TEXAS.

INDUSTRIES IN GENERAL.

General character of the state.—Texas, with a gross area of 265,896 square miles, of which 3,498 represent water surface, is the largest state in the Union. Its population in 1910 was 3,896,542, as compared with 3,048,710 in 1900 and 2,235,527 in 1890. It ranked fifth among the 49 states and territories of continental United States as regards population in 1910 and sixth in 1900. The density of population for the entire state was 14.8 per square mile, the corresponding figure for 1900 being 11.6. Twenty-four and one-tenth per cent of the entire population of the state resided in incorporated cities and towns having a population of 2,500 inhabitants or over, as against 17.1 per cent in 1900.

San Antonio, with a population of 96,614; Dallas, with 92,104; Houston, with 78,800; and Fort Worth, with 73,312, were the only cities in the state which had a population in 1910 of over 50,000. There were, however, 16 cities which had a population of over 10,000 but less than 50,000. These cities, in order of their importance in population, were as follows: El Paso, Galveston, Austin, Waco, Beaumont, Laredo, Denison, Sherman, Marshall, Paris, Temple, Brownsville, Palestine, Tyler, Cleburne, and San Angelo. Apart from these cities, only 8.2 per cent of the population in 1910 resided in places of 2,500 inhabitants or over.

The transportation facilities are exceptionally good. The state is traversed by several important railway systems and, with 13,521[1] miles in 1909, had more steam railway trackage than any other state in the Union. Although only navigable for light-draft vessels, there are a number of streams which afford water communication for a considerable area of the eastern part of the state. Galveston, an important commercial center in the state, is one of the largest ports of entry in the South. Sabine is also a port of growing prominence. These avenues of transportation afford excellent opportunities for interstate, domestic coastwise, and foreign commerce.

Importance and growth of manufactures.—The manufactures of Texas depend largely for their raw materials upon the stock-raising, agricultural, and mineral products of the state and have been greatly stimulated by the rapid increase in the production of these materials. Between 1849 and 1889 there was a steady growth in manufactures, but the total value of the manufactures of the state, including the products of the neighborhood and hand industries, amounted to only $70,434,000 in the latter year, while in 1909, exclusive of the value of the products of the neighborhood and hand industries, it had reached $272,896,000, representing an increase of nearly 300 per cent during the 20 years. The population of the state during the same period increased only 74.3 per cent. The gross value of products per capita of the total population of the state increased from $32 in 1889 to $70 in 1909. The number of wage earners has not increased as rapidly as the value of manufactured products. It has, however, almost exactly kept pace with the growth in population, for the 34,794 wage earners reported in 1889 and the 70,230 reported in 1909 represent 1.6 per cent and 1.8 per cent of the total population of the state at the respective censuses. The proportion which the manufactures of the state represented of the total value of the products of manufacturing industries in the United States increased from eight-tenths of 1 per cent in 1889 to 1.3 per cent in 1909. Texas ranked twenty-fourth in 1889 among the states in respect to gross value of products, but advanced to seventeenth place in 1909.

The first table on the following page gives the most important figures relative to all classes of manufactures combined for 1909, 1904, and 1899, together with the percentages of increase from census to census.

In 1909 the state of Texas had 4,588 manufacturing establishments, which gave employment to an average of 84,575 persons during the year and paid out $48,775,000 in salaries and wages. Of the persons employed, 70,230 were wage earners. These establishments turned out products to the value of $272,896,000, to produce which materials costing $178,179,000 were used. The value added by manufacture was thus $94,717,000, which figure, as explained in the Introduction, best represents the net wealth created by manufacturing operations during the year.

In general, this table brings out the fact that while the growth of the manufacturing industries of Texas, as a whole, during the five-year period 1899–1904 was noteworthy, the growth during the more recent five-year period, 1904–1909, was even more pronounced. During the later period the number of establishments increased 45.3 per cent and the average number of wage earners 43.1 per cent, while the value of products increased 81.3 per cent and the value added by manufacture 60.7 per cent.

[1] Report of Interstate Commerce Commission, 1909.

As pointed out in the Introduction, it would be improper to infer that manufactures increased in volume to the full extent indicated by these figures regarding values, since the increase shown is certainly due, in part, to the increase that has taken place in the prices of commodities.

	Number or amount.			Per cent of increase.	
	1909	1904	1899	1904-1909	1899-1904
Number of establishments	4,588	3,158	3,107	45.3	1.6
Persons engaged in manufactures	84,575	57,892	(1)	46.1	.....
Proprietors and firm members	4,496	3,073	(1)	46.3	.....
Salaried employees	9,849	5,753	2,861	71.2	101.1
Wage earners (average number)	70,230	49,066	38,604	43.1	27.1
Primary horsepower	282,471	164,637	116,157	71.6	41.7
Capital	$216,876,000	$115,665,000	$63,656,000	87.5	81.7
Expenses	244,873,000	134,406,000	79,674,000	82.2	68.7
Services	48,775,000	30,587,000	19,831,000	59.5	54.2
Salaries	10,868,000	6,118,000	2,919,000	77.6	109.6
Wages	37,907,000	24,469,000	16,912,000	54.9	44.7
Materials	178,179,000	91,604,000	54,388,000	94.5	68.4
Miscellaneous	17,919,000	12,215,000	5,455,000	46.7	123.9
Value of products	272,896,000	150,528,000	92,894,000	81.3	62.0
Value added by manufacture (value of products less cost of materials)	94,717,000	58,924,000	38,506,000	60.7	53.0

[1] Figures not available.

The relative importance and growth of the leading manufacturing industries of the state are shown in the following table.

It should be borne in mind, in considering this table, that the value of products in some of the industries involves a certain amount of duplication, due to the use of the product of one establishment in the industry as material for another establishment.

Industry.	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Per cent of increase.[1]			
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	Value of products.		Value added by manufacture.	
								1904-1909	1899-1904	1904-1909	1899-1904
All industries	4,588	70,230	100.0	$272,896,000	100.0	$94,717,000	100.0	81.3	62.0	60.7	53.0
Slaughtering and meat packing	14	3,639	5.2	42,530,000	15.6	5,120,000	5.4	172.3	300.1	152.5	178.7
Flour-mill and gristmill products	238	1,216	1.7	32,485,000	11.9	3,828,000	4.0	47.1	84.8	22.7	68.2
Lumber and timber products	709	23,518	33.5	32,201,000	11.8	21,197,000	22.4	70.6	6.2	52.2	48.9
Oil, cottonseed, and cake	194	3,073	4.4	29,916,000	11.0	6,477,000	6.8	60.0	33.5	123.8	−20.3
Cars and general shop construction and repairs by steam-railroad companies	62	9,782	13.9	13,359,000	4.9	7,813,000	8.3	27.6	26.0	30.3	35.2
Printing and publishing	1,007	4,408	6.3	11,587,000	4.2	8,780,000	9.3	48.0	70.0	44.7	67.1
Rice, cleaning and polishing	19	430	0.6	8,142,000	3.0	1,020,000	1.1	75.5	.....	−9.9	.....
Foundry and machine-shop products	143	2,925	4.2	8,068,000	3.0	4,209,000	4.4	55.8	83.8	46.3	82.1
Liquors, malt	12	765	1.1	6,404,000	2.4	4,709,000	5.0	55.6	54.4	55.9	49.7
Bread and other bakery products	355	1,391	2.0	5,311,000	1.9	2,249,000	2.4	74.2	134.0	73.4	109.9
Food preparations	23	284	0.4	5,229,000	1.9	649,000	0.7	1,294.4	621.2	291.0	690.5
Leather goods	67	721	1.0	4,347,000	1.6	1,508,000	1.6	20.2	24.3	15.0	26.7
Ice, manufactured	182	1,437	2.0	3,844,000	1.4	2,752,000	2.9	84.5	73.0	82.1	74.9
Cotton goods, including cotton small wares	13	1,590	2.3	2,815,000	1.0	1,022,000	1.1	77.4	32.2	79.6	1.8
Brick and tile	89	1,935	2.8	2,545,000	0.9	1,779,000	1.9	95.0	27.9	89.5	19.6
Confectionery	49	717	1.0	2,451,000	0.9	992,000	1.1	112.2	49.6	103.7	40.3
Copper, tin, and sheet-iron products	108	733	1.0	2,214,000	0.8	1,133,000	1.2	85.3	58.5	79.8	63.6
Clothing, men's, including shirts	25	992	1.4	1,759,000	0.6	752,000	0.8	.....	.....	.....	.....
Gas, illuminating and heating	27	575	0.8	1,644,000	0.6	1,099,000	1.2	128.6	89.2	110.5	82.5
Furniture and refrigerators	25	701	1.0	1,512,000	0.6	747,000	0.8	207.9	165.4	159.4	169.2
Marble and stone work	107	605	0.9	1,443,000	0.5	941,000	1.0	85.5	−8.8	96.9	−13.4
Patent medicines and compounds and druggists' preparations	59	145	0.2	1,014,000	0.4	603,000	0.6	.....	.....	.....	.....
Carriages and wagons and materials	50	412	0.6	830,000	0.3	511,000	0.5	125.5	−27.3	114.7	−27.0
Cooperage and wooden goods, not elsewhere specified	11	243	0.3	719,000	0.3	231,000	0.2	−3.0	117.3	−6.1	72.0
Butter, cheese, and condensed milk	36	84	0.1	660,000	0.2	130,000	0.1	947.6	−22.2	828.6	−53.3
Mattresses and spring beds	50	233	0.3	658,000	0.2	290,000	0.3	−5.6	136.3	−0.3	123.3
Pottery, terra-cotta, and fire-clay products	17	420	0.6	597,000	0.2	402,000	0.4	82.6	70.3	56.4	73.6
Tobacco manufactures	67	339	0.5	509,000	0.2	327,000	0.3	−7.5	4.6	−3.5	5.0
Canning and preserving	19	158	0.2	498,000	0.2	297,000	0.3	50.0	.....	139.5	.....
Salt	6	162	0.2	497,000	0.2	191,000	0.2	16.0	36.6	22.4	34.5
Lime	11	348	0.5	390,000	0.1	247,000	0.3	191.0	.....	183.9	.....
All other industries	554	6,249	8.9	46,748,000	17.1	12,646,000	13.4	.....	.....	.....	.....

[1] Percentages are based on figures in Table I; a minus sign (−) denotes decrease. Where the percentages are omitted, comparable figures can not be given.

The refining of petroleum, which ranks fifth among the industries of the state, is the most important of those included under the head of "All other industries." Eight refineries were reported at the census of 1909, as compared with seven in 1904. Of the number reported for 1909, four establishments, three of which were under one corporate management, refined by far the greater part of all the oil refined in the state. For this reason the figures for this industry can not be shown without disclosing individual

operations. The industry has had a remarkable growth in the state during the past 10 years, and in 1909 Texas was the fourth state in the Union in the production of refined petroleum.

In addition to the industries presented separately in the preceding table and petroleum refining, there are six important industries each of which had a value of products in 1909 exceeding $1,000,000. They are included under the head of "All other industries" in the table, because in some cases the operations of individual establishments would be disclosed if they were shown separately; in others, because the returns do not present properly the true condition of the industry, as it is more or less interwoven with one or more other industries; and in still others, because comparable statistics for the different census years can not be presented on account of changes in classification or the data for prior censuses are not available. These industries are as follows: Bags, other than paper; coffee and spice, roasting and grinding; mineral and soda waters; smelting and refining, copper; smelting and refining, lead; and wood preserving. For similar reasons, 30 less important industries which had a value of products in 1909 in excess of $100,000 but less than $1,000,000 are also included under "All other industries."

The most important industries listed in the preceding table, in which they are arranged in the order of the value of products, call for brief consideration.

Slaughtering and meat packing.—This classification includes the wholesale slaughtering and meat-packing establishments and those engaged in the manufacture of sausage only. Although stock raising has always been an exceedingly important industry in the state, only during the last decade has slaughtering and meat packing assumed large proportions. From a comparatively small industry in 1899, it had become the leading industry of the state in 1909 as measured by value of products.

Flour-mill and gristmill products.—All mills which grind wheat, rye, or buckwheat flour, or corn meal, hominy, grits, or feed are included in this industry. Factories making fancy cereals or other food preparations as a chief product are not included. Furthermore, the statistics for mills grinding exclusively for toll, usually small and operated for local consumption, are not included in this classification or in the general statistics for the state, but are shown separately on page 1212.

Lumber and timber products.—This industry includes logging operations, the sawmills, shingle mills, planing mills, and wooden packing-box factories. From the standpoint of the number of wage earners, this is the most important industry in the state, the average number of wage earners reported for 1909 constituting 33.5 per cent of the total employed in all manufactures in the state.

Oil, cottonseed, and cake.—The statistics include those for all establishments engaged primarily in extracting oil from cotton seed or refining crude cottonseed oil. Prior to 1870 cotton seed was considered practically worthless, except for planting, and it was not until after 1880 that it came to be extensively utilized in the United States. Texas, the leading cotton-producing state, has naturally become also the leading state in the manufacture of cottonseed products, which position it has held since 1889. In 1909 it contributed 20.2 per cent of the total value of cottonseed products reported for the United States. The percentage of increase in value added by manufacture from 1904 to 1909 was much greater than the percentage of increase in value of products, although both increases were large.

Cars and general shop construction and repairs by steam-railroad companies.—This industry represents the work done in the car shops of steam-railroad companies, and is confined practically to repairs of the rolling stock and equipment of their own roads, although to a limited extent there may be some new construction of rolling stock. The statistics are exclusive of minor repairs in roundhouses. Judged by the number of wage earners employed, this was the second industry in the state in 1909.

Printing and publishing.—All establishments engaged primarily in printing and publishing newspapers, books, periodicals, and music, job printing, bookbinding and blank-book making, lithographing, and engraving are included under this head. More establishments were reported for this industry in 1909 than for any other manufacturing industry in the state.

Rice, cleaning and polishing.—This is a comparatively new industry in the state and its growth has been remarkable. The first establishment was reported for the state in 1899, but in 1904, 17 establishments were in operation and the products were valued at $4,640,000. With an increase during the next five years of 75.5 per cent in value of products, Texas became the second state in the Union in this industry.

Measured by value added by manufacture, all but one of these seven industries hold a somewhat different rank from that which they hold when measured by value of products. On account of the comparatively simple processes involved in slaughtering and meat packing, in the flour-mill and gristmill industry, and in cleaning and polishing rice, and the extent to which the work is carried on by machinery in the last two industries, the value added by manufacture is not commensurate with the value of products. For these reasons the slaughtering and meat-packing industry, which is first in value of products, becomes fifth in importance on the basis of value added by manufacture, the flour-mill and gristmill industry drops from second to eighth place, and the cleaning and polishing of rice from seventh to sixteenth place, while the lumber industry would stand first, printing and publishing second, steam-railroad repair shops third, and the cottonseed-oil industry fourth. Similar changes would occur in the relative standing of many of the other industries.

The table on page 1198 shows also the percentages of increase for these leading industries in respect to value of products and value added by manufacture where the figures are comparable. For the five-year period 1904–1909 the manufacture of food preparations shows a greater rate of increase in value of products, and that of butter, cheese, and condensed milk a greater relative gain in value added by manufacture, than any of the other specified industries, namely, 1,294.4 per cent and 828.6 per cent, respectively. The remarkable increase in the former industry was due in a large measure to the increased production of establishments manufacturing lard compound, and of those making macaroni, and in the latter industry almost entirely to the decided gain of those which manufacture butter. The furniture and refrigerator and the slaughtering and meat-packing industries also show remarkable increases in both items. As the latter is the leading industry in the state, the percentages of increase, although not so great as those shown for most of the other three industries mentioned above, are the most significant. There are some striking differences among the several industries specified as respects the relative increase for the two five-year periods covered by the table. Of the first 20 industries presented separately, however, all show an increase for each period in value of products, and all but two an increase in value added by manufacture.

Persons engaged in manufacturing industries.—The following table shows, for 1909, the distribution of the number of persons engaged in manufactures, the average number of wage earners being distributed by sex and age. It should be borne in mind, however, that 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 Introduction.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.		
	Total.	Male.	Female.
All classes	**84,575**	**79,696**	**4,879**
Proprietors and officials	7,911	7,763	148
Proprietors and firm members	4,496	4,373	123
Salaried officers of corporations	940	929	11
Superintendents and managers	2,475	2,461	14
Clerks	6,434	5,808	626
Wage earners (average number)	70,230	66,125	4,105
16 years of age and over	68,974	65,092	3,882
Under 16 years of age	1,256	1,033	223

The average number of persons engaged in manufactures during 1909 was 84,575, of whom 70.230 were wage earners. Of the remainder, 7,911 were proprietors and officials and 6,434 were clerks. Corresponding figures for individual industries will be found in Table II, page 1218.

The following table shows, for 1909, the percentage of proprietors and officials, clerks, and wage earners, respectively, among the total number of persons employed in manufactures. It covers all industries combined and 15 important industries individually.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries	**84,575**	**9.4**	**7.6**	**83.0**
Bread and other bakery products	2,078	22.8	10.3	66.9
Brick and tile	2,135	6.8	2.5	90.6
Cars and general shop construction and repairs by steam-railroad companies	10,527	2.6	4.4	92.9
Cotton goods, including cotton small wares	1,633	1.5	1.2	97.4
Flour-mill and gristmill products	1,899	19.9	16.1	64.0
Food preparations	367	10.6	12.0	77.4
Foundry and machine-shop products	3,441	8.3	6.7	85.0
Ice, manufactured	1,874	15.0	8.3	76.7
Leather goods	1,012	12.4	16.4	71.2
Liquors, malt	931	5.8	12.0	82.2
Lumber and timber products	25,843	6.1	2.9	91.0
Oil, cottonseed, and cake	3,923	12.6	9.0	78.3
Printing and publishing	7,177	22.1	16.5	61.4
Rice, cleaning and polishing	643	11.4	21.8	66.9
Slaughtering and meat packing	4,248	1.0	13.3	85.7
All other industries	16,844	12.2	9.9	77.9

Of the total number of persons engaged in all manufacturing industries, 9.4 per cent were proprietors and officials, 7.6 per cent clerks, and 83 per cent wage earners. In the bakery, the printing and publishing, and the flour-mill and gristmill industries, the majority of the establishments are small and the work is done to a large extent by the proprietors or their immediate representatives, so that the proportion of persons engaged in these industries falling into the class of proprietors and officials is therefore much greater than for most other industries or for all industries combined. Similar conditions prevail, but to a less degree, in the manufactured-ice and the leather-goods industries, and also in the manufacture of cottonseed products, although in the latter industry the establishments are somewhat larger. The smallest proportions for this class are shown for the slaughtering and meat-packing and the cotton-goods industries, on account of the large average number of wage earners to an individual establishment, and because all of the establishments in the latter and all but two in the former industry are under corporate ownership.

The table following shows, for 1909, in percentages, for all industries combined the distribution of the average number of wage earners by age periods, and for those 16 years of age and over by sex, calculated in the manner described in the Introduction. It also shows, for some of the important industries separately, a similar distribution of wage earners as reported for December 15, or the nearest representative day. As a means of judging the importance of the several industries the average number employed for the year is also given in each case.

INDUSTRY.	WAGE EARNERS.			
	Average number.[1]	Per cent of total.		
		16 years of age and over.		Under 16 years of age.
		Male.	Female.	
All industries	70,230	92.7	5.5	1.8
Bread and other bakery products	1,391	71.2	25.7	3.0
Brick and tile	1,935	97.6	.....	2.4
Cars and general shop construction and repairs by steam-railroad companies	9,782	99.9	(2)	(2)
Cotton goods, including cotton small wares	1,590	53.1	32.7	14.2
Flour-mill and gristmill products	1,216	99.3	0.2	0.4
Food preparations	284	71.1	28.2	0.7
Foundry and machine-shop products	2,925	99.2	0.1	0.8
Ice, manufactured	1,437	99.4	0.1	0.5
Leather goods	721	97.1	1.7	1.2
Liquors, malt	765	99.9	0.1	.....
Lumber and timber products	23,518	98.5	0.2	1.3
Oil, cottonseed, and cake	3,073	99.9	0.1	.....
Printing and publishing	4,408	80.3	13.9	5.8
Rice, cleaning and polishing	430	100.0	.....	.....
Slaughtering and meat packing	3,639	91.7	6.4	1.9
All other industries	13,116	82.6	15.4	2.0

[1] For method of estimating the distribution, by sex and age periods, of the average number in all industries combined, see Introduction.
[2] Less than one-tenth of 1 per cent.

For all industries combined, 92.7 per cent of the average number of wage earners were males 16 years of age and over; 5.5 per cent, females 16 years of age and over; and 1.8 per cent, children under 16 years of age. The relatively small proportion of women and children employed in Texas is of interest. Of the industries shown in this table, the cotton mills, the factories engaged in the manufacture of food preparations, the bakeries, and printing and publishing establishments report the largest proportions of female wage earners. In the cotton-goods industry nearly one-third of the employees were women 16 years of age and over; in the manufacture of food preparations nearly three-tenths; in the bakeries about one-fourth; and in printing and publishing establishments nearly one-seventh. The largest actual number of female wage earners 16 years of age and over were employed in the men's clothing industry, which is included under the head of "All other industries." In this industry women formed nearly nine-tenths of the total number of wage earners. The confectionery establishments also employed a large number of female wage earners.

The largest proportions of wage earners under 16 years of age are shown for the cotton-goods and the printing and publishing industries. Although a greater actual number of wage earners under 16 years of age was reported for the lumber industry than for any other in the state, the number of wage earners of all classes shown for that industry is so large that this particular class of employees forms but a small proportion of the total shown for the industry.

In order to compare the distribution of persons engaged in manufactures in 1909 with that shown at the census of 1904, it is necessary to use the classification employed at the earlier census. (See Introduction.) The following table makes this comparison according to occupational status:

CLASS.	PERSONS ENGAGED IN MANUFACTURES.				
	1909		1904		Per cent of increase, 1904–1909.
	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total	84,575	100.0	57,892	100.0	46.1
Proprietors and firm members	4,496	5.3	3,073	5.3	46.3
Salaried employees	9,849	11.6	5,753	9.9	71.2
Wage earners (average number)	70,230	83.0	49,066	84.8	43.1

Comparable figures are not obtainable for 1899. The table shows the greatest percentage of increase to have been in the salaried employees, which is the only class forming a larger proportion of the total in 1909 than in 1904.

The following table shows the average number of wage earners, distributed according to age periods, and in the case of those 16 years of age and over according to sex, for 1909, 1904, and 1899. The averages for 1909 are estimated on the basis of the actual number reported for a single representative day. (See Introduction.)

CLASS.	AVERAGE NUMBER OF WAGE EARNERS.					
	1909		1904		1899	
	Number.	Percent distribution.	Number.	Percent distribution.	Number.	Percent distribution.
Total	70,230	100.0	49,066	100.0	38,604	100.0
16 years of age and over	68,974	98.2	48,245	98.3	37,688	97.6
Male	65,092	92.7	45,766	93.3	35,995	93.2
Female	3,882	5.5	2,479	5.0	1,693	4.4
Under 16 years of age	1,256	1.8	821	1.7	916	2.4

This table indicates that for all industries combined there has not been much change in the proportion of male and female wage earners. The proportion of children under 16 years of age was smaller in 1909 than in 1899, although slightly larger than in 1904. In 1909 males 16 years of age and over formed 92.7 per cent of all wage earners, as compared with 93.3 per cent in 1904 and 93.2 per cent in 1899.

Wage earners employed, by months.—The following table gives the number of wage earners employed on the 15th of each month during the year 1909 for all industries combined, for the cottonseed-oil industry, and for all other industries combined. It gives also the percentage which the number reported for each month is of the greatest number reported for any month. In Table II, page 1218, are shown for practically all of the important industries in the state the largest number and the smallest number of wage earners reported for any month. The figures are for the 15th day, or the nearest representative day, of the month.

MONTH.	WAGE EARNERS.					
	All industries.		Oil, cottonseed, and cake.		All other industries.	
	Number.	Percent of maximum.	Number.	Percent of maximum.	Number.	Percent of maximum.
January	68,563	90.6	4,331	75.2	64,232	91.9
February	66,485	87.9	3,534	61.3	62,951	90.1
March	68,082	90.0	2,195	38.1	65,887	94.3
April	67,772	89.6	1,393	24.2	66,376	95.0
May	66,079	87.4	1,087	18.9	64,992	93.0
June	68,027	89.9	932	16.2	67,195	96.0
July	69,153	91.4	967	16.8	68,186	97.6
August	69,192	91.5	1,422	24.7	67,770	97.0
September	73,196	96.8	4,097	71.1	69,099	98.9
October	75,291	99.5	5,718	99.2	69,573	99.6
November	75,648	100.0	5,762	100.0	69,886	100.0
December	75,258	99.5	5,430	94.2	69,828	99.9

In addition to that shown for the cottonseed-oil industry, there was a considerable variation in the number of wage earners employed from month to month in the sugar and molasses industry, but the numbers of wage earners reported for the industry were too small to affect materially the totals for the state. In the cottonseed-oil industry the period of greatest employment of wage earners follows closely upon the maturity of the cotton crop. The smallest number, 932, were employed in June, from which time the number increased constantly to November, when 5,762 were employed, or 4,830 more than in June. The table indicates that, for all industries combined, the month of minimum employment was May and the month of maximum employment November. With the cottonseed-oil industry excluded, November remains the month of greatest activity, but February takes the place of May as the month of least activity, and the employment throughout the year becomes much steadier, the month of least employment showing a difference of only 6,935, or 9.9 per cent, from the month of greatest employment.

Prevailing hours of labor.—In the following table wage earners have been classified according to the hours of labor prevailing in the establishments in which they are employed. In making this classification the average number of wage earners employed during the year is used, and the number employed in each establishment is classified as a total according to the hours prevailing in that establishment, even though a few employees work a greater or less number of hours.

INDUSTRY.	AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS GROUPED ACCORDING TO PREVAILING HOURS OF WORK PER WEEK.								
	Total.	48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries	70,230	6,575	1,856	12,945	2,931	30,583	8,318	4,188	2,784
Bread and other bakery products	1,391	60	6	125	11	882	201	56	50
Brick and tile	1,935	20	80	222	43	1,488	128	4	.....
Butter, cheese, and condensed milk	84	5	.....	.....	.....	19	57	.....	3
Canning and preserving	158	.....	.....	.....	20	114	.....	24	.....
Carriages and wagons and materials	412	49	12	187	51	100	.....	.....	13
Cars and general shop construction and repairs by steam-railroad companies	9,782	1,009	153	5,092	727	1,727	1,067	.....	7
Clothing, men's, including shirts	992	521	155	83	22	211	.....	.....	.....
Confectionery	717	22	2	64	72	545	12	.....	.....
Cooperage and wooden goods, not elsewhere specified	243	33	2	.....	.....	208	.....	.....	.....
Copper, tin, and sheet-iron products	733	461	.....	197	.....	74	.....	1	.....
Cotton goods, including cotton small wares	1,590	.....	.....	.....	.....	397	1,193	.....	.....
Flour-mill and gristmill products	1,216	108	.....	2	.....	281	200	625	.....
Food preparations	284	4	.....	35	.....	221	.....	24	.....
Foundry and machine-shop products	2,925	50	283	1,772	35	773	4	8	.....
Furniture and refrigerators	701	17	.....	480	21	183	.....	.....	.....
Gas, illuminating and heating	575	10	.....	33	65	186	134	45	102
Ice, manufactured	1,437	36	10	.....	46	121	97	181	940
Leather goods	721	6	1	32	382	300	.....	.....	.....
Lime	348	8	.....	.....	.....	291	.....	.....	49
Liquors, malt	705	273	.....	24	406	2	.....	.....	.....
Lumber and timber products	23,518	632	355	784	315	10,961	4,471	.....	.....
Marble and stone work	605	333	59	110	37	66	.....	.....	.....
Mattresses and spring beds	233	14	.....	71	10	138	.....	.....	.....
Oil, cottonseed, and cake	3,073	33	.....	.....	.....	206	110	2,565	159
Patent medicines and compounds and druggists' preparations	145	61	3	24	33	24	.....	.....	.....
Pottery, terra-cotta, and fire-clay products	420	.....	1	.....	.....	419	.....	.....	.....
Printing and publishing	4,408	2,161	608	759	320	497	29	4	.....
Rice, cleaning and polishing	430	.....	.....	.....	.....	164	160	106	.....
Salt	162	1	.....	.....	.....	23	79	.....	59
Slaughtering and meat packing	3,639	9	.....	1,631	.....	1,949	.....	.....	50
Tobacco manufactures	339	217	85	20	3	14	.....	.....	.....
All other industries	6,249	392	85	1,198	302	1,939	376	545	1,352

It is evident from these figures that for the majority of wage earners employed in the manufacturing industries of Texas the prevailing hours of labor range from 54 to 60 a week, 12 per cent of the total number being employed in establishments where less than 54 hours a week prevail and 21.8 per cent in establishments where more than 60 hours a week prevail.

It will be noted that the cottonseed-oil industry is mainly on a 72-hour basis, but relatively long hours might be expected in a seasonal industry where the operations for the entire year are confined to about seven months. The prevailing hours in the cotton-goods industry are between 60 and 72 a week; in the lumber and timber products industry, 60

a week; and in the steam-railroad repair shops and the foundries and machine shops, 54 a week.

Location of establishments.—The following table shows to what extent the manufactures of Texas are centralized in cities of 10,000 inhabitants or over. (See Introduction.) The comparison of the statistics is confined here, as in other states, to the years 1899 and 1909, in the absence of a Federal census of population by which the grouping of cities in 1904 could be determined.

ITEM.	Year.	Aggregate.	CITIES HAVING A POPULATION OF 10,000 AND OVER.						DISTRICTS OUTSIDE OF CITIES HAVING A POPULATION OF 10,000 AND OVER.	
			Total.		10,000 to 25,000.		25,000 to 100,000.			
			Number or amount.	Per cent of total.	Number or amount.	Per cent of total.	Number or amount.	Per cent of total.	Number or amount.	Per cent of total.
Population	1910	3,896,542	620,712	15.9	147,337	3.8	473,375	12.1	3,275,830	84.1
	1900	3,048,710	299,398	9.8	94,329	3.1	205,069	6.7	2,749,312	90.2
Number of establishments	1909	4,588	1,614	35.2	350	7.6	1,264	27.6	2,974	64.8
	1899	3,107	879	28.3	276	8.9	603	19.4	2,228	71.7
Average number of wage earners	1909	70,230	26,303	37.5	6,286	9.0	20,017	28.5	43,927	62.5
	1899	38,604	14,647	37.9	3,569	9.2	11,078	28.7	23,957	62.1
Value of products	1909	$272,895,635	$109,559,057	40.1	$19,928,547	7.3	$89,630,510	32.8	$163,336,578	59.9
	1899	92,894,433	37,036,229	39.9	6,904,458	7.4	30,131,771	32.4	55,858,204	60.1
Value added by manufacture	1909	94,717,120	42,844,970	45.2	7,074,911	7.5	35,770,059	37.8	51,872,150	54.8
	1899	38,506,130	16,410,242	42.6	2,994,238	7.8	13,416,004	34.8	22,095,888	57.4

In 1909, 40.1 per cent of the total value of products was reported from cities having over 10,000 inhabitants, and 37.5 per cent of the average number of wage earners were employed in such cities. The figures indicate that during the decade the industries of the cities referred to gained slightly in value of products on those of the districts outside.

The increase in the population of different cities has affected the grouping in the table. In 1900 Austin, El Paso, and Waco were in the first group, but during the following decade the population of each increased so that in 1910 they fell into the second group. In 1900 the cities of Beaumont, Brownsville, Cleburne, Marshall, Palestine, Paris, San Angelo, Temple, and Tyler each had less than 10,000 inhabitants, and so were included in the outside districts. The total value of products reported for these nine cities in 1909 was $13,717,717, and represented 5 per cent of the total shown for all manufactures of the state. The shifting of these cities from the outside to the city districts has therefore affected the showing in the table.

The population for 1910 and 1900 of the 20 cities which had 10,000 inhabitants or over in 1910 is given in the following statement:

CITY.	1910	1900	CITY.	1910	1900
San Antonio	96,614	53,321	Denison	13,632	11,807
Dallas	92,104	42,638	Sherman	12,412	10,243
Houston	78,800	44,633	Marshall	11,452	7,855
Fort Worth	73,312	26,688	Paris	11,269	9,358
El Paso	39,279	15,906	Temple	10,993	7,065
Galveston	36,981	37,789	Brownsville	10,517	6,305
Austin	29,860	22,258	Palestine	10,482	8,297
Waco	26,425	20,686	Tyler	10,400	8,069
Beaumont	20,640	9,427	Cleburne	10,364	7,493
Laredo	14,855	13,429	San Angelo	10,321	(1)

[1] Not incorporated in 1900.

The relative importance in manufactures of each of the 20 cities having a population of 10,000 or over in 1910 is shown in the following table, in which the value of products and average number of wage earners are shown separately for 1909, 1904, and 1899:

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Dallas	4,882	3,445	2,842	$26,958,664	$15,627,668	$9,488,252
Houston	5,338	5,056	3,188	23,015,556	13,564,019	7,491,971
San Antonio	3,105	2,457	2,083	13,434,897	7,402,262	5,988,681
Fort Worth	2,059	1,423	943	8,660,882	5,668,391	3,487,544
Galveston	1,094	761	1,422	6,308,076	2,996,654	3,675,323
Beaumont	863	732	1,005	4,830,591	2,609,829	1,913,352
Waco	1,033	947	1,004	4,769,358	2,979,890	2,293,631
Sherman [1]	273	307	314	4,675,971	2,641,086	1,461,469
El Paso	1,752	1,158	716	3,637,577	2,377,813	1,213,099
Austin	754	641	495	2,845,500	1,509,353	764,748
Marshall	977	(2)	(2)	1,787,146	(2)	(2)
Cleburne	825	(2)	(2)	1,576,572	(2)	(2)
Paris	541	210	263	1,429,943	854,930	743,329
Temple	366	(2)	(2)	1,345,770	(2)	(2)
Denison	833	725	668	1,313,785	1,234,956	840,302
Palestine	745	544	481	1,312,845	735,162	704,152
Tyler	484	368	431	996,243	628,666	681,694
San Angelo	115	(2)	(2)	317,861	(2)	(2)
Laredo	213	515	372	221,074	453,974	331,209
Brownsville	51	(2)	(2)	120,746	(2)	(2)

[1] Figures do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city.
[2] Figures not available.
[3] Not incorporated in 1900.

With the exception of Laredo, each city for which comparative figures are available shows an increase in the value of its manufactured products from 1904 to 1909, and all except Galveston (which was almost destroyed by a tidal wave in 1900), and Tyler show an increase from 1899 to 1904. Austin showed the greatest relative increase for the decade 1899–1909, namely, 272.1 per cent; Sherman was next with 220 per cent, followed by Houston with 207.2 per cent and El Paso with 199.9 per cent. Notwithstanding these decided gains the several cities held generally the same relative rank at each of the three censuses.

Dallas, the largest manufacturing center in the state, has for its leading industries, as measured by value of products, the slaughtering and meat-packing, flour-

mill and gristmill, cottonseed-products, printing and publishing, leather-goods, and foundry and machine-shop industries. Statistics for the first three industries named can not be shown separately in Table I without disclosing the operations of individual establishments. Dallas is the center of the leather-goods industry, which includes the manufacture of saddlery and harness, contributing 52 per cent of the state's total value of products for this industry.

Foremost in Houston is the cottonseed-oil industry, the value of its products forming 15.4 per cent of the total value of manufactured products for the city. Slaughtering and meat packing, the cleaning and polishing of rice, steam-railroad repair shops, and the breweries each reporting over $2,000,000 worth of products, follow in importance in the order named. Steam-railroad repair shops is the only one of these four industries for which separate figures can be given in Table I without disclosing the operations of individual concerns.

