anthracite (tons, 2,240 lbs.).	Bituminous (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, including gasoline (barrels.)	Gas (1,000 cubic feet).
All industries.....	98,331	3,537,183	340,460	236,055	383,910	Lumber and timber products.....	1,515	68,192	45	1,531	4,667
Agricultural implements.....	96	29,342	6,340	6,403	8,854	Malt.....	23,311	78,984	2,528	277	.....
Automobiles, including bodies and parts.....	1,561	41,700	1,462	16,875	33,527	Paper and wood pulp.....	795	512,041	1,738	14,500	21,188
Boots and shoes, including findings.....	3,126	10,866	115	151	2,709	Printing and publishing.....	1,849	7,112	392	823	24,951
Brass, bronze, and copper products.....	5,194	26,418	1,209	18,911	3,610	Rubber goods.....	100	25,660	.....	19	40
Bread and other bakery products.....	2,637	5,615	7,393	199	14,850	Slaughtering and meat packing.....	623	55,389	.....	14	751
Brick, tile, pottery, and other clay products.....	966	29,246	2,658	182	144	Woolen, worsted, and felt goods, and wool hats.....	.....	14,895	.....	66	91
Butter, cheese, and condensed milk.....	801	124,989	182	2,335	33	All other industries.....	35,584	1,140,445	11,906	22,382	37,646
Canning and preserving.....	113	18,073	628	1,032	151	Total for the cities.....	52,937	2,185,750	189,874	133,025	347,407
Carriages and wagons and materials.....	154	23,422	1,656	1,269	1,436	APPLETON.....	2,423	73,315	530	1,505	306
Cars and general shop construction and repairs by steam-railroad companies.....	.....	101,361	3,140	1,345	2,879	ASHLAND.....	464	14,624	258	1,669	57
Clothing, men's, including shirts.....	135	3,158	117	22	1,432	BELOIT.....	1,014	28,940	11,149	4,426	3,413
Confectionery.....	505	10,094	586	.....	23,462	EAU CLAIRE.....	255	26,907	1,242	213	1,641
Copper, tin, and sheet-iron products.....	180	41,211	5,140	10,907	10,214	FOND DU LAC.....	88	22,534	637	801	1,770
Electrical machinery, apparatus, and supplies.....	50	17,156	1,095	628	98,403	GREEN BAY.....	1,302	62,566	853	1,182	370
Flour-mill and gristmill products.....	2,874	45,643	157	1,612	.....	JANESVILLE.....	29	18,950	2,316	3,143	1,268
Foundry and machine-shop products.....	8,200	295,023	59,820	72,813	58,373	KENOSHA.....	4,374	110,054	4,171	31,047	23,547
Furniture and refrigerators.....	491	70,061	3,436	2,624	21,911	LA CROSSE.....	498	59,759	1,246	532	3,076
Gas, illuminating and heating.....	425	242,174	12,870	41,559	.....	MADISON.....	598	22,198	5,504	17,335	5,340
Iron and steel, blast furnaces.....	.....	10,912	212,484	.....	.....	MANITOWOC.....	6,342	34,398	2,217	834	420
Iron and steel, steel works and rolling mills.....	.....	66,701	3,110	10,869	4,977	MARINETTE.....	58	16,408	4	74	497
Leather goods.....	834	4,776	75	14	1,052	MILWAUKEE.....	29,320	1,399,104	140,629	53,684	200,691
Leather, tanned, curried, and finished.....	42	129,946	7	7	825	OSHKOSH.....	511	33,555	1,399	913	2,207
Lime.....	600	11,091	.....	490	.....	RACINE.....	686	145,419	9,918	16,414	18,411
Liquors, malt.....	5,570	205,817	171	186	740	SHEBOYGAN.....	3,296	66,246	6,292	71	22,504
						SUPERIOR.....	1,464	35,458	547	62	1,880
						WAUSAU.....	275	15,315	962	20	211

SPECIAL STATISTICS.

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantities and cost of materials, the quantities and values of products, and other information for which no provision is made on the general schedule. Certain data of this character for nine important industries and power laundries in Wisconsin are here presented.

Butter, cheese, and condensed milk.—The following table gives the quantity and value of the various products of the industry for 1914, 1909, and 1904:

The manufacture of dairy products in Wisconsin has increased rapidly during the past 15 years, and the industry ranked first in the gross value of products

at the census of 1914. As shown in Table 2 it was outranked by 11 other industries in the number of wage earners employed and by 9 in the value added by manufacture. The number of establishments engaged primarily in the manufacture of butter decreased from 902 in 1904 to 675 in 1914, but the number of cheese factories increased from 1,454 to 1,739 and the condensed-milk establishments from 4 to 17 during the decade.

The value of the butter manufactured constituted 44.6 per cent of the total product for the combined industry in 1914, 56.2 per cent in 1909, and 62.2 per cent in 1904; that of cheese, 38.6, 39.4, and 35.1

per cent, respectively; and that of condensed and evaporated milk, 13.5, 4.1, and 1.1 per cent, respectively.

	1914	1909	1904
Total value.....	\$72,868,592	\$59,843,249	\$20,994,791
Butter:			
Pounds.....	116,149,284	103,884,084	80,155,975
Value.....	\$32,475,933	\$20,547,135	\$18,433,202
Packed solid—			
Pounds.....	80,745,900	77,137,253	60,169,599
Value.....	\$24,981,447	\$21,833,072	\$14,145,383
Prints or rolls—			
Pounds.....	20,403,378	20,747,431	19,986,376
Value.....	\$7,494,486	\$7,713,163	\$4,287,819
Cream sold:			
Pounds.....	7,440,330	4,490,508	731,721
Value.....	\$800,220	\$545,723	\$01,623
Cheese:			
Pounds.....	205,920,915	148,005,648	100,423,859
Value.....	\$25,124,073	\$21,141,640	\$10,488,853
Full cream—			
Pounds.....	195,520,031	147,071,501	100,423,859
Value.....	\$27,333,007	\$21,070,010	\$10,488,853
Part cream—			
Pounds.....	3,547,700	229,892	100,423,859
Value.....	\$471,864	\$19,405	\$10,488,853
Other kinds—			
Pounds.....	6,853,184	704,255	
Value.....	\$18,362	\$52,225	
Condensed and evaporated milk:			
Pounds.....	149,082,530	30,573,880	11,514,222
Value.....	\$9,850,522	\$2,218,230	\$708,230
Sweetened—			
Pounds.....	92,708,010	10,001,772	10,389,850
Value.....	\$4,446,708	\$1,240,398	\$735,594
Unsweetened—			
Pounds.....	24,812,784		
Value.....	\$1,470,486		
Evaporated—			
Pounds.....	62,071,127	13,012,114	1,124,366
Value.....	\$3,924,238	\$977,841	\$92,735
Powdered milk:			
Pounds.....	3,599,145		
Value.....	\$159,416		
Other butter, cheese, and condensed-milk factory products, value.....	\$1,196,705	\$287,514	\$207,874
All other products, value.....	\$252,017	\$102,998	\$5,000

Of the total amount of butter manufactured in 1914, 76.9 per cent was packed solid in firkins or tubs and 23.1 per cent in prints or rolls. During the decade the amount of butter packed solid increased by 20,579,307 pounds, or 29.8 per cent, and that put up in prints or rolls, by 6,414,002 pounds, or 32.1 per cent.

Of the total production of cheese, 94.9 per cent was "full cream," and during the 10 years the quantity increased by 96,497,059 pounds, or 88.2 per cent.

In the manufacture of condensed and evaporated milk there was an increase of 138,168,308 pounds during the 10 years from 1904 to 1914. Of the amount manufactured in 1914, 42 per cent was sweetened condensed milk; 16.6 per cent, unsweetened; and 41.5 per cent, evaporated. At the censuses prior to 1914 only the total for unsweetened and evaporated milk was shown, therefore comparable figures can not be given for separate products. The combined quantities show an increase of 85,759,545 pounds during the 10-year period.

The item of "other butter, cheese, and condensed-milk factory products" includes the value of skimmed milk, buttermilk, casein, and whey sold; also the value of milk which was sold as such.

Flour-mill and gristmill products.—Table 23 gives the quantities and values of the flour-mill and gristmill products for the last three census years.

Wheat flour was the product of chief value at each of the three censuses and formed 48.2 per cent of the total value of products for the industry in 1914; rye

flour formed 7.8 per cent; buckwheat flour, 0.9 per cent; corn meal and corn flour, 2.1 per cent; hominy and grits, 5.3 per cent; bran and middlings, 8.3 per cent; and feed and offal, 26.6 per cent. The quantity of wheat flour decreased 12.7 per cent from 1909 to 1914.

	1914	1909	1904
Total value.....	\$28,697,413	\$31,667,434	\$28,352,237
Wheat flour:			
Barrels.....	3,050,054	3,499,905	3,744,373
Value.....	\$13,817,821	\$17,908,089	\$17,611,009
Rye flour:			
Barrels.....	501,475	510,359	547,097
Value.....	\$2,248,927	\$2,194,220	\$1,990,327
Buckwheat flour:			
Pounds.....	8,500,653	0,330,781	15,980,819
Value.....	\$262,111	\$300,029	\$416,517
Barley meal:			
Pounds.....	1,533,447	5,817,400	3,430,060
Value.....	\$20,941	\$91,494	\$38,110
Corn meal and corn flour:			
Barrels.....	168,531	85,532	95,801
Value.....	\$610,958	\$287,740	\$246,661
Hominy and grits:			
Pounds.....	94,955,277	12,707,800	
Value.....	\$1,533,907	\$170,147	
Oatmeal:			
Pounds.....	462,966		
Value.....	\$12,000		
Bran and middlings:			
Tons.....	109,351	(1)	(1)
Value.....	\$2,388,850	(1)	(1)
Feed and offal:			
Tons.....	269,465	402,784	420,152
Value.....	\$7,622,990	\$10,086,448	\$7,949,623
Breakfast foods:			
Pounds.....	1,238,242		
Value.....	\$30,187		
All other cereal products, value.....	\$89,591	\$31,667	
All other products, value.....	\$53,121	\$580,700	\$100,000

<sup>1</sup> Included in "feed and offal."

In 1914 the mills of the state were equipped with 1,556 stands of rolls, 100 runs of stone, and 239 attrition mills. Four establishments manufactured barrels and one made sacks to be used as containers.

Slaughtering and meat packing.—Table 24 presents statistics of the quantity and value of the principal products of the wholesale slaughtering and meat-packing establishments of the state as reported for the census periods 1914, 1909, and 1904.

	1914	1909	1904
Total value.....	\$32,180,684	\$25,702,123	\$16,060,423
Fresh meat:			
Beef—			
Pounds.....	32,055,273	35,859,863	28,643,346
Value.....	\$3,765,939	\$2,065,870	\$1,712,783
Veal—			
Pounds.....	8,010,982	9,615,384	2,594,829
Value.....	\$1,123,926	\$1,110,373	\$201,725
Mutton and lamb—			
Pounds.....	2,277,872	2,060,498	2,380,517
Value.....	\$274,853	\$194,705	\$172,180
Pork—			
Pounds.....	41,073,293	48,264,738	35,997,546
Value.....	\$5,049,985	\$4,802,943	\$2,447,493
Edible offal and all other fresh meat—			
Pounds.....	4,632,870	1,440,143	350,000
Value.....	\$304,196	\$103,902	\$26,500
Pork, pickled and other cured:			
Pounds.....	99,775,805	106,390,708	100,474,432
Value.....	\$13,432,798	\$11,099,374	\$8,345,862
Sausage:			
Pounds.....	11,058,878	10,737,835	12,621,887
Value.....	\$1,454,827	\$961,725	\$939,509
Lard:			
Pounds.....	37,014,968	19,173,185	16,859,549
Value.....	\$3,987,217	\$2,120,334	\$1,193,044
Tallow, oleo stock, and stearin:			
Pounds.....	1,472,078	<sup>a</sup> 1,530,500	(3)
Value.....	\$120,636	<sup>a</sup> \$125,075	(5)
Soap stock:			
Pounds.....	4,177,384	(5)	(5)
Value.....	\$235,282	(5)	(5)

(See footnotes on opposite page.)

**Table 24—Continued.**

	1914	1909	1904
Sausage casings:			
Pounds.....	1,106,800	(3)	(3)
Value.....	\$150,602	(3)	(3)
Fertilizers and fertilizer materials:			
Tons.....	4,507	5,703	3,192
Value.....	\$149,761	\$151,984	\$73,795
Hides and pelts:			
Cattle—			
Number.....	70,900		
Pounds.....	4,080,857		
Value.....	\$681,747	90,263	60,459
Calf—			
Number.....	77,727	4,613,282	3,556,922
Pounds.....	858,228	\$590,057	\$323,231
Value.....	\$153,255		
Sheep—			
Number.....	60,092	47,917	55,846
Value.....	\$94,708	\$53,386	\$57,653
All other products, value.....	\$1,230,952	\$1,182,995	\$566,758

<sup>1</sup> Excludes figures for two establishments to avoid disclosure of individual operations.  
<sup>2</sup> No stearin manufactured.  
<sup>3</sup> Not reported separately.

The establishments assigned to the industry slaughtered during 1914, 70,900 beefves, 101,936 calves, 60,124 sheep and lambs, and 1,110,449 hogs. The value of the slaughtering and meat-packing products of the state increased 25.2 per cent during the five-year period 1909-1914, although the quantity of fresh meat, pickled and cured pork, sausage and lard, increased by 4,157,591 pounds, or 1.8 per cent. The item "all other products" includes the value of cured beef, dressed game, lard compounds and substitutes, oleo oil, meat puddings, scrapple, head cheese, etc., hoofs, horns, horn-tips, etc., and goat, kid, and other skins.

Leather, tanned, curried, and finished.—The following table shows the quantity and value of the principal materials and products reported for the leather industry at the censuses of 1914, 1909, and 1904:

**Table 25**

	1914	1909	1904
<b>MATERIALS.</b>			
Total cost.....	\$33,053,180	\$34,828,585	\$19,870,887
Cattle hides:			
Number.....	2,185,178	2,471,848	2,457,196
Cost.....	\$17,058,109	\$10,373,708	\$11,027,774
Calf and kip skins:			
Number.....	4,650,863	6,936,673	3,633,271
Cost.....	\$10,620,920	\$12,370,806	\$4,816,826
All other raw stock, cost.....	\$1,038,745	\$1,321,192	\$110,029
Fuel and rent of power, cost.....	\$378,948	\$336,034	\$253,840
All other materials, cost.....	\$3,356,464	\$4,367,845	\$3,659,418
<b>PRODUCTS.</b>			
Total value.....	\$42,204,202	\$44,667,676	\$25,845,123
Leather:			
Sole, value.....	\$7,646,946	\$4,414,972	\$4,231,785
Hemlock—			
Sides.....	328,149	558,474	1,038,181
Value.....	\$2,111,270	\$2,885,899	\$3,974,016
Union—			
Sides.....	694,474		
Value.....	\$4,849,109		
Chrome—			
Sides.....	99,421	280,897	53,850
Value.....	\$686,507	\$1,529,073	\$257,769
Harness—			
Sides.....	631,787	1,331,925	1,504,944
Value.....	\$4,523,512	\$7,987,575	\$6,097,051
Cattle side upper—			
Sides.....	2,564,902	3,001,814	1,927,329
Value.....	\$10,472,343	\$9,765,814	\$4,763,787
Calf and kip skins—			
Number.....	4,804,157	7,016,966	3,564,723
Value.....	\$14,066,192	\$17,308,021	\$6,940,331
All other, value.....	\$4,371,577	\$4,218,633	\$3,258,934
All other products, value.....	\$1,088,234	\$727,112	\$537,010
Work on materials for others, value.....	\$36,308	\$247,540	\$15,625

While the industry increased during the period from 1904 to 1909, there was a decrease for 1914, as compared with 1909. The total cost of the materials used decreased 5.1 per cent; the number of cattle hides treated, by 11.6 per cent; and calf and kip skins, by 33.4 per cent.

There was a decrease of 5.5 per cent in the total value of products during the five years ending with 1914. There was, however, an increase in the quantity and value of some of the products. The quantity of sole leather increased by 33.7 per cent and its value by 73.2 per cent. The increase was nearly all in union sole leather; chrome shows a small increase, while hemlock decreased, owing to a falling off in the supply of hemlock bark. There was a decrease of 52.6 per cent in the quantity and 43.3 per cent in the value of harness leather, also of 23.6 per cent in quantity and 13.4 per cent in value of cattle side upper. All other leather and all other products show an increase in 1914, as compared with 1909, of 28.3 per cent and 49.7 per cent, respectively.

Footwear.—The number of pairs of the different kinds of boots and shoes made in 1914, 1909, and 1904, is given in the following table:

**Table 26**

KIND	NUMBER OF PAIRS.		
	1914	1909	1904
Boots and shoes.....	8,017,063	6,777,363	3,951,542
Men's.....	5,000,827	4,055,406	2,064,125
Boys' and youths'.....	865,138	662,109	548,867
Women's.....	1,336,525	1,442,341	737,567
Misses' and children's.....	813,473	627,417	600,988
Slippers.....	135,999	204,872	260,942
Men's, boys', and youths'.....	21,515	39,018	41,288
Women's, misses', and children's.....	114,484	165,854	228,654
Infants' shoes and slippers.....	170,332	145,319	(1)
All other.....	58,638	169,075	186,984

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

The production for 1914 in each variety of footwear shown in this table was a considerable increase over the quantities reported for preceding censuses. The total output for all kinds of boots and shoes in 1914 exceeded that of 1909 by 1,240,600 pairs, or 18.3 per cent. In 1914 men's boots and shoes formed 62.4 per cent; boys' and youths', 10.8 per cent; women's, 16.7 per cent; and misses' and children's, 10.2 per cent of the total production.

Table 27 shows the number of pairs of the different kinds of footwear made in 1914 and 1909, classified according to method of manufacture.

The McKay type formed 39.3 per cent; welted, 30.5 per cent; and turned and wood or metal fastened, 30.1 per cent, of the total number manufactured in 1914.

The manufacture of welted and McKay both show increases, 38.3 per cent and 60.5 per cent, respectively, as compared with 1909, while the turned and wood or metal fastened types show a decrease of 20.6

per cent. "All other footwear" includes slippers and fiber shoes. The kinds are not segregated according to method of manufacture, as it would disclose operations of individual establishments.

KIND.	Census year.	NUMBER OF PAIRS, BY METHOD OF MANUFACTURE.			
		Total.	Wolsted.	McKay.	Turned and wood or metal fastened.
Boots and shoes.....	1914 1909	8,017,903 6,777,363	2,448,789 1,770,588	3,152,510 1,063,483	2,416,604 3,043,322
Men's.....	1914 1909	5,000,827 4,055,496	2,032,552 1,353,362	1,474,653 433,309	1,493,622 2,268,825
Boys' and youths'.....	1914 1909	865,138 652,109	128,627 79,093	387,357 249,607	340,154 323,319
Women's.....	1914 1909	1,336,625 1,442,341	227,113 320,383	575,427 750,335	555,985 371,620
Misses' and children's....	1914 1909	1,415,473 627,417	90,497 17,720	717,073 630,139	37,903 70,558
All other footwear.....	1914 1909	364,919 510,266	51,035 55,395	151,815 159,353	161,469 303,918

Paper and wood pulp.—Wisconsin is one of the leading states in this industry, ranking fourth in 1914 in the value of paper and pulp manufactured. The following table shows the quantity and cost of materials used, the quantity and value of the products, and the number and capacity of the principal machines used, for the censuses of 1914, 1909, and 1904:

	1914	1909	1904
<b>MATERIALS.</b>			
Total cost.....	\$20,568,088	\$16,002,566	\$10,602,200
Pulp wood, cost.....	\$5,586,701	\$4,325,839	\$3,502,802
Wood pulp, purchased:			
Tons.....	104,083	157,416	107,470
Cost.....	\$5,830,271	\$5,511,760	\$3,385,165
Ground—			
Tons.....	53,827	94,959	43,814
Cost.....	\$1,188,212	\$1,457,025	\$876,180
Soda fiber—			
Tons.....	11,184	7,573	5,164
Cost.....	\$474,198	\$338,621	\$218,008
Sulphite fiber—			
Tons.....	89,952	84,884	58,511
Cost.....	\$3,796,335	\$3,716,104	\$2,200,367
Sulphate fiber—			
Tons.....	8,440	(1)	(1)
Cost.....	\$354,809	(1)	(1)
Screenings, chemical—			
Tons.....	674	(1)	(1)
Cost.....	\$10,627	(1)	(1)
Rags, including cotton and flax waste and sweepings:			
Tons.....	17,222	19,741	24,015
Cost.....	\$624,700	\$595,554	\$692,331
Old and waste paper:			
Tons.....	39,047	20,607	8,412
Cost.....	\$872,869	\$591,010	\$169,626
All other paper stock, cost.....	\$535,734	\$136,496	\$314,253
All other materials, including fuel, cost.....	\$7,117,723	\$5,531,907	\$3,628,033
<b>PRODUCTS.</b>			
Total value.....	\$31,205,395	\$25,952,099	\$17,844,174
News paper:			
Tons.....	136,336		
Value.....	\$5,551,637		
Poster paper:			
Tons.....	2,766	160,151	121,740
Value.....	\$218,998	\$7,201,706	\$5,187,635
Book, cover, plate, and coated paper:			
Tons.....	75,183	58,705	52,283
Value.....	\$5,164,705	\$3,881,708	\$2,830,787
Writing and other fine paper:			
Tons.....	31,694	27,370	17,333
Value.....	\$3,709,713	\$3,271,402	\$2,066,243
Wrapping paper:			
Tons.....	145,684	98,083	94,454
Value.....	\$7,706,319	\$5,083,767	\$4,200,058
Tissues:			
Tons.....	15,355	10,835	5,989
Value.....	\$1,519,482	\$988,516	\$571,378

	1914	1909	1904
<b>PRODUCTS—continued.</b>			
Other paper products:			
Tons.....	60,107	24,606	4,796
Value.....	\$2,830,453	\$914,835	\$205,056
Wood pulp made for sale or for consumption in mills other than where produced:			
Tons.....	130,857	111,683	80,277
Value.....	\$4,154,150	\$3,711,617	\$2,754,203
All other products, value.....	\$234,029	\$908,658	\$19,214
Wood pulp produced (including that used in mills where manufactured), total tons.....	404,766	321,213	241,537
Ground, tons.....	189,221	166,822	124,746
Sulphite fiber, tons.....	188,797	154,391	110,761
Sulphate fiber, tons.....	24,633	(1)	(1)
Screenings, mechanical and chemical, tons.....	2,115	(1)	(1)
<b>EQUIPMENT.</b>			
Paper machines:			
Total number.....	117	99	93
Capacity, yearly, tons.....	537,857	431,703	345,879
Fourdrinor—			
Number.....	106	91	88
Capacity per 24 hours, tons.....	1,564	1,315	1,112
Cylinder—			
Number.....	11	8	5
Capacity per 24 hours, tons.....	257	108	36
Pulp equipment:			
Grinders—			
Number.....	252	233	197
Capacity, yearly, tons.....	202,483	270,561	193,720
Digesters—			
Number.....	65	53	50
Capacity, yearly, tons.....	247,762	167,121	141,325

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

<sup>2</sup> Includes 3,744 tons of soda fiber.