San Antonio, although having a greater population than any other city of Texas, ranked third in the value of its manufactures in 1909. As in Dallas and Houston, the statistics for the principal industries—the breweries, flour-mills and gristmills, and the cottonseed-oil industry—can not be shown separately in Table I. The value of the malt liquors brewed in San Antonio represents nearly one-half the value of all malt liquors made in the state. Printing and publishing, slaughtering and meat packing, the manufacture of confectionery, and the steam-railroad repair shops are other leading industries, named in order of value of products.

Fort Worth is shown to be the fourth city in value of products. It should be stated, however, that just outside the corporate limits of the city are located some of the most important slaughtering and meat-packing establishments in the state. Since the census presents statistics for only those establishments which are within the corporate limits of cities, these slaughtering plants, which may be regarded as a part of Fort Worth's manufacturing industries, are not included in the totals for that city. The leading industries within the city are flour mills and gristmills and rice cleaning and polishing.

In the remaining cities shown in the preceding table, the largest industries in 1909 were the flour mills and gristmills in Galveston and Sherman; the cleaning and polishing of rice in Beaumont; the cottonseed-oil industry in Waco, Austin, Paris, and Temple; steam-railroad repair shops in Cleburne, Denison, El Paso, Laredo, Marshall, Palestine, and Tyler; printing and publishing in San Angelo; and the manufacture of ice in Brownsville.

The statistics for that part of Texarkana which lies in Texas are included with those for the outside district in the table on page 1203. The following statement presents the totals for the entire city and for the parts situated in Texas and Arkansas, respectively:

	Total for city.	Texarkana, Tex.	Texarkana, Ark.
Population	15,445	9,790	5,655
Number of establishments	47	26	21
Persons engaged in manufactures	1,063	823	240
Proprietors and firm members	40	18	22
Salaried employees	148	103	45
Wage earners (average number)	875	702	173
Primary horsepower	2,902	1,567	1,335
Capital	$1,792,436	$1,394,049	$398,387
Expenses	2,405,671	1,422,203	983,468
Services	575,548	466,375	109,173
Salaries	156,510	121,926	34,583
Wages	419,020	344,449	74,580
Materials	1,671,127	849,110	822,017
Miscellaneous	158,996	106,718	52,278
Value of products	2,646,521	1,594,434	1,052,087
Value added by manufacture (value of products less cost of materials)	975,394	745,324	230,070

The leading industries of Texarkana, Tex., are the cooperage shops and the railroad repair shops, and of Texarkana, Ark., the manufacture of flour-mill and gristmill products and of cottonseed oil and cake.

Character of ownership.—The table that follows has for its purpose the presentation of conditions in respect to the character of ownership, or legal organization, of manufacturing enterprises.

For all industries combined comparative figures are given covering the censuses of 1909 and 1904. Comparative data for 1899 are not available. Figures for 1909 only are presented for several important industries individually. In order to avoid disclosing the operations of individual concerns it is necessary to omit several important industries from this table and the one following.

The most important distinction shown is that between corporate and all other forms of ownership. For all industries combined, 29.5 per cent of the total number of establishments were in 1909 under corporate ownership, as against 70.5 per cent under all other forms. The corresponding figures for 1904 were 26.6 per cent and 73.4 per cent, respectively. In respect to value of products, however, the establishments under corporate ownership are by far the most important. For all industries combined, as measured by value of products and value added by manufacture, as well as by number of establishments and average number of wage earners, corporate ownership gained ground during the five-year period. Among the important industries not shown in this table, it is worthy of note that all of the establishments engaged in steam-railroad car repair work and in the manufacture of cotton goods, and by far the larger number of those engaged in the brewery, rice cleaning and polishing, and slaughtering and meat-packing industries were under corporate ownership.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	4,588	70,230	$272,895,635	$94,717,120
1904	3,158	49,066	150,528,389	58,924,759
Individual:				
1909	2,290	9,295	23,161,308	12,016,023
1904	1,676	7,320	16,408,988	8,902,545
Firm:				
1909	909	6,185	18,527,165	8,524,324
1904	629	4,792	13,525,663	6,245,702
Corporation:				
1909	1,352	54,697	231,059,361	74,067,757
1904	839	36,905	120,133,146	43,667,383
Other:				
1909	37	53	147,801	109,016
1904	14	49	460,592	109,129
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Individual:				
1909	49.9	13.2	8.5	12.7
1904	53.1	14.9	10.9	15.1
Firm:				
1909	19.8	8.8	6.8	9.0
1904	19.9	9.8	9.0	10.6
Corporation:				
1909	29.5	77.9	84.7	78.2
1904	26.6	75.2	79.8	74.1
Other:				
1909	0.8	0.1	0.1	0.1
1904	0.4	0.1	0.3	0.2
Bread and other bakery products, 1909	385	1,391	$5,310,785	$2,248,540
Individual	324	697	2,817,158	1,192,516
Firm	46	129	642,344	285,387
Corporation [1]	15	565	1,851,283	770,637
Per cent of total	100.0	100.0	100.0	100.0
Individual	84.2	50.1	53.0	53.0
Firm	11.9	9.3	12.1	12.7
Corporation [1]	3.9	40.6	34.9	34.3
Flour-mill and gristmill products, 1909	238	1,216	$32,484,612	$3,827,971
Individual	81	144	2,585,772	312,743
Firm	59	180	4,972,248	613,308
Corporation	98	892	24,926,592	2,901,920
Per cent of total	100.0	100.0	100.0	100.0
Individual	34.0	11.8	8.0	8.2
Firm	24.8	14.8	15.3	16.0
Corporation	41.2	73.4	76.7	75.8
Foundry and machine-shop products, 1909	143	2,925	$8,067,941	$4,208,470
Individual	59	303	779,857	460,598
Firm	30	176	490,896	295,848
Corporation	54	2,446	6,797,188	3,452,024
Foundry and machine-shop products, 1909—Continued.				
Per cent of total	100.0	100.0	100.0	100.0
Individual	41.3	10.4	9.7	10.9
Firm	21.0	6.0	6.1	7.0
Corporation	37.8	83.6	84.2	82.0
Ice, manufactured, 1909	182	1,437	$3,844,120	$2,752,277
Individual	37	210	519,927	388,701
Firm	17	75	249,837	167,588
Corporation	128	1,152	3,074,356	2,195,988
Per cent of total	100.0	100.0	100.0	100.0
Individual	20.3	14.6	13.5	14.1
Firm	9.3	5.2	6.5	6.1
Corporation	70.3	80.2	80.0	79.8
Leather goods, 1909	67	721	$4,347,445	$1,508,571
Individual	33	117	384,933	209,461
Firm	15	113	614,749	203,956
Corporation	19	491	3,347,763	1,095,154
Per cent of total	100.0	100.0	100.0	100.0
Individual	49.3	16.2	8.9	13.9
Firm	22.4	15.7	14.1	13.5
Corporation	28.4	68.1	77.0	72.6
Lumber and timber products, 1909	799	23,518	$32,201,440	$21,197,137
Individual	350	3,035	3,539,010	2,532,748
Firm	267	3,238	4,604,336	3,343,677
Corporation	182	17,245	24,058,094	15,320,712
Per cent of total	100.0	100.0	100.0	100.0
Individual	43.8	12.9	11.0	12.0
Firm	33.4	13.8	14.3	15.8
Corporation	22.8	73.3	74.7	72.3
Oil, cottonseed, and cake, 1909	194	3,073	$29,915,772	$6,476,711
Individual	17	254	2,350,319	698,467
Firm	5	40	187,610	52,332
Corporation	172	2,779	27,377,843	5,725,912
Per cent of total	100.0	100.0	100.0	100.0
Individual	8.8	8.3	7.9	10.8
Firm	2.6	1.3	0.6	0.8
Corporation	88.7	90.4	91.5	88.4
Printing and publishing, 1909	1,067	4,408	$11,587,255	$8,780,015
Individual	678	1,297	2,726,781	2,175,050
Firm	198	778	1,685,556	1,283,057
Corporation	159	2,310	7,080,296	5,242,443
Other	32	23	94,622	79,465
Per cent of total	100.0	100.0	100.0	100.0
Individual	63.5	29.4	23.5	24.8
Firm	18.6	17.6	14.5	14.6
Corporation	14.9	52.4	61.1	59.7
Other	3.0	0.5	0.8	0.9

[1] Includes the group "Other," to avoid disclosure of individual operations.

Size of establishment.—The tendency of manufacturing to become concentrated in large establishments, or the reverse, is a matter of interest from the standpoint of industrial organization. In order to throw some light upon it the next table groups the establishments according to the value of their products.

The table also shows the average size of establishments for all industries combined and for important industries separately, as measured by number of wage earners, value of products, and value added by manufacture. The totals for all industries are shown for the last two censuses, while for the individual industries figures are given for 1909 only.

This table shows that in 1909, of the 4,588 manufacturing establishments in the state, only 36, or eight-tenths of 1 per cent, had a value of products exceeding $1,000,000. These establishments, however, had an average of 9,186 wage earners, or 13.1 per cent of the total number in all establishments, and reported 37.4 per cent of the total value of products and 20.1 per cent of the total value added by manufacture.

On the other hand, the very small establishments—that is, those having a value of products of less than $5,000—constituted a considerable proportion (38.1 per cent) of the total number of establishments, but the value of their products amounted to only 1.6 per cent of the total. The great bulk of the manufacturing was reported by establishments having a product valued at not less than $100,000.

INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	**4,588**	**70,230**	**$272,895,685**	**$94,717,120**
1904	**3,158**	**49,066**	**150,528,389**	**58,924,759**
Less than $5,000:				
1909	1,746	2,646	4,207,098	2,943,755
1904	1,220	1,875	2,980,301	2,173,851
$5,000 and less than $20,000:				
1909	1,512	7,780	15,442,319	9,636,311
1904	1,003	5,307	9,965,884	6,481,730
$20,000 and less than $100,000:				
1909	868	15,724	39,117,172	19,593,400
1904	640	12,398	28,587,387	13,725,925
$100,000 and less than $1,000,000:				
1909	426	34,894	111,984,740	43,521,809
1904	278	21,438	69,958,763	27,653,294
$1,000,000 and over:				
1909	36	9,186	102,054,306	19,021,845
1904	17	8,248	39,030,054	8,889,959
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Less than $5,000:				
1909	38.1	3.8	1.6	3.1
1904	38.6	3.4	2.0	3.7
$5,000 and less than $20,000:				
1909	33.0	11.1	5.7	10.2
1904	31.8	10.8	6.6	11.0
20,000 and less than $100,000:				
1909	18.9	22.4	14.3	20.7
1904	20.3	25.3	19.0	23.3
$100,000 and less than $1,000,000:				
1909	9.3	49.7	41.0	45.9
1904	8.8	43.7	46.5	46.9
$1,000,000 and over:				
1909	0.8	13.1	37.4	20.1
1904	0.5	16.8	25.9	15.1
Average per establishment:				
1909	.....	15	$59,480	$20,645
1904	.....	16	47,666	18,659
Bread and other bakery products, 1909	**385**	**1,391**	**$5,310,785**	**$2,248,540**
Less than $5,000	163	93	443,254	192,032
$5,000 and less than $20,000	173	448	1,752,040	782,956
$20,000 and less than $100,000	45	403	1,575,177	670,829
$100,000 and less than $1,000,000[1]	4	447	1,540,314	604,123
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	42.3	6.7	8.3	8.5
$5000 and less than $20,000	44.9	32.2	33.0	34.8
$20,000 and less than $100,000	11.7	29.0	29.7	29.8
$100,000 and less than $1,000,000[1]	1.0	32.1	29.0	26.9
Average per establishment	.....	4	$13,794	$5,840
Flour-mill and gristmill products, 1909	**238**	**1,216**	**$32,484,612**	**$3,827,971**
Less than $5,000	55	39	157,754	33,860
$5,000 and less than $20,000	67	95	729,934	130,859
$20,000 and less than $100,000	60	187	2,847,449	365,954
$100,000 and less than $1,000,000	48	570	17,034,774	1,911,138
$1,000,000 and over	8	325	11,714,701	1,386,160
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	23.1	3.2	0.5	0.9
$5,000 and less than $20,000	28.2	7.8	2.2	3.4
$20,000 and less than $100,000	25.2	15.4	8.8	9.6
$100,000 and less than $1,000,000	20.2	46.9	52.4	49.9
$1,000,000 and over	3.4	26.7	36.1	36.2
Average per establishment	.....	5	$136,490	$16,084
Foundry and machine-shop products, 1909	**143**	**2,925**	**$8,067,941**	**$4,208,470**
Less than $5,000	40	56	109,415	74,681
$5,000 and less than $20,000	41	182	420,361	259,018
$20,000 and less than $100,000	45	941	2,095,720	1,203,655
$100,000 and less than $1,000,000	17	1,746	5,442,445	2,670,816
Foundry and machine-shop products, 1909—Continued.				
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	28.0	1.9	1.4	1.8
$5,000 and less than $20,000	28.7	6.2	5.2	6.2
$20,000 and less than $100,000	31.5	32.2	26.0	28.6
$100,000 and less than $1,000,000	11.9	59.7	67.5	63.5
Average per establishment	.....	20	$56,419	$29,430
Ice, manufactured, 1909	**182**	**1,437**	**$3,844,120**	**$2,752,277**
Less than $5,000	30	53	88,011	51,981
$5,000 and less than $20,000	89	422	996,416	690,331
$20,000 and less than $100,000[2]	63	962	2,759,693	2,009,965
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	16.5	3.7	2.3	1.9
$5,000 and less than $20,000	48.9	29.4	25.9	25.1
$20,000 and less than $100,000[2]	34.6	66.9	71.8	73.0
Average per establishment	.....	8	$21,122	$15,122
Leather goods, 1909	**67**	**721**	**$4,347,445**	**$1,503,871**
Less than $5,000	10	15	24,789	16,606
$5,000 and less than $20,000	29	85	304,523	156,002
$20,000 and less than $100,000	17	117	473,920	208,036
$100,000 and less than $1,000,000	11	504	3,544,213	1,127,927
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	14.9	2.1	0.6	1.1
$5,000 and less than $20,000	43.3	11.8	7.0	10.3
$20,000 and less than $100,000	25.4	16.2	10.9	13.8
$100,000 and less than $1,000,000	16.4	69.9	81.5	74.8
Average per establishment	.....	11	$64,887	$22,516
Lumber and timber products, 1909	**799**	**23,518**	**$32,201,440**	**$21,197,137**
Less than $5,000	268	965	677,573	535,117
$5,000 and less than $20,000	277	2,536	2,835,585	2,107,802
$20,000 and less than $100,000	171	5,100	7,321,010	4,828,206
$100,000 and less than $1,000,000[1]	83	14,917	21,337,272	13,666,009
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	33.5	4.1	2.1	2.5
$5,000 and less than $20,000	34.7	10.8	8.9	10.0
$20,000 and less than $100,000	21.4	21.7	22.7	22.8
$100,000 and less than $1,000,000[1]	10.4	63.4	66.3	64.5
Average per establishment	.....	29	$40,302	$26,530
Oil, cottonseed, and cake, 1909	**194**	**3,073**	**$29,915,772**	**$5,476,711**
$5,000 and less than $20,000	13	45	185,727	46,674
$20,000 and less than $100,000	84	864	5,611,685	1,185,847
$100,000 and less than $1,000,000	93	1,905	19,283,293	4,283,539
$1,000,000 and over	4	259	4,835,067	960,351
Per cent of total	100.0	100.0	100.0	100.0
$5,000 and less than $20,000	6.7	1.5	0.6	0.7
$20,000 and less than $100,000	43.3	28.1	18.8	18.3
$100,000 and less than $1,000,000	47.9	62.0	64.5	66.1
$1,000,000 and over	2.1	8.4	16.2	14.8
Average per establishment	.....	16	$154,205	$33,385
Printing and publishing, 1909	**1,067**	**4,408**	**$11,587,255**	**$5,780,615**
Less than $5,000	684	853	1,599,081	1,289,812
$5,000 and less than $20,000	304	1,333	2,810,953	2,255,737
$20,000 and less than $100,000	59	918	2,498,110	1,324,074
$100,000 and less than $1,000,000	20	1,304	4,679,111	3,410,392
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	64.1	19.4	13.8	14.7
$5,000 and less than $20,000	28.5	30.2	24.3	25.7
$20,000 and less than $100,000	5.5	20.8	21.6	20.8
$100,000 and less than $1,000,000	1.9	29.6	40.4	38.8
Average per establishment	.....	4	$10,860	$8,228

[1] Includes the group "$1,000,000 and over."

[2] Includes the group "$100,000 and less than $1,000,000."

It will be seen from the table that during the five years from 1904 to 1909 there was a considerable increase as measured by value of products in the relative importance of the largest establishments—those reporting products of not less than $1,000,000 in value—and a decrease in that of all other classes.

The fact that the average value of products per establishment increased from $47,666 to $59,480, and the average value added by manufacture from $18,659 to $20,645, can not be taken as in itself indicating a tendency toward concentration. The increased values shown may be, and probably are, due in part to the increase that has taken place in the prices of commodities. The average number of wage earners per establishment decreased from 16 to 15.

The table shows further that when the size of establishments is measured by the average value of products per establishment the bakery and the printing and publishing industries are conducted in comparatively small establishments, while the flour mills and gristmills and the cottonseed-oil mills are mainly large establishments. Among the important industries not shown in the table, the majority of the steam-railroad repair shops, cotton mills, breweries, rice mills, and slaughtering and meat-packing establishments are large.

In some respects, and especially from the standpoint of conditions under which persons engaged in manufactures work, the best classification of establishments to bring out the feature of size is a classification according to the number of wage earners employed. The following table shows, for 1909, such a classification for all industries combined and for 15 important industries individually, and gives not only the number of establishments falling into each group, but also the average number of wage earners employed.

INDUSTRY.	Total.	ESTABLISHMENTS EMPLOYING— 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.
	NUMBER OF ESTABLISHMENTS.									
All industries	4,588	479	2,440	1,089	319	117	108	25	8	3
Bread and other bakery products	385	83	256	40	4	.....	1	1	.....	.....
Brick and tile	89	.....	16	40	29	3	1	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	62	.....	2	11	9	12	15	8	4	1
Cotton goods, including cotton small wares	13	.....	.....	1	.....	6	6	.....	.....	.....
Flour-mill and gristmill products	238	29	154	41	13	1	.....	.....	.....	.....
Food preparations	23	.....	10	9	4	.....	.....	.....	.....	.....
Foundry and machine-shop products	143	4	70	37	17	7	6	2	.....	.....
Ice, manufactured	182	.....	104	63	15	.....	.....	.....	.....	.....
Leather goods	67	3	43	11	6	4	.....	.....	.....	.....
Liquors, malt	12	.....	3	1	1	4	3	.....	.....	.....
Lumber and timber products	799	13	292	314	82	33	50	11	4	.....
Oil, cottonseed, and cake	194	.....	23	128	37	5	1	.....	.....	.....
Printing and publishing	1,067	199	725	109	23	7	4	.....	.....	.....
Rice, cleaning and polishing	19	.....	1	9	8	1	.....	.....	.....	.....
Slaughtering and meat packing	14	.....	3	3	3	1	2	.....	.....	2
All other industries	1,281	148	738	272	68	33	19	3	.....	.....
	AVERAGE NUMBER OF WAGE EARNERS.									
All industries	70,230	.....	5,852	11,999	9,779	8,589	16,809	8,190	4,890	4,122
Bread and other bakery products	1,391	.....	523	350	106	.....	105	307	.....	.....
Brick and tile	1,935	.....	54	471	1,042	215	153	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	9,782	.....	10	133	227	873	2,374	2,536	2,586	1,043
Cotton goods, including cotton small wares	1,590	.....	.....	20	.....	507	1,063	.....	.....	.....
Flour-mill and gristmill products	1,216	.....	309	421	421	65	.....	.....	.....	.....
Food preparations	284	.....	30	125	129	.....	.....	.....	.....	.....
Foundry and machine-shop products	2,925	.....	165	448	502	457	793	560	.....	.....
Ice, manufactured	1,437	.....	314	652	471	.....	.....	.....	.....	.....
Leather goods	721	.....	127	111	180	303	.....	.....	.....	.....
Liquors, malt	765	.....	10	16	24	314	401	.....	.....	.....
Lumber and timber products	23,518	.....	913	3,447	2,520	2,538	8,179	3,617	2,304	.....
Oil, cottonseed, and cake	3,073	.....	83	1,572	992	320	106	.....	.....	.....
Printing and publishing	4,408	.....	1,590	1,107	641	495	575	.....	.....	.....
Rice, cleaning and polishing	430	.....	3	130	240	57	.....	.....	.....	.....
Slaughtering and meat packing	3,639	.....	5	26	96	78	355	.....	.....	3,079
All other industries	13,116	.....	1,716	2,970	2,188	2,367	2,705	1,170	.....	.....
	PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.									
All industries	100.0	.....	8.3	17.1	13.9	12.2	23.9	11.7	7.0	5.9
Bread and other bakery products	100.0	.....	37.6	25.2	7.6	.....	7.5	22.1	.....	.....
Brick and tile	100.0	.....	2.8	24.3	53.8	11.1	7.9	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	100.0	.....	0.1	1.4	2.3	8.9	24.3	25.9	26.4	10.7
Cotton goods, including cotton small wares	100.0	.....	.....	1.3	.....	31.9	66.9	.....	.....	.....
Flour-mill and gristmill products	100.0	.....	25.4	34.6	34.6	5.3	.....	.....	.....	.....
Food preparations	100.0	.....	10.6	44.0	45.4	.....	.....	.....	.....	.....
Foundry and machine-shop products	100.0	.....	5.6	15.3	17.2	15.6	27.1	19.1	.....	.....
Ice, manufactured	100.0	.....	21.9	45.4	32.8	.....	.....	.....	.....	.....
Leather goods	100.0	.....	17.6	15.4	25.0	42.0	.....	.....	.....	.....
Liquors, malt	100.0	.....	1.3	2.1	3.1	41.0	52.4	.....	.....	.....
Lumber and timber products	100.0	.....	3.9	14.7	10.7	10.8	34.8	15.4	9.8	.....
Oil, cottonseed, and cake	100.0	.....	2.7	51.2	32.3	10.4	3.4	.....	.....	.....
Printing and publishing	100.0	.....	36.1	25.1	14.5	11.2	13.0	.....	.....	.....
Rice, cleaning and polishing	100.0	.....	0.7	30.2	55.8	13.3	.....	.....	.....	.....
Slaughtering and meat packing	100.0	.....	0.1	0.7	2.6	2.1	9.8	.....	.....	84.6
All other industries	100.0	.....	13.1	22.6	16.7	18.0	20.6	8.9	.....	.....

Of the 4,588 establishments reported for all industries, 10.4 per cent employed no wage earners; 53.2 per cent, from 1 to 5; 23.7 per cent, from 6 to 20; and only 12.6 per cent, 21 and over. The most numerous single group consists of the 2,440 establishments employing from 1 to 5 wage earners, and the next of the 1,089 establishments employing from 6 to 20 wage earners. There were 36 establishments that employed over 250 wage earners; 3 of these employed over 1,000 each, of which 2 were slaughtering and meat-packing establishments and 1 a steam-railroad repair shop.

Of the total number of wage earners, 24.5 per cent were in establishments employing over 250 wage earners. The single group having the largest number of wage earners was the group comprising the establishments employing from 101 to 250 wage earners. This group employed 16,809 wage earners, or 23.9 per cent of the total. The individual industries listed in this table, but not in the preceding one, namely, steam-railroad repair shops and slaughtering and meat packing, are industries in which comparatively large establishments do most of the business, as appears from the classification according to the number of wage earners.

Expenses.—As stated in the Introduction, the census does not purport to furnish figures that can be used for determining the cost of manufacture and profits. Facts of interest can, however, be brought out concerning the relative importance of the different classes of expenses which make up the total.

The following table shows, for 1909, in percentages, the distribution of expenses among the classes indicated, for all industries combined and for certain important industries separately. The figures on which the percentages are based appear in Table II, page 1218.

This table shows that, for all industries combined, 72.8 per cent of the total expenses were incurred for materials, 19.9 per cent for services—that is, salaries and wages—and but 7.3 per cent for other purposes. As would be expected, these proportions vary greatly in the different industries.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries	4.4	15.5	72.8	7.3
Bread and other bakery products	4.0	14.9	67.8	13.3
Brick and tile	7.7	38.7	37.1	16.5
Cars and general shop construction and repairs by steam-railroad companies	5.4	50.3	41.5	2.8
Cotton goods, including cotton small wares	2.4	20.0	71.6	6.0
Flour-mill and gristmill products	1.9	2.2	92.9	3.1
Food preparations	1.8	2.2	93.6	2.3
Foundry and machine-shop products	8.1	27.5	55.1	9.3
Ice, manufactured	12.6	30.0	39.9	18.4
Leather goods	6.4	11.7	71.9	9.9
Liquors, malt	7.6	13.0	38.9	40.5
Lumber and timber products	5.4	42.0	39.8	12.8
Oil, cottonseed, and cake	3.2	4.8	86.2	5.8
Printing and publishing	18.0	30.2	30.4	21.5
Rice, cleaning and polishing	2.8	2.4	90.5	4.2
Slaughtering and meat packing	1.7	4.6	91.4	2.3
All other industries	4.7	12.3	76.3	6.6

Engines and power.—The following table shows, for all industries combined, the number of engines or other motors, according to their character, employed in generating power (including electric motors operated by purchased current), and their total horsepower at the censuses of 1909, 1904, and 1899. It also shows separately the number and horsepower of electric motors, including those operated by current generated in the manufacturing establishments.

The amount of primary power used in the manufacturing industries of Texas increased 48,480 horsepower, or 41.7 per cent, from 1899 to 1904, and 117,834 horsepower, or 71.6 per cent, from 1904 to 1909. The greater part of these increases was in power generated by steam engines, 91.5 per cent of the total increase from 1899 to 1904 and 79.9 per cent of the total increase from 1904 to 1909 being of this kind, although the proportion which steam power formed of the total primary power reported decreased from 95.5 per cent in 1899 to 88.3 per cent in 1909.

There was an increase in every form of primary power from 1904 to 1909 except water power and other owned power, both of which show a decrease. The more general use of gas engines is shown, there being 802 such engines, with an indicated capacity of 15,745 horsepower, reported in 1909, as against 403 engines with 1,876 horsepower in 1904, and 199 engines with 968 horsepower in 1899. The figures also show that the practice of renting electric power is increasing, 5.3 per cent of the total power being of this character in 1909, as against but 2.7 per cent in 1904 and 2.1 per cent in 1899. The use of electric motors for the purpose of applying the power generated within the manufacturing establishments reporting is also shown to be rapidly growing, the horsepower of such motors increasing from 827 in 1899 to 5,885 in 1904 and 21,582 in 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899 [1]	1909	1904	1899 [1]	1909	1904	1899
Primary power, total	6,232	2,408	2,067	282,471	164,637	116,157	100.0	100.0	100.0
Owned	3,789	2,408	2,067	267,167	160,164	113,495	94.6	97.3	97.7
Steam	2,955	1,973	1,839	249,475	155,312	110,943	88.3	94.3	95.5
Gas	802	403	199	15,745	1,876	968	5.6	1.1	0.8
Water wheels	31	20	20	1,880	2,276	1,557	0.7	1.4	1.3
Water motors	1	3	(2)	1	1	(2)	(3)	(3)	(2)
Other	.....	.....	.....	60	699	27	(3)	0.4	(3)
Rented	2,443	(2)	(2)	15,304	4,473	2,662	5.4	2.7	2.3
Electric	2,443	(2)	(2)	14,868	4,414	2,390	5.3	2.7	2.1
Other	.....	.....	.....	436	59	272	0.2	(3)	0.2
Electric motors	3,454	410	54	36,450	10,299	3,217	100.0	100.0	100.0
Run by current generated by establishment	1,011	410	54	21,582	5,885	827	59.2	57.1	25.7
Run by rented power	2,443	(2)	(2)	14,868	4,414	2,390	40.8	42.9	74.3

[1] Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.
[2] Not reported.
[3] Less than one-tenth of 1 per cent.

Fuel.—Closely related to the question of kind of power employed is that of the fuel consumed in generating this power, or otherwise used as material in the manufacturing processes. The following table shows the quantity of each kind of fuel used in 1909 for all industries combined and for certain selected industries:

INDUSTRY.	Anthracite coal (tons).	Bituminous coal (tons).	Coke (tons).	Wood (cords).	Oil, including gasoline (barrels).	Gas (1,000 feet).
All industries	21,164	886,261	36,882	182,241	3,500,798	714,292
Bread and other bakery products	101	5,112	780	14,061	5,230	20,384
Brick and tile	.....	118,797	.....	63,305	250,625	87,888
Cars and general shop construction and repairs by steam-railroad companies	598	68,085	3,339	1,826	233,947	15,166
Cotton goods, including cotton small wares	.....	28,540	.....	.....	15,981	.....
Flour-mill and gristmill products	.....	65,625	.....	3,387	75,315	4,700
Food preparations	455	3,937	.....	31	7,228	168
Foundry and machine-shop products	202	13,186	16,075	4,003	15,025	32,901
Gas, illuminating and heating	7,930	31,985	7,322	6	99,624	241,102
Ice, manufactured	6,781	191,604	.....	19,112	310,032	78,305
Leather goods	.....	264	.....	62	62	6
Liquors, malt	.....	8,608	.....	60	182,352	.....
Lumber and timber products	2,661	18,920	.....	13,821	6,874	5,857
Oil, cottonseed, and cake	1,359	159,919	.....	9,254	271,488	43,560
Printing and publishing	285	3,174	75	647	2,728	8,931
Rice, cleaning and polishing	.....	30	.....	325	29,951	.....
Slaughtering and meat packing	.....	21,639	.....	360	383,902	.....
All other industries	792	146,830	59,271	51,981	1,610,434	176,344

NOTE.—In addition, there were 12,946 tons of other varieties of fuel reported.

SUPPLEMENTARY DATA REGARDING IMPORTANT INDUSTRIES.

(With statistics for laundries and custom gristmills.)

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantity and cost of materials and the quantity and value of products and other information for securing which no provision is made on the general schedule. Data of this character for six important industries in Texas are here presented.

Slaughtering and meat packing.—This industry, which is one of the youngest in the state, shows remarkable development during the decade 1899–1909 in every respect. As late as the census of 1889 there were no wholesale slaughtering or meat-packing establishments reported for the state, and only four independent sausage factories, with products valued at $42,000. Important factors in the growth of this industry in Texas have been that most of the animals slaughtered were raised in the state and that the rapidly increasing population has created a demand for home-grown meats which did not formerly exist.

The next table gives the quantity and cost of the chief materials used and the quantity and value of the various products for 1909, 1904, and 1899.

There were 242,174, or 84.9 per cent, more beeves slaughtered in 1909 than in 1904; 140,079, or 148.9 per cent, more calves; 27,974, or 56.1 per cent, more sheep; and 592,634, or 170.8 per cent, more hogs. In each case, however, the increase in cost was relatively much greater than the increase in number.

From 1904 to 1909 the quantity of each of the different classes of meat products, with the exception of those included under the head of "Beef, salted or cured," and "All other fresh meat," increased decidedly, the most conspicuous gains being 234 per cent in fresh pork and 202.9 per cent in fresh veal. The most pronounced absolute gain was that of 102,098,320 pounds in fresh beef, representing a relative increase, however, of only 96.3 per cent. "Pork, salted or cured," which was next to fresh beef in quantity reported, shows an increase of 44,960,543 pounds, or 171.2 per cent. The percentages of increase in values are somewhat greater than those in the quantities of meat products, on account of the higher prices of meats prevailing in 1909 than in 1904. Of the remaining products shown separately, lard was the largest, both in quantity and in value, with an increase during the five-year period 1904–1909 of 56.1 per cent and 105.3 per cent, respectively. The value of the products included under "All other products" shows the extraordinary gain of nearly 300 per cent during the same period, which was due almost entirely to the increased production of lard substitutes.

MATERIAL OR PRODUCT.	1909	1904 [1]	1899 [1]
Materials used, total cost	$37,409,785	$13,593,181	$3,170,536
Beeves slaughtered:			
Number	527,469	285,295	24,375
Cost	$15,089,886	$6,051,742	$599,514
Calves slaughtered:			
Number	234,172	94,093	7,544
Cost	$2,074,188	$603,625	$60,205
Sheep slaughtered:			
Number	77,805	49,831	6,649
Cost	$315,696	$165,281	$18,311
Hogs slaughtered:			
Number	939,674	347,040	208,270
Cost	$10,933,088	$3,218,450	$1,886,067
Dressed meat, purchased	$1,110,042	$660,107	$178,738
Fuel and rent of power	$388,795	$195,687	$53,858
All other materials	$7,498,090	$2,698,289	$373,843
Products, total value	$42,529,746	$15,620,931	$3,904,491
Beef, fresh:			
Pounds	208,086,588	105,988,268	10,795,352
Value	$12,408,125	$4,954,013	$588,996
Beef, salted or cured:			
Pounds	1,483,166	2,020,874	2,000
Value	$115,819	$144,727	$300
Veal, fresh:			
Pounds	29,308,086	9,674,766	973,612
Value	$2,023,883	$598,938	$67,542
Mutton, fresh:			
Pounds	2,846,112	1,670,045	266,414
Value	$260,574	$127,578	$22,040
Pork, fresh:			
Pounds	32,054,404	9,596,282	5,133,863
Value	$3,195,006	$713,549	$333,958
Pork, salted or cured:			
Pounds	71,219,957	26,259,612	22,945,343
Value	$7,648,463	$2,406,940	$1,711,340
Sausage, fresh or cured	$1,088,114	$436,890	$123,939
All other fresh meat:			
Pounds	2,052,042	9,523,500	539,400
Value	$254,877	$380,941	$30,580
Lard:			
Pounds	60,862,980	38,977,525	6,475,327
Value	$5,644,149	$2,748,909	$416,654
Tallow, oleo stock, and stearin:			
Pounds	2,251,373	(2)	(2)
Value	$179,701	(2)	(2)
Fertilizers and fertilizer materials:			
Tons	15,303	5,565	553
Value	$435,004	$141,268	$6,424
Hides:			
Number	608,452	304,896	31,908
Pounds	27,478,391	17,766,494	1,379,101
Value	$3,750,416	$1,565,481	$118,067
Pelts:			
Number	77,861	49,831	(2)
Value	$54,629	$31,315	(2)
Amount received for custom or contract work	$39,537	$920	.....
All other products	$5,431,449	$1,369,462	$484,651

[1] Two establishments excluded, to avoid disclosure of individual operations.
[2] Included in "All other products."

Flour-mill and gristmill products.—In 1909 the cereal crop was light, and the prices of grain were somewhat above the normal. The following tabular statement shows the quantity and value of the principal products for 1909 and 1904:

PRODUCT.	QUANTITY.		VALUE.	
	1909	1904	1909	1904
Total value	.....	.....	$32,484,612	$22,083,136
Wheat flour:				
White ..... barrels	3,339,479	3,223,390	19,110,676	16,466,591
Graham ..... barrels	2,556	4,990	14,158	25,229
Corn meal and corn flour ..... barrels	877,314	599,375	2,875,994	1,477,014
Rye flour ..... barrels	1,551	540	9,069	2,660
Hominy and grits ..... pounds	193,000	128,000	3,520	1,920
Feed ..... tons	280,168	61,377	7,325,154	1,371,374
Offal ..... tons	120,122	139,496	3,104,771	2,705,334
All other products	.....	.....	41,270	33,014

An increase is shown in the quantity of each class of products except Graham flour and offal. The chief product, white flour, showed the smallest relative increase in quantity, 3.6 per cent, but an increase of 16.1 per cent in value. There were gains both in quantity (46.4 per cent) and in value (94.7 per cent) of corn meal and corn flour combined. The large increase in the tonnage of feed, 218,791 tons, or 356.5 per cent, was accompanied by a comparatively small decrease in the quantity of offal, 19,374 tons, or 13.9 per cent. "Offal" largely consists of the by-products obtained in the manufacture of wheat flour. Although offal, like feed, is used for animal consumption, it is distinguished from "Feed" as reported in the table in that the latter is manufactured largely from corn and is a primary product of the mills.

The mills were equipped in 1909 with 1,781 pairs of rolls, 187 runs of stone, and 2 attrition mills. Eight establishments manufactured the barrels and 11 the sacks used as containers for marketing their product.

Lumber and timber products.—Texas ranked seventh among the states of the Union in the cut of lumber in 1909. The following is a statement of the three main classes of products of the sawmill branch of the industry for 1909 and 1899:

PRODUCT.	QUANTITY.	
	1909	1899
Rough lumber.....M feet b. m..	2,099,130	1,232,404
Shingles.....thousands..	137,719	210,633
Lath.....thousands..	59,627	4,181

The production of rough lumber increased 70.3 per cent during the decade 1899–1909, while that of shingles decreased 34.6 per cent. More than thirteen times the quantity of lath was reported in 1909 as in 1899. Of the total cut of 2,099,130 M feet board measure, in 1909, 2,021,617 M feet was softwoods, of which the shortleaf yellow pine, with 2,019,423 M feet, contributed the greater part. Of the 77,513 M feet of hardwoods cut, 47,252 M feet, or 61 per cent, was oak.

Oil, cottonseed, and cake.—In 1909 Texas produced a greater amount of cottonseed oil than any other state in the Union, contributing 21.2 per cent of the total production in the United States during that census year.

The following table shows the quantity of cotton seed crushed and the quantities of crude products manufactured, in 1909, 1904, and 1899.

The totals presented pertain to all cotton seed crushed, and to the crude products manufactured, whether sold as such or used as intermediate products in further processes of manufacture, such as the refining of oil and the mixing of fertilizer and feed.

MATERIAL OR PRODUCT.	QUANTITY.		
	1909	1904	1899
Cotton seed crushed.....tons..	916,374	864,767	692,604
Crude products manufactured:			
Oil.....gallons..	33,497,933	32,239,649	24,354,686
Meal and cake.....tons..	395,791	340,709	252,983
Hulls.....tons..	340,528	337,233	328,119
Linters.....pounds..	46,994,462	33,807,490	15,544,379

The average amount of seed crushed per mill has fallen off from census to census during the last decade, being 6,790 tons in 1899, 5,579 tons in 1904, and 4,773 tons in 1909. The total quantity crushed increased, however, from 692,604 tons in 1899 to 916,374 tons in 1909, or 32.3 per cent. Of the 192 mills reported in 1909 as crushing seed, 18 crushed less than 1,000 tons each during the census year; 21 crushed 1,000 tons but less than 2,000; 86 crushed 2,000 tons but less than 5,000; 51 crushed 5,000 tons but less than 10,000; 13 crushed 10,000 tons but less than 20,000; and 3 crushed 20,000 tons and over.

There has been a continuous increase since 1899 in the total quantity of each of the several products, though that in hulls was very small. In proportional weight, hulls decreased from 947.5 pounds per ton of seed crushed in 1899 to 743.2 pounds per ton in 1909; meal and cake increased from 730.5 pounds per ton in 1899 to 863.8 pounds in 1909; linters increased from 22.4 pounds per ton in 1899 to 51.3 pounds in 1909; and the quantity of crude oil increased from 35.2 gallons per ton of seed crushed in 1899 to 36.6 gallons in 1909.

Printing and publishing.—This industry as a whole shows considerable growth in Texas during the last 10 years as measured by the financial statistics, and likewise by the general increase in the number of publications and aggregate circulation during the same period, as shown by the following table, in which the number of the various classes of publications and the aggregate circulation per issue are presented for 1909, 1904, and 1899.

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1909	1904	1899	1909	1904	1899
Total.....	962	817	756	2,180,922	1,762,692	1,054,761
Daily.....	99	87	83	330,562	245,370	147,602
Sunday.....	30	20	34	302,189	223,159	(1)
Semiweekly.....	[2] 28	18	22	[2] 265,816	227,909	101,392
Weekly.....	728	629	579	964,524	834,434	732,867
Monthly.....	64	54	33	256,700	211,929	61,400
All other classes.....	13	9	5	61,131	19,900	11,500

[1] Included in circulation of dailies. [2] Includes one triweekly.

During the 10-year period the number of publications increased 206, or 27.2 per cent, while the aggregate circulation per issue increased 1,126,161, or 106.8

per cent. The weekly publications are by far the most important class in the state, measured either by number or by aggregate circulation per issue, and in both respects they showed a substantial increase during each of the five-year periods. All of the other classes of publications showed large gains in their aggregate circulation for both five-year periods, although the number of Sunday and semiweekly publications decreased somewhat between 1899 and 1904. Most of the publications were printed in English, but there were 29 in German, including 1 German and English; 20 in Spanish, including 2 Spanish and English; 4 in Bohemian; and 2 each in Swedish and Italian.

Rice, cleaning and polishing.—The growth of this industry in Texas has been phenomenal. In 1899 there was only 1 establishment engaged in the cleaning and polishing of rice, while in 1909 the number was 19 and the quantity of rice treated amounted to 38.1 per cent of the total for the country. Ten of the establishments reporting were engaged in merchant milling only, while 9 did both merchant and custom milling, treating 42,871,365 pounds on a custom basis.

The total quantity of rice milled (both merchant and custom), and the quantities of the various products, for the census years 1909 and 1904, are shown in the following tabular statement:

MATERIAL OR PRODUCT.	QUANTITY (POUNDS).	
	1909	1904
Rough rice, milled	371,816,370	316,170,405
Products manufactured:		
Clean rice	236,117,295	197,433,320
Whole	156,877,308	102,812,839
Broken	79,239,987	94,620,481
Polish	10,402,638	9,500,830
Bran	33,505,946	40,772,421
Hulls	43,717,550	[1] 68,463,834

[1] Includes waste.

The total quantity of rice milled increased 55,645,965 pounds, or 17.6 per cent, during the five-year period. The proportion of whole rice in the total amount of clean rice increased from 52.1 per cent to 66.4 per cent. A change in the varieties of rice grown and improvements in methods of treatment account largely for the greater proportional output of whole rice in 1909, as compared with 1904, and a relatively smaller production of broken rice. The decided decreases in the quantities of bran and hulls are due, to some extent, to the use of the former of these products in 1909 in the manufacture of feed and to the inclusion of waste with hulls in 1904.

Laundries.—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. In 1909 there were 127 such establishments in Texas, 66 of which were in cities of 10,000 inhabitants or more.

The following statement summarizes the statistics:

Number of establishments	127
Persons engaged in the industry	3,514
Proprietors and firm members	150
Salaried employees	291
Wage earners (average number)	3,073
Primary horsepower	3,195
Capital	$2,005,200
Expenses	2,629,766
Services	1,554,999
Materials	471,421
Miscellaneous	603,346
Amount received for work done	3,220,315

The most common form of ownership was the individual, with 50 establishments. The firm and corporate forms of ownership were represented by 41 and 36 establishments, respectively. Twenty-nine establishments had receipts for the year's business of less than $5,000; 48, $5,000 but less than $20,000; 44, $20,000 but less than $100,000; and 6, $100,000 but less than $1,000,000.

The number of wage earners employed each month and the per cent which this number represented of the greatest number employed in any month were as follows:

MONTH.	WAGE EARNERS.		MONTH.	WAGE EARNERS.	
	Number.	Per cent of maximum.		Number.	Per cent of maximum.
January	2,791	85.0	July	3,232	98.4
February	2,847	86.7	August	3,284	100.0
March	2,891	88.0	September	3,277	99.8
April	2,976	90.6	October	3,172	96.6
May	3,048	92.8	November	3,112	94.8
June	3,160	96.2	December	3,090	94.1

The different kinds of primary power, the number of engines or motors, and the horsepower used in 1909 are shown in the following tabular statement:

KIND.	Number of engines or motors.	Horsepower.
Primary power, total		3,195
Owned:		
Steam	120	2,865
Gas	3	57
Rented:		
Electric	112	263
Other		10

The kind and amount of fuel used are shown in the following statement:

KIND.	Unit.	Quantity.
Anthracite coal	Tons	4
Bituminous coal	Tons	41,990
Coke	Tons	53
Wood	Cords	4,275
Oil	Barrels	17,410
Gas	1,000 feet	07,086

Custom sawmills and gristmills.—Statistics for custom sawmills and gristmills are not included in the general tables or in the totals for manufacturing industries. Those for custom sawmills, of which there are only two, can not be shown without disclosing individual operations, but those for custom gristmills are presented in the following summary:

	Custom gristmills.
Number of establishments	412
Persons engaged in the industry	989
Proprietors and firm members	561
Salaried employees	4
Wage earners (average number)	404
Primary horsepower	14,341
Capital	$449,944
Expenses	785,444
Services	29,162
Materials	[1] 745,361
Miscellaneous	10,921
Value of products	[1] 924,427

[1] Includes estimate of all grain ground.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899.

THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

INDUSTRY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—All industries	1909	4,588	84,575	4,496	9,849	70,230	282,471	$216,876	$10,868	$37,907	$178,179	$272,896	$94,717
	1904	3,158	57,892	3,073	5,753	49,066	164,537	115,665	6,118	24,469	91,604	150,528	58,924
	1899	3,107	.....	.....	2,861	38,604	116,157	63,856	2,919	16,912	54,388	92,894	38,506
Bread and other bakery products	1909	385	2,078	431	256	1,391	1,281	4,003	150	671	3,062	5,311	2,249
	1904	244	1,198	270	77	851	473	1,276	66	395	1,752	3,049	1,297
	1899	178	670	187	26	457	.....	443	16	220	685	1,303	618
Brick and tile	1909	89	2,135	50	150	1,935	7,488	3,607	158	797	766	2,545	1,779
	1904	92	1,460	71	81	1,308	3,397	1,609	74	470	366	1,305	939
	1899	143	1,804	161	64	1,579	2,456	1,293	51	420	235	1,020	785
Butter, cheese, and condensed milk	1909	36	143	30	29	84	477	309	15	40	530	660	130
	1904	10	19	12	2	5	62	34	1	4	49	63	14
	1899	12	30	9	3	18	84	42	2	9	51	81	30
Canning and preserving	1909	19	217	12	47	158	243	346	53	45	201	498	297
	1904	20	150	16	15	119	227	128	7	23	208	332	124
	1899	[1] 17	158	14	12	132	.....	101	9	33	120	226	106
Carriages and wagons and materials	1909	50	522	54	56	412	374	941	63	267	319	830	511
	1904	[2] 34	261	41	9	211	118	286	9	124	130	368	238
	1899	[2] 58	.....	.....	8	290	.....	386	7	159	180	506	326
Cars and general shop construction and repairs by steam-railroad companies.	1909	62	10,527	.....	745	9,782	7,335	9,362	717	6,715	5,546	13,359	7,813
	1904	47	9,025	.....	432	8,593	3,735	4,599	499	5,370	4,476	10,473	5,997
	1899	56	6,896	.....	263	6,633	3,158	3,731	292	4,005	3,879	8,315	4,436
Clothing, men's, including shirts	1909	25	1,119	16	111	992	359	1,557	113	312	1,007	1,759	752
	1904	[2] 16	765	10	65	690	73	744	81	179	672	1,205	533
	1899	16	.....	.....	39	594	.....	527	43	149	379	685	306
Confectionery	1909	49	967	48	202	717	607	1,402	207	218	1,459	2,451	992
	1904	23	588	22	77	489	338	893	74	147	668	1,155	487
	1899	19	.....	.....	58	334	.....	294	41	136	425	772	347
Cooperage and wooden goods, not elsewhere specified.	1909	11	274	10	21	243	346	446	25	98	488	719	231
	1904	20	286	21	30	235	540	574	35	127	495	741	246
	1899	17	.....	.....	11	184	.....	173	14	64	198	341	143
Copper, tin, and sheet-iron products	1909	168	995	180	82	733	211	1,251	84	532	1,081	2,214	1,133
	1904	[1] 75	586	89	32	465	49	467	33	309	565	1,195	630
	1899	66	.....	.....	18	327	.....	320	15	184	369	754	385
Cotton goods, including cotton small wares	1909	13	1,633	.....	43	1,590	4,835	4,283	61	501	1,793	2,815	1,022
	1904	13	1,029	.....	36	993	3,452	2,729	36	270	1,018	1,587	569
	1899	4	1,005	.....	21	984	2,950	2,227	31	254	641	1,200	559
Flour-mill and gristmill products	1909	238	1,899	225	458	1,216	20,765	13,219	572	669	28,657	32,485	3,828
	1904	154	1,430	152	292	986	16,249	7,785	347	528	18,963	22,083	3,120
	1899	120	.....	.....	133	682	10,452	3,983	144	387	10,094	11,949	1,855
Food preparations	1909	23	367	17	66	284	1,322	1,278	86	108	4,580	5,229	649
	1904	11	182	10	19	153	135	132	13	51	209	375	166
	1899	7	32	12	1	19	.....	34	1	9	31	52	21
Foundry and machine-shop products	1909	143	3,441	134	382	2,925	5,287	8,241	566	1,925	3,859	8,068	4,209
	1904	[2] 111	2,376	109	187	2,080	2,781	4,994	244	1,268	2,302	5,179	2,877
	1899	[2] 105	1,666	109	125	1,432	.....	2,919	141	771	1,238	2,818	1,580
Furniture and refrigerators	1909	25	799	20	78	701	1,879	1,794	69	331	765	1,512	747
	1904	15	324	10	20	294	429	293	21	147	203	491	288
	1899	[1] 8	171	5	14	152	247	145	12	61	78	185	107
Gas, illuminating and heating	1909	27	746	3	168	575	1,090	6,202	138	288	545	1,644	1,099
	1904	19	246	1	81	164	325	2,231	78	103	197	719	522
	1899	11	112	.....	41	71	130	1,764	46	46	94	380	286
Ice, manufactured	1909	182	1,874	82	355	1,437	29,905	8,397	354	839	1,092	3,844	2,752
	1904	125	1,144	59	216	869	18,458	5,140	197	451	573	2,084	1,511
	1899	77	824	35	171	618	8,949	2,564	125	305	320	1,184	864
Leather goods	1909	67	1,012	68	223	721	601	3,269	253	463	2,839	4,347	1,508
	1904	[1] 60	956	61	147	748	297	2,058	147	474	2,054	3,365	1,311
	1899	[1] 72	.....	.....	105	880	.....	2,040	92	398	1,672	2,707	1,035
Lime	1909	11	386	7	31	348	534	517	34	123	143	390	247
	1904	6	126	8	2	116	160	94	1	43	47	134	87
	[3] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Liquors, malt	1909	12	931	6	160	765	7,817	7,027	333	566	1,695	6,464	4,769
	1904	10	740	2	112	626	4,753	5,150	231	412	1,095	4,154	3,059
	1899	9	685	2	98	585	5,771	4,439	181	355	647	2,690	2,043
Lumber and timber products	1909	799	25,843	985	1,340	23,518	88,031	45,552	1,484	11,602	11,004	32,201	21,197
	1904	391	16,101	437	1,041	14,623	43,622	20,452	1,174	6,500	4,955	18,880	13,925
	1899	559	.....	.....	493	12,455	34,433	12,904	465	4,841	8,429	17,782	9,353
Marble and stone work	1909	107	881	147	129	605	1,016	963	92	425	502	1,443	941
	1904	53	457	68	43	346	586	395	29	223	300	778	478
	1899	56	.....	.....	51	362	.....	347	29	243	301	853	552
Mattresses and spring beds	1909	50	334	50	51	233	587	680	46	118	362	658	296
	1904	27	365	32	22	311	488	410	19	124	460	697	297
	1899	17	.....	.....	8	147	.....	162	5	50	162	295	133

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[2] Excluding statistics for two establishments, to avoid disclosure of individual operations.
[3] Not reported separately.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY.	Census.	Number of establishments.	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—Continued.													
Oil, cottonseed, and cake	1909	194	3,923	39	811	3,073	45,185	$21,506	$879	$1,296	$23,439	$29,916	$6,477
	1904	157	3,308	15	614	2,739	33,960	14,180	578	1,020	15,805	18,699	2,894
	1899	103	2,809	15	376	2,478	21,560	7,987	375	831	10,373	14,005	3,632
Patent medicines and compounds and druggists' preparations.	1909	59	382	40	188	145	51	747	183	62	411	1,014	603
	1904	[1] 38	209	46	60	103	17	534	65	35	241	700	459
	1899	32	.....	.....	22	85	.....	183	27	34	118	359	241
Pottery, terra-cotta, and fire-clay products	1909	17	475	12	43	420	923	795	46	183	195	597	402
	1904	22	253	24	11	218	500	178	10	91	70	327	257
	1899	28	318	31	7	280	370	203	7	77	44	192	148
Printing and publishing	1909	1,067	7,177	1,159	1,610	4,408	4,392	9,127	1,659	2,785	2,807	11,587	8,780
	1904	[1] 850	5,288	970	874	3,444	2,756	6,107	729	2,071	1,763	7,830	6,067
	1899	776	.....	.....	331	2,561	.....	3,341	335	1,309	975	4,606	3,631
Rice, cleaning and polishing	1909	19	643	22	191	430	6,274	3,820	224	189	7,122	8,142	1,020
	1904	17	609	6	171	432	4,500	2,139	225	212	3,508	4,640	1,132
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salt	1909	6	181	3	16	162	447	506	18	82	216	407	191
	1904	7	193	2	19	172	497	331	19	74	195	351	156
	1899	3	202	.....	11	191	.....	327	17	66	141	257	116
Slaughtering and meat packing	1909	14	4,248	1	608	3,639	11,330	12,438	698	1,902	37,410	42,530	5,120
	1904	[3] 9	2,354	2	333	2,019	2,086	6,375	323	866	13,593	15,621	2,028
	1899	[3] 12	469	6	49	414	1,640	1,232	62	180	3,171	3,904	733
Tobacco manufactures	1909	67	428	74	15	339	7	313	19	141	182	509	327
	1904	86	457	100	10	347	7	285	16	159	211	550	339
	1899	79	419	94	22	303	.....	227	18	133	203	526	323
All other industries	1909	554	7,995	562	1,184	6,249	31,472	42,978	1,439	3,014	34,102	46,748	12,646
	1904	396	5,347	407	623	4,317	19,558	23,063	737	2,199	14,521	21,398	6,877
	1899	447	.....	.....	280	3,357	.....	9,318	316	1,183	9,135	12,947	3,812

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

DALLAS—All industries	1909	305	6,621	249	1,490	4,882	13,808	$17,688	$1,831	$2,604	$16,966	$26,959	$9,993
	1904	247	4,486	211	830	3,445	.....	10,891	828	1,759	9,207	15,628	6,421
	1899	177	.....	.....	500	2,842	.....	6,462	515	1,323	5,398	9,488	4,090
Bread and other bakery products	1909	21	506	24	98	384	483	990	85	116	894	1,496	602
	1904	17	221	21	30	170	.....	230	27	78	451	693	242
	1899	7	36	9	.....	27	.....	27	.....	15	44	95	51
Clothing, men's, including shirts	1909	3	220	3	17	200	38	180	20	55	230	377	147
	1904	3	195	3	18	174	.....	231	18	44	241	458	217
	1899	[3] 3	42	3	3	36	.....	6	5	8	14	34	20
Confectionery	1909	5	204	5	47	152	273	297	65	52	289	570	281
	1904	5	162	5	21	136	.....	280	18	43	213	377	164
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Copper, tin, and sheet-iron products	1909	14	169	11	28	130	82	304	33	102	279	483	204
	1904	12	121	9	13	99	.....	171	15	65	163	298	135
	1899	7	.....	.....	4	46	.....	52	7	28	46	120	74
Foundry and machine-shop products	1909	14	839	9	139	691	1,054	2,512	237	420	1,033	2,130	1,097
	1904	16	577	13	59	505	.....	1,839	84	309	692	1,602	910
	1899	[3] 8	297	6	26	265	.....	916	36	136	316	673	357
Ice, manufactured	1909	7	133	.....	27	106	2,771	761	37	66	77	276	199
	1904	4	53	1	12	40	.....	470	17	26	41	149	108
	1899	3	120	.....	52	68	.....	371	26	28	47	150	103
Leather goods	1909	6	403	.....	106	297	329	1,509	139	173	1,518	2,262	744
	1904	10	403	3	72	328	.....	1,261	83	204	960	1,516	556
	1899	[1] 9	.....	.....	70	378	.....	1,187	63	171	678	1,063	385
Lumber and timber products	1909	11	251	12	26	213	405	379	36	153	437	720	283
	1904	10	245	8	22	215	.....	256	27	107	237	475	238
	1899	[3] 4	93	3	6	84	.....	61	6	58	82	175	93
Marble and stone work	1909	8	96	10	13	73	208	155	16	52	58	160	102
	1904	[3] 4	27	2	1	24	.....	35	1	17	28	62	34
	1899	6	100	5	8	87	.....	59	9	80	64	239	175
Patent medicines and compounds and druggists' preparations.	1909	18	171	13	81	77	25	468	105	36	208	593	325
	1904	11	127	11	62	54	.....	454	64	15	185	514	329
	1899	[3] 7	49	6	7	36	.....	47	10	13	49	138	89
Printing and publishing	1909	88	1,286	89	466	731	760	1,770	529	461	802	2,927	2,125
	1904	[3] 74	879	68	337	474	.....	1,293	233	336	412	1,817	1,405
	1899	[3] 42	453	41	128	284	.....	591	138	198	238	965	727
Tobacco manufactures	1909	5	39	7	1	31	7	36	1	13	18	50	32
	1904	[1] 7	51	12	2	37	.....	28	2	16	27	62	35
	1899	9	102	15	11	76	.....	21	5	26	42	109	67
All other industries	1909	105	2,304	66	441	1,797	7,373	8,267	528	905	11,063	14,915	3,852
	1904	74	1,425	55	181	1,189	.....	4,343	239	499	5,557	7,605	2,048
	1899	72	.....	.....	185	1,455	.....	3,124	210	502	3,778	5,727	1,949

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[2] Figures can not be shown without disclosing individual operations.
[3] Excluding statistics for two establishments, to avoid disclosure of individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY.	Census.	Number of establishments.	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
FORT WORTH—All industries	1909	147	2,641	133	449	2,059	6,614	$7,443	$484	$1,285	$5,266	$8,661	$3,395
	1904	102	1,748	99	226	1,423	.....	3,170	213	843	3,189	5,668	2,479
	1899	68	.....	.....	108	943	.....	2,153	131	565	2,147	3,488	1,341
Bread and other bakery products	1909	17	149	19	31	99	101	491	23	62	181	314	133
	1904	8	160	9	26	125	.....	361	24	45	211	458	247
	1899	6	72	6	1	65	.....	48	2	41	109	188	79
Copper, tin, and sheet-iron products	1909	7	55	6	5	44	8	60	6	35	71	150	79
	1904	6	46	5	3	38	.....	20	2	27	52	108	56
	1899	3	.....	.....	2	23	.....	14	1	15	40	67	27
Foundry and machine-shop products	1909	9	94	19	17	58	155	138	15	40	75	175	100
	1904	6	85	6	3	76	.....	72	5	44	55	143	88
	1899	[1] 4	80	7	4	69	.....	89	4	35	30	101	71
Furniture and refrigerators	1909	4	121	3	8	110	220	182	6	55	80	215	135
	1904	3	83	2	6	75	.....	91	6	37	49	138	89
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ice, manufactured	1909	6	94	4	15	75	1,615	457	18	60	98	269	171
	1904	4	62	2	9	51	.....	189	10	33	28	108	80
	1899	3	57	1	7	49	.....	156	11	30	20	81	61
Leather goods	1909	6	36	7	9	20	19	61	6	13	57	96	39
	1904	5	97	5	15	77	.....	150	13	47	203	357	154
	1899	[1] 3	.....	.....	3	15	.....	29	2	11	53	97	44
Lumber and timber products	1909	6	118	7	9	102	267	151	10	70	134	253	119
	1904	7	46	10	1	35	.....	46	([3])	23	34	78	44
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Patent medicines and compounds and druggists' preparations.	1909	6	21	6	6	9	10	37	5	3	21	43	22
	1904	[1] 4	11	7	.....	4	.....	8	.....	2	7	20	13
Printing and publishing	1909	24	360	23	124	213	346	565	137	175	178	722	544
	1904	19	290	19	73	198	.....	198	37	138	100	398	292
	1899	11	129	21	13	95	.....	98	14	57	44	159	115
Tobacco manufactures	1909	4	21	5	.....	16	.....	13	.....	7	10	26	16
	1904	6	19	6	.....	13	.....	14	.....	8	9	27	18
	1899	3	42	4	.....	38	.....	27	.....	22	18	62	44
All other industries	1909	58	1,572	34	225	1,313	3,873	5,288	258	765	4,361	6,398	2,037
	1904	34	849	28	90	731	.....	2,021	116	439	2,435	3,833	1,398
	1899	35	.....	.....	78	589	.....	1,692	97	354	1,833	2,733	900
HOUSTON—All industries	1909	249	6,289	226	725	5,338	14,866	$16,594	$994	$3,260	$14,321	$23,016	$8,695
	1904	209	5,672	201	415	5,056	.....	8,877	532	2,892	7,617	13,564	5,947
	1899	145	.....	.....	245	3,188	.....	5,627	292	1,656	4,195	7,492	3,297
Bread and other bakery products	1909	23	262	22	19	221	92	980	22	114	412	724	312
	1904	20	182	23	11	148	.....	239	10	67	228	447	219
	1899	14	60	15	2	43	.....	49	1	26	70	131	61
Brick and tile	1909	3	93	2	2	89	150	126	2	40	32	99	67
	1904	5	106	4	3	99	.....	96	4	35	25	79	54
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carriages and wagons and materials	1909	11	120	11	10	99	68	107	13	68	69	201	132
	1904	[1] 8	95	10	5	80	.....	129	6	44	50	141	91
	1899	4	59	6	1	52	.....	74	1	28	36	94	58
Cars and general shop construction and repairs by steam-railroad companies.	1909	3	1,601	.....	33	1,568	1,305	1,013	42	998	1,020	2,196	1,176
	1904	3	2,109	.....	69	2,040	.....	1,042	81	1,260	1,381	2,745	1,364
	1899	3	1,338	.....	52	1,286	.....	828	67	763	830	1,681	851
Clothing, men's, including shirts	1909	3	134	5	11	118	20	84	15	46	87	193	106
	1904	3	82	3	4	75	.....	71	6	25	33	118	85
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Copper, tin, and sheet-iron products	1909	21	169	24	7	138	15	142	9	98	118	305	187
	1904	12	128	12	4	112	.....	84	6	72	77	215	138
	1899	9	.....	.....	1	78	.....	53	1	34	69	131	62
Foundry and machine-shop products	1909	21	548	15	45	488	1,074	1,227	72	298	782	1,444	662
	1904	[4] 13	325	11	24	290	.....	609	34	189	429	878	449
	1899	9	168	7	10	151	.....	353	15	84	225	374	149
Leather goods	1909	6	72	5	8	59	41	67	12	39	68	174	106
	1904	[4] 5	26	6	.....	20	.....	42	.....	12	35	72	37
	1899	4	.....	.....	1	15	.....	24	1	8	17	39	22
Lumber and timber products	1909	12	421	10	42	369	809	889	69	211	575	1,081	506
	1904	11	462	9	34	419	.....	805	39	179	235	622	387
	1899	8	.....	.....	21	337	.....	605	20	166	411	686	275
Oil, cottonseed, and cake	1909	4	323	1	53	269	3,801	2,117	81	109	2,859	3,555	696
	[2] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	3	.....	.....	25	301	.....	1,019	34	87	1,185	1,546	361
Patent medicines and compounds and druggists' preparations.	1909	5	22	3	7	12	5	16	8	7	8	38	30
	1904	3	11	8	1	2	.....	6	1	1	5	15	10
	1899	3	.....	.....	5	10	.....	26	7	3	18	49	31
Printing and publishing	1909	44	641	45	153	443	713	1,143	202	383	365	1,449	1,084
	1904	[1] 33	500	29	66	405	.....	645	73	306	192	881	689
	1899	[4] 29	289	36	37	216	.....	307	38	145	95	434	339
All other industries	1909	93	1,883	83	335	1,465	6,773	8,683	447	849	7,926	11,557	3,631
	1904	93	1,646	86	194	1,366	.....	5,109	272	702	4,927	7,351	2,424
	1899	59	.....	.....	90	699	.....	2,289	107	312	1,239	2,327	1,088

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[2] Figures can not be shown without disclosing individual operations.
[3] Less than $500.
[4] Excluding statistics for two establishments, to avoid disclosure of individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
SAN ANTONIO—All industries	1909	194	3,913	156	652	3,105	6,908	$8,629	$753	$1,760	$6,952	$13,435	$6,483
	1904	141	2,911	110	344	2,457	.....	5,259	406	1,362	3,741	7,402	3,661
	1899	113	.....	.....	190	2,683	.....	3,929	230	1,557	2,951	5,989	3,038
Bread and other bakery products	1909	32	213	37	41	135	102	284	19	76	307	565	258
	1904	19	103	19	3	81	.....	86	1	41	179	273	94
	1899	18	83	18	1	64	.....	51	(1)	34	94	174	80
Cars and general shop construction and repairs by steam-railroad companies.	1909	3	584	.....	27	557	243	245	31	416	253	736	483
	1904	3	836	.....	18	818	.....	308	18	544	261	827	566
	1899	3	1,199	.....	23	1,176	.....	315	21	779	688	1,497	809
Clothing, men's, including shirts	1909	5	147	2	13	132	26	65	9	38	96	185	89
	1904	3	42	2	5	35	.....	14	3	6	37	45	8
	1899	3	.....	.....	5	56	.....	14	3	11	42	63	21
Confectionery	1909	7	277	8	61	208	86	546	69	60	476	740	264
	1904	3	157	1	25	131	.....	358	34	36	178	313	135
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Copper, tin, and sheet-iron products	1909	7	63	7	3	53	15	61	2	39	41	108	67
	1904	5	45	6	5	34	.....	16	3	20	35	76	41
	1899	5	.....	.....	1	49	.....	13	1	30	45	97	52
Foundry and machine-shop products	1909	7	248	5	13	230	217	325	24	139	160	399	239
	1904	[3] 5	178	1	18	159	.....	315	20	88	75	281	206
	1899	6	242	1	25	216	.....	236	27	111	133	331	198
Ice, manufactured	1909	4	65	1	10	54	227	411	11	33	53	168	115
	1904	3	41	.....	13	28	.....	239	12	14	24	77	53
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber and timber products	1909	7	162	7	17	138	360	185	15	89	104	237	133
	1904	3	38	2	3	33	.....	49	3	21	20	53	33
	1899	3	25	5	1	19	.....	15	1	12	14	35	21
Marble and stone work	1909	5	79	5	10	64	65	45	8	45	20	98	78
	1904	3	41	4	3	34	.....	24	4	26	32	74	42
	1899	6	61	7	1	53	.....	58	(1)	27	38	113	75
Printing and publishing	1909	39	595	29	183	383	328	776	174	219	217	982	765
	1904	[4] 35	480	27	109	344	.....	532	121	185	169	766	597
	1899	22	334	17	31	286	.....	319	36	175	122	492	370
Tobacco manufactures	1909	5	102	5	7	90	.....	33	4	21	43	102	59
	1904	12	75	12	2	61	.....	21	2	15	48	92	44
	1899	5	27	5	.....	22	.....	10	.....	9	12	34	22
All other industries	1909	73	1,378	50	267	1,061	5,239	5,653	387	585	5,182	9,115	3,933
	1904	47	875	36	140	699	.....	3,297	185	366	2,683	4,525	1,842
	1899	42	.....	.....	102	742	.....	2,898	141	369	1,763	3,153	1,390

[1] Less than $500.
[2] Figures can not be shown without disclosing individual operations.
[3] Excluding statistics for two establishments, to avoid disclosure of individual operations.
[4] Excluding statistics for one establishment, to avoid disclosure of individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

CITY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
Austin	1909	108	1,014	109	151	754	2,211	$2,340	$148	$415	$1,627	$2,846	$1,219
	1904	62	786	65	80	641	.....	1,257	78	349	771	1,569	798
	1899	84	.....	.....	50	495	.....	595	40	243	457	765	308
Beaumont	1909	56	1,094	49	182	863	4,596	4,007	214	645	3,444	4,831	1,387
	1904	40	885	38	115	732	.....	2,722	134	425	1,512	2,610	1,098
	1899	30	.....	.....	58	1,005	.....	2,010	84	455	1,097	1,913	816
Brownsville	1909	9	79	13	15	51	414	51	13	19	46	121	75
	[1] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cleburne	1909	24	952	25	102	825	1,499	773	112	533	859	1,577	718
	[1] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Denison	1909	29	935	27	75	833	2,306	1,108	70	516	593	1,314	721
	1904	25	813	24	64	725	.....	1,052	64	455	591	1,235	644
	1899	29	.....	.....	52	668	.....	1,108	36	361	379	840	461
El Paso	1909	88	2,041	66	223	1,752	3,396	4,252	275	1,093	1,496	3,638	2,142
	1904	54	1,304	42	104	1,158	.....	1,673	128	710	1,131	2,378	1,247
	1899	38	.....	.....	39	716	.....	793	50	402	539	1,213	674
Galveston	1909	81	1,396	77	225	1,094	3,633	4,572	298	707	4,267	6,308	2,041
	1904	67	975	60	154	761	.....	2,986	194	470	1,599	2,997	1,398
	1899	100	.....	.....	116	1,422	.....	4,688	147	640	2,025	3,675	1,650
Laredo	1909	23	252	28	11	213	353	213	11	87	74	221	147
	1904	18	569	20	34	515	.....	221	36	181	196	454	258
	1899	14	.....	.....	9	372	.....	203	8	162	138	331	193
Marshall	1909	22	1,108	18	113	977	1,326	1,690	126	653	803	1,787	984
	[1] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Palestine	1909	20	855	26	84	745	1,209	1,524	86	481	622	1,313	691
	1904	17	605	20	41	544	.....	679	45	310	305	735	430
	1899	19	.....	.....	33	481	.....	560	34	245	349	704	355
Paris	1909	45	679	33	105	541	2,489	1,381	77	247	862	1,430	568
	1904	29	280	25	45	210	.....	980	45	105	528	855	327
	1899	27	.....	.....	30	263	.....	570	23	97	461	743	282
San Angelo	1909	26	189	28	46	115	608	306	28	71	133	318	185
	[1] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sherman	1909	36	395	27	95	273	2,150	1,638	98	136	4,047	4,676	629
	[2] 1904	39	427	46	74	307	.....	1,586	59	153	2,149	2,641	492
	1899	31	.....	.....	53	314	.....	748	55	136	1,070	1,461	391
Temple	1909	37	483	42	75	366	1,016	916	61	215	834	1,346	512
	[1] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tyler	1909	23	555	23	48	484	769	661	51	288	536	996	460
	1904	21	417	19	30	368	.....	319	31	192	311	629	318
	1899	16	.....	.....	36	431	.....	321	33	235	352	682	330
Waco	1909	92	1,318	79	206	1,033	3,669	3,561	220	588	2,965	4,769	1,804
	1904	76	1,146	78	121	947	.....	2,142	141	440	1,779	2,980	1,201
	1899	80	.....	.....	88	1,004	.....	1,768	94	372	1,326	2,294	968

[1] Figures not available.
[2] Figures do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city.