The total cost of all materials increased 23.2 per cent from 1909 to 1914 and 56.1 per cent from 1904 to 1914. Of the 714,094 cords of pulp wood used in 1914, 343,250 cords, or 48.1 per cent, were hemlock; 291,332 cords, or 40.8 per cent, spruce; 32,483 cords, or 4.5 per cent, balsam fir; and 47,029 cords, or 6.6 per cent miscellaneous.

During the decade there was an increase in both quantity and value for all of the products for which separate totals are given. There was, however, a decrease in the production of news paper and poster paper during the five-year period ending with 1914. Of the total value of products in 1914 news paper represented 17.8 per cent; poster paper, 0.7 per cent; book paper, 16.6 per cent; writing and other fine paper, 12.1 per cent; wrapping paper, 24.9 per cent; tissues, 4.9 per cent; and other paper products, 9.1 per cent; wood pulp made for sale, 13.3 per cent; and "all other products," 0.7 per cent. The number and capacity of the paper machines in use in the state show a steady increase from census to census.

Printing and publishing.—The following table shows the number and aggregate circulation of the various classes of newspapers and periodicals published in Wisconsin in 1914, 1909, and 1904.

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1914	1909	1904	1914	1909	1904
Total.....	648	677	711	2,150,934	2,121,662	2,077,826
Daily.....	66	65	65	515,210	401,886	307,118
Sunday.....	8	8	9	207,722	130,778	126,238
Semiweekly.....	10	23	37	130,414	42,708	104,230
Weekly.....	486	512	538	973,948	1,012,502	902,467
Monthly.....	56	56	52	267,130	468,088	500,046
Quarterly.....	5	5	5	6,350	14,800	23,380
All other classes.....	8	8	5	50,151	50,900	24,347

During each of the five-year periods covered by this table, there was a decrease in the total number of publications in the state but a slight increase in aggregate circulation.

The dailies show the largest increase in circulation, 113,333, or 28.2 per cent; the largest per cent, 58.8, of increase is shown by the Sunday editions. The weeklies, which constitute the largest class both in number and in circulation, decreased in both respects from 1909 to 1914, although from 1904 to 1909 there was an increase in circulation.

In 1914, 12 of the 66 daily papers, with an aggregate circulation of 105,550, were issued as morning editions. Of the 648 publications reported, 86 were printed in foreign languages. These included 6 dailies of which 2 were printed in Polish, 1 in Finnish, and 3 in German; 2 Sunday editions, 1 in German and 1 in Polish; 12 semiweeklies, 11 of which were printed in German and 1 in Swedish; 53 weeklies, of which 37 were in German, 4 each in Bohemian, Norwegian, and Polish, and 1 each in Dutch, Swedish, English and German, and English and Italian; 11 monthlies, 7 of which were in German, 1 in Danish, 1 in Finnish, 1 in Norwegian, and 1 in English and German; and 2 belonging to "all other classes," 1 semi-monthly in Finnish and 1 bimonthly in German. These publications in foreign languages reported an aggregate circulation per issue of 563,136, representing 26.2 per cent of the total for the state.

**Automobiles, including bodies and parts.**—Table 30 shows the number and value of the different kinds of machines manufactured in the state during 1914, 1909, and 1904.

	1914		1909		1904	
	Number.	Value.	Number.	Value.	Number.	Value.
Total value.....		\$18,478,196		\$11,440,242		\$1,875,259
Automobiles (gasoline).....	10,030	12,751,616	5,591	7,085,562	2,390	1,856,094
Passenger vehicles.....	9,293	11,511,693	5,559	7,050,862	2,378	1,846,294
Touring cars.....	8,825	10,831,327	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
All other.....	468	680,366	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Business vehicles (delivery wagons and trucks).....	737	1,239,923	32	34,700	12	10,400
All other products, including bodies and parts and repair work.....		5,726,580		4,354,680		18,565

<sup>1</sup>In addition, one establishment, engaged primarily in the manufacture of agricultural implements, manufactured a large number of automobiles, valued at several million dollars.

<sup>2</sup>Excludes the statistics for two establishments, engaged in the manufacture of automobile bodies and parts, to avoid disclosure of individual operations.

<sup>3</sup>Electric machines included, to avoid disclosure of individual operations.

<sup>4</sup>Not shown separately.

The automobile industry in the state developed rapidly during the period 1909 to 1914. The table, however, does not show the magnitude of the industry

in 1914, because a large production was reported by an establishment engaged primarily in the manufacture of agricultural implements, and the totals can not be shown without disclosing its operations. (See Table 30, note 1.)

**Carriages and wagons and materials.**—Table 31 shows the number and value of the different kinds of carriages and wagons manufactured in 1914, 1909, and 1904.

	1914	1909	1904
Total value.....	\$7,544,321	\$8,899,171	\$8,089,491
Carriages (family and pleasure):			
Number.....	5,314	24,726	23,466
Value.....	\$450,832	\$1,519,096	\$1,520,841
Wagons (business, farm, etc.):			
Number.....	81,238	92,011	83,916
Value.....	\$4,276,339	\$4,853,561	\$4,396,693
Public conveyances:			
Number.....	35	90	103
Value.....	\$11,636	\$33,390	\$39,720
Sleighs and sleds:			
Number.....	11,221	17,720	15,365
Value.....	\$252,311	\$399,310	\$343,599
All other products, including parts and repair work, value.....	\$2,563,153	\$2,093,814	\$1,788,723

The industry has declined constantly since 1904; the decrease in the number of establishments amounted to 54.6 per cent and in the value of products, 15.2 per cent.

**Laundries.**—Statistics for power laundries are not included in the general tables or in the totals for all manufacturing industries. Table 32; however, summarizes this data for Wisconsin for 1914 and 1909.

	POWER LAUNDRIES.		
	Number or amount.		Per cent of increase, 1909-1914
	1914	1909	
Number of establishments.....	150	147	2.0
Persons engaged.....	2,645	2,332	13.4
Proprietors and firm members.....	161	159	1.3
Salaried employees.....	219	159	37.7
Wage earners (average number).....	2,265	2,014	12.5
Primary horsepower.....	3,175	2,373	33.8
Capital.....	\$1,794,653	\$1,379,730	30.1
Salaries and wages.....	1,140,095	863,595	32.1
Salaries.....	201,026	127,033	58.2
Wages.....	939,039	736,557	27.6
Paid for contract work.....	3,002	.....	.....
Rent and taxes.....	83,481	55,426	50.6
Cost of materials.....	526,486	331,907	58.6
Amount received for work done.....	2,353,183	1,840,327	27.9

In 1914 Wisconsin ranked fifteenth among the states in amount received for work done and sixteenth in number of persons engaged in the industry. There was an increase of 27.9 per cent in the amount received for work done and 12.5 per cent in the average number of wage earners. Establishments owned by individuals reported 21.3 per cent of the amount received for work done; those owned by corporations, 60.6 per cent; and those under other forms of ownership, 18.1 per cent.

Table 33 shows, for 1914 and 1909, the number of wage earners employed in the laundries on the 15th of each month, or the nearest representative day, and the percentage which this number represents of the greatest number employed in any month of the same year.

MONTH.	WAGE EARNERS			
	Number.		Per cent of maximum.	
	1914	1909	1914	1909
January.....	2,187	1,921	93.0	89.9
February.....	2,184	1,917	92.9	89.7
March.....	2,199	1,936	93.5	90.6
April.....	2,190	1,937	93.1	90.6
May.....	2,253	1,987	95.8	92.9
June.....	2,302	2,035	97.9	95.2
July.....	2,352	2,136	100.0	99.9
August.....	2,349	2,138	99.9	100.0
September.....	2,311	2,105	98.3	98.5
October.....	2,270	2,030	96.9	94.9
November.....	2,285	2,009	97.2	94.0
December.....	2,296	2,018	97.6	94.4

Table 34 gives statistics as to kinds and amounts of power used in the laundries of the state in 1914 and 1909, together with increase for the five-year period.

Table 35 shows the kinds and quantities of fuel used in the laundries, as reported at the censuses of 1914 and 1909, with percentages of increase.

KIND.	NUMBER OF ENGINES OR MOTORS.		HORSEPOWER.		
	1914	1909	Amount.		Per cent of increase, <sup>1</sup> 1909-1914.
			1914	1909	
Primary power, total.....	251	179	3,175	2,373	33.8
Owned.....	120	130	2,606	2,137	26.2
Steam.....	118	123	2,690	2,104	27.0
Internal combustion.....	2	7	6	33	.....
Rented.....	131	49	479	236	103.0
Electric.....	131	49	439	220	99.5
Other.....			40	16	.....
Electric-generated in establishments reporting.....	148	35	472	102	362.7

<sup>1</sup> Percentages are omitted where base is less than 100.

KIND.	Unit.	QUANTITY.		Per cent of increase, <sup>1</sup> 1909-1914.
		1914	1909	
Bituminous coal.....	Ton, 2,000 pounds..	28,799	25,349	13.6
Coke.....	Ton, 2,000 pounds..	4	214	-98.1
Oil.....	Barrels.....	296	18,310	-98.4
Gas.....	1,000 cubic feet.....	29,729	9,973	198.1

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

GENERAL TABLES.

Table 36 gives, for 1914, 1909, and 1904, 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 city having 50,000 inhabitants or more; and for the cities having from 10,000 to 50,000 inhabitants, similar data for all industries combined.

Table 37 presents, for 1914, in the state as a whole and in the city with 50,000 inhabitants or more, statistics in detail for each industry that can be shown without the disclosure of 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.

TABLE 36.—COMPARATIVE SUMMARY FOR 1914, 1909, AND 1904.

INDUSTRY AND CITY.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.	INDUSTRY AND CITY.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.
THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.															
All industries.....	1914	9,104	194,310	682,339	\$112,103	\$417,415	\$695,172	Boxes, fancy and paper...	1914	18	1,319	1,554	\$535	\$1,119	\$2,327
	1909	9,721	182,583	554,179	93,905	346,357	590,306		1909	15	824	331	252	639	1,317
	1904	8,558	151,391	440,234	71,472	227,255	411,140		1904	12	490	332	128	214	498
Agricultural implements..	1914	46	3,143	9,196	2,198	8,676	20,119	Brass, bronze, and copper products.	1914	30	1,122	7,053	674	4,395	5,409
	1909	45	2,704	7,301	1,506	3,937	11,411		1909	33	1,289	6,102	751	3,514	5,387
	1904	52	3,569	6,966	1,886	3,520	10,077		1904	19	765	(1)	406	1,423	2,215
Artificial stone products..	1914	130	404	736	245	278	714	Bread and other bakery products.	1914	704	2,197	1,270	1,248	4,536	8,058
	1909	119	377	669	189	235	624		1909	667	1,751	944	929	4,023	6,872
	1904	20	48	92	25	42	112		1904	532	1,714	626	765	3,151	5,381
Automobiles, including bodies and parts.	1914	43	4,889	0,827	3,008	10,465	18,478	Brick, tile, pottery, and other clay products.	1914	78	875	4,293	452	342	1,230
	1909	30	4,298	3,153	2,733	5,340	11,440		1909	108	1,027	5,640	510	232	1,191
	1904	6	520	645	300	845	1,875		1904	141	1,038	5,951	636	553	1,848
Awnings, tents, and sails..	1914	23	84	36	37	130	228	Brooms, from broom corn.	1914	26	96	58	51	160	266
	1909	16	66	26	31	93	179		1909	30	101	75	53	190	313
	1904	4	32	9	16	39	70		1904	(2)					
Boots and shoes, including findings.	1914	65	5,814	3,032	2,716	12,122	17,832	Brushes, exclusive of paint and varnish.	1914	11	129	155	62	93	270
	1909	68	5,431	2,923	2,243	8,753	13,602		1909	14	142	160	52	80	249
	1904	62	3,494	1,686	1,326	4,417	6,844		1904	(2)					
Boxes, cigar.....	1914	8	166	231	46	118	266	Butter, cheese, and condensed milk.	1914	2,431	3,717	23,365	2,712	65,326	72,859
	1909	7	186	261	56	139	283		1909	2,630	2,863	16,467	1,877	45,006	53,843
	1904	6	193	214	48	131	247		1904	2,360	2,968	15,270	1,328	20,406	29,095

<sup>1</sup> Figures not comparable.

<sup>2</sup> Includes "sand-lime brick."

<sup>3</sup> Figures not available.

TABLE 36.—COMPARATIVE SUMMARY FOR 1914, 1909, AND 1904—Continued.

INDUSTRY AND CITY.	Cen-sus year.	Num-ber of estab-lish-ments.	Wage earners (aver-age num-ber).	Pri-mary horse-power.	Wages. Cost of materials. Value of prod-ucts.			INDUSTRY AND CITY.	Cen-sus year.	Num-ber of estab-lish-ments.	Wage earners (aver-age num-ber).	Pri-mary horse-power.	Wages. Cost of materials. Value of prod-ucts.		
					Expressed in thousands.								Expressed in thousands.		
Canning and preserving...	1914	1112	2,687	8,730	\$1,064	\$4,570	\$7,335	Furniture and refrigerators.	1914	114	11,792	20,770	\$5,925	\$10,642	\$22,587
	1909	83	1,776	4,915	639	2,967	4,807		1909	114	11,318	18,667	5,136	8,795	18,556
	1904	59	1,311	2,962	426	2,012	3,291		1904	107	9,702	13,813	3,750	5,705	12,370
Carriages and sleds, children's.	1914	4	454	392	191	309	648	Gas, illuminating and heating.	1914	47	1,240	11,159	722	1,816	5,295
	1909	6	357	458	129	213	454		1909	49	1,063	8,278	583	1,389	4,001
	1904	3	271	340	90	181	328		1904	33	911	2,859	464	819	2,911
Carriages and wagons and materials.	1914	185	2,638	5,502	1,827	4,259	7,544	Gloves and mittens, leather.	1914	24	1,711	670	589	1,746	2,922
	1909	289	3,437	6,426	1,930	5,163	8,859		1909	23	1,642	301	573	1,637	2,799
	1904	330	3,682	5,374	1,811	4,092	8,089		1904	21	1,890	226	437	1,339	2,209
Cars and general shop construction and repairs by electric-railroad companies.	1914	16	401	2,110	270	375	649	Grease and tallow.....	1914	10	50	225	40	251	326
	1909	9	215	711	151	115	205		1909	11	36	120	24	197	280
	1904	(?)							1904	9	30	87	19	129	170
Cars and general shop construction and repairs by steam-railroad companies.	1914	35	9,011	7,283	5,718	4,540	10,921	Hosiery and knit goods...	1914	68	6,244	3,620	2,448	7,025	13,202
	1909	22	8,994	4,196	5,234	8,676	14,332		1909	61	4,282	2,312	1,570	3,887	7,843
	1904	30	5,444	3,601	3,128	3,071	6,512		1904	50	4,253	2,112	1,187	2,298	4,979
Chemicals.....	1914	7	60	362	36	230	430	Iron and steel, blast furnaces.	1914	5	482	12,742	398	3,252	3,793
	1909	5	76	495	41	242	513		1909	5	758	12,975	497	3,918	4,794
	1904	5	65	243	29	137	265		1904	4	482	5,875	257	2,251	3,075
Clothing, horse.....	1914	6	557	435	227	1,135	1,658	Iron and steel, steel works, and rolling mills.	1914	12	2,029	15,215	1,203	3,555	6,009
	1909	5	494	318	145	870	1,276		1909	14	2,124	10,064	1,409	7,900	10,733
	1904	6	430	( <sup>6</sup> )	112	529	798		1904	10	1,915	11,126	1,125	4,501	7,379
Clothing, men's, including shirts.	1914	59	3,584	858	1,457	4,994	8,688	Jewelry.....	1914	14	74	35	47	73	155
	1909	94	4,252	691	1,463	5,448	9,405		1909	13	78	23	42	87	240
	1904	104	2,923	513	983	3,548	6,709		1904	12	77	41	41	38	126
Clothing, women's.....	1914	21	521	92	187	551	980	Leather goods.....	1914	<sup>111</sup>	1,400	1,397	753	3,234	5,323
	1909	19	565	64	186	503	928		1909	48	2,099	1,442	922	3,010	5,382
	1904	17	498	75	157	453	840		1904	39	1,824	1,165	737	2,433	4,050
Coffee and spice, roasting and grinding.	1914	8	70	356	37	609	809	Leather, tanned, curried, and finished.	1914	27	5,899	20,142	3,404	33,053	42,204
	1909	9	74	462	33	601	780		1909	32	7,543	17,112	3,988	34,829	44,668
	1904	7	50	305	20	368	502		1904	33	5,556	9,816	2,687	19,871	25,846
Coffins, burial cases, and undertakers' goods.	1914	5	356	685	201	415	905	Lime.....	1914	30	828	4,032	450	827	1,570
	1909	8	349	622	159	384	754		1909	43	778	1,984	412	507	1,273
	1904	6	183	379	60	151	326		1904	35	644	1,200	256	327	781
Confectionery.....	1914	55	2,242	1,837	810	3,880	6,229	Liquors, malt.....	1914	132	5,414	23,326	3,913	13,703	40,884
	1909	38	1,780	1,827	513	2,667	4,414		1909	136	5,061	23,248	3,045	7,893	32,120
	1904	33	1,106	652	307	1,439	2,848		1904	139	4,872	15,564	2,860	5,185	28,662
Cooperage and wooden goods, not elsewhere specified.	1914	35	638	2,227	344	690	1,213	Lumber and timber products.	1914	<sup>635</sup>	32,282	107,257	16,545	25,468	55,363
	1909	48	1,208	3,658	618	1,119	2,393		1909	1,020	34,093	124,286	16,059	25,587	57,909
	1904	82	1,062	3,804	858	1,702	3,074		1904	777	34,457	101,881	16,674	24,583	68,531
Copper, tin, and sheet-iron products.	1914	<sup>1111</sup>	3,372	3,947	1,930	5,583	10,202	Malt.....	1914	25	637	10,545	530	12,489	15,533
	1909	105	2,780	2,325	1,188	4,050	7,136		1909	25	456	7,642	318	7,823	9,507
	1904	<sup>53</sup>	2,503	1,690	941	2,848	4,958		1904	29	535	5,043	355	6,937	8,740
Cutlery and tools, not elsewhere specified.	1914	19	208	583	113	151	322	Marble and stone work...	1914	117	1,390	3,416	990	1,168	2,914
	1909	16	118	516	64	123	285		1909	136	2,593	4,847	1,827	1,217	4,114
	1904	11	85	163	44	79	168		1904	74	1,107	2,605	699	706	1,999
Dairymen's, poultrymen's and apiarists' supplies.	1914	28	345	800	213	831	1,066	Mattresses and spring beds	1914	18	384	771	214	648	1,089
	1909	22	526	964	279	711	1,329		1909	21	504	617	241	858	1,444
	1904	14	204	396	77	170	365		1904	20	1,415	2,181	785	1,508	3,628
Electrical machinery, apparatus, and supplies.	1914	29	2,115	3,616	1,340	2,064	5,397	Millinery and lace goods...	1914	10	656	311	322	1,198	2,155
	1909	30	1,409	2,333	820	1,451	3,836		1909	7	307	163	147	338	550
	1904	23	1,204	2,173	673	1,020	3,194		1904	4	344	93	123	317	555
Fancy articles, not elsewhere specified.	1914	5	165	264	55	128	231	Mineral and soda water...	1914	176	375	739	216	845	1,509
	1909	6	343	312	113	225	477		1909	169	340	543	175	683	1,579
	1904	10	320	311	96	200	439		1904	156	357	402	161	654	1,735
Flour-mill and gristmill products.	1914	252	1,116	26,350	737	24,980	28,607	Mirrors, framed and unframed.	1914	4	81	300	56	168	274
	1909	322	1,184	31,993	695	27,038	31,667		1909	5	87	190	49	199	316
	1904	389	1,351	42,211	720	24,756	28,352		1904	3	57	130	28	120	167
Food preparations.....	1914	30	478	3,400	267	1,384	4,853	Models and patterns.....	1914	24	117	199	76	41	186
	1909	28	526	2,738	243	2,844	5,535		1909	20	112	190	65	46	185
	1904	16	362	765	156	1,020	2,211		1904	18	82	160	45	21	111
Foundry and machine-shop products.	1914	<sup>494</sup>	26,521	46,622	18,061	28,162	60,698	Paint.....	1914	9	192	955	104	1,127	1,586
	1909	444	24,219	33,709	14,601	22,534	54,124		1909	11	193	935	99	1,026	1,402
	1904	<sup>362</sup>	15,330	22,160	8,580	13,623	31,370		1904	<sup>109</sup>	152	731	70	794	1,048
Fur goods.....	1914	36	225	140	129	368	711	Paper and wood pulp....	1914	58	8,968	191,693	5,339	20,568	31,205
	1909	40	413	197	219	927	1,524		1909	57	7,467	136,003	3,801	16,893	25,962
	1904	24	356	167	155	452	909		1904	52	6,338	105,940	2,988	10,692	17,844

<sup>1</sup> Includes "canning and preserving, fish," "canning vegetables," and "pickles and sauces."

<sup>2</sup> Figures not available.

<sup>3</sup> Figures not comparable.

<sup>4</sup> Includes "stamped and enameled ware," and "tinware, not elsewhere specified."

<sup>5</sup> Includes three establishments for enameling and enameled goods and excludes statistics for two establishments to avoid disclosure of individual operations.

<sup>6</sup> Includes "automobile repairing," "engines, steam, gas, and water;" "gas machines and gas and water meters;" "hardware;" "hardware, saddlery;" "plumber's supplies;" "steam fittings and steam and hot-water heating apparatus;" and "structural ironwork, not made in steel works or rolling mills."

<sup>7</sup> Excludes statistics for two establishments, to avoid disclosure of individual operations.

<sup>8</sup> Includes "saddlery and harness;" and "trunks and valises."

<sup>9</sup> Includes "boxes, wooden packing;" and "lumber, planing-mill products, not including planing mills connected with sawmills."

<sup>10</sup> Excludes statistics for one establishment, to avoid disclosure of individual operations.

<sup>11</sup> Excludes statistics for three establishments, to avoid disclosure of individual operations.

TABLE 36.—COMPARATIVE SUMMARY FOR 1914, 1909, AND 1904—Continued.

INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments.	Wage earnors (aver- age num- ber).	Pri- mary horse- power.	Expressed in thousands.			INDUSTRY AND CITY.	Cen- sus year.	Num- ber of estab- lish- ments.	Wage earnors (aver- age num- ber).	Pri- mary horse- power.	Expressed in thousands.		
					Wages.	Cost of mate- rials.	Value of prod- ucts.						Wages.	Cost of mate- rials.	Value of prod- ucts.
THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES—Continued.															
Patent medicines and compounds and druggists' preparations.	1914	102	278	275	\$131	\$510	\$1,442	Soap.....	1914	11	272	339	\$132	\$1,309	\$2,894
	1909	82	209	219	118	445	1,707		1909	16	213	487	89	910	1,611
	1904	58	202	113	77	302	1,233		1904	16	187	313	73	633	1,002
Photo-engraving.....	1914	9	134	49	117	93	308	Tobacco manufactures....	1914	760	2,485	358	1,322	2,626	6,779
	1909	10	171	60	130	46	312		1909	775	2,391	286	1,106	2,507	6,142
	1904	5	103	35	76	20	166		1904	707	2,810	467	1,196	2,186	6,346
Printing and publishing..	1914	829	5,653	6,527	3,473	4,847	14,455	Upholstering materials...	1914	15	339	1,709	172	629	904
	1909	833	5,380	5,293	2,013	3,386	11,861		1909	14	201	1,550	90	272	472
	1904	767	5,099	5,064	2,435	2,042	9,252		1904	15	134	( <sup>1</sup> )	74	207	379
Shipbuilding, including boat building.	1914	34	695	3,875	421	451	1,254	Wirework, including wire rope and cable.	1914	18	327	742	188	811	1,269
	1909	52	906	3,506	640	819	1,081		1909	18	226	405	143	545	892
	1904	32	459	934	255	174	600		1904	16	306	363	143	361	653
Signs and advertising novelties.	1914	6	313	105	127	204	445	All other industries.....	1914	476	17,360	50,101	10,138	34,070	64,419
	1909	3	36	52	14	27	50		1909	432	11,694	26,739	5,862	20,164	40,181
	1904	( <sup>1</sup> )							1904	423	9,455	27,024	4,226	12,593	23,547
Slaughtering and meat packing.	1914	40	2,238	4,874	1,381	30,541	34,698								
	1909	48	1,890	3,283	1,042	28,403	27,217								
	1904	23	1,580	2,457	782	14,072	10,560								

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

MILWAUKEE— All industries.	1914	1909	1904	Expressed in thousands.			INDUSTRY AND CITY.	1914	1909	1904	Expressed in thousands.				
				Wages.	Cost of mate- rials.	Value of prod- ucts.					Wages.	Cost of mate- rials.	Value of prod- ucts.		
	1,728	61,830	122,178	\$30,270	\$124,876	\$223,555	Leather goods.....	1031	890	472	\$428	\$2,135	\$3,372		
	1,704	59,662	94,254	31,437	120,621	208,324		23	1,267	529	577	1,743	3,169		
	1,527	43,366	.....	20,809	71,103	137,995		14	1,049	.....	430	1,614	2,523		
Artificial stone products..	1914	9	60	104	36	68	145	Leather, tanned, curried, and finished.	1914	10	3,650	11,295	2,106	17,606	22,893
	1909	9	80	238	47	90	161		1909	12	4,903	9,931	2,637	21,468	27,484
	1904	4	23	.....	13	24	72		1904	10	3,111	.....	1,600	10,549	14,074
Boots and shoes, including cut stock and findings.	1914	27	3,055	2,854	1,852	8,387	12,133	Liquors, malt.....	1914	11	3,610	15,570	2,646	8,029	27,682
	1909	20	2,073	1,481	1,235	4,950	7,800		1909	10	3,071	12,890	1,818	4,373	10,643
	1904	27	1,600	.....	632	2,040	3,182		1904	8	3,521	.....	2,127	3,397	22,135
Bread and other bakery products.	1914	324	1,270	996	683	2,547	4,571	Lumber and timber products.	1914	11	2,119	5,349	1,205	2,779	4,933
	1909	318	975	509	528	2,213	3,824		1909	30	2,383	7,525	1,207	3,701	6,053
	1904	256	1,107	.....	402	2,100	3,510		1904	25	1,836	.....	807	2,764	4,286
Brooms, from broom corn.	1914	12	41	23	24	77	121	Malt.....	1914	6	168	2,615	189	3,837	4,754
	1909	11	52	24	30	97	144		1909	6	146	2,476	166	2,724	3,483
	1904	( <sup>1</sup> )	.....	.....	.....	.....	.....		1904	7	215	.....	147	2,846	3,024
Brushes, exclusive of paint and varnish.	1914	7	102	104	40	80	237	Marble and stone work....	1914	24	465	1,374	395	440	1,014
	1909	10	96	72	37	61	195		1909	26	347	983	291	317	862
	1904	( <sup>1</sup> )	.....	.....	.....	.....	.....		1904	14	301	.....	180	257	629
Clothing, women's.....	1914	16	434	71	167	486	863	Mattresses and spring beds	1914	8	212	443	122	374	665
	1909	14	391	45	139	352	609		1909	9	246	308	113	457	760
	1904	9	216	.....	80	149	334		1904	9	211	.....	95	313	635
Confectionery.....	1914	18	1,435	1,213	541	2,788	4,365	Millinery and lace goods...	1914	10	656	311	322	1,198	2,155
	1909	14	1,214	910	350	1,830	3,063		1909	7	307	163	147	338	550
	1904	12	682	.....	184	871	1,380		1904	4	344	.....	123	317	555
Copper, tin, and sheet-iron products.	1914	38	1,606	1,403	885	2,309	4,304	Models and patterns, not including paper patterns.	1914	17	100	127	64	35	156
	1909	39	2,019	1,010	860	3,514	5,330		1909	17	96	148	54	42	164
	1904	23	838	.....	362	1,314	2,097		1904	15	78	.....	40	20	101
Electrical machinery, apparatus, and supplies.	1914	13	1,632	2,047	1,040	1,397	3,995	Paints.....	1914	5	178	820	97	1,095	1,532
	1909	18	998	1,537	598	928	2,749		1909	6	169	775	85	975	1,395
	1904	12	815	.....	491	655	2,257		1904	6	141	.....	65	742	1,016
Food preparations.....	1914	14	118	878	66	509	843	Patent medicines, and compounds, and druggists' preparations.	1914	129	155	99	69	251	727
	1909	18	145	680	78	1,589	1,949		1909	25	155	54	70	234	901
	1904	10	103	.....	50	605	903		1904	21	28	.....	11	68	171
Foundry and machine-shop products.	1914	136	8,402	11,735	5,923	9,536	20,312	Photo-engraving.....	1914	6	120	34	107	87	279
	1909	125	7,881	9,305	4,762	7,000	13,146		1909	7	163	55	125	42	291
	1904	105	5,650	.....	3,128	4,970	11,421		1904	5	103	.....	76	20	166
Fur goods.....	1914	21	162	56	90	273	540	Printing and publishing..	1914	182	2,943	3,369	1,935	3,023	8,315
	1909	27	349	141	201	333	1,360		1909	188	2,949	2,956	1,739	2,165	7,119
	1904	14	278	.....	128	336	734		1904	149	2,827	.....	1,465	1,774	5,680
Gloves and mittens, leather.	1914	10	681	441	252	858	1,339	Tobacco manufactures....	1914	238	1,098	304	594	1,507	3,969
	1909	8	757	190	304	944	1,603		1909	234	894	262	426	1,479	3,339
	1904	6	598	.....	210	801	1,208		1904	259	1,103	.....	478	1,155	3,507
Hats and caps, other than felt, straw, and wool.	1914	5	70	13	43	73	153	All other industries.....	1914	443	22,576	56,290	13,161	48,745	79,983
	1909	8	67	10	35	62	139		1909	490	22,484	37,181	12,201	54,345	82,656
	1904	5	56	.....	23	53	101		1904	475	14,692	.....	6,956	30,759	50,134

<sup>1</sup> Includes "perfumery and cosmetics."  
<sup>2</sup> Includes "bookbinding and blank-book making;" and "lithographing."  
<sup>3</sup> Excludes statistics for one establishment, to avoid disclosure of individual operations.  
<sup>4</sup> Figures not available.  
<sup>5</sup> Includes "sausages."  
<sup>6</sup> Excludes statistics for two establishments, to avoid disclosure of individual operations.  
<sup>7</sup> Figures not comparable.

<sup>8</sup> Includes "stamped and enameled ware;" and "tinware, not elsewhere specified."  
<sup>9</sup> Includes "automobile repairing;" "engines, steam, gas, and water;" "gas machines and gas and water motors;" "hardware;" "plumbers' supplies;" "steam fittings and steam and hot-water heating apparatus;" and "structural ironwork, not made in steel works or rolling mills."  
<sup>10</sup> Includes "saddlery and harness;" and "trunks and valises."  
<sup>11</sup> Includes "boxes, wooden and packing;" and "lumber, planing-mill products, not including planing mills connected with sawmills."



TABLE 37.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

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.			16 and over.		Under 16.				
					Male.	Female.	Average number.	Number, 15th day of—		Male.	Female.	Male.	Female.			
								Maximum month.	Minimum month.							
1 All industries.....	9,104	230,273	7,425	7,590	10,100	4,842	104,310	Mh 205,512	De 182,055	(3)	(3)	(3)	(3)	(3)	\$754,287,116	
2 Agricultural implements.....	40	4,885	37	275	1,320	110	3,143	Ja 4,043	Se 1,918	3,295	3,199	93	3	.....	48,077,980	
3 Artificial limbs.....	4	14	3	4	.....	1	6	(*)	(*)	6	5	1	.....	16,423		
4 Artificial stone products.....	130	670	180	27	4	5	404	Au 517	De 243	511	511	.....	.....	509,990		
5 Automobile bodies and parts.....	31	2,023	10	83	159	40	1,722	Je 1,990	No 1,197	1,868	1,807	53	8	.....	5,837,450	
6 Automobiles.....	12	3,794	4	177	354	92	3,104	Ap 3,837	Jy 2,040	3,005	3,000	4	1	.....	12,449,823	
7 Automobile repairing.....	20	146	28	2	8	0	104	.....	.....	99	96	3	.....	222,548		
8 Repair work.....	22	131	22	1	4	0	98	My 108	Oc 90	92	89	3	.....	185,419		
9 Vulcanizing tires.....	4	15	4	1	4	0	6	My 7	Oc 5	7	7	.....	.....	30,129		
10 Awnings, tents, and sails.....	23	131	24	12	0	2	84	Je 125	Ja 50	91	53	36	2	.....	122,088	
11 Baskets, and rattan and willow ware	6	203	6	6	4	1	180	Mh 205	No 142	151	115	28	8	.....	202,409	
12 Bookbinding and blank-book making.	30	728	28	25	40	14	612	De 688	Jy 543	689	321	309	28	31	.....	676,932
13 Boot and shoe findings.....	4	54	3	5	2	2	42	Ja 48	Mh 86	45	30	15	.....	116,022		
14 Boots and shoes, not including rubber boots and shoes.	61	0,507	21	150	374	184	5,772	.....	.....	5,853	3,070	1,969	118	96	.....	12,545,864
15 Boots and shoes.....	58	0,473	19	155	374	181	5,744	Ja 6,037	Je 5,451	5,821	3,644	1,963	118	96	.....	12,504,233
16 Footwear, other than boots and shoes.	3	34	2	1	3	.....	28	Oc 37	Mh 24	32	26	6	.....	41,031		
17 Boxes, cigar.....	8	108	6	11	11	4	106	De 170	Au 101	173	52	120	.....	265,054		
18 Boxes, fancy and paper.....	18	1,455	8	38	51	30	1,319	Oc 1,378	Fe 1,277	1,305	517	651	40	97	.....	2,280,123
19 Boxes, wooden packing.....	50	2,543	33	75	51	15	2,309	Jy 2,007	No 2,042	2,480	2,278	136	09	6	.....	3,821,322
20 Brass, bronze, and copper products.	30	1,254	15	30	59	10	1,122	.....	.....	1,087	1,079	7	1	.....	4,076,671	
21 Brass and bronze.....	23	1,100	13	28	52	10	901	Ap 1,072	Ja 897	978	973	4	1	.....	3,671,947	
22 Other than brass, bronze, and copper.	7	154	2	11	7	3	131	Mh 163	Se 108	109	106	3	.....	404,724		
23 Bread and other bakery products..	704	3,313	755	64	180	108	2,107	Jy 2,277	Ja 2,074	2,237	1,711	408	18	10	.....	5,246,826
24 Brick and tile, terra cotta, and fire-clay products.	72	983	76	65	19	5	828	.....	.....	1,223	1,212	.....	11	.....	1,783,586	
25 Building brick.....	63	888	62	48	14	5	759	Jy 1,328	Fe 268	1,137	1,128	.....	9	.....	1,520,283	
26 Miscellaneous.....	9	95	14	7	5	.....	69	Je 109	Fe 31	80	84	.....	2	.....	257,303	
27 Brooms, from broom corn.....	20	141	20	4	0	3	96	Se 100	My 88	97	91	5	1	.....	115,304	
28 Brushes, exclusive of paint and varnish.	11	160	7	11	13	0	129	Je 148	De 109	132	96	15	21	.....	244,222	
29 Butter.....	675	2,254	358	158	70	62	1,000	Jy 1,740	Ja 1,458	1,643	1,624	13	6	.....	4,762,380	
30 Canning and preserving, fish.....	10	51	0	5	2	.....	33	No 176	Mh 1	166	166	.....	.....	133,613		
31 Canning, vegetables.....	81	2,868	4	241	65	27	2,521	Jy 3,997	Fe 568	7,170	4,908	1,831	250	82	.....	7,072,388
32 Carpets, rag.....	10	111	18	1	3	3	86	My 104	Ja 61	88	30	44	4	1	.....	44,805
33 Carriage and wagon materials.....	6	117	7	4	13	3	90	Ja 107	No 81	84	84	.....	.....	216,056		
34 Carriages and sleds, children's.....	4	483	1	11	7	10	454	Oc 492	My 413	468	436	5	24	3	.....	518,697
35 Carriages, wagons, and repairs.....	170	3,016	215	76	145	32	2,548	.....	.....	2,534	2,495	35	4	.....	11,483,961	
36 Carriages and wagons.....	175	3,009	210	76	145	32	2,546	Mh 2,890	Ja 1,934	2,532	2,493	35	4	.....	11,472,523	
37 Repair work only.....	4	7	5	2	2	.....	2	(*)	(*)	2	2	.....	.....	11,438		
38 Cars and general shop construction and repairs by electric-railroad companies.	10	413	.....	9	2	1	401	Ap 462	Oc 334	398	393	5	.....	1,140,523		
39 Cars and general shop construction and repairs by steam-railroad companies.	35	9,627	.....	63	540	13	9,011	Ja 9,269	De 8,649	9,155	9,149	6	.....	6,722,008		
40 Cheese.....	1,739	2,089	1,253	45	51	10	1,330	Jy 1,697	Ja 780	1,622	1,587	20	9	.....	5,411,082	
41 Chemicals.....	7	103	3	14	23	3	60	Mh 65	Jy 56	61	54	7	.....	373,962		
42 Cleansing and polishing preparations	11	187	9	6	23	46	103	.....	.....	106	86	17	2	1	.....	435,874
43 Cleansing.....	5	34	3	2	6	3	20	Jy 24	My 16	18	15	3	.....	17,946		
44 Polishing.....	6	153	0	4	17	43	83	Mh 105	Au 71	88	71	14	2	1	.....	417,928
45 Clothing, horse.....	6	647	5	13	60	12	557	Ja 697	Au 394	502	123	330	12	37	.....	1,615,904
46 Clothing, men's.....	55	3,759	44	103	317	91	3,204	.....	.....	3,178	774	2,327	15	62	.....	5,708,018
47 Men's and youths', including boys.	40	3,421	29	101	314	80	2,888	Fe 3,054	Oc 2,622	2,842	718	2,049	15	60	.....	5,640,489
48 Contract work, men's and youths'.	15	338	15	2	3	2	316	Ap 334	Oc 292	336	56	278	.....	67,529		
49 Clothing, women's.....	21	639	23	23	31	41	521	.....	.....	522	101	412	.....	9	.....	472,276
50 Suits, skirts, cloaks, etc.....	6	211	7	10	14	7	173	Se 209	My 148	167	70	95	.....	2	.....	172,274
51 All other, including contract work.	15	428	16	13	17	34	348	My 393	Fe 314	355	31	317	.....	7	.....	300,002
52 Coffee and spice, roasting and grinding.	8	134	3	14	34	18	70	Oc 74	De 64	64	33	31	.....	.....	361,525	
53 Coffins, burial cases, and undertakers' goods.	5	431	.....	21	48	6	356	Mh 375	Jy 337	356	297	55	4	.....	997,087	
54 Condensed milk.....	17	967	.....	32	132	22	781	Je 1,036	Ja 592	726	565	158	3	.....	5,560,881	
55 Confectionery and ice cream.....	100	2,969	82	113	232	63	2,429	.....	.....	2,669	911	1,438	71	249	.....	4,085,846
56 Confectionery.....	55	2,086	35	94	263	52	2,242	No 2,619	Jy 1,928	2,472	736	1,417	70	249	.....	3,211,532
57 Ice cream.....	45	283	47	10	10	11	187	Je 253	Ja 137	197	175	21	1	.....	874,314	
58 Cooperage.....	27	509	23	11	8	3	464	.....	.....	535	530	.....	5	.....	935,796	
59 Hogsheds and barrels.....	19	355	16	9	7	3	320	Je 406	Fe 259	379	378	.....	1	.....	834,340	
60 All other.....	8	154	7	2	1	.....	144	Ja 163	My 127	156	152	.....	4	.....	101,450	
61 Copper, tin, and sheet-iron products.	99	1,036	101	57	92	34	752	Se 845	De 649	705	703	1	1	.....	2,181,200	
62 Cutlery and edge tools.....	4	76	6	5	2	4	59	Oc 65	My 53	65	56	6	1	2	.....	110,871

<sup>1</sup> Owned power only.

<sup>2</sup> Includes rented power, other than electric.

<sup>3</sup> No figures given for reasons stated under "Explanation of terms."

OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914.

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, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal combustion engines. <sup>2</sup>	Water wheels and motors. <sup>1</sup>	