TABLE II.—DETAIL STATEMENT FOR

	INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners. Average number.	Wage earners. Number. Maximum month.	Wage earners. Number. Minimum month.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horsepower.
1	All industries	4,588	84,575	4,496	3,415	5,808	626	70,230	No 75,648	My 66,079	(1)	(1)	(1)	(1)	(1)	282,471
2	Artificial stone	33	187	40	12	2	.....	133	Se 167	Ap 110	162	161	.....	1	.....	51
3	Automobiles, including bodies and parts	4	70	2	5	7	.....	56	Oc 63	Ja [2] 47	52	50	1	1	.....	22
4	Boots and shoes, including cut stock and findings.	6	52	10	3	2	1	36	No [2] 40	Fe [2] 34	40	35	2	3	.....	24
5	Brass and bronze products	8	143	6	12	13	.....	112	Mh 132	Au 91	111	111	.....	.....	.....	146
6	Bread and other bakery products	385	2,078	431	42	167	47	1,391	De 1,544	Je 1,325	1,623	1,156	418	42	7	1,281
7	Brick and tile	89	2,135	50	96	40	5	1,935	Jy 2,303	Ja 1,467	2,109	2,058	.....	51	.....	7,488
8	Brooms	32	258	56	9	7	2	184	Mh 215	Jy 124	218	191	12	15	.....	119
9	Butter, cheese, and condensed milk	36	143	30	16	11	2	84	De 91	Ja [2] 75	94	93	1	.....	.....	477
10	Canning and preserving	19	217	12	18	26	3	158	Jy 258	Ja 91	317	117	177	15	8	243
11	Carriages and wagons and materials	50	522	54	20	35	1	412	Ap 441	Ja 382	398	390	3	5	.....	374
12	Cars and general shop construction and repairs by steam-railroad companies.	62	10,527	.....	278	444	23	9,782	Se 10,142	Au 9,370	9,824	9,819	2	3	.....	7,335
13	Cars and general shop construction and repairs by street-railroad companies.	14	248	.....	9	8	1	230	De 258	Ja 212	350	350	.....	.....	.....	529
14	Cement	3	423	.....	10	45	6	362	Se 515	Fe 97	452	452	.....	.....	.....	7,700
15	Clothing, men's, including shirts	25	1,119	16	86	62	13	992	Se 1,085	Ja 825	1,141	92	1,012	17	20	359
16	Confectionery	40	967	48	40	137	25	717	No 834	My 627	799	409	354	12	24	607
17	Cooperage and wooden goods, not elsewhere specified.	11	274	10	10	10	1	243	Se 259	My 223	266	259	.....	7	.....	346
18	Copper, tin, and sheet-iron products	108	995	180	45	29	8	733	Oc 796	Fe 646	771	752	.....	19	.....	211
19	Cotton goods, including cotton small wares.	13	1,633	.....	24	18	1	1,590	Ja 1,636	No 1,516	1,659	881	543	130	105	4,835
20	Electroplating	4	19	5	3	.....	.....	11	Mh [2] 12	Je [2] 11	13	12	1	.....	.....	30
21	Flour-mill and gristmill products	238	1,899	225	152	283	23	1,216	Oc 1,313	Ap 1,145	1,355	1,346	3	6	.....	20,765
22	Food preparations	23	367	17	22	41	3	284	De 359	Je 206	383	273	108	2	.....	1,322
23	Foundry and machine-shop products	143	3,441	134	153	211	18	2,925	Je 3,180	Ja 2,606	2,778	2,755	2	21	.....	5,287
24	Furniture and refrigerators	25	799	20	27	45	6	701	De 804	Au 628	823	786	18	19	.....	1,879
25	Gas, illuminating and heating	27	746	3	56	95	17	575	Jy 704	Fe 404	473	473	.....	.....	.....	1,090
26	Ice, manufactured	182	1,874	82	200	144	11	1,437	Jy 2,130	Ja 808	1,424	1,416	1	7	.....	29,905
27	Jewelry	13	46	14	1	2	3	26	De 32	Fe [2] 23	32	32	.....	.....	.....	7
28	Leather goods	67	1,012	68	57	146	20	721	De 766	My 672	778	755	13	10	.....	601
29	Leather, tanned, curried, and finished	3	13	4	1	.....	.....	8	My [2] 9	Mh 7	9	9	.....	.....	.....	40
30	Lime	11	386	7	14	16	1	348	Oc 438	Ja 250	381	381	.....	.....	.....	534
31	Liquors, malt	12	931	6	48	107	5	765	Jy 835	Ja 706	717	716	1	.....	.....	7,817
32	Lumber and timber products	799	25,843	985	585	717	38	23,518	De 24,914	Fe 21,661	27,722	27,317	46	359	.....	88,031
33	Marble and stone work	107	881	147	26	102	1	605	Fe 621	Ap 571	633	631	.....	2	.....	1,016
34	Mattresses and spring beds	50	334	50	23	25	3	233	Oc 274	Ap 209	280	226	54	.....	.....	587
35	Millinery and lace goods	9	92	9	5	3	12	63	Se 85	Je 32	51	1	47	3	.....	1
36	Models and patterns, not including paper patterns.	5	31	4	1	1	.....	25	Je [2] 20	Oc [2] 25	26	26	.....	.....	.....	62
37	Oil, cottonseed, and cake	194	3,923	39	456	348	7	3,073	No 5,762	Je 932	6,029	6,022	7	.....	.....	45,185
38	Optical goods	4	32	.....	5	8	3	16	Se [2] 18	Ja 12	17	15	2	.....	.....	15
39	Paint and varnish	6	61	4	8	22	1	26	My [2] 27	De [2] 24	24	22	2	.....	.....	82
40	Patent medicines and compounds and druggists' preparations.	59	382	49	36	135	17	145	Ap 153	De 136	145	97	48	.....	.....	51
41	Photo-engraving	4	57	3	9	6	2	37	No [2] 40	Fe 32	30	38	1	.....	.....	92
42	Pottery, terra-cotta, and fire-clay products.	17	475	12	12	29	2	420	Oc 469	Fe 388	440	439	.....	1	.....	923
43	Printing and publishing	1,067	7,177	1,159	425	984	201	4,408	De 4,791	Ap 4,274	4,824	3,875	670	254	25	4,392
44	Rice, cleaning and polishing	19	643	22	51	139	1	430	No 624	Jy 115	562	562	.....	.....	.....	6,274
45	Salt	6	181	3	11	4	1	162	Se 181	Ja 142	163	150	11	2	.....	447
46	Shipbuilding, including boat building	6	45	8	1	.....	.....	36	Fe 46	De 26	43	43	.....	.....	.....	21
47	Show cases	5	71	5	3	1	.....	62	Au [2] 63	No 59	61	61	.....	.....	.....	113
48	Slaughtering and meat packing	14	4,248	1	42	527	39	3,639	My 3,856	Ja 3,452	4,039	3,703	258	68	10	11,330
49	Sugar and molasses	6	162	.....	11	6	1	144	No 594	Mh 4	585	581	4	.....	.....	3,931
50	Tobacco manufactures	67	428	74	3	11	1	339	De 364	Ja 319	369	226	132	11	.....	7
51	Turpentine and rosin	3	235	2	6	8	.....	219	De 256	Ja [2] 190	256	256	.....	.....	.....	10
52	All other industries [3]	386	5,750	390	277	570	50	4,463	.....	.....	.....	.....	.....	.....	.....	18,477

[1] No figures given for reasons explained in the Introduction.
[2] Same number reported for one or more other months.
[3] All other industries embrace—

Agricultural implements	4
Awnings, tents, and sails	11
Bags, other than paper	2
Baskets, and rattan and willow ware	1
Billiard tables and materials	1
Blacking and cleansing and polishing preparations.	1
Bluing	2
Boxes, cigar	1
Boxes, fancy and paper	3
Carpets, rag	2
Charcoal	1
Chemicals	2
Clothing, women's	2
Coffee and spice, roasting and grinding	24
Coffins, burial cases, and undertakers' goods	1
Cordials and sirups	3
Electrical machinery, apparatus, and supplies	1
Engraving and diesinking	1
Explosives	1
Fancy articles, not elsewhere specified	1
Fertilizers	3
Files	1
Flags, banners, regalia, society badges, and emblems	1
Flavoring extracts	4
Furnishing goods, men's	1
Gas and electric fixtures and lamps and reflectors	1
Glass	1
Glass, cutting, staining, and ornamenting	3
Hair work	1
Hand stamps and stencils and brands	6
Hats and caps, other than felt, straw, and wool	1
Hats, fur-felt	1
Hosiery and knit goods	1
House-furnishing goods, not elsewhere specified	1
Iron and steel, blast furnaces	1

THE STATE, BY INDUSTRIES: 1909.

	Capital.	EXPENSES.										Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.					
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.		
1	$216,875,579	$244,872,532	$5,358,777	$5,508,778	$37,907,272	$7,195,109	$170,983,406	$879,916	$1,738,920	$1,324,435	$13,975,919	$272,895,635	$94,717,120
2	152,796	183,298	13,544	1,114	70,329	331	85,978	2,506	726	13	8,757	239,391	153,082
3	55,940	187,936	5,100	7,282	39,731	1,110	120,318	5,990	3,107	.....	5,298	183,580	62,152
4	56,247	83,060	5,400	2,344	17,781	737	47,586	1,380	328	.....	7,504	102,133	53,810
5	328,915	438,675	18,600	14,051	61,051	10,638	298,621	6,100	819	.....	28,795	517,818	208,559
6	4,003,289	4,513,495	56,645	123,466	670,778	93,285	2,968,960	87,682	20,651	535	491,493	5,310,785	2,248,540
7	3,606,752	2,063,023	117,751	40,433	797,419	676,932	89,101	3,563	11,582	8,597	317,645	2,544,702	1,778,669
8	282,766	324,557	7,774	6,637	80,301	2,773	207,257	1,704	852	425	16,834	393,749	183,719
9	309,239	617,482	10,785	4,601	40,196	5,343	524,359	5,078	1,060	.....	26,060	660,432	130,730
10	345,721	338,451	18,210	35,001	44,764	2,747	197,997	2,457	1,568	.....	35,707	498,196	297,452
11	940,529	700,069	36,496	26,829	267,071	12,415	306,768	14,855	5,211	70	30,354	829,726	510,543
12	9,362,207	13,355,343	407,660	309,031	6,714,763	428,502	5,117,628	.....	43,937	3,119	330,703	13,358,948	7,812,818
13	301,540	278,275	8,962	4,761	130,429	2,008	117,718	.....	4,591	.....	9,806	278,274	158,548
14	7,091,289	827,993	44,200	45,706	261,349	242,879	159,764	1,200	10,576	5,630	56,689	854,886	452,243
15	1,556,630	1,600,267	53,668	58,858	311,535	11,124	995,435	15,151	7,368	30,150	116,978	1,758,820	752,261
16	1,402,332	2,142,779	54,092	153,035	218,405	22,877	1,435,933	33,752	6,242	24,473	193,970	2,450,513	991,703
17	446,281	648,583	15,760	9,020	97,986	3,023	484,492	12,825	1,020	1,200	23,257	719,054	231,539
18	1,251,362	1,814,011	59,101	24,522	531,704	9,465	1,071,857	28,470	7,430	3,060	78,402	2,213,934	1,132,612
19	4,282,742	2,505,607	40,810	19,845	500,694	93,834	1,699,462	.....	13,491	5,650	131,821	2,814,581	1,021,285
20	34,460	36,945	2,088	.....	7,996	711	20,779	2,420	66	825	2,060	46,200	24,710
21	13,219,157	30,851,015	265,294	306,762	668,772	262,262	28,394,379	5,700	61,921	1,200	884,725	32,484,612	3,827,971
22	1,278,160	4,886,335	37,302	48,438	108,423	37,656	4,541,959	6,872	4,466	.....	101,219	5,229,327	649,712
23	8,240,950	7,005,107	294,496	271,379	1,925,491	207,693	3,651,778	25,244	46,422	6,576	576,028	8,067,941	4,208,470
24	1,794,148	1,316,456	35,990	33,244	330,806	20,837	743,772	5,864	10,222	165	135,556	1,512,380	747,771
25	6,202,454	1,154,599	84,065	53,625	288,307	372,048	172,789	750	70,285	50	112,680	1,644,066	1,099,229
26	8,396,828	2,799,161	238,873	114,702	839,087	797,542	294,301	8,221	72,255	6,358	427,822	3,844,120	2,752,277
27	36,495	58,854	820	1,655	21,395	491	28,751	2,740	218	.....	2,784	85,118	55,876
28	3,268,805	3,946,064	103,566	149,770	463,419	11,002	2,827,872	65,661	20,323	500	303,951	4,347,445	1,508,571
29	22,410	48,790	600	.....	4,784	595	42,354	.....	87	.....	370	55,277	12,328
30	516,935	343,329	17,700	16,380	123,340	79,847	63,473	809	2,283	1,500	37,997	390,035	246,715
31	7,027,038	4,358,906	192,099	140,919	566,290	218,167	1,476,754	2,420	671,841	5,523	1,084,893	6,463,972	4,769,051
32	45,552,223	27,634,260	835,590	648,308	11,602,362	134,557	10,869,746	37,877	223,487	910,961	2,371,372	32,201,440	21,197,137
33	963,016	1,118,387	34,533	57,760	425,219	21,574	480,005	6,165	5,216	3,143	84,772	1,443,210	941,631
34	680,115	578,906	26,011	19,984	118,170	8,552	353,161	3,216	3,085	900	45,827	657,680	295,967
35	47,145	116,434	3,825	5,311	18,372	146	69,338	3,470	409	.....	10,563	133,661	64,177
36	35,186	36,347	1,800	720	22,712	790	8,400	710	215	.....	1,000	44,453	35,263
37	21,506,347	27,180,657	621,893	257,382	1,296,340	671,287	22,767,774	2,676	124,202	8,174	1,430,929	29,915,772	6,476,711
38	85,215	101,804	7,700	5,234	10,986	1,120	64,875	6,000	356	.....	5,533	114,744	48,749
39	114,484	107,109	4,421	5,329	18,618	2,664	60,076	2,635	579	400	12,387	114,418	51,678
40	747,024	867,825	57,415	125,087	62,331	1,627	409,192	15,088	7,735	1,823	187,527	1,013,735	602,916
41	45,607	71,744	9,705	5,780	35,756	2,856	9,892	2,920	111	.....	4,724	86,601	73,853
42	794,914	503,676	28,205	18,109	182,753	135,771	59,021	35	3,333	350	76,009	597,226	402,434
43	9,126,838	9,234,859	669,021	989,697	2,784,633	135,553	2,671,687	235,162	53,813	273,302	1,421,991	11,587,255	8,780,015
44	3,820,027	7,868,582	99,680	124,007	189,022	47,481	7,074,936	4,650	21,939	.....	306,867	8,142,438	1,020,021
45	506,222	338,404	14,447	3,634	81,908	92,582	123,871	1,500	3,544	5,544	11,374	407,160	190,707
46	23,050	65,842	550	.....	29,524	160	34,218	200	25	.....	1,165	75,662	41,284
47	63,683	113,424	3,400	1,200	39,782	1,372	55,956	2,880	432	.....	8,402	121,990	64,662
48	2,438,479	40,949,097	98,780	599,029	1,901,674	388,795	37,020,990	115,752	43,340	.....	780,737	42,529,746	5,119,961
49	3,087,647	788,404	24,740	4,866	77,519	44,741	546,669	.....	9,203	2,800	77,866	868,273	276,863
50	312,568	429,495	1,740	17,708	141,248	386	181,777	7,955	46,152	.....	32,529	508,695	326,532
51	160,674	149,568	9,520	8,160	79,868	50	41,805	.....	525	.....	9,640	217,826	175,971
52	30,950,698	37,189,243	558,260	588,063	2,584,079	1,874,171	29,891,822	76,611	90,271	11,419	1,514,547	42,213,635	10,447,642

[8] All other industries embrace—Continued.

Iron and steel, steel works and rolling mills	1
Iron and steel, doors and shutters	1
Kaolin and ground earths	2
Looking-glass and picture frames	1
Mineral and soda waters	212
Mirrors	2
Mucilage and paste	2
Oil, not elsewhere specified	1
Paper and wood pulp	2
Paper goods, not elsewhere specified	1
Peanuts, grading, roasting, cleaning, and shelling	4
Petroleum, refining	8
Roofing materials	2
Rubber goods, not elsewhere specified	2
Smelting and refining, copper	1
Smelting and refining, lead	1
Soap	5
Soda-water apparatus	1
Springs, steel, car and carriage	1
Statuary and art goods	4
Steam packing	2
Stereotyping and electrotyping	1
Stoves and furnaces, including gas and oil stoves	1
Sugar, refining, not including beet sugar	1
Surgical appliances and artificial limbs	3
Type founding and printing materials	2
Upholstering materials	1
Vinegar and cider	4
Wall plaster	2
Waste	3
Window shades and fixtures	1
Wirework, including wire rope and cable	7
Wood preserving	6
Wood, turned and carved	5
Woolen, worsted, and felt goods, and wool hats	1

TABLE III.—DETAIL STATEMENT FOR CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

DALLAS.

	INDUSTRY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners (average number). Total.	Wage earners. 16 and over. Male.	Wage earners. 16 and over. Female.	Wage earners. Under 16.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horse-power.
1	**All industries**	305	6,621	249	419	932	139	4,882	3,889	870	123	4,983	3,876	972	85	50	13,808
2	Bread and other bakery products	21	500	24	18	74	6	384	105	208	11	429	184	232	8	5	483
3	Clothing, men's, including shirts	3	220	3	7	9	1	200	11	189	.....	261	14	247	.....	.....	38
4	Confectionery	5	204	5	8	30	9	152	73	71	8	164	79	76	.....	9	273
5	Copper, tin, and sheet-iron products	14	169	11	14	12	2	130	124	6	.....	102	97	.....	5	.....	32
6	Foundry and machine-shop products	14	839	9	40	98	1	691	681	1	9	546	538	1	7	.....	1,054
7	Ice, manufactured	7	133	.....	15	12	.....	106	106	.....	.....	93	93	.....	.....	.....	2,771
8	Leather goods	6	463	.....	31	67	8	297	293	3	1	324	320	3	1	.....	329
9	Lumber and timber products	11	251	12	13	12	1	213	213	.....	.....	202	202	.....	.....	.....	405
10	Marble and stone work	8	96	10	6	7	.....	73	73	.....	.....	79	79	.....	.....	.....	208
11	Patent medicines and compounds and druggists' preparations.	18	171	13	16	54	11	77	55	22	.....	76	54	22	.....	.....	25
12	Printing and publishing	88	1,286	89	92	308	66	731	583	111	37	807	644	122	28	13	760
13	Tobacco manufactures	5	39	7	1	.....	.....	31	22	2	7	30	21	2	7	.....	7
14	All other industries [1]	105	2,304	66	158	249	34	1,707	1,490	257	50	1,870	1,551	267	29	23	7,373

[1] All other industries embrace: Agricultural implements, 1; artificial stone, 2; automobiles, including bodies and parts, 2; awnings, tents, and sails, 3; bags, other than paper, 1; blacking and cleansing and polishing preparations, 1; bluing, 1; boots and shoes, including cut stock and findings, 2; boxes, cigar, 1; boxes, fancy and paper, 2; brass and bronze products, 1; brooms, 2; canning and preserving, 1; carpets, rag, 1; carriages and wagons and materials, 7; cars and general shop construction and repairs by steam-railroad companies, 1; cars and general shop construction and repairs by street-railroad companies, 3; chemicals, 2; coffee and spice, roasting and grinding, 1; cooperage and wooden goods, not elsewhere specified, 1; cordials and sirups, 1; cotton goods, including cotton small wares, 1; electroplating, 3; engraving and diesinking, 1; files, 1; flavoring extracts, 1; flour-mill and gristmill products, 4; food preparations, 3; furnishing goods, men's, 1; furniture and refrigerators, 4; gas, illuminating and

FORT WORTH.

1	**All industries**	147	2,641	133	131	270	48	2,059	1,672	361	26	2,221	1,800	392	27	2	6,614
2	Bread and other bakery products	17	140	19	4	15	12	99	74	23	2	160	119	38	3	.....	101
3	Copper, tin, and sheet-iron products	7	55	6	4	.....	1	44	43	.....	1	55	54	.....	1	.....	8
4	Foundry and machine-shop products	9	94	19	8	7	2	58	58	.....	.....	61	61	.....	.....	.....	155
5	Furniture and refrigerators	4	121	3	1	5	2	110	105	3	2	132	126	4	2	.....	220
6	Ice, manufactured	6	94	4	7	7	1	75	75	.....	.....	69	69	.....	.....	.....	1,615
7	Leather goods	6	36	7	2	6	1	20	19	.....	1	14	13	.....	1	.....	19
8	Lumber and timber products	6	118	7	3	5	1	102	101	.....	1	100	99	.....	1	.....	267
9	Patent medicines and compounds and druggists' preparations.	6	21	6	1	4	1	9	6	3	.....	8	5	3	.....	.....	10
10	Printing and publishing	24	360	23	20	89	15	213	174	28	11	248	202	33	13	.....	346
11	Tobacco manufactures	4	21	5	.....	.....	.....	16	10	5	1	17	11	5	1	.....	.....
12	All other industries [1]	58	1,572	34	81	132	12	1,313	1,007	299	7	1,357	1,041	309	5	2	3,873

[1] All other industries embrace: Awnings, tents, and sails, 1; brass and bronze products, 2; brick and tile, 1; brooms, 1; butter, cheese, and condensed milk, 4; canning and preserving, 2; carriages and wagons and materials, 2; cars and general shop construction and repairs by steam-railroad companies, 3; cars and general shop construction and repairs by street-railroad companies, 2; clothing, men's, including shirts, 4; coffee and spice, roasting and grinding, 2; confectionery, 1; flavoring extracts, 1; flour-mill and

HOUSTON.

1	**All industries**	249	6,289	226	229	450	46	5,338	4,826	450	62	5,857	5,314	478	62	3	14,866
2	Bread and other bakery products	23	262	22	4	11	4	221	162	52	7	233	171	55	6	1	92
3	Brick and tile	3	93	2	1	1	.....	89	89	.....	.....	84	84	.....	.....	.....	150
4	Carriages and wagons and materials	11	120	11	6	4	.....	99	98	.....	1	94	93	.....	1	.....	63
5	Cars and general shop construction and repairs by steam-railroad companies.	3	1,601	.....	13	20	.....	1,568	1,568	.....	.....	1,664	1,664	.....	.....	.....	1,305
6	Clothing, men's, including shirts	3	134	5	4	6	1	118	9	109	.....	122	9	113	.....	.....	20
7	Copper, tin, and sheet-iron products	21	169	24	4	2	1	138	129	.....	9	141	132	.....	9	.....	15
8	Foundry and machine-shop products	21	548	15	25	10	1	488	482	.....	6	474	468	.....	6	.....	1,074
9	Leather goods	6	72	5	3	4	1	59	58	.....	1	59	58	.....	1	.....	41
10	Lumber and timber products	12	421	10	18	24	.....	369	356	.....	13	387	373	.....	14	.....	809
11	Oil, cottonseed, and cake	4	323	1	13	39	1	269	269	.....	.....	540	540	.....	.....	.....	3,801
12	Patent medicines and compounds and druggists' preparations.	5	22	3	2	4	1	12	12	.....	.....	12	12	.....	.....	.....	5
13	Printing and publishing	44	641	45	37	102	14	443	368	60	15	482	400	65	17	.....	713
14	All other industries [1]	93	1,883	83	99	214	22	1,465	1,226	229	10	1,565	1,310	245	8	2	6,773

[1] All other industries embrace: Artificial stone, 1; automobiles, including bodies and parts, 2; awnings, tents, and sails, 2; bags, other than paper, 1; boots and shoes, including cut stock and findings, 1; brass and bronze products, 2; brooms, 2; canning and preserving, 2; carpets, rag, 1; cars and general shop construction and repairs by street-railroad companies, 1; charcoal, 1; coffee and spice, roasting and grinding, 3; confectionery, 4; cooperage and wooden goods, not elsewhere specified, 1; electrical machinery, apparatus, and supplies, 1; electroplating, 1; fancy articles, not elsewhere specified, 1; flags, banners, regalia, society badges, and emblems, 1; flour-mill and gristmill products, 3; food preparations, 4; furniture and refrigerators, 3; gas, illuminating and heating, 1; glass, cutting, staining, and ornamenting, 1; hair work, 1; hand stamps and

AND TOTALS FOR ALL INDUSTRIES IN CITIES OF 10,000 BUT LESS THAN 50,000 INHABITANTS: 1909.

CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

DALLAS.

	Capital.	EXPENSES.											Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.						
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.			
1	$17,688,429	$24,148,782	$774,940	$1,056,283	$2,603,751	$358,323	$16,607,273	$177,470	$185,377	$156,253	$2,229,112		$26,958,664	$9,993,068
2	990,194	1,430,041	32,252	52,931	115,668	20,877	873,207	19,199	5,391	.....	310,516		1,496,120	602,036
3	180,258	346,848	11,338	8,550	55,248	1,632	228,615	4,004	43	30,000	7,418		376,626	146,379
4	297,465	461,408	15,501	49,060	51,893	5,013	283,785	6,540	1,345	.....	48,271		569,664	280,866
5	304,011	441,888	22,469	10,535	102,271	1,185	277,874	2,712	2,214	.....	22,628		482,834	203,775
6	2,511,790	1,928,754	87,680	148,834	420,439	17,424	1,015,477	4,770	18,400	.....	215,730		2,129,751	1,096,850
7	760,781	202,281	26,627	10,140	66,181	55,330	21,193	.....	8,457	.....	14,353		276,118	199,595
8	1,568,619	2,071,951	65,276	73,731	173,112	4,613	1,513,536	29,900	11,314	.....	200,469		2,262,467	744,318
9	379,019	644,582	22,464	13,991	153,312	7,458	429,344	3,264	2,383	.....	12,366		720,447	283,645
10	154,976	133,120	10,592	5,200	52,273	3,116	54,045	654	802	.....	5,838		160,087	102,326
11	468,262	505,705	33,940	70,813	35,545	949	266,754	9,803	5,246	783	81,872		592,955	325,252
12	1,769,603	2,489,730	164,406	364,804	461,129	21,957	780,370	48,151	11,780	123,245	513,888		2,927,368	2,125,041
13	35,723	39,445	600	.....	12,839	94	17,486	1,020	4,408	.....	2,998		49,907	32,327
14	8,267,728	13,453,029	281,795	247,694	903,841	218,675	10,844,987	47,453	113,594	2,225	792,765		14,914,320	3,850,658

heating, 1; glass, cutting, staining, and ornamenting, 1; hand stamps and stencils and brands, 1; jewelry, 3; lime, 1; liquors, malt, 1; mattresses and spring beds, 3; millinery and lace goods, 1; mineral and soda waters, 4; mirrors, 1; mucilage and paste, 1; oil, cottonseed, and cake, 2; optical goods, 3; paint and varnish, 1; paper and wood pulp, 1; paper goods, not elsewhere specified, 1; photo-engraving, 2; printing materials, 2; roofing materials, 2; rubber goods, not elsewhere specified, 1; show cases, 2; slaughtering and meat packing, 3; soda-water apparatus, 1; statuary and art goods, 1; steam packing, 1; stereotyping and electrotyping, 1; surgical appliances and artificial limbs, 1; vinegar and cider, 2; waste, 2; wirework, including wire rope and cable, 2.

FORT WORTH.

1	$7,443,130	$7,869,885	$199,126	$285,198	$1,284,510	$257,106	$5,008,153	$63,232	$99,518	$2,801	$669,241		$8,660,882	$3,394,623
2	491,367	286,901	3,450	19,964	62,351	7,176	173,870	6,780	2,655	.....	10,655		313,944	132,898
3	59,707	119,545	4,920	1,000	35,400	656	69,396	1,950	383	.....	5,340		150,080	79,528
4	138,300	140,757	9,683	4,894	39,778	4,799	69,756	3,685	1,181	.....	6,981		175,193	100,638
5	181,876	168,609	1,500	4,914	54,745	3,504	76,548	933	765	.....	25,700		215,107	135,055
6	457,043	204,721	12,180	5,386	59,842	60,518	37,011	6,000	3,184	.....	20,600		268,699	171,170
7	60,927	89,939	1,340	4,364	12,719	245	56,552	3,970	673	.....	10,076		96,494	39,697
8	151,222	225,994	3,970	5,863	69,785	2,648	131,506	2,162	874	.....	9,186		252,901	118,747
9	36,872	34,920	1,800	2,910	2,589	106	20,577	520	238	.....	6,180		42,774	22,091
10	564,549	632,892	37,533	99,682	175,283	7,496	170,039	16,388	2,544	1,601	122,326		722,314	544,779
11	13,489	20,617	.....	.....	7,057	61	9,663	300	1,998	.....	1,538		25,761	16,037
12	5,287,778	5,944,990	122,750	136,221	764,961	169,897	4,193,735	20,544	85,023	1,200	450,659		6,397,615	2,033,983

gristmill products, 3; food preparations, 4; gas, illuminating and heating, 1; glass, cutting, staining, and ornamenting, 1; jewelry, 2; lime, 2; liquors, malt, 1; marble and stone work, 5; mattresses and spring beds, 2; mineral and soda waters, 6; models and patterns, not including paper patterns, 2; slaughtering and meat packing, 1; statuary and art goods, 1; vinegar and cider, 1.

HOUSTON.

1	$16,593,694	$20,517,749	$495,459	$498,807	$3,259,862	$504,207	$13,817,138	$99,893	$307,411	$93,518	$1,441,454		$23,015,556	$8,694,211
2	980,367	632,097	6,740	14,989	113,842	8,442	403,574	9,990	1,910	285	72,325		724,233	312,217
3	125,750	83,707	1,200	1,200	39,684	30,300	1,335	.....	617	.....	9,371		98,799	67,164
4	107,043	168,200	8,796	4,624	68,314	2,850	66,304	5,266	734	.....	11,312		200,522	131,368
5	1,012,817	2,195,534	25,180	17,134	997,756	48,184	972,237	.....	7,813	532	126,698		2,195,534	1,175,113
6	84,205	166,428	6,100	9,180	45,668	1,033	86,206	2,630	115	.....	15,496		193,118	105,879
7	142,178	245,425	6,600	2,400	97,551	1,334	116,439	5,124	945	.....	15,032		305,129	187,356
8	1,226,541	1,251,511	51,918	19,817	298,415	58,706	723,508	10,051	4,338	.....	84,758		1,444,327	662,113
9	66,613	131,597	6,000	6,480	38,641	870	67,042	3,550	148	.....	8,866		174,200	106,288
10	888,780	967,134	46,740	21,925	210,676	1,944	573,148	341	4,712	42,300	65,348		1,080,544	505,452
11	2,116,549	3,258,189	38,572	42,806	108,805	56,943	2,802,287	.....	16,946	.....	191,830		3,555,143	695,913
12	16,337	32,391	2,400	5,330	7,254	219	7,509	1,045	40	.....	8,594		38,068	30,340
13	1,142,735	1,243,114	92,635	109,780	382,741	17,453	347,908	24,849	4,870	44,248	218,621		1,449,233	1,083,872
14	8,683,779	10,142,422	202,578	243,142	850,515	275,929	7,649,641	37,047	264,214	6,153	613,203		11,556,706	3,631,136

stencils and brands, 2; hats and caps, other than felt, straw, and wool, 1; hats, fur-felt, 1; house-furnishing goods, not elsewhere specified, 1; ice, manufactured, 4; jewelry, 5; liquors, malt, 2; marble and stone work, 2; mattresses and spring beds, 4; mineral and soda waters, 6; mirrors, 1; models and patterns, not including paper patterns, 2; oil, not elsewhere specified, 1; optical goods, 1; paint and varnish, 3; photo-engraving, 2; rice, cleaning and polishing, 5; slaughtering and meat packing, 1; soap, 2; steam packing, 1; surgical appliances and artificial limbs, 1; tobacco manufactures, 1; window shades and fixtures, 1; wirework, including wire rope and cable, 2.

TABLE III.—DETAIL STATEMENT FOR CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES, AND

CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES—Continued.

SAN ANTONIO.

	INDUSTRY AND CITY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners (average number). Total.	Wage earners. 16 and over. Male.	Wage earners. 16 and over. Female.	Wage earners. Under 16.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horse-power.
1	**All industries**	**194**	**3,913**	**156**	**154**	**429**	**69**	**3,105**	**2,602**	**481**	**22**	**3,244**	**2,724**	**497**	**20**	**3**	**6,998**
2	Bread and other bakery products	32	213	37	2	28	11	135	130	3	2	136	131	3	2	.....	102
3	Cars and general shop construction and repairs by steam-railroad companies.	3	584	.....	4	22	1	557	557	.....	.....	604	604	.....	.....	.....	243
4	Clothing, men's, including shirts	5	147	2	3	6	4	132	6	126	.....	134	6	128	.....	.....	26
5	Confectionery	7	277	8	11	44	6	208	113	92	3	217	118	96	.....	3	86
6	Copper, tin, and sheet-iron products	7	63	7	2	1	.....	53	53	.....	.....	71	71	.....	.....	.....	15
7	Foundry and machine-shop products	7	248	5	7	5	1	230	229	1	.....	219	218	1	.....	.....	217
8	Ice, manufactured	4	65	1	7	3	.....	54	54	.....	.....	49	49	.....	.....	.....	227
9	Lumber and timber products	7	162	7	0	8	.....	138	138	.....	.....	153	153	.....	.....	.....	360
10	Marble and stone work	5	79	5	.....	10	.....	64	64	.....	.....	59	59	.....	.....	.....	65
11	Printing and publishing	30	595	29	30	137	16	383	298	72	13	416	324	78	14	.....	328
12	Tobacco manufactures	5	102	5	1	5	1	90	7	83	.....	90	7	83	.....	.....	.....
13	All other industries [1]	73	1,378	50	78	160	29	1,061	953	104	4	1,096	984	108	4	.....	5,239

[1] All other industries embrace: Awnings, tents, and sails, 2; billiard tables and materials, 1; boots and shoes, including cut stock and findings, 1; boxes, fancy and paper, 1; brick and tile, 1; brooms, 2; butter, cheese, and condensed milk, 1; canning and preserving, 4; cars and general shop construction and repairs by street-railroad companies, 1; cement, 1; coffee and spice, roasting and grinding, 4; cooperage and wooden goods, not elsewhere specified, 2; flavoring extracts, 1; flour-mill and gristmill

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

1	AUSTIN	108	1,014	109	49	94	8	754	683	66	5	772	699	68	5	.....	2,211
2	BEAUMONT	56	1,094	49	79	98	5	863	832	20	11	950	916	22	12	.....	4,596
3	BROWNSVILLE	9	79	13	4	10	1	51	47	4	.....	62	57	5	.....	.....	414
4	CLEBURNE	24	952	25	37	58	7	825	820	1	4	854	849	1	4	.....	1,499
5	DENISON	29	935	27	23	41	11	833	795	37	1	882	842	39	1	.....	2,306
6	EL PASO	88	2,041	66	88	112	23	1,752	1,556	143	53	1,854	1,647	151	56	.....	3,396
7	GALVESTON	81	1,396	77	49	155	21	1,094	940	124	30	1,168	1,004	132	26	6	3,653
8	LAREDO	23	252	28	7	4	.....	213	202	8	3	189	179	7	3	.....	353
9	MARSHALL	22	1,108	18	66	44	3	977	958	7	12	883	866	6	11	.....	1,326
10	PALESTINE	20	855	26	14	65	5	745	737	7	1	786	778	7	1	.....	1,209
11	PARIS	45	679	33	31	68	6	541	478	53	10	676	597	66	10	3	2,489
12	SAN ANGELO	26	189	28	17	28	1	115	112	3	.....	123	120	3	.....	.....	608
13	SHERMAN	36	395	27	32	54	9	273	232	39	2	320	272	46	2	.....	2,150
14	TEMPLE	37	483	42	27	41	7	366	333	26	7	480	437	34	9	.....	1,016
15	TYLER	23	555	23	28	18	2	484	442	40	2	553	505	46	2	.....	769
16	WACO	92	1,318	79	69	120	17	1,033	826	143	64	1,137	909	157	46	25	3,669

TOTALS FOR ALL INDUSTRIES IN CITIES OF 10,000 BUT LESS THAN 50,000 INHABITANTS: 1909—Continued.

CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES—Continued.

SAN ANTONIO.

	Capital.	EXPENSES.											Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.						
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.			
1	$8,628,941	$10,994,864	$304,354	$448,572	$1,759,715	$311,941	$6,639,723	$61,440	$338,090	$46,282	$1,084,747		$13,434,897	$6,483,233
2	283,774	439,950	2,328	16,958	75,679	8,962	297,752	3,832	2,083	.....	32,356		565,090	258,376
3	245,105	735,905	9,720	21,729	416,191	24,286	228,837	.....	4,360	.....	30,782		735,905	482,782
4	65,017	154,642	4,250	4,502	38,216	1,301	95,049	2,040	390	.....	8,894		185,133	88,783
5	545,841	687,167	17,058	52,008	59,785	6,318	469,748	7,147	2,555	24,473	48,075		739,864	263,798
6	61,300	87,623	1,280	900	39,325	424	40,363	1,692	276	.....	3,363		108,352	67,565
7	324,804	332,193	17,526	6,720	138,836	7,559	152,653	720	3,043	.....	5,136		399,412	230,200
8	410,549	112,441	8,500	2,110	32,763	44,703	8,365	.....	1,645	.....	14,295		167,652	114,524
9	184,689	216,325	10,854	4,438	89,007	2,181	101,970	580	758	.....	6,537		236,906	132,755
10	44,800	78,215	.....	7,600	45,250	1,694	18,100	50	471	.....	5,050		97,895	78,101
11	775,656	775,779	52,649	121,347	219,485	12,583	204,225	16,056	5,111	14,183	130,140		982,367	765,559
12	32,969	93,256	780	2,808	20,908	.....	42,711	2,100	12,183	.....	11,766		102,371	59,660
13	5,654,437	7,281,368	179,409	207,452	584,270	201,870	4,979,950	27,223	305,215	7,626	783,353		9,113,950	3,932,130

products, 4; food preparations, 2; furniture and refrigerators, 2; gas, illuminating and heating, 2; hand stamps and stencils and brands, 1; jewelry, 2; leather goods, 4; liquors, malt, 5; mattresses and spring beds, 4; millinery and lace goods, 8; mineral and soda waters, 4; mucilage and paste, 1; oil, cottonseed, and cake, 4; paint and varnish, 1; patent medicines and compounds and druggists' preparations, 1; slaughtering and meat packing, 2; soap, 1; statuary and art goods, 2; vinegar and cider, 1.

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

1	$2,340,356	$2,405,297	$70,942	$76,657	$415,221	$73,043	$1,554,159	$22,671	$15,450	$37,561	$139,653		$2,845,500	$1,218,298
2	4,007,081	4,579,001	115,024	99,170	644,631	80,976	3,363,323	13,145	24,654	5,701	232,377		4,830,591	1,386,292
3	51,042	87,102	4,760	7,934	19,437	10,121	36,223	1,140	2,835	800	3,852		120,746	74,402
4	773,439	1,537,540	59,503	52,605	532,606	60,957	797,559	2,769	4,327	240	26,974		1,576,572	718,056
5	1,107,539	1,234,359	32,209	37,759	515,679	57,067	536,092	4,695	7,380	.....	43,478		1,313,785	720,626
6	4,252,112	3,193,443	151,018	124,342	1,092,954	184,586	1,311,166	35,343	45,216	5,686	243,132		3,637,577	2,141,825
7	4,571,913	5,658,820	153,770	144,140	707,449	105,673	4,161,524	23,918	63,525	9,210	289,611		6,308,076	2,040,879
8	213,141	185,612	8,300	2,700	87,296	15,460	58,507	1,816	6,262	.....	5,271		221,074	147,107
9	1,690,080	1,626,655	92,856	33,322	652,931	47,189	756,001	3,549	5,932	1,560	33,315		1,787,146	983,956
10	1,523,709	1,251,828	21,276	64,714	480,835	50,799	571,115	1,725	13,492	2,080	45,792		1,312,845	690,931
11	1,380,802	1,282,979	40,195	36,367	246,723	24,766	836,757	8,044	8,390	3,000	78,737		1,429,943	568,420
12	306,464	266,723	17,227	10,468	70,811	17,232	115,535	6,030	1,811	50	27,559		317,861	185,094
13	1,638,498	4,435,503	46,660	50,878	136,193	57,049	3,990,108	6,230	12,231	.....	136,154		4,675,971	628,814
14	915,728	1,186,568	33,426	27,850	215,018	43,197	791,115	6,393	7,950	1,500	60,119		1,345,770	511,458
15	661,317	936,064	37,580	13,819	287,633	25,851	510,637	2,542	6,777	3,350	47,875		996,243	459,755
16	3,561,291	4,162,423	106,538	113,945	587,746	108,604	2,856,832	29,051	24,235	20,394	315,078		4,769,358	1,803,922

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UTAH.

INDUSTRIES IN GENERAL.

General character of the state.—Utah, with a gross area of 84,990 square miles, of which 2,806 represent water surface, ranks tenth in size among the states and territories of continental United States. Its population in 1910 was 373,351, as compared with 276,749 in 1900 and 210,779 in 1890. It ranked forty-first among the 49 states and territories as regards population in 1910 and forty-second in 1900. The density of population of the state was 4.5 persons per square mile in 1910, the corresponding figure for 1900 being 3.4.

Salt Lake City, with a population of 92,777, and Ogden, with a population of 25,580, are the only cities in the state having over 10,000 inhabitants. Of the entire population of the state, 46.3 per cent resided in cities and towns having a population of 2,500 inhabitants or over, as against 38.1 per cent in 1900.

Utah is without navigable rivers or lakes. The waters of the numerous mountain streams, however, have been utilized largely in the generation of electrical energy, which is used not only in manufacture but also in mining and other industries. The diversion of the waters of some of the streams has been directly responsible for the development of several industries, among them the beet-sugar industry, one of the most important of the manufactures in the state.

Importance and growth of manufactures.—Although Utah is comparatively unimportant as a manufacturing state, its manufactures have shown marked increases at the last two censuses. In 1849, 14 establishments gave employment to 51 wage earners, representing four-tenths of 1 per cent of the total population. In 1909 the percentage of wage earners to the total population of the state was 3.2. During this period the gross value of products per capita of the entire population increased from $26 to $166.

The following table gives the most important figures relative to all classes of manufactures combined for 1909, 1904, and 1899, together with percentages of increase from census to census:

	NUMBER OR AMOUNT.			PER CENT OF INCREASE.	
	1909	1904	1899	1904–1909	1899–1904
Number of establishments	749	606	575	23.6	5.4
Persons engaged in manufactures	14,133	9,650	(1)	46.5	.....
Proprietors and firm members	688	619	(1)	11.1	.....
Salaried employees	1,660	979	599	69.6	63.4
Wage earners (average number)	11,785	8,052	5,413	46.4	48.8
Primary horsepower	42,947	19,397	12,674	121.4	53.0
Capital	$52,627,000	$26,004,000	$13,219,000	102.4	96.7
Expenses	54,207,000	32,601,000	15,445,000	66.3	111.1
Services	10,366,000	6,195,000	3,264,000	67.3	89.8
Salaries	1,966,000	1,038,000	501,000	89.4	107.2
Wages	8,400,000	5,157,000	2,763,000	62.9	86.6
Materials	41,266,000	24,940,000	11,440,000	65.5	118.0
Miscellaneous	2,575,000	1,466,000	741,000	75.6	97.8
Value of products	61,989,000	38,926,000	17,982,000	59.2	116.5
Value added by manufacture (value of products less cost of materials)	20,723,000	13,986,000	6,542,000	48.2	113.8

[1] Figures not available.

In 1909 the state of Utah had 749 manufacturing establishments, which gave employment to an average of 14,133 persons during the year and paid out $10,366,000 in salaries and wages. Of the persons employed, 11,785 were wage earners. These establishments turned out products to the value of $61,989,000, to produce which materials costing $41,266,000 were consumed. The value added by manufacture was thus $20,723,000, which figure, as explained in the Introduction, best represents the net wealth created by manufacturing operations during the year.

While larger actual increases are shown for the five-year period 1904–1909, the percentages of increase for most of the items are smaller than for the period 1899–1904. During the later period the number of establishments increased 23.6 per cent and the average number of wage earners 46.4 per cent, while the value of products increased 59.2 per cent and the value added by manufacture 48.2 per cent.

As pointed out in the Introduction, it would be improper to infer that manufactures increased in volume to the full extent indicated by these figures representing values, since the increase shown is certainly due, in part, to the increase that has taken place in the prices of commodities.

The relative importance and growth of the leading manufacturing industries of the state are shown in the next table.

INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		PER CENT OF INCREASE.[1]			
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	Value of product.		Value added by manufacture.	
								1904-1909	1899-1904	1904-1909	1899-1904
All industries	**749**	**11,785**	**100.0**	**$61,989,000**	**100.0**	**$20,723,000**	**100.0**	**59.2**	**116.5**	**48.2**	**113.8**
Flour-mill and gristmill products	60	184	1.6	3,131,000	5.1	620,000	3.0	29.1	46.2	61.9	4.1
Cars and general shop construction and repairs by steam-railroad companies	8	1,731	14.7	2,740,000	4.4	1,515,000	7.3	45.2	44.4	42.9	51.0
Printing and publishing	122	967	8.2	2,405,000	3.9	1,682,000	8.1	57.9	91.6	40.4	103.4
Butter, cheese, and condensed milk	37	214	1.8	1,971,000	3.2	358,000	1.7	.....	.....	.....	.....
Confectionery	17	586	5.0	1,952,000	3.1	661,000	3.2	94.2	149.4	108.5	62.6
Slaughtering and meat packing	12	99	0.8	1,690,000	2.7	363,000	1.8	158.8	44.2	161.2	104.4
Liquors, malt	5	178	1.5	1,357,000	2.2	1,067,000	5.1	113.0	47.1	131.5	47.8
Bread and other bakery products	53	282	2.4	1,214,000	2.0	467,000	2.3	124.0	86.3	78.9	75.2
Canning and preserving	24	396	3.4	1,059,000	1.7	343,000	1.7	.....	.....	.....	.....
Lumber and timber products	104	431	3.6	977,000	1.6	542,000	2.6	192.5	−23.9	177.9	−28.6
Foundry and machine-shop products	27	373	3.2	922,000	1.5	515,000	2.5	.....	.....	.....	.....
Brick and tile	34	514	4.4	683,000	1.1	547,000	2.6	97.4	86.0	96.8	81.7
Leather goods	19	115	1.0	426,000	0.7	167,000	0.8	.....	.....	.....	.....
Hosiery and knit goods	11	174	1.5	419,000	0.7	127,000	0.6	28.5	393.9	−20.1	278.6
Tobacco manufactures	28	152	1.3	385,000	0.6	220,000	1.1	29.2	140.3	17.6	152.7
Marble and stone work	25	121	1.0	270,000	0.4	179,000	0.9	164.7	50.0	171.2	73.7
Pottery, terra-cotta, and fire-clay products	3	96	0.8	195,000	0.3	138,000	0.7	153.2	165.5	187.5	108.7
Salt	9	56	0.5	184,000	0.3	131,000	0.6	−22.4	70.5	−29.6	73.8
All other industries	151	5,116	43.4	40,009,000	64.5	11,081,000	53.5	.....	.....	.....	.....

[1] Percentages are based on figures in Table I; a minus sign (−) denotes decrease. Where the percentages are omitted, comparable figures can not be given.

It should be borne in mind, in considering this table, that the value of products in some of the industries involves a certain amount of duplication due to the use of the product of one establishment in the industry as material for another establishment.

Three industries—the smelting and refining of copper, the smelting and refining of lead, and the manufacture of beet sugar—predominate greatly in importance, but the data for these can not be shown separately without disclosing individual operations. The most important industries listed in this table, in which they are arranged in the order of the value of products, call for brief consideration.

Flour-mill and gristmill products.—This industry ranks fourth in the manufacturing industries of Utah in the value of its products. In 1909 employment was given to 184 wage earners, and products reported valued at $3,131,000. Owing to the comparatively simple processes involved in this industry and the extent to which these processes are carried on by machinery, the value added by manufacture is not commensurate with the gross value of products.

This classification does not include custom gristmills, statistics for which are shown separately on page 1235.

Cars and general shop construction and repairs by steam-railroad companies.—This class of manufacture represents the work done in car shops of steam-railroad companies, and is practically confined to repairs to the rolling stock and equipment. The statistics do not include minor repairs made in roundhouses. This industry gave employment to a greater number of wage earners than any other in the state, an average of 1,731, and reported products valued at $2,740,000.

Printing and publishing.—Those establishments engaged in bookbinding and blank-book making; engraving, steel and copper plate, including plate printing; lithographing; book and job printing; and the printing and publishing of newspapers and periodicals are included in this industry. An average of 967 wage earners were employed in 1909, and a value of products was reported amounting to $2,405,000.

Butter, cheese, and condensed milk.—The 37 establishments reported for this industry may be classified according to their chief product, as follows: Butter, 26; cheese, 9; and condensed milk, 2. Notwithstanding a decrease of 13 in the total number of establishments from 1904 to 1909, there was a great increase in the value of products for the industry, but the exact proportions are not given, because for 1904 it was found necessary to omit figures for 1 establishment in order not to disclose its operations.

Confectionery.—This industry shows an increase in all important items. From 1904 to 1909 there was an increase of 251, or 74.9 per cent, in average number of wage earners; of $947,000, or 94.2 per cent, in value of products; and of $344,000, or 108.5 per cent, in value added by manufacture.

Slaughtering and meat packing.—From 1904 to 1909 this industry shows an increase of nine in number of establishments, compared with a decrease of five from 1899 to 1904. During the later period there were increases of 68, or 219.4 per cent, in the average number of wage earners, and of $1,037,000, or 158.8 per cent, in value of products.

There are 13 other important industries each of which had a value of products in 1909 in excess of $100,000, included with all other industries in some cases, because the operations of individual establishments would be disclosed if they were shown separately; in others, the returns do not present properly the true condition of the industry, which is more or less

interwoven with one or more other industries; and in still other cases, because comparable statistics for the different census years are not available. These 13 industries are: Awnings, tents, and sails; boots and shoes, including cut stock and findings; cars and general shop construction and repairs by street-railroad companies; cement; clothing, men's, including shirts; coffee and spice, roasting and grinding; coke; copper, tin, and sheet-iron products; furniture and refrigerators; gas, illuminating and heating; lime; mattresses and spring beds; and mineral and soda waters. The statistics, however, for the manufacture of men's clothing, furniture, gas, lime, and mattresses and spring beds are presented in Table II for 1909.

When measured by value added by manufacture rather than by value of products, considerable change occurs in the relative order of the industries shown separately. The railroad car shops continue to rank second. Printing and publishing advances to first place, and the malt-liquor industry to third place, while the flour-mill and gristmill industry drops from first to fifth place.

In value of products the lumber and timber industry showed a greater rate of increase from 1904 to 1909 than any other of the industries shown separately, namely, 192.5 per cent. The marble and stone work, the pottery, and the slaughtering and meat-packing industries showed marked increases both in gross value of products and in value added by manufacture. The lumber industry was the only one which showed a decrease in value of products from 1899 to 1904, while the salt industry was the only one which showed a decrease from 1904 to 1909. The lumber industry showed a decrease in the value added by manufacture from 1899 to 1904, while the salt and the hosiery and knit-goods industries showed decreases in this item from 1904 to 1909.

Persons engaged in manufacturing industries.—The following table shows, for 1909, the distribution of the number of persons engaged in manufactures, the average number of wage earners being distributed by sex and age. It should be borne in mind, however, that 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 Introduction.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.		
	Total.	Male.	Female.
All classes	**14,133**	**12,680**	**1,453**
Proprietors and officials	1,221	1,195	26
Proprietors and firm members	688	673	15
Salaried officers of corporations	135	132	3
Superintendents and managers	398	390	8
Clerks	1,127	923	204
Wage earners (average number)	11,785	10,562	1,223
16 years of age and over	11,675	10,470	1,205
Under 16 years of age	110	92	18

The average number of persons engaged in manufactures during 1909 was 14,133, of whom 11,785 were wage earners. Of the remainder, 1,221 were proprietors and officials, and 1,127 were clerks. Corresponding figures for individual industries will be found in Table II.

The following table shows, for 1909, the percentage of proprietors and officials, clerks, and wage earners, respectively, among the total number of persons employed in manufactures. It covers all industries combined and nine important industries individually:

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries	**14,133**	**8.6**	**8.0**	**83.4**
Bread and other bakery products	412	24.3	7.3	68.4
Butter, cheese, and condensed milk	285	15.4	9.5	75.1
Canning and preserving	461	8.5	5.6	85.9
Cars and general shop construction and repairs by steam-railroad companies	1,790	0.6	2.7	96.7
Confectionery	745	4.6	16.8	78.7
Flour-mill and gristmill products	282	28.0	6.7	65.2
Foundry and machine-shop products	428	9.3	3.5	87.1
Lumber and timber products	629	28.1	3.3	68.5
Printing and publishing	1,475	11.5	23.0	65.6
All other industries	7,626	6.9	6.3	86.8

Of the total number of persons engaged in all manufacturing industries, 8.6 per cent were proprietors and officials, 8 per cent clerks, and 83.4 per cent wage earners. In the bakery, the lumber and timber, and the flour-mill and gristmill industries many of the establishments are small and the work is done to a large extent by the proprietors or their immediate representatives, so that the proportion of persons engaged in these three industries falling in the class of proprietors and officials is very much higher than for most other industries or for all industries combined. The smallest proportion of proprietors and officials is shown for the steam-railroad repair shops and is due partly to the fact that the establishments in this industry were under corporate ownership, and so reported no proprietors; and partly to the fact that the higher officials of the railroad companies who exercise general supervision over them are not as a rule assigned to the supervision of this particular branch of the work.

The next table shows, for 1909, in percentages, for all industries combined, the distribution of the average number of wage earners, by age periods and for those 16 years of age and over by sex, calculated in the manner described in the Introduction. It also shows, for some of the important industries separately, a similar distribution of wage earners as reported for December 15, or the nearest representative day. As a means of judging the importance of the several industries the average total number employed for the year is also given in each case.

For all industries combined, 88.8 per cent of the average number of wage earners were males 16 years of

age and over; 10.2 per cent, females 16 years of age and over; and only nine-tenths of 1 per cent, persons under the age of 16. In all industries combined only 1,205 women and 110 children were employed as wage earners. More than two-thirds of the wage earners employed in the manufacture of confectionery and over one-half of those engaged in canning and preserving were females 16 years of age and over. The largest proportions of children employed, 5.6 per cent and 2.3 per cent, were reported from the canning and preserving and the printing and publishing industries, respectively.

INDUSTRY.	WAGE EARNERS.			
	Average number.[1]	Per cent of total.		
		16 years of age and over.		Under 16 years of age.
		Male.	Female.	
All industries	11,785	88.8	10.2	0.9
Bread and other bakery products	282	81.9	17.4	0.7
Butter, cheese, and condensed milk	214	84.6	15.4	.....
Canning and preserving	396	39.1	55.3	5.6
Cars and general shop construction and repairs by steam-railroad companies	1,731	100.0	.....	.....
Confectionery	586	30.2	69.1	0.7
Flour-mill and gristmill products	184	100.0	.....	.....
Foundry and machine-shop products	373	100.0	.....	.....
Lumber and timber products	431	98.6	0.9	0.5
Printing and publishing	967	84.4	13.3	2.3
All other industries	6,621	93.6	5.5	0.9

[1] For method of estimating the distribution, by sex and age periods, of the average number in all industries combined, see Introduction.

In order to compare the distribution of persons engaged in manufactures in 1909 with that shown at the census of 1904 it is necessary to use the classification employed at the earlier census. (See Introduction.) The following table makes this comparison according to occupational status:

CLASS.	PERSONS ENGAGED IN MANUFACTURES.				
	1909		1904		Per cent of increase, 1904–1909.
	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total	14,133	100.0	9,650	100.0	46.5
Proprietors and firm members	688	4.9	619	6.4	11.1
Salaried employees	1,660	11.7	979	10.1	69.6
Wage earners (average number)	11,785	83.4	8,052	83.4	46.4

Comparable figures are not obtainable for 1899. The table shows a greater percentage of increase in the salaried employees than in the other two classes.

The following table shows the average number of wage earners, distributed according to age periods, and in the case of those 16 years of age and over according to sex, for 1909, 1904, and 1899. The averages for 1909 are estimated on the basis of the actual number reported for a single representative day. (See Introduction.)

This table indicates that for all industries combined there have been actual and relative decreases during the 10 years in the employment of children under 16 years of age. While the actual number of adult females has more than doubled during the decade, little change is shown in 1909, as compared with 1899, in the proportion of male and female wage earners. In 1909 males 16 years of age and over formed 88.8 per cent of all wage earners, as compared with 86.1 per cent in 1899. The year 1904 showed the highest proportion of women employed, with a corresponding reduction in the proportion of men.

CLASS.	AVERAGE NUMBER OF WAGE EARNERS.					
	1909		1904		1899	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total	11,785	100.0	8,052	100.0	5,418	100.0
16 years of age and over	11,675	99.1	7,857	97.6	5,240	96.8
Male	10,470	88.8	6,840	84.9	4,663	86.1
Female	1,205	10.2	1,017	12.6	577	10.7
Under 16 years of age	110	0.9	195	2.4	178	3.2

Wage earners employed, by months.—The following table gives the number of wage earners employed on the 15th of each month during the year 1909, for all industries combined, for the canning and preserving industry separately, and for all other industries combined. It gives also the percentage which the number reported for each month is of the greatest number reported for any month. In Table II, page 1238, is shown for practically all of the important industries in the state, the largest number and also the smallest number of wage earners reported for any month. The figures are for the 15th day, or the nearest representative day, of the month.

MONTH.	WAGE EARNERS.					
	All industries.		Canning and preserving.		All other industries.	
	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.
January	11,412	86.0	72	5.7	11,340	93.6
February	10,449	78.7	69	5.5	10,380	85.7
March	10,594	79.8	79	6.3	10,515	86.8
April	10,830	81.6	126	10.0	10,704	88.4
May	10,749	81.0	170	13.5	10,579	87.3
June	11,868	89.4	305	24.3	11,563	95.5
July	12,436	93.7	538	42.8	11,898	98.2
August	12,234	92.1	631	50.2	11,603	95.8
September	13,277	100.0	1,256	100.0	12,021	99.2
October	13,070	98.4	1,020	81.2	12,050	99.5
November	12,445	93.7	333	26.5	12,112	100.0
December	12,053	90.8	153	12.2	11,900	98.2

The beet-sugar and the canning and preserving industries are the most seasonal in character in the state. The beet-sugar industry showed the greatest activity in October, November, and December, while employment in the canning and preserving industry reached the maximum in September. In the latter industry the number of wage earners increased from 69 in February to 1,256 in September. The time of greatest activity in each of the above-named industries is dependent upon the time of ripening of the raw ma-

terials. While the smelting and refining of lead is not a seasonal industry, and like the beet-sugar industry the figures can not be presented separately, there was a considerable fluctuation in the number of wage earners employed. For all other industries combined, the largest number of wage earners was employed in November, but the difference between the number in this month and in that of February, the month of least activity, was only 14.3 per cent.

Prevailing hours of labor.—In the following table wage earners have been classified according to the hours of labor prevailing in the establishments in which they are employed. In making this classification the average number of wage earners employed during the year is used, and the number employed in each establishment is classified as a total according to the hours prevailing in that establishment, even though a few employees work a greater or less number of hours.

INDUSTRY.	AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS GROUPED ACCORDING TO PREVAILING HOURS OF WORK PER WEEK.								
	Total.	48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries	**11,785**	**2,093**	**874**	**2,072**	**3,545**	**1,182**	**1,216**	**406**	**397**
Bread and other bakery products	282	2		9	61	178	28	2	2
Brick and tile	514	253		91	9	161			
Butter, cheese, and condensed milk	214	79		6	7	13	109		
Canning and preserving	396	85		77	33	192		9	
Cars and general shop construction and repairs by steam-railroad companies	1,731			1,027			704		
Confectionery	586	67	70	123	37	285	3		1
Flour-mill and gristmill products	184	12		8	5	101	39	18	1
Foundry and machine-shop products	373	46	21	265	33	4	4		
Hosiery and knit goods	174	38	72	64					
Leather goods	115	5	32	31	39	8			
Liquors, malt	178	141	37						
Lumber and timber products	431	165	85	97		75	9		
Marble and stone work	121	59	5	36	21				
Pottery, terra-cotta, and fire-clay products	96		23		1		72		
Printing and publishing	967	438	253	69	198	7	2		
Salt	56	48				6		2	
Slaughtering and meat packing	99	6		2	32	59			
Tobacco manufactures	152	150		1		1			
All other industries	5,116	499	276	166	3,069	92	246	375	393

It is evident from these figures that for more than one-half of the wage earners employed in the manufacturing industries of Utah the prevailing hours of labor range from 54 to 60 a week, although 25.2 per cent of the total number of wage earners were employed in establishments where less than 54 hours a week prevailed, and 17.1 per cent were employed in establishments where more than 60 hours a week prevailed.

The large number of wage earners shown for the group working between 54 and 60 hours a week is due to the fact that these are the prevailing hours in the lead and copper smelters and refineries. The wage earners employed in the steam-railroad repair shops and in the foundries and machine shops form a large part of those in the group working 54 hours a week. Relatively long hours are what might be expected in seasonal industries where the operations for the entire year are confined largely to a few weeks; consequently, in the canneries, the prevailing hours are mainly 60 per week. The bakery, confectionery, and flour-mill and gristmill industries are also largely on a 60-hour-a-week basis, but the brick and tile, malt-liquor, printing and publishing, tobacco-manufactures, and lumber and timber industries report 48 hours or less per week for many of the wage earners.

Location of establishments.—The next table shows the extent to which the manufactures of Utah are centralized in the two cities of Salt Lake and Ogden. (See Introduction.)

ITEM.	Year.	Total.	LOCATION OF ESTABLISHMENTS.		PER CENT OF TOTAL.	
			In cities with population of 10,000 and over.	Outside districts.	In cities with population of 10,000 and over.	Outside districts.
Population	1910	373,351	118,357	254,994	31.7	68.3
	1900	276,749	69,844	206,905	25.2	74.8
Number of establishments.	1909	749	313	436	41.8	58.2
	1904	606	255	351	42.1	57.9
	1899	575	205	370	35.7	64.3
Average number of wage earners.	1909	11,785	5,610	6,175	47.6	52.4
	1904	8,052	3,789	4,263	47.1	52.9
	1899	5,413	2,832	2,581	52.3	47.7
Value of products	1909	$61,989,277	$17,064,204	$44,925,073	27.5	72.5
	1904	38,926,464	10,051,040	28,875,424	25.8	74.2
	1899	17,981,648	5,521,140	12,460,508	30.7	69.3
Value added by manufacture.	1909	20,723,616	8,383,756	12,339,860	40.5	59.5
	1904	13,986,637	5,138,047	8,848,590	36.7	63.3
	1899	6,541,398	2,865,094	3,676,304	43.8	56.2

In 1909, 27.5 per cent of the total value of products was reported from the two cities having over 10,000 inhabitants, and 47.6 per cent of the average number of wage earners were employed there. The percentages indicate that relatively no great change took place during the last 5 or 10 years. In 1899 the percentage of city production was greater than in 1909 or in 1904. In all three census years the city group comprised the same two cities.

In respect to population, the cities covered by the table increased 69.5 per cent from 1900 to 1910, while in the remainder of the state the increase was only

23.2 per cent. On the other hand, the average number of wage earners in the outside districts show a greater percentage of increase than the cities, the percentage of increase from 1899 to 1909 in the former being 139.2 per cent and in the latter 98.1 per cent. The relative increase in the value of products during the decade was also greater for the industries located outside these two cities, the figures being 260.5 per cent and 209.1 per cent, respectively. This greater increase in average number of wage earners and value of products outside of the cities is due to the fact that three of the most important industries of Utah, namely, the manufacture of beet sugar and the smelting and refining of copper and of lead, are conducted in establishments all of which are located beyond the corporate limits of Salt Lake City and Ogden.

The following table shows the average number of wage earners and the value of products for Salt Lake City and Ogden separately for 1909, 1904, and 1899:

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Salt Lake City	4,287	2,776	2,154	$13,351,247	$7,543,983	$4,278,926
Ogden [1]	1,323	1,013	678	3,712,957	2,507,057	1,242,214

[1] Figures do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city.

The leading industries in Salt Lake City in 1909 were printing and publishing, the steam-railroad repair shops, the manufacture of confectionery, the breweries, bakeries, and foundries and machine shops. When measured by value of products, the largest industry in Salt Lake City was printing and publishing, the establishments located in this city being credited with 82.5 per cent of the total value of products for this industry in the state, and showing an increase over 1904 of $747,000, or 60.4 per cent. Steam-railroad repair shops was the industry of chief importance when viewed from the standpoint of the employment of labor, but statistics for this industry, as well as for the malt-liquor industry, are not shown separately in Table I, in order to avoid the disclosure of individual operations. Of the industries shown separately in Table I, the lumber and timber industry showed the largest percentage of increase from 1904 to 1909, both in the value of products and in the value added by manufacture, being 184.8 per cent and 152.4 per cent, respectively.

Chief among the industries of Ogden are the steam-railroad repair shops, slaughtering and meat-packing establishments, creameries, confectioneries, canning and preserving establishments, flour mills and gristmills, and malt-liquor establishments.

Character of ownership.—The table that follows has for its purpose the presentation of conditions in respect to the character of ownership, or legal organization, of manufacturing enterprises.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	**749**	**11,785**	**$61,989,277**	**$20,723,616**
1904	**606**	**8,052**	**38,926,464**	**13,986,637**
Individual:				
1909	298	986	3,194,702	1,605,833
1904	257	764	2,002,858	1,016,139
Firm:				
1909	137	537	1,743,262	795,980
1904	135	634	1,844,084	825,197
Corporation:				
1909	294	9,998	56,234,329	17,912,119
1904	203	6,544	34,765,530	11,914,633
Other:				
1909	20	264	816,984	349,678
1904	11	110	313,992	230,068
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Individual:				
1909	39.8	8.4	5.2	8.0
1904	42.4	9.5	5.1	7.3
Firm:				
1909	18.3	4.6	2.8	3.8
1904	22.3	7.9	4.7	5.9
Corporation:				
1909	39.3	84.8	90.7	86.4
1904	33.5	81.3	89.3	85.2
Other:				
1909	2.7	2.2	1.3	1.7
1904	1.8	1.4	0.8	1.6
Bread and other bakery products, 1909	**53**	**282**	**$1,214,185**	**$466,944**
Individual	39	79	405,857	142,032
Firm	6	58	250,279	83,235
Corporation [1]	8	145	558,049	241,677
Per cent of total	100.0	100.0	100.0	100.0
Individual	73.6	28.0	33.4	30.4
Firm	11.3	20.6	20.6	17.8
Corporation [1]	15.1	51.4	46.0	51.8
Butter, cheese, and condensed milk, 1909	**37**	**214**	**$1,971,031**	**$358,079**
Individual	9	8	90,973	17,898
Firm	5	7	106,386	23,517
Corporation	15	148	1,333,903	234,402
Other	8	51	439,769	82,262
Butter, cheese, and condensed milk, 1909—Continued.				
Per cent of total	100.0	100.0	100.0	100.0
Individual	24.3	3.7	4.6	5.0
Firm	13.5	3.3	5.4	6.6
Corporation	40.5	69.2	67.7	65.5
Other	21.6	23.8	22.3	23.0
Flour-mill and gristmill products, 1909	**60**	**184**	**$3,130,895**	**$620,265**
Individual	8	15	244,681	39,751
Firm	12	18	270,225	59,695
Corporation	40	151	2,615,989	520,819
Per cent of total	100.0	100.0	100.0	100.0
Individual	13.3	8.2	7.8	6.4
Firm	20.0	9.8	8.6	9.6
Corporation	66.7	82.1	83.6	84.0
Foundry and machine-shop products, 1909	**27**	**373**	**$922,125**	**$515,370**
Individual	13	101	263,746	145,699
Firm	3	30	71,654	41,515
Corporation	11	242	586,725	328,156
Per cent of total	100.0	100.0	100.0	100.0
Individual	48.1	27.1	28.6	28.3
Firm	11.1	8.0	7.8	8.1
Corporation	40.7	64.9	63.6	63.7
Lumber and timber products, 1909	**104**	**431**	**$976,589**	**$541,682**
Individual	41	105	208,999	127,731
Firm	34	71	109,434	76,844
Corporation [1]	29	255	658,156	337,107
Per cent of total	100.0	100.0	100.0	100.0
Individual	39.4	24.4	21.4	23.6
Firm	32.7	16.5	11.2	14.2
Corporation [1]	27.9	59.2	67.4	62.2
Printing and publishing, 1909	**122**	**967**	**$2,404,602**	**$1,681,341**
Individual	52	171	364,586	280,492
Firm	17	77	169,855	114,194
Corporation	45	520	1,520,835	1,025,807
Other	8	199	349,326	260,848
Per cent of total	100.0	100.0	100.0	100.0
Individual	42.6	17.7	15.2	16.7
Firm	13.9	8.0	7.1	6.8
Corporation	36.9	53.8	63.2	61.0
Other	6.6	20.6	14.5	15.5

[1] Includes the group "Other," to avoid disclosure of individual operations.

For all industries combined comparative figures are given covering the censuses of 1909 and 1904. Comparative data for 1899 are not available. Figures for 1909 only are presented for several important industries individually. In order to avoid disclosing the operations of individual concerns it is necessary to omit several important industries from the preceding table and the one following.

The most important distinction shown is that between corporate and all other forms of ownership. For all industries combined, 39.3 per cent of the total number of establishments were in 1909 under corporate ownership, as against 60.8 per cent under all other forms. The corresponding figures for 1904 were 33.5 per cent and 66.5 per cent, respectively. In respect to value of products the corresponding proportions are reversed. In 1909 the establishments operated by corporations reported 90.7 per cent of the total value, as against 9.3 per cent for those under all other forms of ownership, while in 1904 the corresponding figures were 89.3 per cent and 10.6 per cent, respectively. The greatest relative decrease from 1904 to 1909 is shown for establishments operated by firms, which represented only 18.3 per cent of the total number of establishments and produced but 2.8 per cent of the total value of products in 1909, as compared with 22.3 per cent and 4.7 per cent, respectively, in 1904.

Size of establishment.—The tendency for manufacturing to become concentrated in large establishments, or the reverse, is a matter of interest from the standpoint of industrial organization. In order to throw some light upon it the following table groups the establishments according to the value of their products.

The table also shows the average size of establishments for all industries combined and for important industries separately as measured by number of wage earners, value of products, and value added by manufacture. The totals for all industries are shown for the last two censuses, while for certain important industries figures are given for 1909 only.

INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	**749**	**11,785**	**$61,989,277**	**$20,723,616**
1904	**606**	**8,052**	**38,926,464**	**13,986,637**
Less than $5,000:				
1909	282	399	704,998	479,371
1904	231	302	485,115	314,809
$5,000 and less than $20,000:				
1909	220	870	2,270,058	1,219,958
1904	201	935	2,213,115	1,188,471
$20,000 and less than $100,000:				
1909	176	2,244	7,716,935	3,251,752
1904	129	1,664	5,562,721	2,351,559
$100,000 and less than $1,000,000:				
1909	64	5,081	18,197,110	8,197,586
1904	40	3,163	9,687,447	4,261,505
$1,000,000 and over:				
1909	7	3,191	33,100,176	7,574,949
1904	5	1,988	20,978,066	5,870,293
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Less than $5,000:				
1909	37.6	3.4	1.1	2.3
1904	38.1	3.8	1.2	2.2
$5,000 and less than $20,000:				
1909	29.4	7.4	3.7	5.9
1904	33.2	11.6	5.7	8.5
$20,000 and less than $100,000:				
1909	23.5	19.0	12.4	15.7
1904	21.3	20.7	14.3	16.8
$100,000 and less than $1,000,000:				
1909	8.5	43.1	29.4	39.6
1904	6.6	39.3	24.9	30.5
$1,000,000 and over:				
1909	0.9	27.1	53.4	36.6
1904	0.8	24.7	53.9	42.0
Average per establishment:				
1909	.....	16	$82,763	$27,668
1904	.....	13	64,235	23,080
Bread and other bakery products, 1909	**53**	**282**	**$1,214,185**	**$466,944**
Less than $5,000	21	7	54,833	23,651
$5,000 and less than $20,000	18	42	180,467	70,995
$20,000 and less than $100,000	11	101	436,822	152,783
$100,000 and less than $1,000,000	3	132	542,063	219,515
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	39.6	2.5	4.5	5.1
$5,000 and less than $20,000	34.0	14.9	14.9	15.2
$20,000 and less than $100,000	20.8	35.8	36.0	32.7
$100,000 and less than $1,000,000	5.7	46.8	44.6	47.0
Average per establishment	.....	5	$22,909	$8,810
Butter, cheese, and condensed milk, 1909	**37**	**214**	**$1,971,031**	**$358,079**
Less than $5,000	4	3	12,539	3,348
$5,000 and less than $20,000	17	23	194,605	37,011
$20,000 and less than $100,000	12	43	461,205	83,783
$100,000 and less than $1,000,000	4	145	1,302,682	233,937
Butter, cheese, and condensed milk, 1909—Continued.				
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	10.8	1.4	0.6	0.9
$5,000 and less than $20,000	45.9	10.7	9.9	10.3
$20,000 and less than $100,000	32.4	20.1	23.4	23.4
$100,000 and less than $1,000,000	10.8	67.8	66.1	65.3
Average per establishment	.....	6	$53,271	$9,678
Flour-mill and gristmill products, 1909	**60**	**184**	**$3,130,895**	**$620,265**
Less than $5,000	3	1	9,224	3,774
$5,000 and less than $20,000	12	12	173,816	24,567
$20,000 and less than $100,000	38	113	1,793,751	385,092
$100,000 and less than $1,000,000	7	58	1,154,104	206,832
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	5.0	0.5	0.3	0.6
$5,000 and less than $20,000	20.0	6.5	5.6	4.0
$20,000 and less than $100,000	63.3	61.4	57.3	62.1
$100,000 and less than $1,000,000	11.7	31.5	36.9	33.3
Average per establishment	.....	3	$52,182	$10,338
Foundry and machine-shop products, 1909	**27**	**373**	**$923,125**	**$515,370**
Less than $5,000	5	10	15,501	11,928
$5,000 and less than $20,000	10	53	107,460	57,134
$20,000 and less than $100,000	8	137	325,595	227,983
$100,000 and less than $1,000,000	4	173	473,569	218,325
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	18.5	2.7	1.7	2.3
$5,000 and less than $20,000	37.0	14.2	11.7	11.1
$20,000 and less than $100,000	29.6	36.7	35.3	44.2
$100,000 and less than $1,000,000	14.8	46.4	51.4	42.4
Average per establishment	.....	14	$34,153	$19,088
Lumber and timber products, 1909	**104**	**431**	**$976,589**	**$541,682**
Less than $5,000	70	112	146,666	111,433
$5,000 and less than $20,000	20	93	181,359	121,155
$20,000 and less than $100,000 [1]	14	226	648,564	309,094
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	67.3	26.0	15.0	20.6
$5,000 and less than $20,000	19.2	21.6	18.6	22.4
$20,000 and less than $100,000 [1]	13.5	52.4	66.4	57.1
Average per establishment	.....	4	$9,390	$5,208
Printing and publishing, 1909	**122**	**967**	**$2,404,602**	**$1,681,341**
Less than $5,000	62	95	150,828	120,244
$5,000 and less than $20,000	42	192	451,247	344,980
$20,000 and less than $100,000	13	253	680,006	484,016
$100,000 and less than $1,000,000	5	427	1,122,521	732,101
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	50.8	9.8	6.3	7.2
$5,000 and less than $20,000	34.4	19.9	18.8	20.5
$20,000 and less than $100,000	10.7	26.2	28.3	28.8
$100,000 and less than $1,000,000	4.1	44.2	46.7	43.5
Average per establishment	.....	8	$19,710	$13,781

[1] Includes the group "$100,000 and less than $1,000,000."

The table shows that, in 1909, of the 749 establishments only 7, or nine-tenths of 1 per cent, had a value of products exceeding $1,000,000. These establishments, however, had an average number of wage earners of 3,191, or 27.1 per cent of the total number in all establishments, and reported 53.4 per cent of the total value of products and 36.6 per cent of the total value added by manufacture.

On the other hand, the very small establishments—that is, those having a value of products of less than $5,000—constituted a considerable proportion (37.6 per cent) of the total number of establishments, but the value of their products amounted to only 1.1 per cent of the total. The great bulk of the manufacturing, as measured by value of products and value added by manufacture, was reported by establishments having products valued at not less than $100,000.

The fact that the average value of products per establishment increased from $64,235 in 1904 to $82,763 in 1909, and the value added by manufacture from $23,080 to $27,668, does not necessarily indicate a tendency toward concentration. The increased values shown are due probably in part to the increase that has taken place in the prices of commodities, but they are also due largely to the fact that there have been established in the state during the intercensal period a large copper smelter and a large beet-sugar factory. The average number of wage earners per establishment increased from 13 to 16.

In some respects, and especially from the standpoint of conditions under which persons engaged in manufactures work, the best classification of establishments to bring out the feature of size is a classification according to the number of wage earners employed. The following table shows, for 1909, such a classification for all industries combined and for nine important industries individually, and gives not only the number of establishments falling in each group, but also the average number of wage earners employed.

INDUSTRY.	Total.	ESTABLISHMENTS EMPLOYING—								
		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.
	NUMBER OF ESTABLISHMENTS.									
All industries	749	74	443	139	58	13	15	2	4	1
Bread and other bakery products	53	13	27	9	3	1				
Butter, cheese, and condensed milk	37	5	27	2	2	1				
Canning and preserving	24		5	13	6					
Cars and general shop construction and repairs by steam-railroad companies	8		2	1		1	1	1	2	
Confectionery	17		8	2	3	2	2			
Flour-mill and gristmill products	60	5	40	6						
Foundry and machine-shop products	27		14	6	6	1				
Lumber and timber products	104	8	75	18	3					
Printing and publishing	122	25	65	23	6	1	2			
All other industries	297	18	171	59	29	6	10	1	2	1
	AVERAGE NUMBER OF WAGE EARNERS.									
All industries	11,785		1,007	1,471	1,940	885	2,314	656	2,408	1,104
Bread and other bakery products	282		52	76	93	61				
Butter, cheese, and condensed milk	214		58	16	85	55				
Canning and preserving	396		18	144	234					
Cars and general shop construction and repairs by steam-railroad companies	1,731		6	18		78	111	237	1,231	
Confectionery	586		16	38	96	166	270			
Flour-mill and gristmill products	184		125	59						
Foundry and machine-shop products	373		47	66	204	56				
Lumber and timber products	431		146	205	80					
Printing and publishing	907		164	217	218	68	300			
All other industries	6,021		375	632	930	401	1,633	369	1,177	1,104
	PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.									
All industries	100.0		8.5	12.5	16.5	7.5	19.6	5.6	20.4	9.4
Bread and other bakery products	100.0		18.4	27.0	33.0	21.6				
Butter, cheese, and condensed milk	100.0		27.1	7.5	39.7	25.7				
Canning and preserving	100.0		4.5	36.4	59.1					
Cars and general shop construction and repairs by steam-railroad companies	100.0		0.3	1.0		4.5	6.4	16.6	71.1	
Confectionery	100.0		2.7	6.5	16.4	28.3	46.1			
Flour-mill and gristmill products	100.0		67.9	32.1						
Foundry and machine-shop products	100.0		12.6	17.7	54.7	15.0				
Lumber and timber products	100.0		33.9	47.6	18.6					
Printing and publishing	100.0		17.0	22.4	22.5	7.0	31.0			
All other industries	100.0		5.7	9.5	14.0	6.0	24.7	5.6	17.8	16.7

The per cent distribution of the number of establishments is not shown in this table; of the 749 establishments reported for all industries, 9.9 per cent employed no wage earners; 59.1 per cent, 1 to 5; 18.6 per cent, 6 to 20; and 12.4 per cent, 21 or over. The most numerous single group consists of the 443 establishments employing from 1 to 5 wage earners, and the next of the 139 establishments employing from 6 to

20 wage earners. There were seven establishments that employed over 250 wage earners, and only one that employed over 1,000.

Of the total number of wage earners, 35.4 per cent were in establishments employing over 250 wage earners. The single group having the largest number of employees was the group comprising the establishments employing from 501 to 1,000 wage earners. This group employed 2,408 wage earners, or 20.4 per cent of the total. Of the three industries listed in this table, but not in the preceding one, the steam-railroad repair shops is an industry in which comparatively large establishments do most of the business, as appears from the classification according to the number of wage earners.

Expenses.—As stated in the Introduction, the census does not purport to furnish figures that can be used for determining the cost of manufacture and profits. Facts of interest can, however, be brought out concerning the relative importance of the different classes of expenses which make up the total.

The following table shows, for 1909, in percentages, the distribution of expenses among the classes indicated for all industries combined and for certain important industries separately. The figures on which the percentages are based appear in Table II.

This table shows that, for all industries combined, 76.1 per cent of the total expense was incurred for materials, 19.1 per cent for services—that is, salaries and wages—and but 4.8 per cent for other purposes. As would be expected, these proportions vary greatly in the different industries.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries	**3.6**	**15.5**	**76.1**	**4.8**
Bread and other bakery products	3.4	15.6	70.8	10.2
Butter, cheese, and condensed milk	2.3	6.4	88.4	2.9
Canning and preserving	6.4	12.5	72.7	8.3
Cars and general shop construction and repairs by steam-railroad companies	2.4	51.2	44.7	1.7
Confectionery	10.0	11.0	69.7	9.4
Flour-mill and gristmill products	1.8	4.7	90.7	2.8
Foundry and machine-shop products	5.8	37.7	50.1	6.4
Lumber and timber products	4.1	37.5	53.2	5.2
Printing and publishing	16.8	31.8	33.6	17.8
All other industries	2.8	12.7	80.6	4.0

Engines and power.—The following table shows, for all industries combined, the number of engines or other motors, according to their character, employed in generating power (including electric motors operated by purchased current), and their total horsepower at the censuses of 1909, 1904, and 1899. It also shows separately the number and horsepower of electric motors, including those operated by current generated in the manufacturing establishments.

The table indicates a very large increase in primary power, most of which occurred during the five-year period 1904–1909. This increase is practically represented by the growth in steam and rented electric power. The figures show that 71.4 per cent of the total increase in primary power was in that generated by steam engines. This kind of power formed 67.5 per cent of the total horsepower in 1909, as compared with 62.7 per cent in 1904 and 60 per cent in 1899. Water power, directly applied, decreased throughout the decade. The increase in the practice of renting power is most conspicuous, 24.8 per cent of the total power being rented in 1909, as against 15.2 per cent in 1904 and 12.6 per cent in 1899. The use of electric motors for the purpose of applying the power generated within the establishments is also shown to be increasing rapidly.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899[1]	1909	1904	1899[1]	1909	1904	1899
Primary power, total	**1,351**	**365**	**392**	**42,947**	**19,397**	**12,674**	**100.0**	**100.0**	**100.0**
Owned	462	365	392	32,307	16,456	11,071	75.2	84.8	87.4
Steam	352	259	273	28,984	12,162	7,606	67.5	62.7	60.0
Gas	27	11	7	226	59	89	0.5	0.3	0.7
Water wheels	81	91	112	2,926	3,221	3,366	6.8	16.6	26.6
Water motors	2	4	(2)	71	31	(2)	0.2	0.2	(2)
Other	.....	.....	.....	100	983	10	0.2	5.1	0.1
Rented	889	(2)	(2)	10,640	2,941	1,603	24.8	15.2	12.6
Electric	889	(2)	(2)	10,592	2,941	1,588	24.7	15.2	12.5
Other	.....	.....	.....	48	.....	15	0.1	.....	0.1
Electric motors	**1,192**	**60**	**34**	**15,402**	**4,272**	**2,829**	**100.0**	**100.0**	**100.0**
Run by current generated by establishment	303	60	34	4,810	1,331	1,241	31.2	31.2	43.9
Run by rented power	889	(2)	(2)	10,592	2,941	1,588	68.8	68.8	56.1

[1] Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.
[2] Not reported.

Fuel.—Closely related to the question of kind of power employed is that of the fuel used in generating this power, or otherwise as material in the manufacturing processes. The following table shows the quantity of each kind of fuel used in 1909 for all industries combined and for certain selected industries:

INDUSTRY.	Anthracite coal (tons).	Bituminous coal (tons).	Coke (tons).	Wood (cords).	Oil, including gasoline (barrels).	Gas (1,000 feet).
All industries	**492**	**1,756,107**	**167,097**	**2,032**	**6,721**	**9,543**
Beet sugar	.....	82,781	2,574	.....	.....	.....
Bread and other bakery products	182	2,012	1,100	353	.....	392
Brick and tile	.....	884,562	.....	1,047	2	.....
Butter, cheese, and condensed milk	61	4,474	.....	203	6	2,217
Canning and preserving	.....	3,462	.....	.....	145	.....
Cars and general shop construction and repairs by steam-railroad companies	9	36,698	997	.....	986	.....
Confectionery	.....	2,613	326	5	7	1,582
Flour-mill and gristmill products	.....	2,624	.....	.....	5	.....
Foundry and machine-shop products	.....	1,177	1,483	45	15	.....
Gas, illuminating and heating	.....	25,291	.....	.....	5,354	.....
Lumber and timber products	.....	1,914	.....	.....	.....	.....
Printing and publishing	.....	3,869	.....	33	39	4,637
Smelting and refining, lead	.....	62,251	88,993	62	.....	.....
All other industries	240	642,379	71,624	284	162	715

NOTE.—In addition, there were 32 tons of other varieties of fuel reported.

SUPPLEMENTARY DATA REGARDING IMPORTANT INDUSTRIES.

(With statistics for laundries and custom gristmills.)

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantity and value of materials and products which do not appear on the general schedule. Certain data of this character for four important industries in Utah are here presented.

Butter, cheese, and condensed milk.—The quantity and value of the different products of the butter, cheese, and condensed-milk establishments for 1909, 1904, and 1899 are given in the following table:

PRODUCT.	1909	1904 [1]	1899
Total value	$1,971,031	$963,811	$713,889
Butter:			
Packed solid—			
Pounds	650,707	281,276	332,865
Value	$193,311	$33,100	$62,872
Prints and rolls—			
Pounds	3,072,077	3,421,911	2,186,349
Value	$944,077	$748,589	$437,412
Cream sold:			
Pounds	1,114,836	55,046	318,880
Value	$128,528	$4,470	$26,505
All other butter-factory products [2]	$1,539	$8,160	$12,045
Cheese:			
Full-cream—			
Pounds	[3] 1,060,122	1,089,730	1,874,179
Value	$157,058	$161,721	$174,571
All other cheese-factory products [4]	$467	$479	$484
All other products not specified	$546,051	$7,292	.....

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[2] Includes skimmed milk sold and casein.
[3] Includes small quantity of part-cream cheese.
[4] Includes whey.

In 1909 butter and all other butter-factory products constituted 64.3 per cent of the total value of the products of this industry. From 1899 to 1909 the production of butter products increased steadily, while that of the cheese products declined.

Canning and preserving.—Canning and preserving as a factory industry is of comparatively recent origin, and has made rapid progress in Utah since 1899, the value of products increasing from $300,349 in 1899 to $801,958 in 1904 and $1,059,487 in 1909.

The quantity and value of products, by classes, for 1909, 1904, and 1899, are given in the table following.

The largest individual product is tomatoes, comprising, in 1909, 57 per cent of the aggregate value of all products. There was an increase over 1904 in the number of cases of beans, peas, pumpkins, and all other vegetables packed. The table shows decreases from 1904 to 1909 in the quantities of all fruits canned except apples and berries. Of the 24 establishments embraced within this classification in 1909, tomatoes were reported by 20. Seven of these were engaged exclusively in canning tomatoes.

PRODUCT.	1909	1904 [1]	1899 [2]
Total value	$1,059,487	$801,958	$300,349
Canned vegetables:			
Total—			
Cases	420,147	361,162	174,338
Value	$776,136	$659,509	$271,488
Beans—			
Cases	15,657	5,303	.....
Value	$33,084	$8,220	.....
Peas—			
Cases	61,156	41,634	.....
Value	$100,712	$80,155	.....
Pumpkins—			
Cases	2,860	1,160	3,504
Value	$5,900	$2,276	$3,125
Tomatoes—			
Cases	332,372	312,430	170,834
Value	$603,898	$566,578	$263,363
All other—			
Cases	8,102	635	.....
Value	$32,542	$2,280	.....
Canned fruits:			
Total—			
Cases	12,785	39,329	9,746
Value	$32,365	$91,686	$23,281
Apples—			
Cases	4,191	2,346	2,953
Value	$9,956	$4,687	$5,537
Berries—			
Cases	1,609	1,012	603
Value	$3,463	$2,684	$1,657
Peaches—			
Cases	2,439	17,845	1,277
Value	$5,806	$43,868	$3,362
Pears—			
Cases	1,566	8,300	2,540
Value	$7,108	$21,079	$6,994
All other—			
Cases	2,980	9,826	2,319
Value	$6,032	$19,368	$5,731
All other products	$250,986	$50,763	$5,580

[1] Excluding statistics for two establishments, the value of whose products, however, would add about 4 per cent to the total shown, to avoid disclosure of individual operations.
[2] Excluding statistics for one establishment, the value of whose products, however, would add but about 7 per cent to the total shown, to avoid disclosure of individual operations.

Flour-mill and gristmill products.—The following tabular statement gives the quantities and values of the various products of this industry for the last two census years:

PRODUCT.	QUANTITY.		VALUE.	
	1909	1904	1909	1904
Total value	.....	.....	$3,130,895	$2,425,791
Wheat flour:				
White.....barrels..	451,789	449,779	2,316,667	1,946,384
Graham.....barrels..	7,459	4,025	38,442	16,938
Corn meal.....barrels..	259	1,657	1,239	5,316
Rye flour.....barrels..	365	546	2,038	2,222
Barley meal.....pounds..	4,397,600	14,000	86,348	300
Feed.....tons..	5,544	[1] 3,181	144,350	75,600
Offal.....tons..	21,740	22,466	444,161	363,171
All other products	.....	.....	97,650	15,850

[1] Includes grits.

Wheat flour, including white and Graham, was the most important product at both censuses, its value forming 75.2 per cent of the total value of products for the industry in 1909 and 80.9 per cent in 1904, having

increased in value $391,787, or 20 per cent, during the five years. Barley meal shows a remarkable increase, both in quantity and value; corn meal shows a decrease in both items; and offal, while showing a decrease in quantity, shows an increase in value.

Printing and publishing.—The following table shows the number of publications and their aggregate circulation by period of issue, for 1909, 1904, and 1899:

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1909	1904	1899	1909	1904	1899
Total	**94**	**88**	**74**	**261,937**	**228,126**	**123,279**
Daily	8	10	6	57,498	42,282	24,163
Sunday	3	3	2	45,428	34,200	(1)
Semiweekly [2]	8	7	8	35,863	40,252	32,630
Weekly	65	57	49	71,542	65,742	36,036
Monthly	8	7	4	48,033	30,000	13,800
All other classes	2	4	5	3,573	15,650	16,650

[1] Included in circulation of dailies.
[2] Includes three triweeklies in 1909, and one each in 1904 and 1899.

The number of newspapers and periodicals in the state increased from 74 in 1899 to 88 in 1904 and 94 in 1909. The aggregate circulation per issue in 1909 of the newspapers and periodicals of the state was 261,937, as compared with 228,126 in 1904 and 123,279 in 1899. The only publications which decreased in circulation from 1904 to 1909 were the semiweeklies and triweeklies and the publications included under the head of "All other classes." All of the publications were in the English language, except four weeklies, one of which was in German, one in Japanese, and two in Swedish.

Laundries.—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. There were 22 such establishments in the state of Utah, 7 of which were in Salt Lake City and 4 in Ogden.

The following statement summarizes the statistics:

Number of establishments	22
Persons engaged in the industry	811
Proprietors and firm members	16
Salaried employees	57
Wage earners (average number)	738
Primary horsepower	969
Capital	$500,276
Expenses	684,434
Services	415,309
Materials	143,041
Miscellaneous	126,084
Amount received for work done	794,091

Ten of the 22 establishments were under individual ownership, 9 under corporate ownership, and 3 under firm ownership. Eight establishments had receipts for the year's business of less than $5,000; 6, receipts of $5,000 but less than $20,000; and 8, receipts of $20,000 and over.

The number of wage earners employed each month and the per cent which this number represented of the greatest number employed in any month were as follows:

MONTH.	WAGE EARNERS.		MONTH.	WAGE EARNERS.	
	Number.	Per cent of maximum.		Number.	Per cent of maximum.
January	699	83.4	July	814	97.1
February	690	82.3	August	838	100.0
March	690	82.3	September	759	90.6
April	693	82.7	October	742	88.5
May	700	83.5	November	742	88.5
June	740	88.3	December	744	88.8

The different kinds of primary power, the number of engines, and the amount of horsepower used in 1909 are shown in the following tabular statement:

KIND.	Number of engines or motors.	Horsepower.
Primary power, total		**969**
Owned—Steam	20	927
Rented—Electric	10	42

The kind and amount of fuel used are shown in the following statement:

KIND.	Unit.	Quantity.
Anthracite coal	Tons	257
Bituminous coal	Tons	8,978
Oil	Barrels	18
Gas	1,000 feet	272

Custom gristmills.—Statistics for custom gristmills are not included in the general tables or in the totals for manufacturing industries, but are presented in the following summary:

Number of establishments	19
Persons engaged in the industry	37
Proprietors and firm members	20
Salaried employees	5
Wage earners (average number)	12
Primary horsepower	709
Capital	$180,730
Expenses	208,637
Services	10,506
Materials	[1] 192,268
Miscellaneous	5,863
Value of products	[1] 247,360

[1] Includes estimate of all grain ground.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899.

THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

INDUSTRY.	Census.	Number of establishments.	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—All industries	1909	749	14,133	688	1,660	11,785	42,947	$52,627	$1,966	$8,400	$41,266	$61,989	$20,723
	1904	606	9,650	619	979	8,052	19,397	26,004	1,038	5,157	24,940	38,926	13,986
	1899	575	.....	.....	599	5,413	12,674	13,219	501	2,763	11,440	17,982	6,542
Bread and other bakery products	1909	53	412	91	39	282	115	1,205	35	105	747	1,214	467
	1904	28	233	28	14	191	77	353	13	90	281	542	261
	1899	29	157	30	20	107	.....	210	10	46	142	291	149
Brick and tile	1909	34	585	40	31	514	1,556	1,190	31	332	136	683	547
	1904	39	359	53	15	291	737	438	13	173	68	346	278
	1899	49	337	77	11	249	207	171	7	89	33	186	153
Butter, cheese, and condensed milk	1909	37	285	25	46	214	635	1,134	42	116	1,613	1,971	358
	1904	[1] 49	159	38	23	98	813	406	16	55	789	964	175
	1899	57	252	39	54	159	616	269	16	63	550	714	164
Canning and preserving	1909	24	461	7	58	396	847	1,161	63	123	716	1,059	343
	1904	[2] 18	411	6	36	369	500	928	25	99	506	802	296
	1899	[1] 8	169	8	20	141	310	304	8	38	211	300	89
Cars and general shop construction and repairs by steam-railroad companies.	1909	8	1,790	.....	59	1,731	1,735	959	66	1,402	1,225	2,740	1,515
	1904	7	1,337	.....	89	1,248	354	522	93	964	827	1,887	1,060
	1899	10	954	.....	46	908	315	496	49	636	605	1,307	702
Confectionery	1909	17	745	9	150	586	532	1,009	185	204	1,291	1,952	661
	1904	12	405	16	54	335	222	401	52	103	688	1,005	317
	1899	9	.....	.....	45	153	.....	143	26	51	208	403	195
Flour-mill and gristmill products	1909	60	282	41	57	184	3,312	2,042	50	131	2,511	3,131	620
	1904	63	278	80	48	150	3,047	1,212	27	91	2,043	2,426	383
	1899	65	.....	.....	47	149	3,240	979	31	75	1,291	1,659	368
Foundry and machine-shop products	1909	27	428	20	35	373	541	877	47	306	407	922	515
	1904	[2] 21	321	19	25	277	99	451	43	198	248	587	339
	1899	[1] 15	181	21	7	153	.....	210	10	92	64	217	153
Hosiery and knit goods	1909	11	212	6	32	174	80	311	28	53	292	419	127
	1904	[1] 9	214	4	39	171	25	199	28	48	167	326	159
	1899	5	108	4	13	91	5	53	5	22	24	66	42
Leather goods	1909	19	151	18	18	115	24	261	21	75	259	426	167
	1904	[2] 15	111	21	10	80	3	112	8	46	107	222	115
	1899	[2] 11	.....	.....	12	80	.....	154	7	39	111	190	79
Liquors, malt	1909	5	215	2	35	178	860	1,176	70	157	290	1,357	1,067
	1904	6	165	3	28	134	323	898	44	93	176	637	461
	1899	7	115	4	22	89	266	614	21	54	121	433	312
Lumber and timber products	1909	104	620	150	48	431	2,922	915	34	306	435	977	542
	1904	53	291	88	21	182	1,380	245	15	105	139	334	195
	1899	76	.....	.....	21	357	1,774	350	11	134	166	439	273
Marble and stone work	1909	25	158	28	9	121	399	188	14	106	91	270	179
	1904	9	74	14	3	57	225	62	3	39	36	102	66
	1899	7	.....	.....	6	32	.....	35	3	19	30	68	38
Pottery, terra-cotta, and fire-clay products	1909	3	105	1	8	96	267	236	9	56	57	195	138
	1904	6	42	3	5	34	175	91	6	20	29	77	48
	1899	7	46	8	2	36	150	38	2	11	6	29	23
Printing and publishing	1909	122	1,475	91	417	967	1,357	2,022	362	685	723	2,405	1,682
	1904	104	873	94	234	545	262	1,081	234	369	325	1,523	1,198
	1899	83	.....	.....	95	563	.....	835	83	294	206	795	589
Salt	1909	9	75	7	12	56	474	838	19	38	53	184	131
	1904	5	88	6	14	68	188	613	19	44	51	237	186
	1899	5	71	4	8	59	108	647	11	24	32	139	107
Slaughtering and meat packing	1909	12	150	7	44	99	572	564	38	77	1,327	1,690	363
	1904	3	41	1	9	31	25	148	10	21	514	653	139
	1899	8	62	14	6	42	69	117	2	19	385	453	68
Tobacco manufactures	1909	28	196	29	15	152	.....	249	15	112	165	385	220
	1904	27	182	33	9	140	.....	106	7	109	111	298	187
	1899	15	85	17	.....	68	.....	46	.....	38	50	124	74
All other industries	1909	151	5,779	116	547	5,116	26,719	36,290	837	3,956	28,928	40,009	11,081
	1904	132	4,066	112	303	3,651	10,942	17,738	382	2,490	17,835	25,958	8,123
	1899	109	.....	.....	164	1,977	.....	7,548	199	1,019	7,205	10,169	2,964

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[2] Excluding statistics for two establishments, to avoid disclosure of individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY AND CITY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
SALT LAKE CITY—All industries.	1909	245	5,328	160	881	4,287	6,693	$13,538	$915	$3,010	$6,615	$13,351	$6,736
	1904	192	3,438	170	492	2,776	.....	5,337	522	1,704	3,515	7,544	4,029
	1899	154	.....	.....	266	2,154	.....	3,356	233	1,177	1,977	4,279	2,302
Bread and other bakery products	1909	24	275	27	28	220	80	1,111	27	122	569	918	349
	1904	15	166	13	10	143	.....	296	12	67	218	422	204
	1899	16	106	15	14	77	.....	174	9	34	101	213	112
Confectionery	1909	9	512	3	119	390	360	648	140	135	955	1,409	454
	1904	9	289	11	44	234	.....	305	41	76	534	760	226
	1899	6	.....	.....	36	111	.....	115	18	35	158	303	145
Copper, tin, and sheet-iron products	1909	11	128	15	9	104	10	84	11	85	105	258	153
	1904	7	63	7	5	51	.....	26	3	39	43	113	70
	1899	4	.....	.....	1	37	.....	18	1	23	42	88	46
Foundry and machine-shop products	1909	19	344	13	30	301	404	760	42	257	316	751	435
	1904	[1] 13	277	10	23	244	.....	393	41	177	223	524	301
	1899	9	146	12	7	127	.....	179	10	81	52	181	129
Leather goods	1909	10	82	11	11	60	10	81	15	43	179	279	100
	1904	[2] 9	71	11	6	54	.....	61	6	28	63	131	68
	1899	[1] 5	.....	.....	8	41	.....	51	6	22	65	106	41
Lumber and timber products	1909	8	161	1	24	136	375	304	21	117	169	376	207
	1904	5	74	5	10	59	.....	100	12	38	50	132	82
	1899	3	35	1	6	28	.....	34	5	21	26	64	38
Printing and publishing	1909	49	1,126	22	358	746	1,207	1,657	314	561	615	1,983	1,368
	1904	43	587	28	197	362	.....	744	199	273	257	1,236	979
	1899	29	.....	.....	71	423	.....	645	65	237	162	607	445
Tobacco manufactures	1909	16	129	14	12	103	.....	122	12	68	112	251	139
	1904	14	112	16	7	89	.....	64	5	63	62	171	109
	1899	8	56	9	.....	47	.....	29	.....	29	39	94	55
All other industries	1909	99	2,571	54	290	2,227	4,247	8,771	333	1,622	3,595	7,126	3,531
	1904	77	1,799	69	190	1,540	.....	3,348	203	943	2,065	4,055	1,990
	1899	74	.....	.....	123	1,263	.....	2,111	119	695	1,332	2,623	1,291

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

Ogden	1909	68	1,539	58	158	1,323	2,506	$2,324	$174	$873	$2,066	$3,713	$1,647
	[3] 1904	63	1,183	66	104	1,013	.....	1,521	102	711	1,398	2,507	1,109
	1899	51	.....	.....	56	678	.....	857	47	355	679	1,242	563

[1] Excluding statistics for two establishments, to avoid disclosure of individual operations.
[2] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[3] Figures do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city.

TABLE II.—DETAIL STATEMENT FOR

	INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners. Average number.	Wage earners. Number. Maximum month.	Wage earners. Number. Minimum month.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horsepower.
1	**All industries**	**749**	**14,133**	**688**	**533**	**923**	**204**	**11,785**	Se 13,277	Fe 10,449	(1)	(1)	(1)	(1)	(1)	42,947
2	Artificial stone	3	8	2	2	.....	.....	4	Ap[2] 7	Oc[2] 4	7	7	.....	.....	.....	3
3	Bread and other bakery products	53	412	91	9	17	13	282	No 309	Fe 264	302	247	53	2	.....	115
4	Brick and tile	34	585	40	15	16	.....	514	Je 758	Ja 267	584	551	.....	33	.....	1,556
5	Butter, cheese, and condensed milk	37	285	25	19	19	8	214	Se 228	Ja 195	204	173	31	.....	.....	635
6	Canning and preserving	24	461	7	32	17	9	396	Se 1,256	Fe 69	1,246	488	690	29	39	847
7	Cars and general shop construction and repairs by steam-railroad companies.	8	1,790	.....	11	46	2	1,731	De 1,803	Jy 1,649	1,823	1,823	.....	.....	.....	1,735
8	Clothing, men's, including shirts	3	75	4	4	7	2	58	My 62	Ja 49	56	2	54	.....	.....	21
9	Confectionery	17	745	9	25	99	26	586	De 718	Fe 520	717	217	495	.....	5	532
10	Flour-mill and gristmill products	60	282	41	38	16	3	184	Oc 203	Ap 170	200	200	.....	.....	.....	3,312
11	Foundry and machine-shop products	27	428	20	20	12	3	373	Se 435	Mh 307	375	375	.....	.....	.....	541
12	Furniture and refrigerators	3	73	1	5	2	3	62	Au 68	Ja[2] 59	68	68	.....	.....	.....	81
13	Gas, illuminating and heating	3	201	.....	6	27	1	167	Jy 261	Fe 115	138	138	.....	.....	.....	291
14	Hosiery and knit goods	11	212	6	15	8	9	174	No 223	Ja 125	214	36	175	3	.....	80
15	Ice, manufactured	4	28	1	7	.....	.....	20	Jy 32	Ja[2] 13	26	26	.....	.....	.....	474
16	Leather goods	19	151	18	10	6	2	115	Ap 119	Ja[2] 113	87	84	1	2	.....	24
17	Lime	12	92	9	3	5	1	74	No 90	Ja 36	104	104	.....	.....	.....	20
18	Liquors, malt	5	215	2	14	19	2	178	Au 214	Fe 152	161	161	.....	.....	.....	860
19	Lumber and timber products	104	629	150	27	16	5	431	Se 593	Fe 300	753	742	8	3	.....	2,922
20	Marble and stone work	25	158	28	7	2	.....	121	Se 159	Ja 67	132	129	3	.....	.....	399
21	Mattresses and spring beds	3	75	2	5	3	.....	65	No 74	Ja 55	62	52	10	.....	.....	171
22	Patent medicines and compounds and druggists' preparations.	7	20	8	1	1	1	9	Jy[2] 16	Oc 5	14	7	3	4	.....	.....
23	Pottery, terra-cotta, and fire-clay products.	3	105	1	4	3	1	96	No 100	My 89	99	99	.....	.....	.....	267
24	Printing and publishing	122	1,475	91	78	276	63	967	De 1,004	Jy 925	1,017	858	136	23	.....	1,357
25	Salt	9	75	7	9	3	.....	56	Jy 103	Ja 14	80	74	6	.....	.....	474
26	Slaughtering and meat packing	12	150	7	17	24	3	99	De 111	Ap 86	111	110	.....	1	.....	572
27	Tobacco manufactures	28	196	20	6	7	2	152	Fe 165	No 139	151	117	31	2	1	.....
28	All other industries[3]	113	5,207	89	144	272	45	4,657	.....	.....	.....	.....	.....	.....	.....	25,688

[1] No figures given for reasons explained in the Introduction.
[2] Same number reported for one or more other months.
[3] All other industries embrace—

Awnings, tents, and sails	5	Carriages and wagons and materials	2	Cordials and sirups	1
Baskets, and rattan and willow ware	1	Cars and general shop construction and repairs by street-railroad companies	2	Fertilizers	2
Beet sugar	5	Cement	2	Flavoring extracts	2
Blacking and cleansing and polishing preparations	1	Coffee and spice, roasting and grinding	1	Food preparations	5
Boots and shoes, including cut stock and findings	2	Coffins, burial cases, and undertakers' goods	2	Fur goods	2
Boxes, cigar	1	Coke	1	Gas and electric fixtures and lamps and reflectors	2
Boxes, fancy and paper	1	Cooperage and wooden goods, not elsewhere specified	1	Glass, cutting, staining, and ornamenting	1
Brass and bronze products	2	Copper, tin, and sheet-iron products	18	Gloves and mittens, leather	1
Brooms	1			Grease and tallow	1
Carpets, rag	1			Hand stamps and stencils and brands	1

THE STATE, BY INDUSTRIES: 1909.