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

\$10,703,770	\$23,775,099	\$112,193,163	\$3,453,920	\$1,797,041	\$15,545,998	\$401,237,307	\$16,177,767	\$605,172,002	\$277,756,028	682,330	420,065	33,495	148,795	79,984	175,684	1
656,901	1,851,546	2,193,371	.....	6,097	217,549	8,510,229	165,405	20,119,058	11,443,424	9,196	8,120	384	.....	742	4,843	2
5,480	4,468	4,640	.....	3,578	102	5,167	319	23,392	17,906	3	.....	.....	.....	3	.....	3
25,495	2,027	245,118	.....	5,210	5,992	267,705	10,245	714,122	436,172	736	75	386	.....	275	.....	4
215,235	175,905	1,278,702	.....	11,852	28,368	48,994	88,676	4,325,764	2,594,912	3,024	681	1,617	.....	726	1,269	5
407,798	415,410	2,629,310	.....	1,507	13,124	74,580	126,145	14,152,432	5,418,041	6,803	4,878	737	.....	1,188	2,402	6
1,880	9,878	77,027	.....	7,759	2,263	62,645	4,430	207,096	140,021	157	.....	50	.....	107	.....	7
300	5,438	74,763	.....	6,599	2,159	59,243	3,867	136,237	123,127	151	.....	50	.....	101	.....	8
1,580	4,440	2,264	.....	1,160	104	3,402	503	20,859	16,894	6	.....	.....	.....	6	.....	9
11,936	5,908	37,299	.....	4,062	1,148	128,694	1,794	227,856	97,368	36	.....	4	.....	32	.....	10
10,113	2,743	73,552	.....	489	1,546	49,791	2,244	162,003	109,968	207	205	.....	.....	2	.....	11
42,943	52,851	282,202	22,936	27,080	4,384	410,442	8,770	1,014,070	583,858	221	.....	3	.....	218	.....	12
6,140	2,083	21,249	.....	2,270	306	130,803	2,858	188,843	55,182	44	.....	.....	.....	44	3	13
319,109	692,900	2,695,107	23,767	47,855	92,166	11,907,703	80,979	17,643,350	5,654,578	3,888	2,777	73	10	1,028	1,253	14
317,609	683,724	2,678,772	23,467	47,099	91,955	11,892,662	79,992	17,563,749	5,621,095	3,871	2,777	63	10	1,021	1,253	15
1,500	9,176	16,935	.....	159	211	45,131	987	79,601	33,483	17	.....	10	.....	7	.....	16
13,660	10,760	45,601	2,810	482	3,248	115,151	2,825	266,016	148,040	231	146	0	.....	79	.....	17
93,004	75,715	535,198	.....	29,600	23,413	1,037,070	60,829	2,320,767	1,208,262	1,554	1,283	14	.....	257	759	18
145,530	86,473	1,064,952	2,040	5,030	36,639	2,795,801	24,276	4,947,466	2,127,329	7,990	7,124	229	.....	637	1,349	19
108,326	84,818	674,430	178	7,921	36,050	4,230,577	164,411	5,409,260	1,014,272	7,053	6,475	136	.....	442	2,602	20
83,588	74,585	592,077	173	6,393	32,919	4,005,002	154,806	5,005,281	845,413	6,843	6,465	46	.....	342	2,602	21
24,738	10,233	81,753	.....	1,528	3,131	225,575	9,546	403,979	168,859	210	20	90	.....	100	.....	22
112,894	208,442	1,247,623	1,675	143,843	59,589	4,339,018	196,923	8,057,702	3,521,761	1,270	103	86	1	1,086	9	23
69,815	21,466	416,840	2,090	1,970	16,418	103,959	197,132	1,114,340	813,249	3,821	2,942	237	.....	642	15	24
60,915	16,158	374,455	2,090	1,500	15,222	94,809	184,112	1,006,245	727,234	3,497	2,613	237	.....	642	15	25
5,900	5,308	42,385	.....	170	1,196	9,060	13,020	108,095	36,015	324	324	.....	.....	.....	.....	26
3,300	8,211	50,628	63	1,908	1,243	157,225	1,594	266,305	106,780	68	1	10	.....	47	.....	27
19,927	23,100	61,818	532	6,002	1,696	85,433	7,991	270,479	177,055	155	35	32	.....	88	.....	28
130,869	59,813	1,206,701	73,720	19,515	39,410	30,675,533	237,930	34,075,821	3,162,358	9,900	8,414	668	56	702	118	29
5,967	665	22,032	.....	60	1,502	42,178	839	108,411	65,394	127	42	72	.....	13	.....	30
282,256	64,558	989,417	9,306	47,449	66,984	4,252,369	77,789	6,898,667	2,598,529	8,462	6,650	789	5	1,018	160	31
1,000	37,927	72,310	.....	3,213	423	11,716	2,250	67,030	73,064	74	.....	42	.....	32	8	32
5,180	9,416	56,430	890	1,060	2,528	141,044	11,340	270,533	118,149	458	304	.....	50	44	133	33
21,902	13,482	191,020	.....	308	4,658	306,177	2,486	648,030	339,367	392	385	.....	.....	7	.....	34
138,344	196,481	1,770,547	3,878	11,052	81,851	4,017,313	89,459	7,273,788	3,167,016	5,044	3,923	444	30	647	2,123	35
138,344	196,481	1,769,347	3,878	10,967	81,694	4,015,318	89,244	7,267,523	3,165,261	5,094	3,923	435	30	646	2,123	36
.....	.....	1,200	.....	85	157	1,995	215	8,755	9	10	.....	.....	.....	1	.....	37
8,760	705	269,862	.....	22,540	361,133	14,009	648,545	273,403	2,110	359	.....	210	.....	1,541	.....	38
94,323	501,451	5,718,224	.....	510	18,980	4,175,772	364,669	10,920,886	6,380,445	7,283	6,834	45	.....	404	1,555	39
29,245	15,538	1,051,839	17,322	25,021	29,353	25,415,278	233,805	28,075,795	2,426,712	10,889	9,929	943	.....	17	5	40
15,614	27,913	36,090	.....	10,620	2,715	220,531	9,303	436,222	206,388	362	108	65	.....	191	3	41
14,530	57,825	69,442	.....	1,188	4,850	300,265	5,225	703,338	397,848	217	150	20	.....	47	.....	42
4,900	9,591	12,750	.....	660	434	43,129	805	88,494	44,560	30	.....	.....	.....	19	.....	43
9,630	48,234	56,692	.....	528	4,425	257,136	4,420	614,844	353,288	178	150	.....	.....	28	.....	44
22,983	45,337	227,361	4,572	7,500	9,677	1,122,805	12,606	1,657,784	522,373	435	395	9	.....	31	.....	45
291,293	408,064	1,288,726	137,610	65,802	43,377	4,593,928	80,782	7,985,697	3,366,987	694	65	23	.....	606	34	46
287,693	496,450	1,196,473	137,564	64,014	42,394	4,588,813	27,209	7,846,154	3,280,682	648	65	23	.....	590	34	47
3,600	1,638	92,253	46	1,788	983	5,615	3,573	139,843	130,355	46	.....	.....	.....	46	.....	48
46,554	47,961	186,570	500	22,808	1,987	546,823	4,253	979,806	428,730	92	.....	.....	.....	92	.....	49
23,980	11,995	88,074	.....	10,783	891	207,764	1,336	386,629	177,429	21	.....	.....	.....	21	.....	50
22,594	35,966	98,496	500	12,025	1,096	339,059	2,917	593,277	251,301	71	.....	.....	.....	71	.....	51
14,580	20,334	36,877	.....	7,440	4,454	601,123	7,663	809,186	200,400	350	95	.....	.....	261	.....	52
35,392	45,244	201,270	2,793	120	8,880	402,575	12,167	904,891	490,149	685	540	.....	.....	145	82	53
103,790	147,355	453,503	.....	45,359	8,564,110	198,882	10,706,976	1,043,984	2,576	2,494	.....	.....	.....	82	500	54
257,980	332,355	935,803	7,874	38,139	4,418,242	82,747	7,243,167	2,742,178	2,990	1,724	63	.....	.....	1,203	685	55
216,567	311,067	810,382	6,331	28,018	44,150	3,826,767	63,566	6,228,736	2,348,403	1,837	1,335	52	.....	450	605	56
41,423	21,288	125,421	1,543	10,121	8,039	591,475	29,181	1,014,431	393,775	1,153	389	11	.....	753	80	57
31,423	9,612	262,217	3,959	5,479	6,657	584,522	12,343	984,970	388,105	1,610	1,178	14	258	160	5	58
27,831	8,202	195,236	3,959	5,219	5,096	449,191	10,089	746,172	286,802	981	568	8	258	147	5	59
3,592	1,320	66,981	.....	260	1,561	135,331	2,254	238,798	101,213	629	610	6	.....	13	.....	60
93,269	117,296	484,873	5,918	21,071	18,483	2,489,907	20,174	3,811,633	1,301,552	442	280	48	.....	134	317	61
6,770	3,214	26,881	400	420	780	22,329	2,299	86,504	61,876	87	67	.....	.....	20	75	62

\* Same number reported throughout the year.

\* Same number reported for one or more other months.

TABLE 37.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

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.	10 and over.		Under 10.		
					Male.	Female.	Average number.	Number, 15th day of—		Male.		Female.	Male.	Female.		
								Maximum month.	Minimum month.							
1 Dairymen's, poultrymen's, and apiculturists' supplies.	28	403	21	31	35	31	345	.....	.....	.....	343	315	25	3	.....	\$1,230,834
2 Incubators and brooders.	5	74	6	3	1	14	60	Fe 71	Jy 30	60	67	2	.....	.....	.....	94,753
3 Cream separators and other dairymen's supplies.	18	240	11	21	29	13	175	Mh 212	No 141	140	138	0	2	.....	.....	800,467
4 Apiculturists' supplies.	5	140	4	7	5	4	120	Je 147	Au 104	125	110	14	1	.....	.....	344,614
5 Dental goods.	5	38	4	.....	.....	1	33	(3) 33	(3) 33	33	30	1	2	.....	.....	35,391
6 Druggists' preparations.	7	68	3	3	.....	4	40	(3) 40	(3) 40	40	32	8	.....	.....	.....	154,714
7 Electrical machinery, apparatus, and supplies.	20	2,883	6	169	480	123	2,115	Fe 2,332	Se 1,987	2,289	2,100	160	21	2	.....	7,006,770
8 Electroplating.	10	74	11	8	3	4	63	Ap 63	Au 48	51	50	.....	1	.....	.....	56,101
9 Engines, steam, gas, and water.	40	6,634	21	135	395	73	6,010	Ja 7,180	No 5,059	6,134	6,108	23	5	.....	.....	24,080,988
10 Fancy articles, not elsewhere specified.	5	183	4	4	4	0	165	Oc 199	Ja 83	178	89	80	.....	.....	.....	308,402
11 Flavoring extracts.	7	47	4	8	13	1	21	Au 24	Ja 20	20	12	4	4	.....	.....	170,515
12 Flour-mill and gristmill products.	252	1,804	294	118	207	60	1,116	De 1,216	Jy 1,045	1,243	1,234	4	5	.....	.....	10,789,136
13 Food preparations.	30	735	25	45	93	139	478	.....	.....	531	391	140	.....	.....	.....	2,565,042
14 Cereals, table foods, and macaroni.	6	34	3	0	13	4	58	Oc 87	De 42	81	55	20	.....	.....	.....	283,059
15 Meat products and sirups.	5	14	5	.....	.....	.....	9	(3) 9	(3) 9	10	10	.....	.....	.....	.....	40,260
16 Other food products, including those for animals and fowls.	19	687	17	39	85	135	411	Oc 476	Ja 382	440	326	114	.....	.....	.....	2,261,123
17 Foundry and machine-shop products.	304	20,201	228	771	1,883	477	16,842	.....	.....	15,969	16,792	137	39	1	.....	83,313,547
18 Boiler shops.	11	495	4	29	36	0	420	Ja 471	De 394	391	390	.....	1*	.....	.....	1,028,599
19 Foundries.	51	3,450	23	110	102	25	3,199	Fe 3,492	Je 2,972	2,917	2,899	32	16	.....	.....	4,982,987
20 Machine shops.	302	16,247	201	632	1,745	440	13,223	Mh 14,598	No 11,540	12,061	12,533	105	22	1	.....	77,301,961
21 Fuel, manufactured.	3	65	1	4	3	.....	67	Do 69	Jo 43	71	71	.....	.....	.....	.....	706,857
22 Fur goods.	36	322	31	26	26	14	225	De 205	Ap 185	286	103	170	0	1	.....	1,075,121
23 Furnishing goods, men's.	4	116	2	5	7	6	96	Mh 100	De 74	95	19	73	.....	3	.....	141,301
24 Furniture.	107	12,357	42	328	772	200	11,015	.....	.....	10,499	9,927	342	200	30	.....	24,791,239
25 Wood, including rattan and willow.	89	8,796	30	227	400	134	7,936	Mh 8,555	De 7,288	7,484	7,017	267	171	29	.....	16,664,333
26 Metal, including store and office fixtures.	27	3,561	12	101	303	66	3,079	Mh 3,332	No 2,568	3,015	2,910	75	29	1	.....	8,126,906
27 Gas and electric fixtures.	7	310	5	17	50	16	222	Oc 244	Je 210	205	171	25	9	.....	.....	538,196
28 Gas, illuminating and heating.	47	1,769	.....	90	298	141	1,240	Jy 1,455	De 1,036	1,243	1,243	.....	.....	.....	.....	29,539,492
29 Glass, cutting, staining, and ornamenting.	15	124	24	6	6	2	86	No 92	Ja 82	86	86	.....	.....	.....	.....	92,749
30 Gloves and mittens, leather.	24	1,925	8	62	109	35	1,711	Ja 1,953	De 1,455	1,553	519	973	13	48	.....	2,621,179
31 Grease and tallow.	10	68	12	3	2	1	50	No 55	Mh 46	52	52	.....	.....	.....	.....	169,543
32 Hardware.	13	489	9	26	20	17	417	.....	.....	424	395	27	2	.....	.....	854,868
33 Hinges and other builders' hardware.	5	37	5	9	2	2	19	Je 23	Oc 16	17	14	3	.....	.....	.....	63,044
34 All other, exclusive of locks.	8	452	4	17	18	15	398	Ap 481	De 289	407	381	24	2	.....	.....	791,224
35 Hats and caps, other than felt, straw, and wool.	5	80	7	2	1	.....	70	Je 72	Mh 66	71	50	21	.....	.....	.....	57,760
36 Hosiery and knit goods.	68	6,985	34	166	291	250	6,244	Fe 6,523	No 6,016	6,130	1,338	4,456	65	280	.....	10,953,219
37 House-furnishing goods.	7	111	8	6	15	3	79	.....	.....	75	50	21	4	.....	.....	243,714
38 Comforts, quilts, and leather pillows.	3	53	4	3	4	2	40	Au 45	Ja 32	38	19	15	4	.....	.....	121,094
39 Other products, including cotton batting.	4	58	4	3	11	1	39	Ap 41	No 37	37	31	6	.....	.....	.....	122,620
40 Iron and steel, blast furnaces.	5	554	.....	11	58	3	482	Mh 702	De 266	408	408	.....	.....	.....	.....	7,524,768
41 Iron and steel, steel works and rolling mills.	12	2,256	.....	63	147	17	2,029	My 2,226	No 1,815	2,035	2,031	.....	4	.....	.....	6,171,815
42 Jewelry.	14	100	16	3	2	5	74	De 75	No 73	74	67	1	0	.....	.....	97,013
43 Leather goods, not elsewhere specified.	4	17	3	1	4	1	8	Ap 10	De 7	7	3	4	.....	.....	.....	15,161
44 Leather, tanned, curried, and finished.	27	6,410	20	87	387	47	5,869	Mh 6,530	Se 5,339	6,067	5,741	324	2	.....	.....	42,769,623
45 Lime.	30	917	7	47	25	10	828	Jy 1,024	De 551	936	933	1	2	.....	.....	2,700,120
46 Liquors, malt.	132	6,587	61	366	693	53	5,414	Jy 6,020	De 5,016	5,500	5,346	152	2	.....	.....	77,290,896
47 Lithographing.	10	508	2	23	37	18	428	My 453	De 390	442	369	61	10	2	.....	1,093,903
48 Looking-glass and picture frames.	4	13	8	2	.....	1	2	(3) 2	(3) 2	3	3	.....	.....	.....	.....	14,779
49 Lumber and timber products.	493	26,518	444	511	529	93	24,941	Fe 30,630	Au 22,198	28,267	27,984	165	113	5	.....	49,154,468
50 Lumber, planing-mill products, not including planing mills connected with sawmills.	146	5,688	109	214	299	94	4,972	Ja 5,164	De 4,752	4,946	4,846	69	31	.....	.....	12,407,697
51 Malt.	25	805	19	66	60	14	687	Ja 742	Au 540	735	734	1	.....	.....	.....	15,301,245
52 Marble and stone work.	117	1,730	148	71	91	30	1,360	Se 1,521	Fe 1,216	1,364	1,349	1	4	.....	.....	3,391,023
53 Mats and mattings, from cocoa fiber and grass.	4	495	.....	23	10	7	455	Ja 738	Se 121	541	339	201	1	.....	.....	1,517,855
54 Mattresses and spring beds.	18	483	12	30	45	12	384	Je 408	De 355	379	309	53	17	.....	.....	1,070,988
55 Millinery and lace goods.	10	791	6	20	89	20	656	Fe 1,073	No 282	734	160	553	3	13	.....	955,408
56 Mineral and soda waters.	176	698	200	55	54	14	375	Au 454	Ja 321	388	353	28	7	.....	.....	6,598,038
57 Mirrors, framed and unframed.	4	96	.....	9	5	1	51	Jy 84	De 80	80	79	.....	.....	.....	.....	196,549
58 Models and patterns, not including paper patterns.	24	174	28	18	8	3	117	Je 143	Se 97	129	119	7	2	1	.....	123,712
59 Musical instruments, pianos.	6	546	.....	18	16	17	495	Ja 534	No 454	464	450	2	12	.....	.....	1,253,851
60 Paint.	9	299	5	18	59	25	192	Ap 197	Ja 178	197	167	30	.....	.....	.....	1,356,714
61 Paper and wood pulp.	58	9,625	5	222	369	61	8,968	.....	.....	8,946	7,943	896	3	4	.....	48,812,033
62 Paper exclusively.	21	2,805	5	67	136	16	2,581	Oc 2,651	Se 2,472	2,523	1,913	805	1	4	.....	9,355,350
63 Pulp exclusively.	11	613	.....	27	11	5	576	Mh 600	Ja 522	576	574	2	.....	.....	.....	2,776,323
64 Both paper and pulp.	26	6,207	.....	128	222	40	5,817	Mh 6,101	Ja 5,592	5,747	5,456	239	2	.....	.....	36,080,390

\* Owned power only.

\* Includes rented power, other than electric.

OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914—Continued.

EXPENSES.										Value of products.	Value added by manufacture.	POWER.					Electric horsepower generated in establishments reporting.
Salaries and wages.			For contract work.	Rent and taxes.		For materials.		Primary horsepower.									
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.	Total.	Steam engines. <sup>1</sup>			Internal combustion engines. <sup>1</sup>	Water wheels and motors. <sup>1</sup>	Electric (rented).			

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.—Continued.

\$64,945	\$66,644	\$213,341	\$527	\$7,306	\$7,954	\$811,375	\$19,204	\$1,665,700	\$835,121	800	255	64	481	1
3,229	9,359	32,979	527	410	1,517	112,959	2,797	303,416	247,060	95	15	12	68	2
34,562	48,520	116,971	.....	6,896	4,073	448,392	8,570	878,279	421,317	326	40	47	238	3
17,154	8,665	63,391	.....	.....	2,304	260,024	7,837	424,005	166,144	380	200	5	175	4
7,600	649	27,947	.....	1,727	652	46,172	541	101,064	54,351	11	.....	.....	11	5
.....	17,201	27,360	.....	682	.....	96,035	1,647	209,434	112,752	48	.....	.....	48	6
325,296	647,653	1,339,587	29,230	36,663	60,599	1,949,824	113,806	5,396,802	3,333,082	3,016	1,785	56	1,775	7
3,673	3,680	33,923	481	3,695	422	20,174	4,701	91,510	66,545	141	80	5	56	8
373,671	518,943	4,617,370	3,209	14,098	167,613	5,612,030	261,950	13,063,336	7,188,450	7,596	4,446	2,615	9,671	9
3,493	3,758	55,350	325	576	1,760	123,157	3,258	331,301	104,880	264	250	.....	635	10
20,500	12,230	10,652	.....	4,000	894	132,154	808	217,310	84,367	4	.....	.....	4	11
229,028	286,362	736,575	4,802	25,830	93,061	24,741,972	237,929	28,697,413	3,717,512	26,350	10,390	1,460	10,774	12
168,792	186,532	266,647	700	23,019	71,855	1,320,927	62,905	4,852,893	3,469,031	3,400	2,915	29	456	13
11,004	15,554	28,671	600	1,990	4,169	251,319	7,091	363,710	94,706	585	500	.....	85	14
.....	.....	6,929	.....	441	.....	159,852	312	173,405	13,241	10	.....	10	.....	15
147,788	170,978	231,947	100	21,029	67,246	909,756	54,902	4,325,742	3,361,084	2,805	2,415	19	371	16
1,886,627	2,332,328	11,016,503	48,320	87,978	417,176	16,121,041	922,609	37,190,805	20,150,215	32,170	23,137	1,553	417	17
63,588	32,104	260,701	.....	4,150	9,402	452,409	24,389	933,666	456,868	704	575	52	77	18
240,026	123,489	1,855,633	5,166	7,095	49,494	1,554,782	275,819	4,727,986	2,897,385	4,383	2,385	135	1,838	19
1,563,013	2,171,735	8,900,169	48,164	76,733	358,226	14,113,850	622,401	31,538,213	16,801,962	27,089	20,177	1,366	5,154	20
6,530	1,790	54,856	.....	5,728	.....	273,526	60,331	474,606	131,740	1,140	.....	.....	1,140	21
39,442	36,200	128,878	1,908	25,982	7,816	362,574	5,242	710,526	342,710	140	40	35	65	22
5,330	8,331	29,021	.....	1,482	721	113,228	1,071	169,997	55,608	25	.....	.....	25	23
776,714	1,046,066	5,532,809	7,168	31,137	211,461	9,504,916	244,062	20,773,768	11,024,790	19,367	17,451	594	1,297	24
513,335	615,715	3,656,803	6,708	15,987	140,701	5,475,295	164,905	13,100,001	7,468,801	13,567	12,426	350	766	25
202,379	430,351	1,876,006	450	15,150	70,750	4,029,621	70,187	7,664,767	3,555,089	5,800	5,025	244	531	26
27,280	49,947	131,915	665	14,541	3,589	279,388	6,520	647,999	362,091	104	.....	.....	104	27
171,573	302,045	721,898	27,167	300	360,181	855,237	960,410	5,294,933	3,479,336	11,150	9,242	869	1,045	28
6,164	5,375	43,705	2,311	5,650	499	66,425	2,584	167,146	98,137	103	.....	30	73	29
124,595	116,858	589,458	7,371	25,338	17,050	1,729,661	16,362	2,921,587	1,175,564	670	328	6	336	30
5,640	2,600	40,497	1,333	1,987	1,135	239,640	10,910	326,250	75,700	225	179	.....	45	31
49,519	28,746	223,918	50	2,090	9,278	265,155	9,158	703,120	518,816	647	525	63	59	32
8,365	2,262	9,383	.....	915	323	20,083	945	52,936	31,908	46	.....	26	20	38
41,124	26,494	214,535	50	1,775	8,955	245,072	8,213	740,193	480,908	601	525	37	39	34
2,850	42,970	.....	.....	2,820	317	71,842	1,233	182,858	79,783	13	.....	.....	13	35
364,109	558,993	2,448,347	19,210	50,306	84,336	6,929,905	95,327	13,292,305	6,207,073	3,629	2,625	140	864	36
7,240	12,801	40,388	359	6,249	979	237,432	6,520	363,040	119,088	381	250	12	119	37
4,000	6,068	20,036	.....	4,318	452	140,318	2,086	200,334	51,931	72	.....	.....	72	38
3,240	6,733	20,350	359	1,931	527	91,114	4,435	192,700	67,157	309	250	12	47	39
60,264	42,087	398,374	.....	100	76,558	1,799,720	1,452,090	3,793,442	541,632	12,742	10,255	2,487	2,206	40
210,522	186,762	1,293,116	10,150	7,780	81,153	3,236,056	319,085	6,008,549	2,453,406	16,215	12,675	720	1,820	41
3,440	3,496	47,305	.....	4,088	327	72,084	1,178	155,048	81,786	35	.....	.....	35	42
780	4,619	3,437	.....	616	67	11,133	207	25,071	18,726	12	.....	10	2	43
359,692	471,023	3,403,592	.....	35,107	285,126	32,674,238	378,948	42,204,202	9,161,016	20,142	17,503	350	2,289	44
73,945	41,093	449,831	31,101	920	13,099	410,761	416,310	1,570,310	743,239	4,032	1,989	473	1,420	45
894,232	886,299	3,913,037	197,466	19,928	6,139,298	12,937,719	765,042	40,884,284	27,181,523	28,326	24,132	190	3,972	46
75,645	68,026	307,031	4,118	10,281	13,426	382,017	11,291	1,102,271	708,903	463	145	.....	318	47
3,120	284	1,486	.....	756	100	4,840	203	16,659	11,610	8,523	7	.....	.....	48
1,063,635	693,276	12,551,955	2,101,343	10,976	1,120,761	14,823,236	239,789	37,494,041	22,431,036	84,527	80,717	945	1,305	49
395,475	399,295	2,028,572	13,132	21,383	103,806	7,475,780	109,571	12,921,004	5,335,653	14,744	12,751	409	1,449	50
233,967	146,243	536,215	23,719	4,000	116,736	12,115,060	373,817	15,533,339	3,044,402	10,545	10,420	.....	25	51
122,720	99,214	995,864	21,473	7,739	25,152	1,105,311	62,454	2,913,921	1,746,156	3,410	1,236	361	1,410	52
42,870	16,976	211,997	.....	.....	13,128	513,648	11,181	1,029,906	505,167	594	410	.....	184	53
49,541	31,299	213,777	.....	8,616	8,711	635,290	12,827	1,089,425	441,308	771	515	12	144	54
64,295	118,231	321,507	3,754	16,883	17,580	1,186,696	11,128	2,156,658	950,834	311	300	.....	11	55
91,087	104,888	215,911	3,300	12,003	26,622	821,783	23,104	1,859,237	1,024,350	739	331	178	229	56
18,226	6,091	56,973	.....	3,476	994	163,392	4,138	274,091	106,561	800	225	30	45	57
21,586	7,189	75,622	879	6,005	687	37,431	3,391	185,756	144,934	199	.....	29	170	58
39,966	24,333	306,754	978	9,680	10,002	851,008	14,555	1,469,585	603,422	553	410	.....	143	59
42,760	60,639	103,982	.....	5,037	16,642	1,112,277	14,872	1,586,156	459,007	985	685	.....	208	60
702,620	451,813	5,338,816	64,129	6,290	518,728	18,305,049	2,202,130	31,205,395	10,637,307	191,693	41,173	9,615	3,615	61
257,643	151,026	1,333,192	16	222	106,514	5,486,102	583,228	8,846,769	2,777,430	31,665	17,698	950	3,692	62
48,074	11,312	347,035	39,876	2,525	38,884	1,487,138	105,598	1,831,204	674,170	20,599	1,410	1,850	17,524	63
396,903	289,475	3,658,589	24,237	3,552	373,330	11,732,469	1,513,315	20,527,422	7,281,698	139,529	29,065	7,015	5,518	64

<sup>1</sup> Same number reported throughout the year.

<sup>2</sup> Same number reported for one or more other months.

TABLE 37.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

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.	Salari- ed offi- cers, su- perinten- dents, and managers.	Clerks, etc.		Wage earners.				Total.	16 and over.		Under 16.				
					Male.	Fe- male.	Average num- ber.	Number, 15th day of—		Male.		Fe- male.	Male.	Fe- male.				
								Maximum month.	Minimum month.									

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

1	Paper goods, not elsewhere specified.	7	230	11	20	14	188	Au	201	Fe	170	185	100	85			\$589, 823
2	Patent medicines and compounds...	51	305	47	25	49	194	Fe	215	Au	174	191	73	117	1		691, 372
3	Paving materials.....	16	928	16	24	12	872	Jy	1, 130	Ja	484	899	899				1, 759, 652
4	Perfumery and cosmetics.....	4	90	2	8	13	44	Oc	89	Je	87	50	13	30	1	0	372, 774
5	Photo-engraving.....	9	181	7	16	14	184	De	138	Se	180	140	182		8		112, 137
6	Pickles and sauces.....	21	182	26	14	6	133	Au	202	Ja	100	190	83	105		2	358, 009
7	Plumbers' supplies, not elsewhere specified.	9	1, 533	53	90	18	1, 367	Se	1, 456	De	1, 231	1, 413	1, 381	26	4	2	3, 703, 906
8	Pottery.....	3	11	2	1		8	( <sup>1</sup> )	8	( <sup>1</sup> )	8	8	8				20, 440
9	Printing and publishing.....	217	2, 416	202	166	174	1, 765					1, 804	1, 334	391	67	12	3, 745, 300
10	Job printing.....	201	2, 287	195	153	146	1, 699	Fe	1, 747	Jy	1, 090	1, 747	1, 285	386	64	12	3, 478, 650
11	Book publishing without printing and linotype work.	16	129	7	13	28	66	My	127	De	51	57	49	5	3		266, 750
12	Printing and publishing, newspapers and periodicals.	572	4, 951	575	308	783	2, 848					2, 979	2, 099	692	182	6	6, 948, 683
13	Printing and publishing.....	28	987	14	58	378	438	My	445	Jy	412	435	403	29	3		1, 408, 271
14	Printing and publishing and job printing.	491	3, 781	532	205	376	2, 407	De	2, 485	Jy	2, 355	2, 536	1, 691	600	179	6	5, 428, 116
15	Publishing without printing....	53	183	29	45	29	8	( <sup>1</sup> )	8	( <sup>1</sup> )	8	8	5	3			112, 296
16	Refrigerators.....	7	834	2	13	34	777	Ap	911	Jy	630	753	736		17		1, 442, 705
17	Rubber goods.....	5	1, 951	4	25	202	1, 037	My	1, 920	Ja	1, 356	1, 482	1, 316	142	1	3	4, 961, 211
18	Saddlery and harness.....	89	858	91	23	65	662	De	731	Au	594	737	628	108		3	1, 089, 179
19	Sand-lime brick.....	3	47		6	1	89	Oc	55	Ja	6	41	41				170, 463
20	Sausage.....	24	324	28	12	81	225	Fe	242	Se	212	233	229	1	3		748, 329
21	Shipbuilding, iron and steel.....	3	545	15	23	3	504	My	822	Se	105	480	479		1		3, 760, 779
22	Shipbuilding, wooden, including boat building.	31	244	33	12	6	191					189	188	1			343, 576
23	New vessels.....	6	112	14	2		95	Mh	110	De	79	87	87				148, 785
24	Small boats.....	25	132	19	10	5	90	Je	144	Oc	69	102	101	1			199, 791
25	Shirts.....	4	410	1	11	15	380	Ja	423	Jy	343	303	29	334			623, 282
26	Signs and advertising novelties.....	6	341	4	13	6	313	Au	825	De	293	293	148	187	5	8	264, 374
27	Slaughtering and meat packing....	22	2, 376	21	35	257	2, 011	De	2, 736	Au	1, 646	2, 143	2, 018	90	35		10, 380, 426
28	Soap.....	11	430	5	14	102	272	Ap	304	Ja	225	241	166	75			1, 143, 593
29	Stamped and enameled ware.....	5	2, 895	55	178	37	2, 598	My	2, 749	De	2, 378	2, 646	2, 243	385	7	11	7, 505, 886
30	Stationary goods.....	6	51	5	1	11	23	Oc	45	My	21	31	10	14	1		85, 690
31	Stationary and art goods.....	6	75	0	0	1	61	Mh	77	Ja	40	61	61				163, 858
32	Steam fittings and steam and hot-water heating apparatus.	9	884	4	17	26	327	Se	344	Je	301	310	313	1	2		1, 375, 397
33	Stoves, hot-air furnaces, and fireless cookers.	9	1, 049	11	28	119	859	Mh	909	De	810	815	812		3		2, 477, 548
34	Structural ironwork, not made in steel works or rolling mills.	27	1, 709	18	61	200	1, 400	Jy	1, 609	De	1, 065	1, 210	1, 207		3		3, 734, 319
35	Tinware.....	7	88	8	2	1	22	Ap	29	No	15	26	16	9	1		75, 806
36	Tobacco, chewing, smoking, and snuff.	9	279	7	10	51	196	Jy	210	Au	173	180	97	83			1, 813, 361
37	Tobacco, cigars.....	747	3, 247	801	58	75	2, 289	Mh	2, 351	Ap	2, 184	2, 476	1, 804	657	13	2	2, 360, 950
38	Tools, carpenters' and miscellaneous	15	136	6	15	9	149	My	137	De	120	141	126	3			570, 540
39	Trunks and valises.....	18	1, 007	13	52	95	820	Ap	859	De	760	800	611	157	24	8	2, 209, 336
40	Umbrellas and canes.....	6	35	5	5	2	18	Ap	19	No	17	19	8	10	1		53, 702
41	Upholstering materials.....	15	378	5	24	6	339	Se	369	De	284	326	280	46			1, 139, 803
42	Vinegar and cider.....	5	32	8	7	3	13	Au	14	Ja	12	14	12	2			33, 621
43	Waste, cotton.....	3	42	4	3	1	33	No	42	Jy	28	40	11	23			40, 000
44	Wirework, including wire rope and cable.	18	350	14	14	21	327	Je	348	Oc	309	335	300	26	4	5	983, 079
45	Wood, turned and carved.....	19	153	22	6	3	121	Fe	133	Se	93	132	129	1	2		196, 148
46	Wooden goods, not elsewhere specified.	8	190	4	8	3	174	Fe	197	Au	155	181	177	4			216, 041
47	Woolen and worsted goods.....	22	891	16	36	32	795	Mh	833	De	667	777	367	369	11	30	1, 809, 662
48	All other industries*.....	226	12, 603	120	389	985	10, 746										42, 434, 891

\* Owned power only.

2 Includes rented power, other than electric.

* All other industries embrace—	
Aluminum ware.....	3
Artificial flowers.....	1
Asbestos products.....	1
Babbitt metal and solder.....	3
Bags, other than paper.....	3
Bags, paper.....	4
Baking powder and yeast.....	2
Belting, leather.....	2
Billiard tables and materials.....	1
Blacking, stains, and dressings.....	3
Bluing.....	2
Boot and shoe cut stock.....	2
Boots and shoes, rubber.....	1
Butter, reworking.....	1
Buttons.....	2

Cars, steam-railroad, not including operations of railroad companies.....	2
Cash registers.....	1
Charcoal.....	1
Chocolate and cocoa products.....	1
Clocks.....	1
Clothing, men's, buttonholes.....	1
Coke, not including gas-house coke.....	2
Cordage and twine.....	3
Cordials and flavoring sirups.....	4
Cotton goods.....	2
Drug grinding.....	1
Dyeing and finishing textiles.....	2
Dyestuffs and extracts.....	2
Engraving and diesinking.....	1

Engraving, steel and copper plate, including plate printing.....	2
Envelopes.....	2
Explosives.....	2
Felt goods.....	2
Fertilizers.....	1
Files.....	1
Flags and banners.....	2
Furs, dressed.....	5
Galvanizing.....	1
Gas machines and gas and water meters.....	3
Glass.....	1
Glucose and starch.....	1
Glue.....	2

Gold and silver, reducing and refining, not from the ore.....	1
Graphite, ground and refined.....	1
Hair work.....	2
Hammocks.....	3
Hand stamps.....	4
Hardware, saddlery.....	3
Hats, fur-felt.....	1
Hats, straw.....	2
Horseshoes, not made in steel works or rolling mills.....	2
Ice, manufactured.....	2
Ink, writing.....	2
Instruments, professional and scientific.....	8

OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914—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, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal combustion engines. <sup>2</sup>	Water wheels and motors. <sup>1</sup>	

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

\$27,763	\$35,369	\$96,880	\$2,095	\$1,785	\$7,030	\$377,702	\$13,966	\$743,426	\$351,698	860	565	.....	.....	295	556	1
37,023	84,588	85,788	210	16,207	6,074	336,641	5,486	973,084	630,957	94	25	.....	.....	69	.....	2
38,524	15,852	550,775	.....	617	7,785	243,861	75,106	1,115,802	790,895	4,161	455	63	.....	3,643	.....	3
275,452	24,217	17,574	.....	2,370	3,183	68,757	2,442	259,824	188,625	133	.....	120	.....	13	120	4
27,914	17,615	116,785	.....	8,829	657	87,422	5,396	307,617	214,799	49	.....	.....	.....	49	.....	5
19,171	5,205	52,258	1,123	2,445	1,708	194,589	2,543	328,260	131,123	141	60	68	1	17	10	6
140,481	76,130	925,850	600	190	29,170	1,388,578	147,707	3,538,437	2,022,152	2,685	2,135	8	.....	542	1,383	7
1,040	.....	4,200	.....	.....	350	1,650	1,550	9,625	6,425	37	25	12	.....	.....	.....	8
298,381	234,888	1,096,250	71,230	113,957	30,632	1,601,616	51,670	4,239,861	2,586,675	1,674	58	129	1	1,485	7	9
275,452	198,958	1,062,071	14,620	107,837	28,741	1,536,928	50,381	3,808,918	2,311,609	1,667	58	129	1	1,479	7	10
22,929	35,925	34,185	56,610	6,120	1,941	64,688	1,289	340,943	274,966	7	.....	.....	.....	7	.....	11
510,080	851,624	1,787,828	245,180	125,101	63,731	2,262,740	112,729	8,098,914	5,723,445	4,169	417	542	30	3,180	55	12
136,435	337,129	387,478	64,018	11,796	16,440	659,757	25,274	2,210,732	1,625,701	858	.....	23	2	838	38	13
745,331	438,105	1,395,772	18,895	105,880	46,654	1,045,468	87,305	5,413,908	3,680,155	3,311	417	519	28	2,347	17	14
58,314	70,390	4,573	162,267	7,925	637	56,535	150	474,274	417,589	.....	.....	.....	.....	.....	.....	15
46,021	83,281	392,630	.....	50	14,787	874,795	18,235	1,812,763	919,733	1,403	998	4	.....	401	54	10
93,450	261,524	1,005,380	10,928	660	29,110	4,016,384	78,670	7,382,108	3,287,064	4,107	2,845	.....	.....	1,262	1,288	17
34,287	59,007	354,193	9,319	37,706	18,582	2,032,184	11,085	3,057,179	1,013,910	298	103	10	.....	185	96	18
5,100	1,018	30,625	.....	1,600	464	30,681	7,446	105,939	67,842	435	435	.....	.....	.....	.....	19
45,380	58,240	153,687	80	3,200	12,222	1,982,129	21,144	2,517,271	618,998	719	504	16	.....	200	80	20
34,883	26,917	298,915	.....	.....	27,686	230,524	21,999	851,281	598,758	3,397	2,020	.....	.....	477	714	21
16,781	4,784	121,678	.....	5,166	2,931	193,477	5,155	402,807	204,175	478	188	189	.....	101	3	22
2,160	540	63,724	.....	260	1,052	103,770	2,344	195,440	89,326	208	115	90	.....	3	3	23
14,621	4,244	57,951	.....	4,905	1,879	89,707	2,811	207,397	114,849	270	73	99	.....	98	.....	24
39,962	9,661	108,189	.....	1,800	4,476	366,334	2,797	702,765	333,634	104	150	.....	.....	14	76	25
51,028	7,448	127,340	182	5,744	1,012	200,581	3,462	445,338	241,295	105	25	.....	.....	80	.....	26
100,645	238,874	1,227,444	1,500	24,699	64,553	28,388,714	148,853	32,180,684	3,643,117	3,759	3,430	20	.....	309	1,405	27
48,063	101,010	132,259	.....	3,061	14,533	1,355,388	13,857	2,894,103	1,524,858	339	317	.....	.....	22	251	28
184,282	235,705	1,433,853	12,394	57,663	2,877,884	2,877,884	177,647	6,352,879	3,297,448	3,431	3,070	.....	.....	411	2,301	30
2,000	20,350	13,739	15	3,481	896	98,514	1,465	153,173	59,194	18	.....	.....	.....	18	.....	31
9,076	708	44,530	.....	4,144	930	19,888	1,040	95,208	75,280	18	.....	.....	.....	16	.....	32
57,108	29,673	206,397	61,457	5,032	10,859	861,177	12,633	879,730	505,920	493	150	259	.....	84	221	32
136,974	173,540	515,733	.....	2,175	28,735	1,261,803	46,014	2,851,483	1,543,606	1,408	677	.....	.....	731	300	33
136,401	263,234	1,059,144	25,784	10,048	25,807	2,825,090	51,231	4,770,453	1,903,132	2,730	1,937	24	.....	760	1,753	34
2,684	372	10,862	100	2,335	688	16,210	1,607	37,843	20,026	24	.....	24	.....	.....	.....	35
34,422	74,175	89,498	.....	12,853	527,171	798,838	5,985	2,090,189	1,285,366	291	250	6	.....	35	.....	36
88,865	86,279	1,232,491	2,775	62,931	368,797	1,803,520	17,896	4,688,800	2,867,334	67	.....	20	.....	47	.....	37
22,536	9,208	36,204	26,721	4,039	3,450	116,511	9,467	2,965,675	169,697	406	42	18	15	421	10	38
118,018	176,373	395,387	.....	8,829	22,159	1,163,461	16,178	2,240,696	1,061,357	1,087	1,039	.....	.....	43	880	39
9,400	9,350	9,152	.....	1,744	301	64,486	695	95,608	30,327	20	.....	.....	.....	20	.....	40
58,354	8,676	171,552	316	2,644	11,925	612,425	16,219	994,070	365,426	1,769	1,525	4	120	120	54	41
5,600	3,012	7,751	.....	600	848	55,735	1,221	102,763	45,807	78	51	.....	22	5	.....	42
3,075	1,100	9,700	.....	360	749	33,200	1,645	73,530	38,885	71	.....	27	.....	44	.....	43
26,939	24,933	193,244	.....	2,284	11,187	736,193	24,505	1,298,855	484,157	742	374	60	2	306	40	44
7,960	2,408	62,576	.....	1,941	1,263	90,109	2,330	215,633	123,194	594	460	93	.....	41	15	45
11,099	3,378	81,629	265	272	2,308	83,545	9,609	227,861	134,907	617	536	8	.....	73	.....	46
64,973	31,009	374,081	100	4,020	16,484	1,223,317	36,159	1,955,742	696,266	2,103	1,012	72	980	39	102	47
992,219	1,253,264	6,297,257	7,515	109,693	2,000,392	20,208,007	2,028,750	43,714,141	20,576,475	32,933	24,660	1,417	1,002	5,982	13,868	48

<sup>1</sup> Same number reported for one or more other months.

<sup>2</sup> Same number reported throughout the year.

Iron and steel, bolts, nuts, washers, and rivets, not made in steel works or rolling mills.	1	Motorcycles, bicycles, and parts.	6	Scales and balances.	1	Suspenders, garters, and elastic woven goods.	4
Iron and steel forgings, not made in steel works or rolling mills.	2	Mucilage and paste.	4	Serows, machine.	1	Toys and games.	3
Iron and steel, nails and spikes, cut and wrought, including wire nails, not made in steel works or rolling mills.	2	Musical instruments and materials, not specified.	3	Show cases.	2	Vault lights and ventilators.	1
Lamps and reflectors.	1	Musical instruments, organs.	3	Silk goods, including throwsters.	3	Wall plaster.	4
Lead bar, pipe, and sheet.	2	Oil, essential.	1	Smelting and refining, zinc.	1	Washing machines and clothes wringers.	3
Linen goods.	1	Oil, linseed.	2	Smelting and refining, not from the ore.	2	Wheelbarrows.	1
Liquors, distilled.	2	Oil, not-elsewhere specified.	3	Soda-water apparatus.	1	Windmills.	5
Liquors, vinous.	1	Optical goods.	5	Sporting and athletic goods.	4	Window and door screens and weather strips.	1
Lubricating greases.	1	Pens, fountain and stylographic.	2	Springs, steel, car and carriage.	1	Window shades and fixtures.	2
Matches.	1	Printing materials.	2	Steam packing.	2	Wire.	1
Minerals and earths, ground.	3	Pumps, not including power pumps.	4	Stereotyping and electrotyping.	1	Wood distillation.	3
		Roofing materials.	3	Stoves, gas and oil.	4	Wool shoddy.	1
		Safes and vaults.	1	Sugar, beet.	3		
		Sand and emery paper and cloth.	1	Surgical appliances.	5		

MANUFACTURES—WISCONSIN.

TABLE 37.—DETAIL STATEMENT FOR THE STATE AND FOR CITIES OF 50,000 INHABITANTS

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.			10 and over.		Under 10.		
					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.