	Capital.	EXPENSES.											Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.						
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.			
1	$52,626,640	$54,307,344	$908,154	$1,058,265	$8,399,634	$3,879,869	$37,385,792	$179,573	$504,657	$104,176	$1,787,224		$61,989,277	$20,723,616
2	12,219	7,384	1,134	.....	2,370	44	3,480	180	116	.....	60		9,356	5,832
3	1,204,588	1,055,270	12,210	23,146	164,935	23,498	723,743	18,781	3,797	2,512	82,648		1,214,185	466,944
4	1,189,606	520,298	17,644	13,380	331,918	106,923	28,577	50	3,810	.....	17,996		683,087	547,587
5	1,133,963	1,823,740	26,484	15,645	116,354	14,201	1,598,751	3,295	2,815	.....	46,195		1,971,031	358,079
6	1,161,399	984,198	44,470	18,919	123,359	12,242	703,529	1,600	6,022	3,500	70,557		1,059,487	343,716
7	958,753	2,740,466	22,812	43,085	1,402,134	99,713	1,125,407	.....	17,819	1,626	27,870		2,740,463	1,515,343
8	99,559	107,977	3,900	7,315	14,990	2,530	73,147	1,020	1,575	.....	3,500		119,452	43,775
9	1,009,257	1,853,175	45,560	139,377	203,645	17,279	1,273,999	21,870	5,263	.....	146,182		1,951,863	660,585
10	2,041,614	2,769,128	34,824	15,287	130,911	23,232	2,487,398	2,895	12,217	200	62,164		3,130,895	620,265
11	877,441	811,877	32,615	14,324	306,148	39,468	367,287	6,860	4,742	.....	40,433		922,125	515,370
12	206,508	216,865	7,798	4,567	53,703	2,010	129,282	5,420	125	.....	13,960		277,720	146,428
13	4,162,259	351,673	13,970	22,500	108,139	111,746	56,423	.....	8,763	.....	30,132		365,855	197,686
14	311,224	390,342	16,501	11,479	52,792	3,307	289,066	2,948	1,673	.....	12,576		419,229	126,856
15	402,491	67,733	10,600	.....	15,998	21,420	7,600	.....	3,310	.....	8,805		93,190	64,170
16	261,203	373,531	12,565	8,604	74,657	1,117	258,325	6,475	2,410	1,115	8,263		425,735	166,293
17	112,037	93,856	2,400	3,615	52,857	24,153	5,346	400	676	486	3,923		114,880	85,381
18	1,176,176	1,005,640	35,380	34,412	157,278	41,164	248,443	3,300	178,211	.....	307,452		1,357,089	1,067,482
19	915,418	817,451	23,876	9,909	306,181	13,459	421,448	3,011	6,162	4,168	29,237		976,589	541,682
20	188,322	222,464	13,075	1,375	106,075	3,927	86,712	455	1,207	1,710	7,928		270,005	179,366
21	153,801	200,663	12,650	3,598	41,012	3,464	126,096	.....	1,003	.....	12,840		233,440	103,880
22	25,525	25,272	1,500	1,600	3,637	185	12,835	2,070	235	315	2,895		31,942	18,922
23	236,093	138,900	6,580	2,570	55,577	25,341	31,160	.....	1,983	5,385	10,304		194,834	138,333
24	2,022,354	2,154,540	123,192	238,413	685,443	41,863	681,398	56,137	15,144	60,095	252,855		2,404,602	1,681,341
25	837,975	144,394	15,400	3,820	37,535	13,352	39,917	900	1,138	12,497	19,835		183,843	130,574
26	564,496	1,534,639	19,565	18,399	76,671	17,742	1,309,052	3,624	4,464	.....	85,122		1,690,446	363,652
27	248,667	344,659	8,510	6,700	111,832	561	164,822	4,567	20,889	4,537	22,241		385,235	219,852
28	31,112,692	33,451,209	342,939	396,226	3,663,483	3,215,928	25,132,549	33,715	199,088	6,030	461,251		38,762,699	10,414,222

[3] All other industries embrace—Continued.

Jewelry	1
Lapidary work	1
Lead, bar, pipe, and sheet	1
Leather, tanned, curried, and finished	2
Mineral and soda waters	16
Mirrors	1
Models and patterns, not including paper patterns	2
Musical instruments and materials, not specified	1
Oil, not elsewhere specified	1
Optical goods	1
Paint and varnish	1
Pens, fountain, stylographic, and gold	1
Roofing materials	1
Scales and balances	2
Smelting and refining, copper	2
Smelting and refining, lead	3
Soap	1
Surgical appliances and artificial limbs	1
Vinegar and cider	1
Wall plaster	2
Wirework, including wire rope and cable	3
Woolen, worsted, and felt goods, and wool hats	1

TABLE III.—DETAIL STATEMENT FOR CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

SALT LAKE CITY.

	Industry and city.	Number of establishments	Persons engaged in industry.									Wage earners—number Dec. 15, or nearest representative day.					Primary horsepower.
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners (average number).				Total.	16 and over.		Under 16.		
						Male.	Female.	Total.	16 and over.		Under 16.		Male.	Female.	Male.	Female.	
									Male.	Female.							
1	**All industries**	**245**	**5,328**	**160**	**224**	**522**	**135**	**4,287**	**3,566**	**677**	**44**	**4,541**	**3,722**	**773**	**40**	**8**	**6,693**
2	Bread and other bakery products	24	275	27	5	15	8	220	173	45	2	229	180	47	2	.....	80
3	Confectionery	9	512	3	18	75	26	390	103	283	4	505	133	367	.....	5	360
4	Copper, tin, and sheet-iron products	11	128	15	6	3	.....	104	102	.....	2	119	117	.....	2	.....	10
5	Foundry and machine-shop products	19	344	13	17	10	3	301	301	.....	.....	292	292	.....	.....	.....	404
6	Leather goods	10	82	11	7	3	1	60	58	.....	2	59	57	.....	2	.....	10
7	Lumber and timber products	8	161	1	13	8	3	136	134	.....	2	162	160	.....	2	.....	375
8	Printing and publishing	49	1,126	22	56	254	48	746	642	91	13	764	658	93	13	.....	1,207
9	Tobacco manufactures	16	129	14	5	5	2	103	82	20	1	99	79	19	.....	1	.....
10	All other industries[1]	99	2,571	54	97	149	44	2,227	1,971	238	18	2,312	2,046	247	19	.....	4,247

[1] All other industries embrace: Awnings, tents, and sails, 4; blacking and cleansing and polishing preparations, 1; boots and shoes, including cut stock and findings, 1; boxes, cigar, 1; boxes, fancy and paper, 1; brass and bronze products, 2; brick and tile, 1; butter, cheese, and condensed milk, 3; canning and preserving, 3; carpets, rag, 1; carriages and wagons and materials, 1; cars and general shop construction and repairs by steam-railroad companies, 2; cars and general shop construction and repairs by street-railroad companies, 1; cement, 1; clothing, men's, including shirts, 1; coffee and spice, roasting and grinding, 1; coffins, burial cases, and undertakers' goods, 1; fertilizers, 1; flavoring extracts, 2; flour-mill and gristmill products, 3; food preparations, 2; fur goods, 2; furniture and refrigerators, 3; gas and electric fixtures and lamps and reflectors, 2; gas, illuminating and heating, 1; glass, cutting, staining, and ornamenting, 1; gloves and mittens, leather, 1; grease and tallow, 1; hand stamps and stencils and brands, 1;

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

1	OGDEN	68	1,539	58	54	90	14	1,323	1,057	262	4	1,513	1,209	299	5	.....	2,506

AND TOTALS FOR ALL INDUSTRIES IN CITIES OF 10,000 BUT LESS THAN 50,000 INHABITANTS: 1909.

CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

SALT LAKE CITY.

	Capital.	EXPENSES.											Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.						
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.			
1	**$13,538,264**	**$12,000,655**	**$389,823**	**$524,761**	**$3,010,225**	**$443,784**	**$6,171,004**	**$142,685**	**$228,609**	**$81,226**	**$1,008,538**		**$13,351,547**	**$6,736,759**
2	1,110,577	809,895	8,160	19,326	122,316	15,422	553,552	11,192	3,082	2,512	74,333		917,841	348,867
3	648,325	1,375,347	34,460	105,289	135,295	13,326	942,014	20,490	3,695	.....	120,778		1,409,464	454,124
4	84,235	215,828	8,610	1,960	84,947	1,397	103,917	6,550	345	.....	8,102		257,694	152,380
5	760,319	658,188	29,795	12,224	256,539	26,653	289,390	6,416	3,934	.....	33,237		751,416	435,373
6	80,505	247,099	10,100	4,824	42,832	598	177,966	5,395	701	.....	4,683		278,682	100,118
7	304,130	322,081	16,240	4,793	117,491	5,336	163,436	1,820	2,825	.....	10,140		375,572	206,800
8	1,657,036	1,830,318	99,201	215,276	560,881	34,002	580,913	44,688	13,374	57,695	224,288		1,983,005	1,368,090
9	122,057	231,644	7,450	4,900	68,139	226	111,974	3,414	11,647	4,537	19,357		250,668	138,468
10	8,771,080	6,310,255	175,807	156,169	1,621,785	346,824	3,247,842	42,720	189,006	16,482	513,620		7,127,205	3,532,539

hosiery and knit goods, 4; ice, manufactured, 1; lapidary work, 1; lead, bar, pipe, and sheet, 1; lime, 1; liquors, malt, 4; marble and stone work, 7; mattresses and spring beds, 2; mineral and soda waters, 5; mirrors, 1; models and patterns, not including paper patterns, 2; musical instruments and materials, not specified, 1; oil, not elsewhere specified, 1; optical goods, 1; paint and varnish, 1; patent medicines and compounds and druggists' preparations, 3; pens, fountain, stylographic, and gold, 1; pottery, terra-cotta, and fire-clay products, 2; roofing materials, 1; salt, 1; scales and balances, 2; slaughtering and meat packing, 6; soap, 1; surgical appliances and artificial limbs, 1; vinegar and cider, 1; wirework, including wire rope and cable, 1.

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

1	$2,324,083	$3,341,912	$74,237	$99,340	$872,834	$112,087	$1,953,573	$15,054	$50,546	$1,673	$162,568	$3,712,957	$1,647,297

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VERMONT.

INDUSTRIES IN GENERAL.

General character of the state.—Vermont, with a gross area of 9,564 square miles, of which 440 represent water surface, is one of the smallest states in the Union, both in area and population. Its population in 1910 was 355,956, as compared with 343,641 in 1900 and 332,422 in 1890. It ranked forty-second among the 49 states and territories of continental United States as regards population in 1910 and thirty-ninth in 1900. In 1910 the density of population for the entire state was 39 persons per square mile, the corresponding figure for 1900 being 37.7. Forty-seven and five-tenths per cent of the total population of the state resided in incorporated places having a population of 2,500 or over, as against 40.5 per cent in 1900.

The state has three cities having a population of over 10,000—Burlington, Rutland, and Barre. These three cities contain only 12.6 per cent of the total population of the state and are credited with only 19.5 per cent of the total value of its manufactures. Apart from these cities 34.9 per cent of the population of the state resided in places of 2,500 inhabitants or over.

Vermont has good railroad service, and Lake Champlain furnishes excellent facilities for water transportation in the northwestern part of the state.

Importance and growth of manufactures.—The manufactures of the state have increased from a total value of products of $8,571,000 in 1849 to $51,515,000 in 1899 and $68,310,000 in 1909. During 1849 an average of 8,445 wage earners, representing 2.7 per cent of the total population, were employed in manufactures, while in 1909 an average of 33,788 wage earners, or 9.5 per cent of the total population, were so engaged. During this period the gross value of products per capita of the total population of the state increased from $27 to $192. From 1849 to 1909, however, the proportion which the manufactures of the state represented of the total value of the products of manufacturing industries in the United States decreased somewhat. This proportion was eight-tenths of 1 per cent in 1849; five-tenths of 1 per cent in 1899; and three-tenths of 1 per cent in 1909. In 1849 the state ranked twenty-first in respect to value of manufactures; in 1899, thirty-fourth; and in 1909, thirty-eighth.

The following table gives the more important figures relative to all classes of manufactures combined for the state as returned at the censuses of 1909, 1904, and 1899, together with the percentages of increase from census to census:

	NUMBER OR AMOUNT.			PER CENT OF INCREASE.[1]	
	1909	1904	1899	1904–1909	1899–1904
Number of establishments	1,958	1,699	1,938	15.2	−12.3
Persons engaged in manufactures	38,580	37,015	(2)	4.2	.....
Proprietors and firm members	2,113	1,856	(2)	13.8	.....
Salaried employees	2,679	2,053	1,695	30.5	21.1
Wage earners (average number)	33,788	33,106	28,179	2.1	17.5
Primary horsepower	159,445	140,616	126,124	13.4	11.5
Capital	$73,470,000	$62,659,000	$43,500,000	17.3	44.0
Expenses	59,851,000	54,677,000	42,867,000	9.5	27.6
Services	20,075,000	17,324,000	13,038,000	15.9	32.9
Salaries	2,803,000	2,103,000	1,611,000	33.3	30.5
Wages	17,272,000	15,221,000	11,427,000	13.5	33.2
Materials	34,823,000	32,430,000	26,385,000	7.4	22.9
Miscellaneous	4,953,000	4,923,000	3,444,000	0.6	42.9
Value of products	68,310,000	63,084,000	51,515,000	8.3	22.5
Value added by manufacture (value of products less cost of materials)	33,487,000	30,654,000	25,130,000	9.2	22.0

[1] A minus sign (−) denotes decrease.

[2] Figures not available.

In 1909 the state of Vermont had 1,958 manufacturing establishments, which gave employment to an average of 38,580 persons during the year, and paid out $20,075,000 in salaries and wages. Of the persons employed, 33,788 were wage earners. These establishments turned out products to the value of $68,310,000, to produce which materials costing $34,823,000 were used. The value added by manufacture was thus $33,487,000, which figure, as explained in the Introduction, best represents the net wealth created by manufacturing operations during the year.

In general, this table brings out the fact that the manufacturing industries of Vermont, when measured by value of products and value added by manufacture, showed less development during the more recent five-year period, 1904–1909, than during the preceding five-year period, 1899–1904. The number of establishments, however, dropped from 1,938 in 1899 to 1,699 in 1904, but had increased to 1,958 by 1909. In the earlier period wages increased 33.2 per cent and the value of products 22.5 per cent, whereas in the more recent period they increased only 13.5 per cent and 8.3 per cent, respectively. As pointed out in the Introduction, it would be improper to infer that manufactures increased in volume to the full extent indicated by these figures representing values, since the increase shown is certainly due, in part, to the increase that has taken place in the prices of commodities.

It is a matter of interest to note that the percentages of increase shown for wages, value of products, and value added by manufacture are much larger than the percentage of increase in the average number of wage earners. The only decrease shown in the table is that in the number of establishments during the period 1899–1904, amounting to 12.3 per cent.

The relative importance and growth of the leading manufacturing industries of the state are shown in the following table:

INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		PER CENT OF INCREASE.[1]			
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	Value of products.		Value added by manufacture.	
								1904–1909	1899–1904	1904–1909	1899–1904
All industries	**1,958**	**33,788**	**100.0**	**$68,310,000**	**100.0**	**$33,487,000**	**100.0**	**8.3**	**22.5**	**9.2**	**22.0**
Marble and stone work	342	10,411	30.8	12,395,000	18.1	9,877,000	29.5	29.5	50.0	30.6	68.0
Lumber and timber products	593	4,790	14.2	8,598,000	12.6	4,467,000	13.3	−9.3	7.7	−7.3	13.8
Butter, cheese, and condensed milk	186	519	1.5	8,112,000	11.9	1,056,000	3.2	.....	.....	.....	.....
Woolen, worsted, and felt goods, and wool hats	17	2,294	6.8	4,497,000	6.6	1,618,000	4.8	−4.3	.....	−15.0	.....
Flour-mill and gristmill products	133	156	0.5	4,133,000	6.0	605,000	1.8	28.9	15.7	81.1	−30.8
Paper and wood pulp	25	1,030	3.0	3,902,000	5.7	1,447,000	4.3	1.9	13.2	12.1	−24.1
Foundry and machine-shop products	56	1,860	5.5	3,755,000	5.5	2,420,000	7.2	11.1	42.5	−0.7	61.3
Hosiery and knit goods	8	946	2.8	1,746,000	2.6	657,000	2.0	−12.2	8.4	−15.0	7.4
Furniture and refrigerators	10	1,119	3.3	1,618,000	2.4	915,000	2.7	.....	.....	.....	.....
Patent medicines and compounds and druggists' preparations	15	161	0.5	1,200,000	1.9	704,000	2.1	−7.7	−34.2	−31.5	−28.3
Clothing, men's, including shirts	11	1,281	3.8	1,274,000	1.9	683,000	2.0	5.6	.....	12.2	.....
Cars and general shop construction and repairs by steam-railroad companies	7	992	2.9	1,135,000	1.7	606,000	1.8	32.0	4.2	25.5	1.7
Printing and publishing	115	666	2.0	1,039,000	1.5	789,000	2.4	11.5	17.7	13.4	15.6
Bread and other bakery products	75	242	0.7	994,000	1.5	370,000	1.1	99.2	19.7	66.7	5.2
Cooperage and wooden goods, not elsewhere specified	25	635	1.9	693,000	1.0	453,000	1.4	55.7	178.1	53.6	183.7
Agricultural implements	11	360	1.1	582,000	0.9	310,000	0.9	31.7	19.5	19.2	28.2
Clothing, women's	6	333	1.0	503,000	0.7	218,000	0.7	−30.3	204.6	−26.8	259.0
Copper, tin, and sheet-iron products	19	149	0.4	425,000	0.6	220,000	0.7	.....	.....	.....	.....
Confectionery	10	145	0.4	356,000	0.5	142,000	0.4	44.7	−0.8	29.1	−20.3
Canning and preserving	8	118	0.3	330,000	0.5	116,000	0.3	188.3	−40.6	93.3	−39.4
Gas, illuminating and heating	9	70	0.2	278,000	0.4	178,000	0.5	115.5	81.7	95.6	78.4
Lime	11	185	0.5	250,000	0.4	131,000	0.4	−6.0	.....	.....	.....
Carriages and wagons and materials	38	94	0.3	158,000	0.2	100,000	0.3	−3.7	−42.5	−8.3	−41.7
Tobacco manufactures	25	58	0.2	118,000	0.2	75,000	0.2	−7.1	47.7	−7.4	47.3
Brick and tile	7	70	0.2	65,000	0.1	51,000	0.2	−37.5	4.0	−38.6	1.2
Leather goods	3	14	(2)	26,000	(2)	14,000	(2)	−33.3	−29.1	−39.1	−17.9
All other industries	184	5,090	15.1	10,038,000	14.7	5,265,000	15.7	.....	.....	.....	.....

[1] Percentages are based on figures in Table I; a minus sign (−) denotes decrease. Where the percentages are omitted, comparable figures can not be given.
[2] Less than one-tenth of 1 per cent.

It should be borne in mind, in considering this table, that the value of products in some of the industries involves a certain amount of duplication, due to the fact that the product of one establishment often becomes the material for another establishment.

The most important industries listed in this table, in which they are arranged in the order of the value of products, call for brief consideration.

Marble and stone work.—Vermont possesses a practically unlimited supply of two of the most useful kinds of stone, marble and granite, and for years has ranked first among the states in the output of marble. There was an increase of 113 in the number of establishments in this industry between 1904 and 1909. The average number of wage earners increased 28.6 per cent; the value of products, 29.5 per cent; and the value added by manufacture, 30.6 per cent. To this industry alone are credited nearly one-third of the total average number of wage earners and nearly one-fifth of the total value of manufactured products for the state.

Lumber and timber products.—The lumber industry, which was one of the first manufacturing industries started in the state, continues relatively important. It embraces establishments engaged in logging operations, and sawmills, planing mills, and wooden packing-box factories. There was a decrease during the five-year period 1904–1909 of 9.3 per cent in value of products and 7.3 per cent in value added by manufacture.

Butter, cheese, and condensed milk.—This industry is very important in the state. To avoid disclosure of individual operations the statistics for one condensed-milk establishment were omitted in 1904, for which reason the percentages of increase for the industry are not given in the preceding table. From 1899 to 1909, however, the total value of products increased $2,456,000, or 43.4 per cent, and the value added by manufacture, $285,000, or 37 per cent. The decrease in number of establishments from 255 in 1899 to 186 in 1909 was due to the abandonment of small local creameries and the establishment of larger central plants.

Textiles.—The textile manufactures of the state, including woolen and worsted goods, hosiery and knit goods, and cotton goods, are important as a whole, although each branch of the industry showed a general decrease during the five-year period 1904–1909. The manufacture of woolen and worsted goods, which is by far the most important of the textile industries in Vermont, decreased 4.3 per cent in value of products and 15 per cent in value added by manufacture from 1904 to 1909. The hosiery and knit-goods industry decreased during this period 12.2 per cent in value of products and 15 per cent in value added by manufacture. The statistics for the three establishments engaged in the cotton-goods industry are omitted, to avoid the disclosure of individual operations. No establishments were reported in the state as engaged primarily in making felt goods or wool hats and only one in manufacturing worsted goods.

Flour-mill and gristmill products.—This industry shows a steady growth during the decade. The industry is not very important, however, from the standpoint of the number of wage earners, giving employment to an average of only 156 persons. Owing to the comparatively simple processes involved and the extent to which these processes are carried on by machinery, the value added by manufacture is not commensurate with the gross value of products or the number of the establishments.

Paper and wood pulp.—The establishments which produce pulp as a final product, as well as those which manufacture paper or pulp and paper, are included under this classification. The industry has shown only small growth during the last five years.

The 13 leading industries measured by value of products hold a somewhat different rank when measured by value added by manufacture. Marble and stone work and the lumber industry continue to be the two most important industries of the state, but the foundry and machine-shop industry rises from seventh to third place. The woolen and worsted goods and the paper and wood-pulp industries both become of more importance than the manufacture of butter, cheese, and condensed milk, ranking fourth, fifth, and sixth, respectively. Furniture and refrigerators, printing and publishing, patent medicines, and men's clothing take seventh, eighth, ninth, and tenth places, respectively, while the hosiery and knit-goods industry drops from eighth to eleventh place. The car repair shops of steam railroads hold the same position when measured by value added by manufacture as when measured by value of products. The flour-mill and gristmill industry falls from fifth to thirteenth place.

This table shows also the percentages of increase for these leading industries in respect to value of products and value added by manufacture where these statistics are comparable. Four of the 13 leading industries decreased from 1904 to 1909 in value of products and 5 in value added by manufacture. The flour-mill and gristmill industry showed a greater rate of increase from 1904 to 1909 in value added by manufacture than any other of these industries, namely, 81.1 per cent, while during the same period the steam-railroad repair shop industry showed the greatest rate of increase in value of products, 32 per cent.

In addition to the industries presented separately there are 19 other industries which had a value of products in 1909 in excess of $100,000, but which are included in all other industries in the table. In the case of 2 of these industries—the manufacture of food preparations and the turning and carving of wood—the returns do not present properly the true condition of the industry, as it is more or less interwoven with one or more other industries of similar character. The other 17 industries are included under this head, to avoid disclosing the operations of individual establishments. These industries are: Boots and shoes, including cut stock and findings; brushes; coffins, burial cases, and undertakers' goods; cotton goods, including cotton small wares; cutlery and tools, not elsewhere specified; dairymen's, poulterers', and apiarists' supplies; firearms and ammunition; furnishing goods, men's; grease and tallow; leather, tanned, curried, and finished; musical instruments, pianos and organs and materials; paper goods, not elsewhere specified; photographic apparatus and materials; scales and balances; shoddy; toys and games; and window shades and fixtures. Statistics, however, for cutlery and tools and musical instruments are shown in Table II for 1909.

Persons engaged in manufacturing industries.—The next table shows, for 1909, the distribution of the number of persons engaged in manufactures, the average number of wage earners being distributed by sex and age. It should be borne in mind, however, that 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 Introduction.

The average number of persons engaged in manufactures during 1909 was 38,580, of whom 33,788 were wage earners. Of the remainder, 3,088 were proprietors and officials and 1,704 were clerks. Corresponding figures for individual industries will be found in Table II, page 1258.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.		
	Total.	Male.	Female.
All classes	**38,580**	**33,305**	**5,275**
Proprietors and officials	3,088	3,013	75
Proprietors and firm members	2,113	2,053	60
Salaried officers of corporations	302	293	9
Superintendents and managers	673	667	6
Clerks	1,704	1,202	502
Wage earners (average number)	33,788	29,090	4,698
16 years of age and over	33,577	28,946	4,631
Under 16 years of age	211	144	67

The following table shows, for 1909, the percentages of proprietors and officials, clerks, and wage earners, respectively, among the total number of persons employed in manufactures. It covers all industries combined and 13 important industries individually.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries	**38,580**	**8.0**	**4.4**	**87.6**
Butter, cheese, and condensed milk	699	20.9	4.9	74.2
Cars and general shop construction and repairs by steam-railroad companies	1,023	1.9	1.2	97.0
Clothing, men's, including shirts	1,359	2.1	3.7	94.3
Flour-mill and gristmill products	350	50.9	4.6	44.6
Foundry and machine-shop products	2,141	5.9	7.2	86.9
Furniture and refrigerators	1,226	3.9	4.8	91.3
Hosiery and knit goods	974	1.7	1.1	97.1
Lumber and timber products	5,720	14.7	1.5	83.7
Marble and stone work	11,545	6.5	3.4	90.2
Paper and wood pulp	1,133	5.8	3.3	90.9
Patent medicines and compounds and druggists' preparations	269	10.4	29.7	59.9
Printing and publishing	919	16.8	10.8	72.5
Woolen, worsted, and felt goods, and wool hats	2,371	1.4	1.8	96.8
All other industries	8,351	7.4	7.1	85.4

Of the total number of persons engaged in all manufacturing industries, 8 per cent were proprietors and officials, 4.4 per cent clerks, and 87.6 per cent wage earners. In the flour-mill and gristmill industry the majority of the establishments are small and the work is done to a large extent by the proprietors or their immediate representatives, so that the proportion of persons engaged in this industry falling in the class of proprietors and officials is very much higher than for other industries or for all industries combined. The percentage of proprietors and officials is also relatively high in the butter, cheese, and condensed-milk, the lumber, and the printing and publishing industries, where the small establishment predominates.

The following table shows, for 1909, in percentages, for all industries combined, the distribution of the average number of wage earners by age periods, and for those 16 years of age and over by sex, calculated in the manner described in the Introduction. It also shows, for some of the important industries separately, a similar distribution of wage earners as reported for December 15, or the nearest representative day. As a means of judging the importance of the several industries, the average total number employed for the year is also given in each case.

INDUSTRY.	WAGE EARNERS.			
	Average number.[1]	Per cent of total.		
		16 years of age and over.		Under 16 years of age.
		Male.	Female.	
All industries	**33,788**	**85.7**	**13.7**	**0.6**
Butter, cheese, and condensed milk	519	95.4	4.2	0.4
Cars and general shop construction and repairs by steam-railroad companies	992	100.0	.....	.....
Clothing, men's, including shirts	1,281	11.0	89.0	.....
Flour-mill and gristmill products	156	100.0	.....	.....
Foundry and machine-shop products	1,860	97.1	2.8	0.1
Furniture and refrigerators	1,119	98.6	0.1	1.3
Hosiery and knit goods	946	34.9	64.6	0.5
Lumber and timber products	4,790	98.2	1.4	0.4
Marble and stone work	10,411	99.8	(2)	0.2
Paper and wood pulp	1,030	93.0	7.0	.....
Patent medicines and compounds and druggists' preparations	161	44.1	55.9	.....
Printing and publishing	666	70.9	28.8	0.3
Woolen, worsted, and felt goods, and wool hats	2,294	60.9	37.6	1.4
All other industries	7,563	78.3	20.1	1.6

[1] For method of estimating the distribution, by sex and age periods, of the average number in all industries combined, see Introduction.
[2] Less than one-tenth of 1 per cent.

For all industries combined, 85.7 per cent of the average number of wage earners were males 16 years of age and over; 13.7 per cent, females 16 years of age and over; and six-tenths of 1 per cent, children under the age of 16. It will be noted that in three industries, the manufacture of men's clothing, hosiery and knit goods, and patent medicines and compounds, the women outnumbered the men. In the men's clothing industry nearly nine-tenths of the wage earners were women. The wage earners under 16 years of age in Vermont are employed principally in marble and stone work, and in the woolen and the lumber industries.

In order to compare the distribution of persons engaged in manufactures in 1909 with that shown at the census of 1904, it is necessary to use the classification employed at the earlier census. (See Introduction.) The following table makes this comparison according to occupational status:

CLASS.	PERSONS ENGAGED IN MANUFACTURES.				
	1909		1904		Per cent of increase, 1904-1909.
	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total	**38,580**	**100.0**	**37,015**	**100.0**	**4.2**
Proprietors and firm members	2,113	5.5	1,856	5.0	13.8
Salaried employees	2,679	6.9	2,053	5.5	30.5
Wage earners (average number)	33,788	87.6	33,106	89.4	2.1

Comparable figures are not obtainable for 1899. The table shows a greater percentage of increase in the salaried employees than in the other two classes.

The following table shows the average number of wage earners, distributed according to age periods, and in the case of those 16 years of age and over according to sex, for 1909, 1904, and 1899. The averages for 1909 are estimated on the basis of the actual number reported for a single representative day. (See Introduction.)

CLASS.	AVERAGE NUMBER OF WAGE EARNERS.					
	1909		1904		1899	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total	**33,788**	**100.0**	**33,106**	**100.0**	**28,179**	**100.0**
16 years of age and over	33,577	99.4	32,890	99.3	27,927	99.1
Male	28,946	85.7	28,321	85.5	23,954	85.0
Female	4,631	13.7	4,569	13.8	3,973	14.1
Under 16 years of age	211	0.6	216	0.7	252	0.9

This table indicates that for all industries combined there has not been much change in the proportions of male and female wage earners 16 years of age and over. In 1909 males 16 years of age and over formed 85.7 per cent of all wage earners, as compared with 85.5 per cent in 1904 and 85 per cent in 1899.

Wage earners employed, by months.—The following table gives the number of wage earners employed on the 15th of each month during the year 1909, for all industries combined, for the lumber and the marble and stone work industries, and for all other industries combined; it gives also the percentage which the number reported for each month is of the greatest number reported for any month. The wage earners for the lumber industry are divided in the table in such a manner as to show separately the number engaged in the mills and in the logging operations. In Table II, page 1258, are shown, for practically all of the important industries in the state, the largest number and the smallest number of wage earners reported for any month. The figures are for the 15th day, or the nearest representative day, of the month.

MONTH.	WAGE EARNERS.											
	All industries.		Lumber and timber products.						Marble and stone work.		All other industries.	
			Total.		In mills.		In logging operations.					
	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.
January	33,013	95.2	5,113	93.6	3,304	70.9	1,809	91.5	9,746	87.1	18,154	93.0
February	33,710	97.2	5,234	95.9	3,424	73.5	1,810	91.5	10,031	89.7	18,445	94.5
March	34,257	98.8	5,252	96.2	3,903	85.0	1,289	65.2	10,447	93.4	18,558	95.1
April	34,288	98.9	5,047	92.4	4,582	98.3	465	23.5	10,783	96.4	18,458	94.6
May	34,317	99.0	5,089	93.2	4,661	100.0	428	21.6	10,908	97.5	18,320	93.9
June	34,134	98.4	4,688	85.9	4,242	91.0	446	22.5	11,006	98.4	18,440	94.5
July	32,875	94.8	3,985	73.0	3,556	76.3	429	21.7	11,182	99.9	17,708	90.8
August	33,359	96.2	3,866	70.8	3,382	72.6	484	24.5	11,186	100.0	18,307	93.8
September	34,098	98.3	4,200	76.9	3,504	75.2	696	35.2	11,117	99.4	18,781	96.3
October	34,392	99.2	4,535	83.1	3,525	75.6	1,010	51.1	10,860	97.1	18,997	97.4
November	34,677	100.0	5,020	91.9	3,424	73.5	1,596	80.7	10,204	92.0	19,363	99.2
December	32,342	93.3	5,460	100.0	3,482	74.7	1,978	100.0	7,372	65.9	19,510	100.0

The periods of maximum employment in the two important industries shown separately in the table occur at different seasons, and to a large extent the fluctuations in one industry balance those in the other. For this reason there is no great variation in the total number of wage earners for the different months of the year. The greatest activity in logging operations took place during the winter months, reaching the maximum in December. In the mills, however, the conditions were reversed, the greatest number of wage earners being reported for the spring and summer months. In the marble and stone work industry the number increased gradually from January to August, after which there was a decline to the end of the year, the small proportion shown for December being due to labor troubles, and was sufficient to cause this month to show the minimum employment for all industries combined. The decrease from August to December was 34.1 per cent. For all industries combined the greatest number of wage earners were employed in November and the smallest number in December.

Prevailing hours of labor.—In the next table wage earners have been classfied according to the hours of labor prevailing in the establishments in which they are employed. In making this classification the average number of wage earners employed during the year 1909 is used; and the number employed in each establishment is classified as a total, according to the hours prevailing in that establishment, even though a few employees work a greater or less number of hours.

INDUSTRY.	AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS GROUPED ACCORDING TO PREVAILING HOURS OF WORK PER WEEK.								
	Total.	48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries	**33,788**	**4,898**	**1,080**	**4,000**	**11,302**	**11,879**	**466**	**98**	**65**
Agricultural implements	360			100	199	61			
Bread and other bakery products	242	12		45	4	154	3	19	5
Brick and tile	70			18	5	47			
Butter, cheese, and condensed milk	519	31	14	28	29	134	250	17	16
Canning and preserving	118					118			
Carriages and wagons and materials	94			15	21	58			
Cars and general shop construction and repairs by steam-railroad companies	992		170		804	10	8		
Clothing, men's, including shirts	1,281	278		3	948	52			
Clothing, women's	333				277	56			
Confectionery	145	1		3	48	93			
Cooperage and wooden goods, not elsewhere specified	635		23		54	558			
Copper, tin, and sheet-iron products	149		4	55	68	22			
Flour-mill and gristmill products	156	12	1	6	20	107	8	2	
Foundry and machine-shop products	1,860			881	719	260			
Furniture and refrigerators	1,119			127	428	564			
Gas, illuminating and heating	70	7		4	3	3	44		9
Hosiery and knit goods	946					946			
Lime	185			25		98	31		31
Lumber and timber products	4,790	35	5	285	1,024	3,384	57		
Marble and stone work	10,411	3,973	213	638	5,246	341			
Paper and wood pulp	1,030	268	415		35	203	51	58	
Patent medicines and compounds and druggists' preparations	161	1	31	105	15	9			
Printing and publishing	666	181	61	317	61	46			
Tobacco manufactures	58	56				1			1
Woolen, worsted, and felt goods, and wool hats	2,294		39		26	2,229			
All other industries	5,104	43	104	1,345	1,268	2,325	14	2	3

It is evident from these figures that for the great majority of wage earners employed in the manufacturing industries of Vermont the prevailing hours of labor range from 54 to 60 per week, only 17.7 per cent of the total being employed in establishments where the employees work less than 54 per week, and 1.9 per cent in establishments whose employees work more than 60 per week.

In the marble and stone work industry, in which nearly one-third of the total number of wage earners for the state are employed, the prevailing hours of labor are 48 per week and under for 38.2 per cent of the wage earners, between 54 and 60 per week for 50.4 per cent, and 60 per week (which is the maximum for the industry) for 3.3 per cent. The prevailing hours in the steam-railroad car repair shops and in establishments making men's and women's clothing are between 54 and 60 per week. In the bakery, canning and preserving, cooperage, flour-mill and gristmill, hosiery, lumber, and woolen-goods industries the prevailing hours of labor are 60 per week. In the furniture industry about one-half the wage earners work 60 hours per week, and the rest either 54 or between 54 and 60; and in the butter and cheese industry a majority of the wage earners work over 60 hours per week.

Location of establishments.—The next table shows the extent to which the manufactures of Vermont are centralized in cities of 10,000 population or over. (See Introduction.) The statistics for 1904 are omitted from this table, because there was no Federal census of population for that year, and it was impossible to determine the cities that come within the group having over 10,000 inhabitants.