1	MILWAUKEE—All industries.	1,728	73,370	1,378	2,171	6,152	1,830	61,830	Mh 65,297	No 57,040	62,555	40,124	11,858	754	819	\$240,780,283
2	Agricultural implements.....	3	19	12	.....	.....	.....	7	Au 11	So <sup>2</sup> 6	7	7	.....	.....	.....	46,709
3	Artificial limbs.....	4	14	8	4	.....	1	6	(*) 6	(*) 6	5	5	1	.....	.....	16,423
4	Artificial stone products.....	9	73	4	7	.....	.....	60	So 87	Fe 20	49	49	.....	.....	.....	81,984
5	Automobile bodies and parts.....	13	623	1	36	2	24	522	My 613	Au 474	535	517	14	4	.....	1,094,791
6	Automobile repairing.....	7	63	11	1	0	2	43	My <sup>2</sup> 46	Oo 40	42	39	3	.....	.....	83,870
7	Awnings, tents, and sails.....	8	60	9	4	6	.....	41	Je 64	Ja <sup>2</sup> 29	37	25	12	.....	.....	59,782
8	Bookbinding and blank-book making.....	16	690	10	21	49	13	507	Do 640	Jy 502	640	302	283	27	28	571,141
9	Boots and shoes.....	23	4,168	12	81	249	115	3,711	Ja 3,934	No 3,451	3,708	2,313	1,225	90	80	8,956,350
10	Boxes, fancy and paper.....	6	1,116	.....	21	46	36	1,013	Oo 1,061	Fe 968	990	418	455	38	79	1,949,709
11	Boxes, wooden packing.....	6	890	1	13	20	3	847	Jy 966	No 724	879	749	112	18	.....	1,752,468
12	Brass, bronze, and copper products.....	19	453	7	27	20	5	304	Mh 413	De 355	350	352	7	.....	.....	1,196,871
13	Bread and other bakery products.....	324	1,837	328	32	147	00	1,270	Jy 1,326	Ja 1,104	1,280	937	304	14	5	3,518,221
14	Brooms, from broom corn.....	12	50	.....	.....	.....	.....	41	Ja <sup>2</sup> 43	Au 38	40	40	.....	.....	.....	27,269
15	Brushes, exclusive of paint and varnish.....	7	134	3	9	12	8	102	Ja 108	Do 93	90	61	10	10	.....	189,308
16	Carrriages and wagons.....	21	185	20	4	5	3	147	Je 105	No 133	140	139	1	.....	.....	310,305
17	Clothing, men's.....	30	2,412	27	61	213	62	2,040	Fe <sup>2</sup> 2,195	Oo 1,746	1,989	677	1,248	12	52	4,163,950
18	Clothing, women's.....	16	525	18	17	23	33	434	So 478	De 402	425	93	333	.....	.....	304,993
19	Confectionery and ice cream.....	23	1,825	10	08	190	25	1,532	.....	.....	1,618	565	802	57	224	2,370,922
20	Confectionery.....	18	1,680	0	65	174	10	1,435	No 1,658	Jy 1,240	1,552	476	705	57	224	1,771,327
21	Ice cream.....	5	136	1	13	16	0	97	Je 149	Ja 65	96	89	7	.....	.....	608,595
22	Cooperage.....	7	171	4	6	4	2	155	Je 240	Fe 113	147	146	.....	.....	.....	383,309
23	Copper, tin, and sheet-iron products.....	34	320	38	20	0	4	258	So 297	Do <sup>2</sup> 227	247	247	.....	.....	.....	420,267
24	Electrical machinery, apparatus, and supplies.....	13	2,105	.....	118	373	72	1,632	Fe 1,880	Do 1,447	1,720	1,028	71	20	1	5,627,395
25	Electroplating.....	5	41	7	.....	1	2	31	Ap 36	So <sup>2</sup> 29	30	30	.....	.....	.....	25,407
26	Engines, steam, gas, and water.....	8	2,058	2	43	128	35	2,450	Ja 3,270	Oo 1,937	2,672	2,070	2	.....	.....	14,058,014
27	Food preparations.....	14	105	9	14	10	8	118	Au 147	Ja 89	145	104	37	.....	.....	483,169
28	Foundry and machine-shop products.....	89	5,365	30	221	424	103	4,581	.....	.....	4,592	4,530	48	14	.....	11,362,940
29	Boiler shops.....	4	113	2	8	8	.....	95	Ja 107	Je 85	87	87	.....	.....	.....	217,473
30	Foundries.....	11	953	1	26	38	7	881	Mh 1,093	Oo 728	876	853	20	3	.....	9,512,638
31	Machine shops.....	74	4,200	33	187	378	96	3,005	My 4,159	No 2,851	3,620	3,590	28	11	.....	9,632,829
32	Fur goods.....	21	223	14	20	20	7	162	De 204	Ap 130	192	69	116	6	1	924,116
33	Furniture.....	26	1,445	18	59	117	23	1,228	Mh 1,347	De 1,111	1,132	1,073	16	43	.....	3,013,732
34	Glass, cutting, staining, and ornamenting.....	10	94	18	4	5	2	65	Oo 68	Ja 62	66	66	.....	.....	.....	72,302
35	Gloves and mittens, leather.....	10	779	.....	35	50	13	681	Fe 775	Do 594	634	262	843	11	18	1,276,740
36	Hats and caps, other than felt, straw, and wool.....	5	80	7	2	1	.....	70	Je <sup>2</sup> 72	Mh 66	71	50	21	.....	.....	57,760
37	Hosiery and knit goods.....	36	3,245	23	40	163	139	2,871	Fe 2,949	Se 2,834	2,848	321	2,322	20	176	4,923,312
38	Iron and steel, steel works and rolling mills.....	8	2,066	.....	52	139	17	1,858	Mh 2,055	Do 1,056	1,870	1,866	.....	4	.....	5,860,922
39	Jewelry.....	10	73	10	3	1	3	56	(*) 56	(*) 56	56	50	.....	5	.....	81,899
40	Leather, tanned, curried, and finished.....	10	3,972	8	40	246	28	3,656	Mh 4,111	Se 3,312	3,753	3,450	302	1	.....	22,103,316
41	Liquors, malt.....	11	4,036	.....	70	341	15	3,610	Jy 3,984	De 3,310	3,780	3,659	121	.....	.....	54,938,633
42	Lithographing.....	10	508	2	23	37	18	428	My 453	De 389	442	369	61	10	2	1,093,903
43	Lumber, planing-mill products, not including planing mills connected with sawmills.....	16	1,442	5	48	94	23	1,272	Ap 1,812	Se 1,185	1,233	1,227	.....	6	.....	3,104,628
44	Malt.....	6	223	13	16	23	3	168	Ja 229	Au 105	214	214	.....	.....	.....	5,036,854
45	Marble and stone work, other than slate.....	24	557	31	31	21	9	465	Se <sup>2</sup> 495	Do 413	425	422	1	2	.....	1,310,545
46	Mattresses and spring beds.....	8	280	5	18	38	7	212	Je 232	De 192	207	167	24	16	.....	695,678
47	Millinery and lace goods.....	10	791	6	20	89	20	656	Fe 1,073	No 282	734	160	558	3	13	655,408
48	Mineral and soda waters.....	13	60	17	3	.....	.....	36	Au <sup>2</sup> 38	Ja <sup>2</sup> 34	34	34	.....	.....	.....	69,252
49	Models and patterns, not including paper patterns.....	17	144	18	15	8	3	100	Je 121	Se 83	110	102	7	1	.....	92,453
50	Paints.....	5	279	3	15	59	24	178	Je 183	Ja 169	179	150	29	.....	.....	1,286,069
51	Patent medicines and compounds.....	23	176	10	13	22	14	111	Fe 125	Au 96	113	31	32	.....	.....	129,901
52	Photo-engraving.....	6	159	3	12	14	10	120	De <sup>2</sup> 124	Se 116	126	118	8	.....	.....	91,077
53	Plumbers' supplies, not elsewhere specified.....	3	338	.....	9	.....	.....	305	Fe 337	Do 252	310	288	18	2	2	1,026,684
54	Printing and publishing.....	110	1,698	96	113	148	81	1,230	.....	.....	1,269	919	286	55	9	2,779,112
55	Job printing.....	98	1,544	81	101	120	66	1,166	Fe 1,214	Jy 1,130	1,217	875	281	52	9	2,520,903
56	Book publishing without printing, and linotype work.....	12	124	5	12	28	15	64	My 128	De 50	52	44	5	3	.....	253,209
57	Printing and publishing, newspapers and periodicals.....	46	1,504	16	91	496	183	718	.....	.....	785	631	82	71	1	2,295,564
58	Printing and publishing.....	9	778	1	40	330	84	323	My 334	Jy 307	326	305	20	1	.....	1,034,966
59	Printing and publishing and job printing.....	14	637	5	29	152	60	391	Ja 407	No 374	455	322	62	70	1	1,206,602
60	Publishing without printing.....	23	89	10	22	14	39	4	(*) 4	(*) 4	4	4	.....	.....	.....	50,996
61	Saddlery and harness.....	23	563	24	12	48	7	472	De 509	Au 424	510	406	101	.....	.....	1,057,653

<sup>1</sup> Owned power only.

<sup>2</sup> Includes rented power, other than electric.

OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914—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, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal combustion engines. <sup>2</sup>	Water wheels and motors. <sup>1</sup>	

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

\$5,371,093	\$8,101,517	\$36,270,148	\$773,286	\$1,083,406	\$7,803,164	\$110,526,470	\$5,349,465	\$223,555,142	\$98,679,207	122,178	93,138	3,600	25,844	50,475	1
5,480	1,488	5,520	4,640	690	50	9,199	482	24,158	14,477	24	7	12	5	2	2
8,734	1,225	4,640	3,578	3,578	102	5,167	319	23,392	17,906	3	3	3	7	3	3
69,081	41,219	36,227	491	1,997	482	60,408	1,819	144,878	76,651	104	20	20	75	75	4
1,530	7,916	336,714	9,917	19,061	8,559	491,591	18,714	1,194,908	684,503	558	331	75	152	35	5
		32,282	4,809	1,012	1,012	33,066	1,254	106,940	71,720	85			85	85	6
3,700	2,500	22,082	2,087	2,087	622	59,848	779	107,977	47,850	12			12	7	7
38,383	52,799	263,334	20,701	24,694	3,570	391,138	7,332	935,693	535,223	192		3	189	189	8
101,718	458,525	1,763,018	23,767	25,994	65,825	8,059,716	45,316	11,665,824	3,560,792	2,574	2,252	35	287	1,103	9
07,082	70,313	434,018	28,671	21,257	21,257	54,504	54,504	1,959,199	1,027,245	1,382	1,277		105	759	10
39,671	59,945	336,141	3,316	14,559	1,187,104	6,231	6,231	2,084,421	891,086	2,335	2,215		120	1,294	11
53,648	23,775	232,721	7,496	15,401	27,965	875,545	27,965	1,175,107	472,497	631	210	06	355	25	12
72,270	170,390	682,956	400	69,821	38,953	2,445,735	101,405	4,571,057	2,023,914	696	84	45	567	5	13
		24,157	63	1,152	328	70,214	538	121,120	44,308	23		7	16	14	14
18,327	22,234	49,006	532	5,722	1,457	77,024	3,236	236,503	150,243	104		32	72	15	15
9,860	4,002	103,144	1,120	4,521	3,313	111,946	6,079	309,741	191,716	223	101	42	80	2	10
102,490	340,698	869,920	132,805	57,631	27,833	2,931,500	15,241	5,229,460	2,282,719	278	65	10	203	33	17
38,484	38,115	166,646	500	19,738	1,615	482,190	3,514	862,797	377,093	71			71	18	18
136,140	220,731	615,517	7,304	19,717	37,251	3,045,772	53,143	4,943,459	1,846,544	2,078	1,400	18	655	673	19
99,842	201,020	541,282	5,861	15,462	31,943	2,706,016	32,286	4,664,647	1,626,946	1,213	1,050	18	145	593	20
36,298	18,811	74,255	1,443	4,255	5,308	237,756	20,858	578,812	220,198	800	350		510	80	21
18,531	5,424	95,086	3,404	3,390	2,076	241,417	2,232	301,679	147,930	248	205		43	21	21
26,016	10,103	178,057	5,264	10,587	3,131	291,999	7,251	635,062	330,412	90		38	52	1	23
248,678	509,279	1,040,454	25,000	22,871	54,333	1,300,369	96,644	3,994,640	2,597,633	2,647	1,185	8	1,454	2,516	24
	1,404	21,026	37	2,873	245	9,012	1,988	48,873	36,073	56		5	51	25	25
108,236	201,321	2,154,395	3,153	9,390	103,550	2,832,124	135,481	6,197,813	3,230,208	2,270	1,075	140	155	3,887	26
42,198	18,885	65,741	900	21,985	5,074	576,449	22,678	846,326	244,190	873	500		373	4	27
543,820	482,150	2,707,353	26,365	53,844	129,325	4,088,612	239,487	9,902,102	5,574,003	7,399	4,855	214	2,267	4,387	28
18,864	5,770	65,913	2,310	2,612	117,402	4,772	224,433	102,259	186	186	125		61	60	29
78,111	44,803	447,837	5,407	17,230	303,823	68,159	1,040,644	668,662	992	500	25		467	470	30
446,345	431,577	2,283,598	20,365	46,127	109,433	3,667,387	166,556	8,637,025	4,803,082	6,158	4,230	189	1,739	3,857	31
30,842	29,616	99,177	715	20,811	6,693	270,084	2,981	540,815	267,250	56		20	36	13	32
124,101	147,471	681,306	100	20,714	29,552	959,704	30,315	2,396,501	1,406,482	1,952	1,815	28	109	494	33
5,132	5,011	34,337	1,434	4,890	401	48,819	1,685	127,248	76,744	60		8	52	34	34
68,092	47,876	252,372	18,341	10,318	850,100	7,668	1,830,292	481,524	411	278			103	167	35
2,850	560	42,970	2,820	317	71,842	1,233	152,858	70,783	13				13	36	36
145,993	340,520	1,170,113	18,386	44,762	46,969	3,306,828	40,893	7,184,755	3,837,534	1,462	1,145		317	761	37
187,798	179,937	1,178,440	10,000	7,780	78,711	3,142,869	295,564	5,645,308	2,206,875	14,755	12,635	700	1,420	7,605	38
3,440	2,132	39,029	3,410	102	48,445	624	624	106,390	57,861	25			25	39	39
169,915	235,423	2,105,995	27,833	154,927	17,481,890	183,865	22,893,306	5,227,551	5,227,551	11,295	9,717	350	1,238	8,945	40
333,494	549,791	2,646,334	143,358	2,260	4,149,050	8,518,836	410,198	27,681,810	13,752,776	15,679	12,528		3,051	3,232	41
75,645	63,029	307,031	4,118	10,281	13,426	382,017	11,291	1,102,271	708,063	463	145		818	117	42
108,733	135,122	819,305	10,094	30,432	1,567,244	28,789	2,848,626	1,262,593	3,014	2,852	55		107	403	43
78,676	47,020	189,164	38,741	3,729,051	108,045	4,763,945	916,849	2,615	2,615	2,615	680	182	532	860	44
55,649	31,690	395,406	1,934	1,642	10,325	418,161	21,869	1,014,498	574,068	1,374			532	860	45
24,141	23,501	121,595	6,263	5,371	368,627	5,399	664,904	290,878	443	370			73	208	46
64,295	118,231	321,507	3,754	16,883	17,580	1,186,096	11,128	2,154,658	956,834	311	300		11	108	47
3,600	30,102	30,102	3,170	1,229	28,704	969	100,450	70,717	32		8		24	48	48
18,620	7,139	63,793	879	5,186	507	32,885	2,430	156,100	120,785	127		5	122	49	49
38,660	60,039	96,502	4,907	16,336	1,081,614	13,620	1,531,546	436,312	820	585			235	125	50
18,036	36,690	48,935	210	1,306	139,432	1,970	497,611	356,200	40	10			30	51	51
23,754	17,227	107,467	7,979	576	32,001	4,742	279,442	102,699	34	275			34	52	52
12,700	12,156	164,402	7,756	7,756	314,241	8,822	587,903	264,900	275				275	53	53
203,401	205,540	798,738	60,776	82,373	19,156	988,205	32,384	2,894,976	1,874,386	1,159	48	111	1,000	6	54
181,134	109,615	765,942	7,849	76,253	17,231	923,520	31,222	2,563,027	1,608,285	1,153	48	111	994	6	55
22,267	35,925	32,796	52,927	6,120	1,925	64,686	1,162	331,940	266,101	6			6	56	56
188,717	507,147	566,221	140,061	45,973	23,098	1,178,100	32,128	3,384,512	2,174,284	1,555	220		1,335	17	57
94,914	280,815	290,841	62,700	8,486	14,002	443,776	18,956	1,735,807	1,273,075	660			660	58	58
57,343	186,910	272,273	7,344	32,648	8,862	685,361	13,153	1,403,975	705,461	895	220		675	17	59
36,400	39,422	3,107	70,177	4,839	234	48,963	19	244,730	195,748					60	60
20,136	39,100	238,606	840	21,520	13,210	1,536,622	6,117	2,220,083	677,349	189	100	2	87	96	61

<sup>1</sup> Same number reported for one or more other months.

<sup>2</sup> Same number reported throughout the year.



OR MORE, BY INDUSTRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914—Continued.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.				
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.				
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal combustion engines. <sup>2</sup>	Water wheels and motors. <sup>1</sup>	Electric (rented).

CITIES OF 50,000 INHABITANTS OR MORE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES—Continued.

\$43,144	\$57,800	\$135,747	\$80	\$1,560	\$11,805	\$1,896,276	\$18,215	\$2,384,417	\$469,926	633	490	15	128	80	1
29,995	105,679	621,114	1,500	22,909	27,785	13,590,999	72,021	15,546,207	1,883,187	2,213	1,405	.....	308	.....	2
51,553	26,430	186,762	61,457	1,807	10,467	311,243	10,242	783,193	461,708	432	150	249	33	221	3
72,175	134,825	506,865	12,764	10,033	15,474	1,484,880	24,055	2,631,552	1,121,717	1,326	980	22	324	1,002	4
34,422	74,175	88,940	.....	12,853	526,189	797,413	5,917	2,085,177	1,281,847	284	250	2	32	.....	5
60,936	41,889	505,533	50	27,770	119,184	699,556	4,407	1,904,035	1,200,072	20	.....	16	4	.....	6
39,905	94,246	139,619	.....	7,249	10,873	586,456	5,771	1,152,137	559,910	283	264	.....	19	600	7
1,859	1,070	14,715	.....	1,944	57	13,821	544	33,079	18,714	26	.....	21	5	.....	8
.....	.....	2,135	.....	249	125	4,300	595	15,657	10,672	20	.....	.....	20	.....	9
1,080,307	1,029,024	9,009,610	49,447	193,009	1,864,820	22,053,260	3,090,277	47,051,980	21,908,443	34,014	26,610	1,143	6,252	10,132	10

Iron and steel, bolts, nuts, washers, and rivets, not made in steel works or rolling mills.....	1	Musical instruments, pianos.....	2	Shirts.....	1	Tools, not elsewhere specified.....	3
Iron and steel, nails and spikes, cut and wrought, including wire nails, not made in steel works or rolling mills.....	1	Oil, not elsewhere specified.....	3	Signs and advertising novelties.....	4	Toys and games.....	2
Lamps and reflectors.....	1	Optical goods.....	4	Smelting and refining, not from the ore.....	1	Umbrellas and canes.....	5
Lead, bar, pipe, and sheet.....	1	Paper goods, not elsewhere specified.....	8	Soap.....	6	Upholstering materials.....	1
Leather goods, not elsewhere specified.....	1	Perfumery and cosmetics.....	1	Soda-water apparatus.....	1	Vinegar and cider.....	2
Liquors, distilled.....	1	Pickles, preserves, and sauces.....	2	Sporting and athletic goods.....	2	Wall plaster.....	1
Liquors, vinous.....	1	Pocketbooks.....	1	Stamped and onameled ware.....	2	Waste.....	1
Looking-glass and picture frames.....	3	Pottory.....	1	Stationery goods, not elsewhere specified.....	1	Window and door screens and weather strips.....	2
Minerals and earths, ground.....	2	Printing materials.....	1	Statuary and art goods.....	5	Wire.....	1
Mirrors, framed and unframed.....	3	Pumps, not including power pumps.....	1	Steam packing.....	1	Wooden goods, not elsewhere specified.....	1
Motorcycles, bicycles, and parts.....	4	Refrigerators.....	1	Stereotyping and electrotyping.....	2	Woolen goods.....	1
Mucilage and paste.....	3	Roofing materials.....	1	Stoves and hot-air furnaces.....	2	Wool shoddy.....	1
Musical instruments and materials.....	1	Rubber goods, not elsewhere specified.....	1	Stoves, gas and oil.....	1	Worsted goods.....	2
Musical instruments, organs.....	2	Safes and vaults.....	1	Surgical appliances.....	2		
		Sand-lime brick.....	1	Suspenders, garters, and elastic woven goods.....	3		
		Screws, machine.....	1	Tinware, not elsewhere specified.....	2		
		Shipbuilding, iron and steel.....	1				
		Shipbuilding, wooden, including boat building.....	2				

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

\$200,993	\$107,720	\$1,231,127	\$44,976	\$26,846	\$170,424	\$4,444,564	\$315,930	\$7,557,673	\$2,797,179	15,033	7,382	1,097	5,125	1,129	3,101	1
70,040	52,733	509,741	6,496	2,867	70,327	945,983	131,443	1,827,032	749,606	4,835	3,012	115	.....	808	504	2
165,989	223,812	2,346,020	4,260	14,843	56,476	2,861,970	151,031	6,927,601	3,914,600	6,861	2,652	1,975	1,112	1,122	5,448	3
181,125	158,844	1,245,727	8,709	14,061	112,451	4,011,022	196,537	6,773,829	2,566,270	19,350	3,821	101	6,150	3,284	157	4
172,425	171,807	909,543	33,377	11,159	78,945	4,518,271	109,585	6,760,850	2,141,994	7,346	6,646	113	.....	587	1,607	5
109,206	135,359	1,464,776	6,572	12,899	133,421	3,807,493	252,501	6,797,505	2,737,511	8,500	4,788	852	261	2,908	104	6
205,403	307,158	895,242	12,172	17,982	58,463	2,972,969	93,285	6,659,226	2,592,072	3,568	2,345	7	430	786	734	7
605,329	721,082	4,652,708	1,933	12,549	200,437	18,894,472	372,953	23,341,156	9,073,731	20,736	19,341	27	.....	1,368	10,751	8
451,140	513,525	1,870,252	7,492	37,733	602,600	7,687,173	229,953	14,739,232	6,925,106	9,869	7,944	30	.....	1,806	1,230	9
348,161	494,668	1,345,971	100,032	35,518	122,208	2,633,536	161,036	6,206,970	3,412,398	2,933	1,757	116	.....	1,060	3,836	10
182,644	219,548	1,045,545	21,820	11,240	131,713	5,186,363	171,553	8,400,694	3,102,778	5,079	4,522	286	.....	271	4,357	11
140,206	90,219	1,085,357	183,089	7,183	119,801	2,272,851	71,980	4,674,473	2,329,662	6,320	3,015	66	1,590	749	154	12
438,383	503,935	2,803,690	9,066	29,684	206,027	6,632,681	174,309	13,889,936	7,082,946	13,648	12,062	298	.....	1,288	2,957	13
1,515,983	2,650,104	6,785,404	23,364	92,492	467,468	19,572,507	689,012	43,632,384	23,370,865	21,262	15,271	1,897	.....	4,624	7,604	14
498,181	489,938	3,369,880	3,311	25,167	223,592	8,361,293	300,692	17,509,450	8,347,465	13,785	10,603	139	.....	3,043	2,592	15
188,840	172,372	1,382,305	51,214	39,099	78,090	8,289,485	156,741	11,662,566	3,216,360	7,678	5,342	77	.....	2,259	329	16
180,494	143,592	1,353,632	84,979	7,661	143,689	4,416,542	413,437	7,325,304	2,795,325	7,408	4,666	82	300	2,360	732	17

\* Same number reported for one or more other months.

# WYOMING.

By WALTER H. BOOTH.

## GENERAL STATISTICS.

**General character of the state.**—Wyoming was admitted to the Union as a state in 1890. With a gross area of 97,914 square miles, of which 97,594 represent land surface, it ranks eighth in size among the states. It is traversed by the Rocky Mountains, and the average elevation is between 5,000 and 7,000 feet above sea level. In 1914 there were in Wyoming 49,302 square miles in unappropriated and unreserved public lands of the United States, 13,490 square miles in national forests, 3,128 square miles in the Yellowstone National Park, and 951 square miles in Indian reservations. The inhabitants of the state in 1900 numbered 92,531, and in 1910, 145,965; and its estimated population in 1914 was 168,736. In both total population and density of population Wyoming ranked forty-seventh in 1910, only one state, Nevada, falling below it in these respects. The number of inhabitants per square mile in that year was 1.5, the corresponding figure for 1900 being nine-tenths of 1 per cent.

The urban population in 1910—that is, the population residing in cities and other incorporated places of 2,500 or more—was 43,221, or 29.6 per cent of the total population of the state, as against 28.8 per cent in 1900. There were in the state in 1914 only two cities estimated to have more than 10,000 inhabitants, namely, Cheyenne and Sheridan. These two cities, whose combined population in that year was estimated at 22,645, formed 13.4 per cent of the estimated total for Wyoming and reported 21.9 per cent of the value of the state's manufactured products.

Stock raising is the leading industry, the agricultural lands of the state, through lack of water rather than poverty of soil, being fitted mainly for grazing. Irrigation is, however, practiced to some extent in every county. The total value of domestic animals sold or slaughtered on farms and ranges in 1909 amounted to \$13,224,680, and the value of all farm crops grown during the same year was \$10,022,961, of which about three-fifths represented hay and forage. In sheep raising the state outranks all others. In 1910 the number of sheep and lambs in Wyoming was approximately 5,408,000, or about one-tenth of the total for the United States. The production of wool in 1909 was 42,800,000 pounds, valued at \$8,900,000, or nearly one-seventh of the total for the country.

The value of the state's mineral products in 1914, according to the annual report of the United States Geological Survey, was \$12,417,752, the principal item being bituminous coal, \$10,033,747.

**Importance and growth of manufactures.**—The manufactures of the state are of comparatively little importance. In 1914 the manufactured products of the state were valued at \$11,223,415, and these industries gave employment to an average of 2,989 wage earners during the year.

Table 1 summarizes the more important data relative to all classes of manufactures combined in the state, for the censuses of 1914, 1909, 1904, and 1899, and gives the percentages of increase.

	MANUFACTURING INDUSTRIES.				PER CENT OF INCREASE. <sup>1</sup>		
	1914	1909	1904	1899	1909-1914	1904-1909	1899-1904
Number of establishments.....	337	208	169	139	25.7	58.6	21.6
Persons engaged.....	3,699	3,393	2,163	( <sup>2</sup> )	8.9	56.9	.....
Proprietors and firm members.....	293	263	160	( <sup>2</sup> )	11.4	75.3	.....
Salariat employees.....	414	263	179	87	57.4	48.9	.....
Wage earners (average number).....	2,989	2,867	1,834	2,060	4.3	56.3	-11.0
Primary horsepower.....	10,004	7,028	3,604	3,820	31.1	111.7	-5.7
Capital.....	\$29,270,117	\$6,195,109	\$2,695,880	\$2,047,883	372.5	129.8	31.6
Salaries and wages.....	2,842,785	2,391,436	1,467,428	1,299,770	18.9	63.0	12.9
Salaries.....	530,984	310,673	206,306	90,647	70.9	50.0	127.6
Wages.....	2,311,754	2,080,763	1,261,122	1,209,123	11.1	85.0	4.3
Paid for contract work.....	39,199	19,665	103,589	( <sup>2</sup> )	99.4	-81.0	.....
Rent and taxes (including internal revenue).....	209,632	89,414	34,474	( <sup>2</sup> )	134.4	.....	.....
Cost of materials.....	5,559,387	2,608,189	1,300,773	1,359,730	113.2	100.5	-5.0
Value of products.....	11,223,415	6,249,078	3,523,260	3,268,555	79.6	77.4	7.8
Value added by manufacture (value of products less cost of materials).....	5,664,028	3,640,889	2,222,487	1,898,825	55.6	63.9	17.0

<sup>1</sup> A minus sign (-) denotes decrease; percentages are omitted when base is less than 100 or when comparable figures can not be given.

<sup>2</sup> Figures not available.

<sup>3</sup> Exclusive of internal revenue.

All the items in this table show increases from 1909 to 1914. The large increase in capital, 372.5 per cent,

was due chiefly to the establishment of the petroleum-refining industry on a large scale since the 1909 census.

Table 2 shows the relative importance of the leading manufacturing industries in 1914 and gives percentages of increase for the three five-year periods from 1899 to 1914.

Separate statistics are presented for six industries or industry groups, for each of which products valued at more than \$300,000 were reported for 1914. These industries include one with products exceeding \$2,000,000 in value, four with products between \$500,000 and \$1,000,000, and one with products

between \$300,000 and \$500,000. Among the industries which are included under the head of "all other industries," the statistics for which can not be shown separately without the possibility of disclosing the operations of individual establishments, are petroleum refining—the largest industry in the state, measured by value of products—and wood preserving, for which a greater value of products was reported than for some of the industries for which figures are shown in the table.

INDUSTRY.	CENSUS OF 1914.							PER CENT OF INCREASE. <sup>1</sup>								
	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1900-1914	1904-1909	1899-1904	1900-1914	1904-1909	1899-1904	1900-1914	1904-1909	1899-1904
All industries.....	337	2,080	100.0	\$11,223,415	100.0	\$5,664,028	100.0	4.3	56.3	-11.0	79.6	77.4	7.8	55.0	63.0	17.0
Cars and general shop construction and repairs by steam-railroad companies.....	12	1,722	57.6	2,460,120	22.0	1,468,228	25.9	1.9	80.4	42.1	5.0	42.5	40.2	-9.9	47.2	60.7
Flour-mill and gristmill products.....	16	33	1.1	721,818	6.4	167,067	3.0	-43.8	112.5	-55.0	-3.2	102.7	34.0	2.4	150.8	16.1
Lumber and timber products.....	69	364	12.2	717,684	6.4	577,032	10.2	13.0	35.1	20.6	11.4	56.5	86.3	4.5	37.9	-25.6
Printing and publishing.....	81	183	6.1	545,718	4.9	444,444	7.8	.....	.....	.....	11.4	56.5	86.3	11.0	53.3	94.8
Butter.....	14	42	1.4	543,490	4.8	143,524	2.5	.....	.....	.....	101.9	136.0	.....	148.3	205.3	.....
Bread and other bakery products.....	47	57	1.9	313,225	2.8	130,720	2.2	.....	.....	.....	31.0	102.6	435.3	18.7	174.4	387.5
All other industries.....	98	588	19.7	5,912,342	52.7	2,730,377	48.3	.....	.....	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> Percentages are based on figures in Table 18; a minus sign (-) denotes decrease; percentages are omitted when base is less than 100 or when comparable figures can not be given.

The industries in this table are arranged in the order of their importance as shown by value of products, but the arrangement would vary considerably if based on average number of wage earners or value added by manufacture. The operations of steam-railroad repair shops and the manufacture of butter are the only industries which hold the same rank in all three respects. The flour-mill and gristmill industry, second in value of products, was sixth in number of wage earners and fourth in value added by manufacture; the lumber and timber industry, third in value of products, was second in number of wage earners and in value added by manufacture; printing and publishing, fourth in value of products, was third in number of wage earners and in value added by manufacture; and the bakery industry, sixth in value of products and in value added by manufacture, was fourth in number of wage earners.

*Cars and general shop construction and repairs by steam-railroad companies.*—This is the most important industry in Wyoming when measured by number of wage earners employed, and ranks second to petroleum refining when measured by value of products. In 1914 it gave employment to 57.6 per cent of the total number of wage earners in manufacturing industries in the state, and the value of products reported for it formed 22 per cent of the total. The operations of this industry consist almost wholly of repairs to the rolling stock and equipment of the companies reporting.

*Flour-mill and gristmill products.*—This industry, which excludes custom mills grinding for toll or local

consumption, although third in importance in the state as measured by value of products, ranked only sixth in average number of wage earners in 1914. There was a slight decrease in value of products during the five-year period 1909-1914, together with a small increase in number of establishments and in the average number of wage earners.

*Lumber and timber products.*—This industry embraces 66 establishments operating sawmills and the logging operations connected therewith, 2 planing mills not connected with sawmills, and 1 wooden-box factory. For the period 1909 to 1914 it shows decreases in average number of wage earners and in value of products, together with a small increase in value added by manufacture. For the decade 1904 to 1914, however, increases appear in all these items.

*Printing and publishing.*—This industry embraces 5 establishments doing book and job printing and 76 printing and publishing newspapers or periodicals. There were consistent increases from 1909 to 1914 in average number of wage earners, value of products, and value added by manufacture.

*Butter.*—This industry shows, for the period 1909 to 1914, the largest percentage of increase in value of products of any industry in the state, namely, 101.9 per cent. There was also a large gain, 136 per cent, for the period 1904 to 1909.

*Persons engaged in manufacturing industries.*—Table 3 shows, for 1914 and 1909, the number of persons engaged in manufactures, distributed by sex, the average number of wage earners being distributed

also by age. The sex and 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."

In 1914 the number of persons engaged in manufactures was 3,696, of whom 2,989, or four-fifths, were wage earners, 432 were proprietors and officials, and 275 were clerks. Of the wage earners 16 years of age and over, 2,933, or 98.1 per cent, were males and 56, or only 1.9 per cent, were females. Figures for the sex and age distribution of wage earners for individual industries will be found in Table 19.

Table 4 shows, for the several classes of persons engaged in manufactures, the percentage of increase from 1909 to 1914 and the per cent distribution.

This table shows increases for the five-year period in the total numbers of the several classes of employees with the exception of wage earners under 16 years of age. The largest percentage of increase for both sexes combined, 76.3, is shown for clerks and other subordinate salaried employees, but the proportion which this class formed of all persons engaged in manufactures was only 7.4 per cent. Wage earners 16 years of age and over represented 80.7 per cent of the total number of persons engaged in manufacturing industries in the state in 1914 and 84.5 per cent in 1909. Only 8 children under 16 years of age were reported for 1914, as against 12 for 1909.

**Table 3**

CLASS.	Census year.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.				
		Total.	Male.	Female.	Per cent of total.	
					Male.	Female.
All classes.....	1914 1909	3,696 3,393	3,578 3,313	118 80	96.8 97.6	3.2 2.4
Proprietors and officials.....	1914 1909	432 370	417 361	15 9	96.5 97.6	3.5 2.4
Proprietors and firm members.....	1914 1909	293 263	278 257	15 6	94.9 97.7	5.1 2.3
Salaried officers of corporations.....	1914 1909	31 19	31 19	.....	100.0 100.0	.....
Superintendents and managers.....	1914 1909	108 88	108 85	..... 3	100.0 96.6	..... 3.4
Clerks and other subordinate salaried employees.	1914 1909	275 156	228 131	47 25	82.9 84.0	17.1 16.0
Wage earners (average number).....	1914 1909	2,989 2,867	2,933 2,821	56 46	98.1 98.4	1.9 1.6
16 years of age and over.....	1914 1909	2,981 2,855	2,927 2,810	54 45	98.2 98.4	1.8 1.6
Under 16 years of age.....	1914 1909	8 12	6 11	2 1	75.0 91.7	25.0 8.3

**Table 4**

CLASS.	PERSONS ENGAGED IN MANUFACTURING INDUSTRIES.								
	Per cent of increase, <sup>1</sup> 1909-1914.			Per cent distribution.					
	Total.	Male.	Female.	Total.		Male.		Female.	
				1914	1909	1914	1909	1914	1909
All classes.....	8.9	8.0	.....	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials.....	10.8	15.5	.....	11.7	11.0	11.7	11.0	12.7	11.3
Proprietors and firm members.....	11.4	8.2	.....	7.9	7.8	7.8	7.8	12.7	7.5
Salaried officers of corporations.....	.....	.....	.....	0.9	0.6	0.9	0.6	.....	.....
Superintendents and managers.....	.....	.....	.....	2.9	2.6	3.0	2.6	.....	3.8
Clerks and other subordinate salaried employees.....	76.3	74.0	.....	7.4	4.6	6.3	4.0	39.8	31.2
Wage earners (average number).....	4.3	4.0	.....	80.9	84.5	82.0	85.1	47.5	57.5
16 years of age and over.....	4.4	4.2	.....	80.7	84.1	81.8	84.8	45.8	56.3
Under 16 years of age.....	.....	.....	.....	0.2	0.4	0.2	0.3	1.7	1.2

<sup>1</sup> Percentages are omitted when base is less than 100.

The average number of wage earners employed and their per cent distribution as males 16 years of age and over, females 16 years of age and over, and children under 16 years of age, is given in Table 5, for 1914, 1909, and 1904. This table also shows, for some of the important industries separately, a similar distribution of wage earners for 1914 and 1909.

For all industries combined, the table shows a small increase from 1909 to 1914 in the total average number of wage earners, following a much larger increase during the preceding five-year period. The changes from census to census in the proportions which men, women, and children represented of the total number of wage earners were very slight. In 1914, of the four industries shown in the table, but one, printing and publishing, reported either females 16 years of age and over or children under 16 years of age, the proportions of the total wage earners in the industry being 15.3 per cent and 3.8 per cent, respectively.

**Table 5**

INDUSTRY.	Census year.	WAGE EARNERS.			
		Average number. <sup>1</sup>	Per cent of total.		
			16 years of age and over.	Male.	Female.
All industries.....	1914 1909 1904	2,989 2,867 1,834	97.9 98.0 97.8	1.8 1.6 1.8	0.3 0.4 0.4
Cars and general shop construction and repairs by steam-railroad companies.	1914 1909	1,722 1,690	100.0 100.0	.....	.....
Flour-mill and gristmill products.....	1914 1909	33 29	100.0 100.0	.....	.....
Lumber and timber products.....	1914 1909	304 648	100.0 99.4	..... 0.2	..... 0.5
Printing and publishing.....	1914 1909	183 162	80.9 74.1	15.3 21.0	3.8 4.9
All other industries.....	1914 1909	687 338	98.1 98.7	3.8 3.0	0.1 0.3

<sup>1</sup> For method of estimating the distribution, by sex and age periods, of the average number for all industries combined, see "Explanation of terms."

**Wage earners employed, by months.**—Table 6 gives, for all industries combined, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

For 1914 and 1909 the summer and fall months show the greatest activity in the combined industries of the state, the maximum number of wage earners appearing for August in 1914 and for November in 1909. The minimum number of wage earners appears for February in both years. In 1904 the maximum number was in December and the minimum in June. The greatest difference, both numerical and proportional, between the maximum and minimum months in any one of the three census years was 711, or 21.2 per cent of the maximum, in 1914.

The average monthly employment of wage earners in 1914 was 2,989, and in 1909 the average monthly employment was 2,867.

MONTH.	WAGE EARNERS IN MANUFACTURING INDUSTRIES.					
	Number. <sup>1</sup>			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January.....	2,603	2,400	1,092	79.4	79.0	98.8
February.....	2,641	2,481	1,013	78.8	79.1	94.8
March.....	2,815	2,642	1,794	84.0	84.2	88.9
April.....	2,736	2,642	1,722	81.6	84.2	85.4
May.....	2,646	2,783	1,081	78.9	88.7	82.4
June.....	2,882	2,983	1,610	80.0	95.1	81.3
July.....	3,230	2,957	1,677	96.4	94.3	83.1
August.....	3,352	3,042	1,746	100.0	97.0	86.6
September.....	3,347	3,132	1,805	99.9	99.8	94.4
October.....	3,279	3,031	1,946	97.8	96.6	96.6
November.....	3,207	3,137	1,895	95.7	100.0	98.9
December.....	3,070	3,035	2,017	91.6	97.7	100.0

<sup>1</sup> The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

Table 7 gives the total average number of wage earners employed during 1914, together with the total number employed on the 15th of each month, or the nearest representative day, for the combined industries of the state, for a number of selected industries, and for the total industries of each of the two cities having more than 10,000 inhabitants.

INDUSTRY AND CITY.	WAGE EARNERS: 1914.														Percent minimum is of maximum.
	Average number employed during year.	Number employed on 15th day of the month or nearest representative day.													
		Jan-uary.	Feb-ruary.	March.	April.	May.	June.	July.	August.	Sep-tember.	Octo-ber.	Novem-ber.	Decem-ber.		
All industries.....	2,989	2,603	<b>2,041</b>	2,815	2,736	2,646	2,882	3,230	3,352	3,347	3,279	3,207	3,070	78.8	
Bread and other bakery products.....	57	<i>50</i>	<i>50</i>	<i>50</i>	<i>50</i>	<i>58</i>	<i>59</i>	<i>58</i>	<i>58</i>	<i>50</i>	<i>57</i>	<i>57</i>	<i>57</i>	94.9	
Butter.....	42	<i>35</i>	<i>35</i>	<i>35</i>	<i>30</i>	<i>40</i>	<i>40</i>	<i>50</i>	<i>40</i>	<i>40</i>	<i>42</i>	<i>42</i>	<i>45</i>	70.0	
Cars and general shop construction and repairs by steam-railroad companies.....	1,722	1,781	1,771	1,744	1,753	<i>1,610</i>	1,652	1,670	1,722	1,746	<b>1,784</b>	1,746	1,070	90.6	
Flour-mill and gristmill products.....	33	<i>28</i>	<i>32</i>	<i>32</i>	<i>31</i>	<i>31</i>	<i>32</i>	<i>32</i>	<i>36</i>	<i>38</i>	<i>37</i>	<i>36</i>	<i>31</i>	73.7	
Lumber and timber products.....	364	271	260	224	190	178	210	450	401	501	<b>564</b>	525	504	23.0	
Printing and publishing.....	183	185	186	181	182	181	179	174	182	185	184	183	184	90.2	
All other industries.....	588	307	<i>301</i>	543	545	542	704	757	<b>814</b>	715	611	608	570	37.0	
Total for cities.....	938	<i>807</i>	<i>815</i>	913	932	910	934	945	959	961	<b>975</b>	965	934	93.0	
CHEYENNE.....	821	800	817	804	810	<i>784</i>	806	818	832	830	<b>855</b>	840	820	92.9	
SHERIDAN.....	117	<i>98</i>	<i>98</i>	100	116	116	128	127	127	122	120	116	114	76.6	

Of the selected industries, the lumber and timber industry, one of the largest in the state, shows the greatest degree of fluctuation, the number of wage earners in April being but 23 per cent of the number in October. The greatest stability in number of wage earners employed appears for the bakery industry, for which the proportion which the minimum formed of the maximum was 94.9 per cent. Steam-railroad repair shops and printing and publishing show but little fluctuation. For Cheyenne a much smaller degree of fluctuation appears than for the state as a whole.

**Prevailing hours of labor.**—In Table 8 the average number of wage earners reported, for all industries combined and for selected industries throughout the state, have been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. A similar classification is given, for 1914 only, for all industries combined, in

each of the two cities having more than 10,000 inhabitants. The number employed in each establishment is classified as a total, even though a few employees worked a greater or a smaller number of hours.

The figures in this table, for the state as a whole and for most of the individual industries, emphasize the tendency toward a shortening of the working-day of wage earners. In 1909, 2,383, or more than eight-tenths of the total average number of wage earners for all industries combined were employed in establishments where the prevailing hours of labor were 60 or more per week, whereas but 859, or less than three-tenths, were so employed in 1914. On the other hand, for all industries combined, the number of wage earners in establishments whose working hours were fewer than 60 per week increased from 484, or 16.9 per cent of the total, in 1909 to 2,130, or 71.3 per cent, in 1914. For the state as a whole a very great increase took

place during the five-year period in the proportion of wage earners in establishments in which the prevailing hours per week were 48 and under, together with a marked increase in the proportion in establishments which were in operation 54 hours weekly.

Among the separate industries, cars and general shop construction and repairs by steam-railroad companies shows the most pronounced decrease in hours of labor. In 1909, 8.8 per cent of the wage earners in

this industry were employed in establishments where the hours of labor were 54 or fewer per week, but in 1914 the proportion thus employed had increased to 99.4 per cent.

In 1914 the great majority of the wage earners, 91.4 per cent, reported for Cheyenne were employed in establishments in which the prevailing hours were 48 and under per week, but in Sheridan the number thus employed formed only 36.8 per cent of the total.

**Table 8**

INDUSTRY AND CITY.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.								
		Total.	In establishments where the prevailing hours of labor per week were—							
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries.....	1914 1909	2,989 2,867	1,622 228	35 34	447 203	26 19	644 782	192 1,568	13 35	10
Bread and other bakery products.....	1914 1909	57 38	19 8	.....	11 9	3 2	17 12	4 6	3 1	.....
Butter.....	1914 1909	42 20	5 .....	.....	21 .....	.....	11 19	5 1	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	1914 1909	1,722 1,690	1,406 .....	.....	305 136	.....	11 .....	.....	1,541	.....
Flour-mill and gristmill products.....	1914 1909	33 29	2 3	.....	3 .....	.....	28 26	.....	.....	.....
Lumber and timber products.....	1914 1909	364 648	9 8	.....	11 6	1 4	343 611	.....	9	.....
Printing and publishing.....	1914 1909	183 162	123 94	25 11	27 35	1 6	7 16	.....	.....	.....
All other industries.....	1914 1909	588 280	58 115	10 .....	69 17	21 7	227 98	183 9	10 34	10
Total for cities.....	1914	938	793	22	61	25	28	9	.....	.....
CHEYENNE.....	1914	821	750	.....	35	25	7	4	.....	.....
SHERIDAN.....	1914	117	43	22	20	.....	21	5	.....	.....

**Character of ownership.**—Table 9 presents statistics concerning the character of ownership, or legal organization, of manufacturing enterprises. For all industries combined, for the state, comparative figures are given for 1914, 1909, and 1904, but for the cities, the figures relate only to 1914.

During the decade 1904-1914 the number of establishments under each kind of ownership increased greatly, those under individual ownership forming a somewhat larger proportion of the total in the later year than in the earlier. Most of the large establishments, however, are under corporate ownership, as will be seen from the fact that, although only 30.3 per cent of the total number of establishments in the state in 1914 was under this form of ownership, these establishments reported 85.1 per cent of the total value of products and 89.1 per cent of the total average number of wage earners. The corresponding percentages in 1909 were 25, 74.6, and 84, respectively.

The number of establishments under individual ownership in each of the three years for which figures are given was greater than the number under corporate and "all other" forms combined; and the proportions which the value of products and average number

of wage earners reported for individual ownership formed of the respective totals in each year were greater than the corresponding proportions for establishments under "all other" ownership.

**Table 9**

CHARACTER OF OWNERSHIP AND CITY.	Census year.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.	
			Average number.	Per cent of total.	Amount.	Per cent of total.
All classes.....	1914 1909 1904	337 268 169	2,989 2,867 1,834	100.0 100.0 100.0	\$11,223,415 6,249,078 3,523,260	100.0 100.0 100.0
Individuals.....	1914 1909 1904	186 151 86	265 378 146	8.9 13.2 8.0	1,047,357 924,993 553,377	9.3 14.8 15.8
Corporations.....	1914 1909 1904	102 67 55	2,664 2,409 1,641	89.1 84.0 89.5	9,553,365 4,604,220 2,751,358	85.1 74.6 78.1
All others.....	1914 1909 1904	49 50 28	60 80 47	2.0 2.8 2.6	622,693 659,365 216,525	5.5 10.6 6.1
CHEYENNE.....	1914	32	821	100.0	1,007,638	100.0
Individuals <sup>1</sup> .....	1914	14	25	3.0	74,408	4.6
Corporations.....	1914	18	796	97.0	1,533,230	95.4
SHERIDAN.....	1914	30	117	100.0	855,575	100.0
Individuals.....	1914	14	25	21.4	108,569	12.7
Corporations.....	1914	11	79	67.5	391,396	45.7
All others.....	1914	5	13	11.1	355,610	41.6

<sup>1</sup> Includes the group "all others."

For Cheyenne the proportions which the average number of wage earners and the value of products reported for establishments under corporate ownership formed of the respective totals were considerably greater than the proportions for the state as a whole, but for Sheridan the reverse was the case.

**Size of establishments.**—The tendency for manufacturing to become concentrated in large establishments, or the reverse, is indicated by the statistics given in Table 10.

For 1914, 18 establishments, or 5.3 per cent of the total number in the state, each reported products exceeding \$100,000 in value, as compared with 17, or 6.3 per cent of the total for 1909, and 8, or 4.7 per

cent, for 1904. For 1914 these establishments reported 75.3 per cent of the total average number of wage earners for the state, 76.8 per cent of the total value of products, and 75.7 per cent of the total value added by manufacture. For the same year the smaller establishments—those having products valued at less than \$100,000—although representing 94.7 per cent of the total number of establishments, reported only 23.2 per cent of the total value of products. For the establishments having products valued at \$100,000 and over, the proportion of the total value of products has shown an increase at each successive census, from 51.9 per cent in 1904 to 67.5 per cent in 1909 and to 76.8 per cent in 1914.

VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			VALUE ADDED BY MANUFACTURE.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904
All classes.....	337	208	160	2,980	2,807	1,834	\$11,223,415	\$6,210,078	\$3,523,200	\$5,004,028	\$3,640,880	\$2,222,487
Less than \$5,000.....	199	141	74	200	161	72	467,096	343,444	180,100	318,503	242,207	130,834
\$5,000 to \$20,000.....	88	86	64	239	231	202	811,213	771,778	562,958	403,398	489,792	359,248
\$20,000 to \$100,000.....	32	24	23	300	260	229	1,326,473	913,075	950,524	593,063	494,471	427,025
\$100,000 and over.....	18	17	8	2,250	2,215	1,331	8,617,783	4,220,781	1,829,678	4,289,064	2,414,329	1,304,480
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.....	59.1	62.0	43.8	6.7	5.6	3.9	4.2	5.5	5.1	5.6	6.7	5.9
\$5,000 to \$20,000.....	26.1	32.1	37.0	8.0	8.1	11.0	7.2	12.4	16.0	8.2	13.5	16.2
\$20,000 to \$100,000.....	9.5	9.0	13.0	10.0	9.1	12.5	11.8	14.0	27.0	10.5	13.0	19.3
\$100,000 and over.....	5.3	6.3	4.7	75.3	77.3	72.0	76.8	67.5	51.9	75.7	66.3	68.7

Table 11 shows the size of establishments in 1914 as measured by the number of wage earners employed. The figures given are for all industries combined, for

six of the more important industries, and for each of the two cities in the state having more than 10,000 inhabitants.

INDUSTRY AND CITY.	TOTAL.		ESTABLISHMENTS EMPLOYING—						
			No wage earners.		1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.
	Estab-lish-ments.	Wage earners (average number).	Estab-lish-ments.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.
All industries.....	337	2,989	68	224	390	20	291	6	107
Bread and other bakery products.....	47	57	21	23	39	3	18	.....	.....
Butter.....	14	42	1	12	21	.....	.....	1	21
Cars and general shop construction and repairs by steam-railroad companies.....	12	1,722	.....	2	6	3	50	1	47
Flour-mill and gristmill products.....	10	33	4	10	17	2	16	.....	.....
Lumber and timber products.....	69	304	3	63	95	1	7	.....	.....
Printing and publishing.....	81	183	13	60	111	8	72	.....	.....
All other industries.....	98	588	26	54	101	12	128	4	129
Total for cities.....	62	938	5	39	82	14	106	3	67
CHEYENNE.....	32	821	3	20	48	6	48	2	42
SHERIDAN.....	30	117	2	19	34	8	58	1	25

Table 11—Continued.

INDUSTRY AND CITY.	ESTABLISHMENTS EMPLOYING—									
	51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		Over 1,000 wage earners.	
	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.	Estab-lish-ments.	Wage earners.
All industries.....	1	53	7	1,093	1	282	1	683		
Bread and other bakery products.....										
Butter.....										
Cars and general shop construction and repairs by steam-railroad companies.....			4	654	1	282	1	683		
Lumber and timber products.....			2	262						
Flour-mill and gristmill products.....										
Printing and publishing.....										
All other industries.....	1	53	1	177						
Total for cities.....							1	683		
CHEYENNE.....							1	683		
SHERIDAN.....										

Table 12 presents, for 1914, percentages based on the figures in Table 11 and, for 1909, similar percentages for all industries combined and for individual industries in the state as a whole.

Table 12

INDUSTRY AND CITY.	Cen-sus year.	PER CENT OF TOTAL AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS EMPLOYING SPECIFIED NUMBER.							
		1 to 5	6 to 20	21 to 50	51 to 100	101 to 250	251 to 500	501 to 1,000	Over 1,000
		All industries.....	1914 1909	13.0 12.7	9.7 8.3	6.6 1.2	1.8 4.5	36.6 47.0	9.4
Bread and other bakery products.....	1914 1909	68.4 78.9	31.6 21.1						
Butter.....	1914 1909	50.0 30.0	50.0 70.0						
Cars and general shop construction and repairs by steam-railroad companies.....	1914 1909	0.3 1.2	2.9 1.2	2.7	4.4	38.0 49.9	16.4	39.7 44.6	
Flour-mill and gristmill products.....	1914 1909	51.5 69.0	48.5 31.0						
Lumber and timber products.....	1914 1909	26.1 14.5	1.9 7.7			72.0 77.8			
Printing and publishing.....	1914 1909	60.7 69.1	39.3 30.9						
All other industries.....	1914 1909	17.2 36.4	21.8 31.4	21.9 12.1	9.0 20.0	30.1			
Total for cities.....	1914	8.7	11.3	7.1				72.8	
CHEYENNE.....	1914	5.8	5.8	5.1				83.2	
SHERIDAN.....	1914	29.0	49.6	21.4					

There were 68 establishments in 1914 for which no wage earners are shown. In these establishments all the work was done by the proprietors or firm members, aided in some cases by members of their families or by persons classed as salaried employees. In some cases a few wage earners were employed for short periods,

but the number was so small and the term of employment so short that after the average, as described in the "Explanation of terms," had been computed no wage earners could be shown.

The 224 small establishments—those employing from 1 to 5 wage earners—represented 66.5 per cent of the total number in the state; the 35 employing from 6 to 50 represented 10.4 per cent; and the 8 employing from 51 to 250 represented 2.4 per cent. These 267 establishments gave employment to 67.7 per cent of the total number of wage earners, and the remainder were reported by 2 establishments, 1 of which employed an average of 683 and the other an average of 282. The groups of establishments having more than 50 wage earners represented only 3 per cent of the total number of establishments in the state but gave employment to 70.6 per cent of the wage earners. It will be noted that in the bakery, butter, flour-mill and gristmill, and printing and publishing industries from one-half to two-thirds of the wage earners were in establishments employing from 1 to 5. On the other hand, in the steam railroad repair shops and in the lumber and timber industry, the majority were in establishments giving employment to more than 100 wage earners.

In Cheyenne 83.2 per cent of the total wage earners were employed in one steam-railroad repair shop.

**Engines and power.**—Table 13 shows, for 1914, 1909, and 1904, for all industries combined, the number and horsepower of engines or motors employed in generating power (including electric motors operated by purchased current). It also shows separately the number and horsepower of electric motors operated by current generated in the establishments reporting.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
	1914	1909	1904	Amount.			Per cent distribution.		
				1914	1909	1904	1914	1909	1904
Primary power, total.....	463	268	109	10,004	7,028	3,604	100.0	100.0	100.0
Owned.....	251	184	109	8,828	7,114	3,558	88.2	83.3	98.7
Steam engines and turbines <sup>1</sup> .....	156	128	69	6,925	6,467	3,088	69.2	64.8	86.7
Internal-combustion engines.....	73	37	24	1,363	182	88	13.0	2.4	2.4
Water wheels, turbines, and motors.....	22	19	10	537	465	382	5.4	6.1	10.6
Rented—Electric.....	212	84	.....	1,176	514	46	11.8	6.7	1.3
Electric.....	264	108	.....	1,091	801	132	100.0	100.0	100.0
Rented.....	212	84	(*)	1,176	514	46	69.5	64.2	34.8
Generated by establishments reporting.....	52	24	11	515	287	86	30.5	35.8	65.2

<sup>1</sup> Figures for horsepower include for 1909 and 1904 the amount reported under the head of "other" owned power.

\* Not reported.

This table shows an increase in primary power amounting to 2,376 horsepower, or 31.1 per cent, from 1909 to 1914, due largely to increases in the use of internal-combustion engines and of rented electric power. Steam was the predominant power at each census, although its proportion of the total primary power decreased from 85.7 per cent in 1904 to 69.2 per cent in 1914. Every item for which figures are given in the table shows an increase for each of the two five-year periods.

**Fuel.**—Closely related to the subject of power employed in manufactures is that of the fuel consumed in generating this power or otherwise used in the manufacturing processes.

Table 14 shows, for 1914, the quantity of each kind of fuel used, for which data were obtained, for all industries combined and for certain selected industries

in the state as a whole and for all industries combined in each of the two cities.

INDUSTRY AND CITY.	COAL.				
	An-thra-cite (tons, 2,240 lbs.).	Bitu-minous (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, in-cluding gasoline (barrels).	Gas (1,000 cubic feet).
All industries.....	102	102,011	638	259,806	4,552
Bread and other bakery products.....	.....	1,470	55	.....	500
Brick.....	.....	3,155	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	.....	79,307	188	1,361	.....
Flour-mill and gristmill products.....	.....	3,001	.....	30	1,048
Petroleum, refining.....	.....	680	380	257,749	.....
Printing and publishing.....	77	525	.....	78	1,832
All other industries.....	25	14,473	15	588	1,172
Total for cities.....	.....	34,586	235	1,367	548
CHEYENNE.....	.....	29,570	235	1,361	548
SHERIDAN.....	.....	5,016	.....	6	.....

SPECIAL STATISTICS.

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantities and cost of materials, the quantity and value of products, and other information for securing which no provision is made on the general schedule. Certain data of this character for two industries in Wyoming are here presented.

**Flour-mill and gristmill products.**—Table 15 gives the quantities and values of flour-mill and gristmill products for the last three census years.

	1914	1909	1904
Total value.....	\$721,818	\$746,299	\$283,653
Wheat flour:			
Barrels.....	104,189	99,637	43,758
Value.....	\$530,628	\$505,294	\$226,764
Rye flour:			
Barrels.....	150	500	.....
Value.....	\$792	\$2,500	.....
Corn meal and corn flour:			
Barrels.....	1,646	1,033	74
Value.....	\$7,829	\$4,094	\$204
Bran and middlings:			
Tons.....	3,803	(1)	(1)
Value.....	\$83,095	(1)	(1)
Feed and offal:			
Tons.....	1,415	9,252	2,849
Value.....	\$42,952	\$215,913	\$56,095
Breakfast foods:			
Pounds.....	16,000	.....	.....
Value.....	\$700	.....	.....
All other cereal products, value.....	\$54,647	.....	.....
All other products, value.....	\$975	\$18,498	.....

<sup>1</sup> Included in "feed and offal."

Wheat flour, which contributed 73.5 per cent of the total value of products for the industry as a whole in 1914, shows an increase of 62,431 barrels, or 142.7 per cent, for the decade 1904-1914—largely confined, however, to the five-year period 1904-1909, the increase from 1909 to 1914 being only 6,652 barrels, or 6.7 per cent. The value of this product increased 134 per cent during the decade 1904 to 1914 and 5 per cent during the period 1909 to 1914. The value of bran and middlings and feed and offal combined formed 17.5 per cent of the total value of products for the industry in 1914, as compared with 28.9 per cent in 1909 and 20 per cent in 1904.

The equipment in 1914 consisted of 77 stands of rolls, 2 runs of stone, and 10 attrition mills.

**Butter.**—The quantity and value of products for 1914, 1909, and 1904 are given in Table 16.

The number of establishments, as shown in Table 18, decreased from 5 in 1904 to 4 in 1909, but increased to 14 during the following five-year period.

For the decade 1904-1914 there was an increase of 180.8 per cent in the total quantity of butter manufactured, the greater part of it being in prints or rolls. Butter in prints or rolls increased 705,711 pounds, or 185.1 per cent, and butter packed solid increased 199,231 pounds, or 167.1 per cent, during the decade.

The figures shown for cheese in this table represent only its production as a by-product of the butter factories, and since there is but one cheese factory in the state, statistics for it can not be shown without disclosing its operations. Cream and "all other products" show large increases for the period 1909-1914.

	1914	1909	1904
Total value.....	\$543,499	\$268,862	\$114,354
Butter:			
Pounds.....	1,405,457	783,585	500,515
Value.....	\$393,120	\$223,525	\$101,722
Packed solid—			
Pounds.....	318,481	15,344	119,200
Value.....	\$86,811	\$4,129	\$23,840
Prints or rolls—			
Pounds.....	1,087,026	768,241	381,315
Value.....	\$306,309	\$219,396	\$77,882
Full-cream cheese:			
Pounds.....	199,979	250,719	84,600
Value.....	\$27,359	\$40,115	\$8,181
Cream sold:			
Pounds.....	568,449	42,116	44,272
Value.....	\$68,594	\$4,455	\$4,151
All other products, value.....	\$54,426	\$767	\$300

<sup>1</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

**Laundries.**—Statistics for power laundries are not included in the general tables nor in the totals for manufacturing industries. Table 17, however, summarizes these statistics for Wyoming for 1914 and 1909.

	POWER LAUNDRIES.		
	Number or amount.		Per cent of increase, 1909-1914.
	1914	1909	
Number of establishments.....	18	14	.....
Persons engaged.....	212	203	4.4
Proprietors and firm members.....	22	20	.....
Salaried employees.....	5	12	.....
Wage earners (average number).....	185	171	8.2
Primary horsepower.....	322	319	0.9
Capital.....	\$174,290	\$99,573	76.0
Salaries and wages.....	154,168	89,303	72.6
Salaries.....	6,440	10,392	-38.0
Wages.....	147,728	78,911	87.2
Paid for contract work.....	1,000	.....	.....
Rent and taxes (including internal revenue).....	7,388	5,818	27.0
Cost of materials.....	64,501	38,238	68.7
Amount received for work done.....	238,048	216,847	9.8

<sup>1</sup> A minus sign (-) denotes decrease; percentages are omitted when base is less than 100.

In 1914 Wyoming ranked forty-seventh among the states in amount received for work done, and in 1909 it ranked forty-fifth. Increases are shown for all items given except number and salaries of salaried employees. The increase from 1909 to 1914 in amount received for work done was \$21,201, or 9.8 per cent. For 1914 the 18 laundries were reported, as to character of ownership, as follows: Corporation, 2; individual, 11; and all other forms, 5. The corresponding figures for 1909 are 1, 6, and 7, respectively.

GENERAL TABLES.

Table 18 gives, for 1914, 1909, and 1904, 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 for the city of Cheyenne similar data for all industries combined.

Table 19 presents for 1914 statistics in detail for each industry in the state that can be shown without the disclosure of the operations of individual establishments and the statistics for all industries combined for each of the cities in the state having more than 10,000 inhabitants.

TABLE 18.—COMPARATIVE SUMMARY FOR 1914, 1909, AND 1904.

INDUSTRY AND CITY.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Expressed in thousands.			INDUSTRY AND CITY.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Expressed in thousands.		
					Wages.	Cost of materials.	Value of products.						Wages.	Cost of materials.	Value of products.
THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.															
All industries.....	1914	337	2,989	10,004	\$2,312	\$5,559	\$11,223	Lumber and timber products.	1914	169	364	2,344	\$225	\$140	\$718
	1909	268	2,867	7,628	2,081	2,808	6,249		1909	63	648	2,251	314	198	751
	1904	169	1,834	3,604	1,261	1,301	3,523		1904	32	305	707	151	64	463
Bread and other bakery products.	1914	47	57	37	45	186	313	Printing and publishing..	1914	81	183	235	157	101	546
	1909	33	38	31	33	132	239		1909	65	162	138	141	90	400
	1904	19	17	7	14	52	91		1904	47	119	96	84	52	313
Butter.....	1914	14	42	198	35	400	543	Saddlery and harness.....	1914	11	24	7	23	50	103
	1909	4	20	79	17	211	269		1909	10	34	1	28	60	130
	1904	5	11	83	7	95	114		1904	3	19	.....	16	27	54
Cars and general shop construction and repairs by steam-railroad companies.	1914	12	1,722	2,924	1,296	1,001	2,469	Tobacco, cigars.....	1914	17	15	.....	11	31	68
	1909	9	1,690	1,550	1,309	708	2,337		1909	10	18	.....	15	24	61
	1904	9	1,212	1,488	884	533	1,640		1904	12	27	.....	16	15	49
Flour-mill and gristmill products.	1914	16	33	1,163	27	555	722	All other industries.....	1914	70	549	3,096	493	3,095	5,7
	1909	13	29	885	21	583	746		1909	61	228	2,693	203	602	1,241
	1904	11	16	591	11	219	284		1904	31	108	632	78	244	526

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

CHEYENNE.....	1914	32	821	1,465	\$641	\$669	\$1,608	CHEYENNE—Continued...	1904	18	552	.....	412	308	925
	1909	22	750	1,253	618	607	1,577								

<sup>1</sup> Includes "boxes, wooden packing," and "lumber, planing-mill products, not including planing mills connected with sawmills."  
<sup>2</sup> Figures do not agree with those published in 1909, because certain establishments revised their reports for that census.

MANUFACTURES—WYOMING.

TABLE 19.—DETAIL STATEMENT FOR THE STATE, BY INDUS-

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.

1	All industries.....	337	3,696	293	139	228	47	2,989	Au	3,352	Fe	2,041	(?)	(?)	(?)	(?)	(?)	\$20,270,117
2	Automobile repairing.....	6	24	5	.....	.....	.....	19	Jy	22	De	18	18	18	.....	.....	.....	20,577
3	Bread and other bakery products.....	47	118	54	2	1	4	57	Je	59	Se	50	80	49	10	1	.....	104,465
4	Brick.....	7	54	5	2	.....	.....	47	Au	91	Ja	10	78	78	.....	.....	.....	88,780
5	Butter.....	14	60	4	8	2	4	42	Jy	50	Fe	35	46	36	10	.....	.....	203,361
6	Carriages, wagons, and repairs.....	5	11	5	.....	.....	.....	6	Je	8	De	5	6	6	.....	.....	.....	10,020
7	Cars and general shop construction and repairs by steam-railroad companies.....	12	1,841	.....	26	87	6	1,722	Oc	1,784	My	1,616	1,699	1,669	.....	.....	.....	2,841,856
8	Confectionery and ice cream.....	5	15	7	.....	.....	.....	8	Au	11	Ja	5	9	4	5	.....	.....	34,870
9	Flour-mill and gristmill products.....	18	57	11	8	5	.....	33	Se	38	Ja	28	32	32	.....	.....	.....	470,059
10	Lumber and timber products.....	66	462	75	24	7	.....	356	Oc	556	Ap	122	692	692	.....	.....	.....	900,947
11	Mineral and soda waters.....	15	29	18	.....	1	.....	10	Au	13	De	9	10	10	.....	.....	.....	65,150
12	Printing and publishing, job printing.....	5	16	3	.....	.....	.....	13	No	15	Ja	12	13	7	5	1	.....	45,092
13	Printing and publishing, newspapers and periodicals.....	76	317	62	34	38	13	170	No	178	Jy	162	178	148	24	4	2	477,351
14	Saddlery and harness.....	11	35	8	2	1	.....	24	Au	26	De	22	25	25	.....	.....	.....	108,090
15	Tobacco, cigars.....	17	30	15	.....	.....	.....	15	De	20	Je	12	20	16	4	.....	.....	15,047
16	All other industries *.....	35	627	21	33	86	20	407	.....	.....	.....	.....	.....	.....	.....	.....	.....	23,742,273

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

1	CHEYENNE.....	32	939	16	17	70	15	821	Oc	855	My	794	828	815	13	.....	.....	\$1,801,583
2	SHERIDAN.....	30	171	26	15	10	3	117	Je	128	Ja	98	121	113	7	1	.....	673,287

\* Owned power only.

\* No figures given for reasons stated in "Explanation of terms."

\* All other industries embrace—

Artificial stone products.....	2	Cheese.....	1	Food preparations, not elsewhere specified.....	3
Awnings, tents, and sails.....	1	Chemicals.....	1	Foundry and machine-shop products.....	2
Boxes, wooden packing.....	1	Copper, tin, and sheet-iron work.....	2	Fur goods.....	1
Brooms, from broom corn.....	1	Fertilizers.....	1	Gas, illuminating and heating.....	1
Cars and general shop construction and repairs by electric-railroad companies.....	1	Flavoring extracts.....	1	Ice, manufactured.....	1

TRIES, AND FOR CITIES OF 10,000 TO 50,000 INHABITANTS: 1914.

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, including internal-revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. <sup>1</sup>	Internal-combustion engines.	Water wheels and motors. <sup>1</sup>	Electric (rented).	

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

\$237,044	\$203,940	\$2,311,754	\$39,199	\$94,221	\$115,411	\$5,207,921	\$351,466	\$11,223,415	\$5,664,028	10,004	6,925	1,366	537	1,176	515	1
3,000	2,210	17,177	50	2,180	282	3,125	1,253	30,002	25,624	29	.....	.....	.....	29	.....	2
2,400	.....	44,901	500	7,096	1,799	178,075	8,424	313,225	126,726	37	.....	.....	.....	37	.....	3
10,339	4,901	26,262	500	150	657	1,704	10,521	55,414	43,189	137	50	.....	.....	137	.....	4
.....	.....	35,084	500	1,420	1,412	394,012	5,363	543,499	143,524	198	105	.....	.....	93	.....	5
.....	.....	5,325	.....	.....	284	4,200	509	15,876	11,167	5	.....	.....	.....	5	.....	6
42,903	109,398	1,295,744	.....	.....	25,747	899,812	101,089	2,469,129	1,408,228	2,924	2,561	8	.....	355	355	7
.....	.....	4,370	.....	1,175	280	10,762	532	22,688	11,394	5	.....	.....	.....	5	.....	8
14,010	5,055	27,300	.....	1,012	5,432	547,440	7,281	721,818	167,097	1,163	585	93	345	140	54	9
21,700	9,200	215,510	23,281	478	3,188	124,087	620	691,184	666,477	2,202	2,050	19	180	13	.....	10
.....	1,200	7,255	.....	2,143	991	13,859	934	50,473	35,680	36	5	14	.....	17	.....	11
.....	.....	11,296	.....	2,000	331	15,063	883	48,094	32,148	19	.....	.....	.....	19	.....	12
48,606	40,019	145,317	4,039	17,807	4,733	75,455	9,373	497,024	412,296	216	.....	81	11	124	.....	13
.....	.....	22,561	.....	3,161	1,184	49,207	697	103,330	53,476	7	.....	.....	1	6	.....	14
2,400	192	10,910	.....	2,362	3,729	30,351	335	67,884	37,198	.....	.....	.....	.....	.....	.....	15
91,626	121,765	442,742	10,829	53,237	65,462	2,860,169	203,152	5,593,125	2,529,804	2,916	1,569	1,151	.....	196	106	16

CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

\$33,138	\$87,153	\$641,284	\$29	\$7,303	\$14,388	\$607,465	\$61,130	\$1,607,638	\$639,043	1,465	1,233	8	.....	224	321	1
32,320	14,600	110,955	250	8,207	25,206	458,642	11,048	855,575	385,886	521	248	25	40	208	5	2

\* Same number reported for one or more other months.

\* All other industries embrace—Continued.

Jewelry.....	1	Lumber, planing-mill products, not including planing mills connected with sawmills.....	2	Slaughtering and meat packing.....	1
Leather, tanned, curried, and finished.....	1	Marble and stonework.....	2	Wall plaster.....	2
Lime.....	1	Petroleum, refining.....	2	Wood preserving.....	1
Liquors, malt.....	2	.....	.....	.....	.....