ITEM.	Year.	Total.	LOCATION OF ESTABLISHMENTS.		PER CENT OF TOTAL.	
			In cities with population of 10,000 and over.	Outside districts.	In cities with population of 10,000 and over.	Outside districts.
Population	1910	355,056	44,748	311,208	12.6	87.4
	1900	343,641	30,139	313 502	8.8	91.2
Number of establishments.	1909	1,958	284	1,674	14.5	85.5
	1899	1,938	139	1,799	7.2	92.8
Average number of wage earners.	1909	33,788	6,347	27,441	18.8	81.2
	1899	28,179	3,728	24,451	13.2	86.8
Value of products	1909	$68,309,824	$13,332,195	$54,977,629	19.5	80.5
	1899	51,515,228	8,025,240	43,489,988	15.6	84.4
Value added by manufacture.	1909	33,487,096	6,693,974	26,793,122	20.0	80.0
	1899	25,130,416	3,895,818	21,234,598	15.5	84.5

In 1909, 19.5 per cent of the total value of products and 18.8 per cent of the average number of wage earners were reported from the three cities having over 10,000 inhabitants in 1910. The figures indicate that while little relative change took place during the 10 years in the amount of manufacturing done in cities of 10,000 and over and in districts outside, yet on the whole the manufactures of the cities have gained considerably on those of the districts outside. This is due to some extent to the increase in the population of Barre, which city had less than 10,000 inhabitants in 1900, and so was included in the districts outside in 1899.

The population for 1910 and 1900 of the three cities which had 10,000 inhabitants or over in 1910 is given in the following statement:

CITY.	1910	1900
Burlington	20,468	18,640
Rutland	13,546	11,499
Barre	10,734	8,448

The relative importance in manufactures of each of these three cities is shown in the following table, in which the average number of wage earners and the value of products are shown separately for 1909, 1904, and 1899:

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Burlington	2,371	2,300	2,232	$6,800,490	$6,355,754	$6,066,184
Barre	2,340	2,198	1,875	3,852,177	3,373,046	2,760,852
Rutland	1,636	1,803	1,496	2,679,528	2,522,856	1,959,056

Each of the three cities shows an increase in value of products both from 1899 to 1904 and from 1904 to 1909. Burlington and Barre show increases in the average number of wage earners reported during each of the five-year periods, while Rutland shows a decrease in the average number of wage earners from 1904 to 1909.

The percentage of increase in value of products for Burlington was 4.8 per cent from 1899 to 1904 and 7 per cent from 1904 to 1909. The increase during the latter period was due principally to the establishment of a new furniture factory and an increase in the production of establishments manufacturing men's clothing, cotton goods, and photographic materials.

The value of products manufactured in Rutland increased but 6.2 per cent from 1904 to 1909, whereas the increase from 1899 to 1904 was 28.8 per cent. The leading industries in 1909 were the manufacture of scales and balances, the foundries and machine shops, and the steam-railroad car repair shops.

In 1909 and in 1904 the leading industry in Barre was marble and stone work, which in both years contributed about nine-tenths of the value of all its manufactured products. The marble and stone work produced in Barre in 1909 represented more than one-fourth of the total value of the products for this industry in the state.

Character of ownership.—The table that follows has for its purpose the presentation of conditions in respect to the character of ownership, or legal organization, of manufacturing enterprises. For all industries combined comparative figures are given covering the censuses of 1909 and 1904. Comparative data for 1899 are not available. Figures for 1909 only are presented for several important industries individually. In order to avoid disclosing operations of individual concerns, it is necessary to omit several important industries from this table and the one following.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	**1,958**	**33,788**	**$68,309,824**	**$33,487,096**
1904	**1,699**	**33,106**	**63,083,611**	**30,653,759**
Individual:				
1909	1,029	5,066	12,175,721	5,287,203
1904	833	5,882	12,027,326	5,844,338
Firm:				
1909	454	5,736	10,774,069	5,715,893
1904	449	6,516	12,047,420	6,248,376
Corporation:				
1909	372	22,857	42,041,046	22,240,692
1904	309	20,544	36,373,592	18,364,637
Other:				
1909	103	129	2,718,988	243,308
1904	108	164	2,635,273	196,408
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Individual:				
1909	52.6	15.0	17.8	15.8
1904	49.0	17.8	19.1	19.1
Firm:				
1909	23.2	17.0	15.8	17.1
1904	26.4	19.7	19.1	20.4
Corporation:				
1909	19.0	67.6	62.4	66.4
1904	18.2	62.1	57.7	59.9
Other:				
1909	5.3	0.4	4.0	0.7
1904	6.4	0.5	4.2	0.6
Butter, cheese, and condensed milk, 1909	**186**	**519**	**$8,112,239**	**$1,056,425**
Individual	50	107	1,850,284	191,583
Firm	14	38	596,280	55,999
Corporation	22	245	2,953,937	572,785
Other	100	129	2,711,738	236,058
Per cent of total	100.0	100.0	100.0	100.0
Individual	26.9	20.6	22.8	18.1
Firm	7.5	7.3	7.4	5.3
Corporation	11.8	47.2	36.4	54.2
Other	53.8	24.9	33.4	22.3
Flour-mill and gristmill products, 1909	**133**	**156**	**$4,133,337**	**$605,015**
Individual	92	91	1,946,353	275,223
Firm	33	39	1,338,559	110,758
Corporation	8	26	848,425	219,034
Per cent of total	100.0	100.0	100.0	100.0
Individual	69.2	58.3	47.1	45.5
Firm	24.8	25.0	32.4	18.3
Corporation	6.0	16.7	20.5	36.2
Foundry and machine-shop products, 1909	**56**	**1,860**	**$3,754,801**	**$2,419,690**
Individual	20	184	350,850	223,634
Firm	11	141	241,894	136,595
Corporation	25	1,535	3,162,057	2,059,461
Per cent of total	100.0	100.0	100.0	100.0
Individual	35.7	9.9	9.3	9.2
Firm	19.6	7.6	6.4	5.6
Corporation	44.6	82.5	84.2	85.1
Furniture and refrigerators, 1909	**19**	**1,119**	**$1,617,759**	**$914,492**
Firm [1]	5	29	36,365	26,445
Corporation	14	1,090	1,581,394	888,047
Per cent of total	100.0	100.0	100.0	100.0
Firm [1]	26.3	2.6	2.2	2.9
Corporation	73.7	97.4	97.8	97.1
Lumber and timber products, 1909	**593**	**4,790**	**$8,598,084**	**$4,467,342**
Individual	390	1,962	3,164,198	1,800,955
Firm	142	1,402	2,160,641	1,357,796
Corporation	61	1,426	3,273,245	1,308,591
Per cent of total	100.0	100.0	100.0	100.0
Individual	65.8	41.0	36.8	40.3
Firm	23.9	29.3	25.1	30.4
Corporation	10.3	29.8	38.1	29.3
Marble and stone work, 1909	**342**	**10,411**	**$12,395,379**	**$9,877,531**
Individual	136	1,030	1,520,143	1,097,119
Firm	152	2,993	3,697,198	2,777,183
Corporation	54	6,388	7,178,038	6,003,229
Per cent of total	100.0	100.0	100.0	100.0
Individual	39.8	9.9	12.3	11.1
Firm	44.4	28.7	29.8	28.1
Corporation	15.8	61.4	57.9	60.8

[1] Includes the group "Individual," to avoid disclosure of individual operations.

The most important distinction shown is that between corporate and all other forms of ownership. For all industries combined, 19 per cent of the total number of establishments were in 1909 under corporate ownership, as against 81 per cent under all other forms. The corresponding figures for 1904 were 18.2 per cent and 81.8 per cent, respectively. In the other three items shown in this table the totals for establishments operated by corporations show a decided increase. Decreases are shown in the proportions of the total number of wage earners, value of products, and value added by manufacture reported by establishments under individual and firm ownership and the forms of ownership included under the head of "Other," except that the establishments under "Other" forms of ownership report a slightly larger proportion of the total value added by manufacture.

The forms of ownership prevailing in the different industries varied considerably. Unlike other important industries, the largest percentage of the marble and stone works were owned by firms, only 15.8 per cent being under corporate ownership. In the butter, cheese, and condensed-milk industry the most common form of ownership was the cooperative, classed under "Other" forms of ownership in the table. These cooperative establishments are operated largely by farmers who have organized for the purpose of securing steadier and better markets for their milk.

Size of establishment.—The tendency for manufacturing to become concentrated in large establishments, or the reverse, is a matter of interest from the standpoint of industrial organization. In order to throw some light upon it the following table groups the establishments according to the value of their products. The table shows also the average size of establishments for all industries combined and for important industries separately as measured by number of wage earners, value of products, and value added by manufacture. The totals for all industries are shown for the last two censuses, while for certain important industries figures are given for 1909 only.

INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	**1,958**	**33,788**	**$68,309,824**	**$33,487,096**
1904	**1,699**	**33,106**	**63,083,611**	**30,653,759**
Less than $5,000:				
1909	690	1,100	1,093,585	1,089,581
1904	426	752	1,100,017	743,470
$5,000 and less than $20,000:				
1909	644	3,844	6,976,450	3,729,572
1904	672	4,246	7,031,382	3,850,847
$20,000 and less than $100,000:				
1909	493	9,491	20,340,258	9,653,436
1904	483	10,011	19,927,286	9,145,201
$100,000 and less than $1,000,000:				
1909	127	14,466	32,104,250	14,813,124
1904	112	13,174	26,459,867	11,269,943
$1,000,000 and over:				
1909	4	4,887	7,195,281	4,201,383
1904	6	4,923	8,475,059	5,644,298
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Less than $5,000:				
1909	35.2	3.3	2.5	3.3
1904	25.1	2.3	1.9	2.4
$5,000 and less than $20,000:				
1909	32.9	11.4	10.2	11.1
1904	39.6	12.8	11.1	12.6
$20,000 and less than $100,000:				
1909	25.2	28.1	29.8	28.8
1904	28.4	30.2	31.6	29.8
$100,000 and less than $1,000,000:				
1909	6.5	42.8	47.0	44.2
1904	6.6	39.8	41.9	36.8
$1,000,000 and over:				
1909	0.2	14.5	10.5	12.5
1904	0.4	14.9	13.4	18.4
Average per establishment:				
1909	.....	17	$34,888	$17,103
1904	.....	19	37,130	18,042
Butter, cheese, and condensed milk, 1909	**186**	**519**	**$8,112,239**	**$1,056,425**
Less than $5,000	15	9	50,363	9,030
$5,000 and less than $20,000	56	49	688,974	73,438
$20,000 and less than $100,000	103	202	4,146,968	416,307
$100,000 and less than $1,000,000	12	259	3,226,934	557,650
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	8.1	1.7	0.6	0.9
$5,000 and less than $20,000	30.1	9.4	8.5	7.0
$20,000 and less than $100,000	55.4	38.9	51.1	39.4
$100,000 and less than $1,000,000	6.5	49.9	39.8	52.8
Average per establishment	.....	3	$43,614	$5,680
Flour-mill and gristmill products, 1909	**133**	**156**	**$4,133,337**	**$605,015**
Less than $5,000	6	4	34,734	7,130
$5,000 and less than $20,000	74	50	931,558	147,696
$20,000 and less than $100,000	48	80	1,849,723	262,826
$100,000 and less than $1,000,000	5	22	1,317,322	187,363
Flour-mill and gristmill products, 1909—Continued.				
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	4.5	2.6	0.8	1.2
$5,000 and less than $20,000	55.6	32.1	22.5	24.4
$20,000 and less than $100,000	36.1	51.3	44.8	43.4
$100,000 and less than $1,000,000	3.8	14.1	31.9	31.0
Average per establishment	.....	1	$31,078	$4,549
Foundry and machine-shop products, 1909	**56**	**1,860**	**$3,754,801**	**$2,419,690**
Less than $5,000	11	25	27,302	15,919
$5,000 and less than $20,000	14	83	155,775	91,954
$20,000 and less than $100,000	21	488	874,592	577,742
$100,000 and less than $1,000,000	10	1,264	2,697,132	1,734,075
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	19.6	1.3	0.7	0.7
$5,000 and less than $20,000	25.0	4.5	4.1	3.8
$20,000 and less than $100,000	37.5	26.2	23.3	23.9
$100,000 and less than $1,000,000	17.9	68.0	71.8	71.7
Average per establishment	.....	33	$67,050	$43,209
Furniture and refrigerators, 1909	**19**	**1,119**	**$1,617,759**	**$914,492**
Less than $5,000	3	11	9,565	8,039
$5,000 and less than $20,000	3	27	37,175	25,581
$20,000 and less than $100,000	6	206	338,029	184,696
$100,000 and less than $1,000,000	7	875	1,232,990	696,176
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	15.8	1.0	0.6	0.9
$5,000 and less than $20,000	15.8	2.4	2.3	2.8
$20,000 and less than $100,000	31.6	18.4	20.9	20.2
$100,000 and less than $1,000,000	36.8	78.2	76.2	76.1
Average per establishment	.....	59	$85,145	$48,131
Lumber and timber products, 1909	**593**	**4,790**	**$8,598,084**	**$4,467,342**
Less than $5,000	304	578	749,081	502,946
$5,000 and less than $20,000	214	1,624	2,227,094	1,403,365
$20,000 and less than $100,000	66	1,652	2,663,711	1,693,905
$100,000 and less than $1,000,000	9	936	2,958,198	807,126
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	51.3	12.1	8.7	11.3
$5,000 and less than $20,000	36.1	33.9	25.9	32.8
$20,000 and less than $100,000	11.1	34.5	31.0	37.9
$100,000 and less than $1,000,000	1.5	19.5	34.4	18.1
Average per establishment	.....	8	$14,499	$7,533
Marble and stone work, 1909	**342**	**10,411**	**$12,395,379**	**$9,877,531**
Less than $5,000	97	144	252,574	182,160
$5,000 and less than $20,000	111	986	1,209,630	903,126
$20,000 and less than $100,000	115	3,448	4,434,976	3,215,534
$100,000 and less than $1,000,000 [1]	19	5,833	6,498,199	5,576,721
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	28.4	1.4	2.0	1.8
$5,000 and less than $20,000	32.5	9.5	9.8	9.1
$20,000 and less than $100,000	33.6	33.1	35.8	32.6
$100,000 and less than $1,000,000 [1]	5.6	56.0	52.4	56.5
Average per establishment	.....	30	$36,244	$28,882

[1] Includes the group "$1,000,000 and over."

This table shows that, in 1909, of the 1,958 manufacturing establishments in the state, 131, or 6.7 per cent, had a value of products exceeding $100,000. These establishments, however, employed an average of 19,353 wage earners, or 57.3 per cent of the total number in all establishments, and reported 57.5 per cent of the total value of products and 56.7 per cent of the total value added by manufacture.

On the other hand, the very small establishments—that is, those having a value of products of less than $5,000—constituted a considerable proportion (35.2 per cent) of the total number of establishments, but the value of their products amounted to only 2.5 per cent of the total. The bulk of the manufacturing was reported by establishments having products valued at not less than $100,000.

It will be seen from the above table that during the five years from 1904 to 1909 there was a considerable increase as measured by value of products in the relative importance of the establishments having a value of products between $100,000 and $1,000,000.

The decrease in the average value of products per establishment from $37,130 to $34,888, and in value added by manufacture from $18,042 to $17,103, during the five-year period, is due to the large increase in the number of small establishments—those reporting products valued at less than $5,000. There was also a decrease from 19 to 17 in the average number of wage earners per establishment.

In some respects, and especially from the standpoint of conditions under which persons engaged in manufactures work, the best classification of establishments to bring out the feature of size is a classification according to the number of wage earners employed. The next table shows, for 1909, such a classification for all industries combined and for 13 important industries individually, and gives not only the number of establishments falling in each group, but also the average number of wage earners employed.

INDUSTRY.	Total.	ESTABLISHMENTS EMPLOYING— 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.
	NUMBER OF ESTABLISHMENTS.									
All industries	**1,958**	**131**	**1,100**	**414**	**198**	**57**	**39**	**16**	**1**	**2**
Butter, cheese, and condensed milk	186	4	169	7	5	1				
Cars and general shop construction and repairs by steam-railroad companies	7			2	1	1	1	2		
Clothing, men's, including shirts	11		1	1	2	2	3	2		
Flour-mill and gristmill products	133	27	103	3						
Foundry and machine-shop products	56	1	17	15	12	5	5	1		
Furniture and refrigerators	19		2	6	3	3	5			
Hosiery and knit goods	8		1		2	3	1	1		
Lumber and timber products	593	10	386	149	39	4	5			
Marble and stone work	342	22	119	104	70	13	9	4		1
Paper and wood pulp	25		1	9	9	5		1		
Patent medicines and compounds and druggists' preparations	15	3	7	3	1	1				
Printing and publishing	115	18	62	27	8					
Woolen, worsted, and felt goods, and wool hats	17	1			6	7	2			1
All other industries	431	45	232	88	40	12	8	5	1	
	AVERAGE NUMBER OF WAGE EARNERS.									
All industries	**33,788**		**2,346**	**4,677**	**6,388**	**3,955**	**5,955**	**5,897**	**794**	**3,776**
Butter, cheese, and condensed milk	519		246	52	150	71				
Cars and general shop construction and repairs by steam-railroad companies	992			18	24	68	102	780		
Clothing, men's, including shirts	1,281		3	14	72	105	523	564		
Flour-mill and gristmill products	156		138	18						
Foundry and machine-shop products	1,860		44	138	336	337	709	296		
Furniture and refrigerators	1,119		3	69	112	225	710			
Hosiery and knit goods	946		5		79	213	151	498		
Lumber and timber products	4,790		912	1,647	1,250	275	706			
Marble and stone work	10,411		297	1,328	2,320	941	1,402	1,621		2,502
Paper and wood pulp	1,030		5	122	294	292		317		
Patent medicines and compounds and druggists' preparations	161		14	26	22	99				
Printing and publishing	666		157	257	252					
Woolen, worsted, and felt goods, and wool hats	2,294				193	483	344			1,274
All other industries	7,563		522	988	1,284	846	1,308	1,821	794	
	PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.									
All industries	**100.0**		**6.9**	**13.8**	**18.9**	**11.7**	**17.6**	**17.5**	**2.3**	**11.2**
Butter, cheese, and condensed milk	100.0		47.4	10.0	28.9	13.7				
Cars and general shop construction and repairs by steam-railroad companies	100.0			1.8	2.4	6.9	10.3	78.6		
Clothing, men's, including shirts	100.0		0.2	1.1	5.6	8.2	40.8	44.0		
Flour-mill and gristmill products	100.0		88.5	11.5						
Foundry and machine-shop products	100.0		2.4	7.4	18.1	18.1	38.1	15.9		
Furniture and refrigerators	100.0		0.3	6.2	10.0	20.1	63.4			
Hosiery and knit goods	100.0		0.5		8.4	22.5	16.0	52.6		
Lumber and timber products	100.0		19.0	34.4	26.1	5.7	14.7			
Marble and stone work	100.0		2.9	12.8	22.3	9.0	13.5	15.6		24.0
Paper and wood pulp	100.0		0.5	11.8	28.5	28.3		30.8		
Patent medicines and compounds and druggists' preparations	100.0		8.7	16.1	13.7	61.5				
Printing and publishing	100.0		23.6	38.6	37.8					
Woolen, worsted, and felt goods, and wool hats	100.0				8.4	21.1	15.0			55.5
All other industries	100.0		6.9	13.1	17.0	11.2	17.3	24.1	10.5	

Of the 1,958 establishments reported for all industries, 6.7 per cent employed no wage earners; 56.2 per cent, from 1 to 5; 21.1 per cent, 6 to 20; 10.1 per cent, 21 to 50; and 5.9 per cent, over 50. The most numerous single group consists of the 1,100 establishments employing from 1 to 5 wage earners each, and the next of the 414 establishments employing from 6 to 20 wage earners each. There were 19 establishments that employed over 250 wage earners each; two of these, one a marble yard and the other a woolen mill, employed over 1,000 wage earners each.

Of the total number of wage earners, 48.6 per cent were in establishments employing over 100 wage earners each. No one of the groups in the table greatly predominates. The single group having the largest number of wage earners is the group comprising the establishments employing from 21 to 50 wage earners each, although the two groups of establishments employing from 101 to 250 wage earners and from 251 to 500 wage earners, respectively, had each nearly as large a percentage of the total.

Expenses.—As stated in the Introduction, the census does not purport to furnish figures that can be used for determining the cost of manufacture and profits. Facts of interest can, however, be brought out concerning the relative importance of the different classes of expenses which make up the total.

The following table shows, for 1909, in percentages, the distribution of expenses among the classes indicated for all industries combined and for certain important industries separately. The figures on which the percentages are based appear in Table II, page 1258.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries	4.7	28.9	58.2	8.3
Butter, cheese, and condensed milk	0.6	3.8	92.6	3.0
Cars and general shop construction and repairs by steam-railroad companies	2.8	48.2	46.6	2.4
Clothing, men's, including shirts	7.3	35.4	51.8	5.5
Flour-mill and gristmill products	0.7	2.1	95.9	1.3
Foundry and machine-shop products	9.6	35.2	43.3	12.0
Furniture and refrigerators	8.1	34.1	48.1	9.6
Hosiery and knit goods	2.7	24.8	65.9	6.6
Lumber and timber products	2.7	27.9	57.2	12.1
Marble and stone work	6.0	62.0	24.4	7.7
Paper and wood pulp	4.1	17.1	70.9	7.9
Patent medicines and compounds and druggists' preparations	10.1	0.2	54.2	29.5
Printing and publishing	14.8	38.3	29.4	17.5
Woolen, worsted, and felt goods, and wool hats	2.0	24.1	66.5	7.3
All other industries	6.9	27.4	56.0	9.7

This table shows that, for all industries combined, 58.2 per cent of the total expense was incurred for materials, 33.6 per cent for services—that is, salaries and wages—and but 8.3 per cent for other purposes. As would be expected, the proportions vary greatly in the different industries.

Engines and power.—The following table shows, for all industries combined, the number of engines or other motors, according to their character, employed in generating power (including electric motors operated by purchased current), and their total horsepower at the censuses of 1909, 1904, and 1899. It also shows separately the number and horsepower of electric motors, including those operated by current generated in the manufacturing establishments.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899 [1]	1909	1904	1899 [1]	1909	1904	1899
Primary power, total	3,256	2,217	2,321	159,445	140,616	126,124	100.0	100.0	100.0
Owned	2,416	2,217	2,321	145,889	134,745	122,996	91.5	95.8	97.5
Steam	1,167	990	1,017	64,252	56,833	44,190	40.3	40.4	35.0
Gas	161	101	77	2,160	1,483	1,120	1.4	1.1	0.9
Water wheels	1,053	1,078	1,227	78,881	76,044	77,421	49.5	54.1	61.4
Water motors	35	42	(2)	181	193	(2)	0.1	0.1	(2)
Other	.....	.....	.....	415	192	265	0.3	0.1	0.2
Rented	840	(2)	(2)	13,556	5,871	3,128	8.5	4.2	2.5
Electric	840	(2)	(2)	12,917	4,550	1,444	8.1	3.2	1.1
Other	.....	.....	.....	639	1,321	1,684	0.4	0.9	1.3
Electric motors	1,512	110	24	21,233	7,238	2,173	100.0	100.0	100.0
Run by current generated by establishment	672	110	24	8,316	2,688	729	39.2	37.1	33.5
Run by rented power	840	(2)	(2)	12,917	4,550	1,444	60.8	62.9	66.5

[1] Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.
[2] Not reported.

This table shows an increase in primary power of 18,829 horsepower, or 13.4 per cent, from 1904 to 1909. Owned power increased 11,144 horsepower, of which 66.6 per cent was in steam power and 25.5 per cent in power derived from water wheels. The figures show that the practice of renting power is on the increase, 8.5 per cent of the total power being rented in 1909, as compared with 4.2 per cent in 1904 and 2.5 per cent in 1899. The use of electric motors for the purpose of applying the power generated within the establishments is also shown to be increasing rapidly, the number of such motors having increased from 24 in 1899 to 110 in 1904 and 672 in 1909, and their horsepower increasing from 729 in 1899 to 2,688 in 1904 and 8,316 in 1909.

Fuel.—Closely related to the question of the kind of power employed is that of the fuel consumed in generating this power, or otherwise used as material in the manufacturing processes. The following table shows the quantity of each kind of fuel used in 1909:

INDUSTRY.	Anthracite coal (tons).	Bituminous coal (tons).	Coke (tons).	Wood (cords).	Oil, including gasoline (barrels).	Gas (1,000 feet).
All industries	23,831	240,238	5,343	48,302	18,558	44,395
Agricultural implements	1,126	2,651	.....	225	1,671	32,000
Butter, cheese, and condensed milk	3,789	6,380	.....	7,138	167	.....
Cars and general shop construction and repairs by steam-railroad companies	185	7,794	216	152	.....	.....
Clothing, men's, including shirts	826	361	2	45	1	400
Flour-mill and gristmill products	105	351	.....	153	555	3,274
Foundry and machine-shop products	1,222	9,001	1,036	390	374	497
Furniture and refrigerators	5	2,780	.....	30	49	.....
Gas, illuminating and heating	2,215	7,417	50	95	11,918	.....
Hosiery and knit goods	1,446	3,413	.....	7	.....	17
Lime	.....	3,126	.....	23,635	2	.....
Lumber and timber products	510	1,298	.....	867	388	118
Marble and stone work	879	82,166	11	1,215	376	820
Paper and wood pulp	4,136	51,642	.....	4,711	.....	.....
Patent medicines and compounds and druggists' preparations	95	946	.....	84	2	.....
Printing and publishing	577	80	1	207	67	3,012
Woolen, worsted, and felt goods, and wool hats	.....	35,788	480	2,175	.....	.....
All other industries	6,715	25,044	2,947	7,175	2,988	4,257

NOTE.—In addition, there were 202 tons of other varieties of fuel reported.

SUPPLEMENTARY DATA REGARDING IMPORTANT INDUSTRIES.

(With statistics for laundries and custom sawmills and gristmills.)

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantity and cost of materials and 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 three important industries in Vermont are here presented.

Lumber and timber products.—With the exception of the marble and stone work industry, the lumber industry in Vermont is the most important one in the state, whether measured by average number of wage earners, value of products, or value added by manufacture, while in number of establishments it ranks first. The quantity of lumber, lath, and shingles produced in the sawmill branch of this industry in 1909 and 1899 is shown in the following statement:

PRODUCT.	QUANTITY.	
	1909	1899
Rough lumber.....M feet b. m..	351,571	375,809
Lath.....thousands..	7,249	9,314
Shingles.....thousands..	24,001	52,899

The returns for 1909, as compared with 1899, show decreases of 6.4 per cent in the output of lumber, 22.2 per cent in that of lath, and 54.6 per cent in that of shingles. The principal kinds of lumber produced are spruce, hemlock, white pine, and birch. In 1909, of the total cut of 351,571 M feet board measure, the softwoods represented 242,930 M feet board measure, of which spruce constitutes 123,164 M feet, hemlock 62,345 M feet, and white pine 43,274 M feet. Of the 108,641 M feet of hardwoods, birch represented 33,450 M feet, maple 27,533 M feet, and oak 11,463 M feet board measure.

Butter, cheese, and condensed milk.—Vermont is one of the leading dairy-product states, ranking ninth in respect to number of establishments and tenth in value of products. The quantity and value of products of the butter, cheese, and condensed-milk industry for 1909, 1904, and 1899 are given in the next table.

The value of products for this industry shows an increase both from 1904 to 1909 and from 1899 to 1904. The total value of butter, packed solid and in prints and rolls, represented 74.2 per cent of the total value of products of the industry in 1909, 91.1 per cent in 1904, and 83.3 per cent in 1899. From 1899 to 1904 there was an increase both in the total quantity and in the total value of butter produced, while from 1904 to 1909 there was an increase in value notwithstanding a marked decrease in quantity. In 1899, 22.7 per cent of the butter produced was put up in prints and rolls, and in 1909, 37.8 per cent. A number of the factories purchased cream at their "central stations" for resale, using only a part of it for manufacturing purposes, because it is often more profitable to dispose of it as cream.

In the manufacture of cheese, there was between 1904 and 1909 a decrease of 36.4 per cent in quantity and of 7.4 per cent in value. The quantity and value of condensed milk produced in 1909, however, was about seven times that reported in 1899. The increasing custom of the farmers to separate the cream on the farm instead of sending the whole milk to the factory is apparent, since only 123 cream separators were reported as operated by factories in 1909, compared with 307 in 1904 and 382 in 1899.

PRODUCT.	1909	1904[1]	1899
Total value	**$8,112,239**	**$6,416,434**	**$5,656,265**
Butter:			
Packed solid—			
Pounds	12,589,015	16,210,831	17,366,750
Value	$3,673,807	$3,409,092	$3,611,065
Prints or rolls—			
Pounds	7,638,480	11,046,043	5,086,631
Value	$2,348,259	$2,435,052	$1,101,226
Cream sold:			
Pounds	4,502,709	571,402	215,839
Value	$600,393	$65,522	$152,209
All other butter-factory products	$103,598	$73,089	$152,998
Cheese:			
Full-cream—			
Pounds	2,576,073	4,271,160	4,068,063
Value	$378,057	$416,786	$406,764
Other kinds—			
Pounds	186,583	72,000	645,042
Value	$17,721	$10,800	$66,814
All other cheese-factory products	$14,741	$6,093	$9,469
Condensed milk:			
Sweetened—			
Pounds	9,096,582	(2)	[3] 1,973,556
Value	$669,325	(2)	[3] $135,720
Unsweetened—			
Pounds	4,246,084	(2)	.....
Value	$306,338	(2)	.....
All other condensed-milk factory products	.....	.....	$20,000

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[2] Figures can not be shown without disclosing individual operations.
[3] No separation made in 1899 of sweetened and unsweetened condensed milk.

Flour-mill and gristmill products.—The following tabular statement gives the quantity and value of flour-mill and gristmill products for the last three census years:

PRODUCT.	1909	1904	1899
Total value	**$4,133,337**	**$3,206,075**	**$2,769,648**
Wheat flour:			
White—			
Barrels	90	2,007	3,909
Value	$540	$10,240	$15,358
Graham—			
Barrels	79	1,019	.....
Value	$474	$4,424	.....
Corn meal and corn flour:			
Barrels	853,051	909,760	898,893
Value	$2,511,964	$2,109,276	$1,852,761
Rye flour:			
Barrels	404	365	1,159
Value	$1,406	$1,594	$4,111
Buckwheat flour:			
Pounds	363,550	196,350	529,394
Value	$9,376	$5,825	$12,813
Feed:			
Tons	48,850	40,461	36,722
Value	$1,528,928	$1,032,712	$791,685
Offal:			
Tons	12	168	4,850
Value	$433	$3,380	$70,251
All other products	$80,216	$38,624	$22,669

There was an increase of 28.9 per cent in the total value of products between 1904 and 1909. This was due chiefly to the increase shown for corn meal and corn flour, amounting to $402,688, or 19.1 per cent, and for feed, amounting to $496,216, or 48 per cent. The amount of wheat and rye milled in the state is insignificant. Barley meal, of which a considerable quantity is manufactured in Vermont, is included under the head of "All other products."

Woolen and worsted goods.—From 1904 to 1909 there was a decrease in this industry in Vermont, due to the falling off in the manufacture of woolen goods. Similar conditions prevailed in most other textile manufacturing states in the Union, but the loss in woolen goods was overcome by the increase in the production of worsted goods. The quantity and cost of the different materials used, and the quantity and value of the various classes of products, reported at the censuses of 1909, 1904, and 1899, are given in the following statement:

MATERIAL OR PRODUCT.	1909	1904	1899 [1]
Materials used, total cost	$2,879,001	$2,794,111	$1,554,525
Wool (in condition purchased):			
Pounds	1,620,956	3,264,133	3,170,502
Cost	$677,308	$973,088	$844,806
Equivalent in scoured condition, pounds	1,165,432	2,004,874	2,173,644
Tailors' clippings, rags, etc.:			
Pounds	1,823,286	2,120,824	1,325,120
Cost	$140,386	$229,990	$181,888
Shoddy, mungo, and wool extract:			
Pounds	824,259	991,608	822,069
Cost	$120,774	$153,345	$108,943
Cotton:			
Pounds	184,954	1,057,280	342,273
Cost	$30,230	$135,705	$54,418
Yarns, purchased:			
Pounds	1,805,180	1,316,052	220,286
Cost	$1,083,028	$363,872	$52,075
Chemicals and dyestuffs	$161,175	$172,971	$101,201
Fuel and rent of power	$145,331	$115,337	$48,924
All other materials	$520,769	$648,903	$162,180
Products, total value	**$4,496,903**	**$4,698,405**	**$3,572,646**
All-wool woven goods:			
Square yards	4,744,694	4,836,185	3,088,469
Value	$2,899,133	$2,738,140	$1,682,951
Cotton-mixed woven goods:			
Square yards	2,273,010	2,727,203	2,310,100
Value	$535,664	$819,784	$519,988
Cotton-warp woven goods:			
Square yards	2,676,701	3,376,997	1,139,233
Value	$996,382	$1,131,645	$348,434
All other products	$65,724	$8,836	$21,273

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.

Although the cost of all materials, the quantity and cost of yarns purchased, and the cost of fuel and rent of power increased, all other items decreased from 1904 to 1909, while during the preceding five-year period every item of materials increased. The cost of yarns purchased was the largest item of materials used in 1909, constituting 37.6 per cent of the total cost of all materials, whereas the cost of wool was the largest in 1904 and in 1899. This condition indicates a change of methods in the industry.

With the exception of minor increases in the value of all-wool woven goods and the value of the articles included under the head "All other products," each item of products decreased from 1904 to 1909, while every item except "All other products" increased from 1899 to 1904. All-wool woven goods was the largest class of products at each of the three censuses, the value of which represented 64.5 per cent of the total reported for the industry in 1909, 58.3 per cent in 1904, and 65.4 per cent in 1899.

A total of 51,404 producing spindles were reported by the woolen and worsted mills of Vermont in 1909, compared with 50,738 in 1904 and 37,460 in 1899. The total number of looms used in the same class of establishments was 1,297 in 1909, 965 in 1904, and 775 in 1899.

Laundries.—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. In 1909 there were 32 such establishments distributed through the state of Vermont, only 7 being in cities of 10,000 inhabitants and over.

The following statement summarizes the statistics:

Number of establishments	32
Persons engaged in the industry	342
Proprietors and firm members	37
Salaried employees	6
Wage earners (average number)	299
Primary horsepower	349
Capital	$144,393
Expenses	155,436
Services	104,769
Materials	32,217
Miscellaneous	18,450
Amount received for work done	243,753

The most common form of organization was the individual, for which 27 establishments were reported, the other 5 being operated by firms. Fourteen had receipts for the year's business of less than $5,000; 17, $5,000 but less than $20,000; and 1, over $20,000.

The number of wage earners employed each month and the per cent which this number represented of the greatest number employed in any month were as follows:

MONTH.	WAGE EARNERS.		MONTH.	WAGE EARNERS.	
	Number.	Per cent of maximum.		Number.	Per cent of maximum.
January	274	81.3	July	337	100.0
February	269	79.8	August	331	98.2
March	270	80.1	September	313	92.9
April	285	84.6	October	309	91.7
May	296	87.8	November	290	86.1
June	315	93.5	December	295	87.5

The different kinds of primary power, the number of engines or motors, and the horsepower used in 1909 are shown in the following tabular statement:

KIND.	Number of engines or motors.	Horsepower.
Primary power, total		349
Owned:		
Steam	25	263
Gas	2	11
Water wheels	1	20
Water motors	1	2
Rented:		
Electric	10	43
Other		10

The kind and amount of fuel used are shown in the following statement:

KIND.	Unit.	Quantity.
Anthracite coal	Tons	313
Bituminous coal	Tons	2,225
Oil	Barrels	63
Coke	Tons	24
Gas	1,000 feet	1,070
Wood	Cords	218

Custom sawmills and gristmills.—Statistics for custom sawmills and gristmills are not included in the general tables or in the totals shown for manufacturing industries, but are presented in the following summary:

	Custom sawmills.	Custom gristmills.
Number of establishments	61	35
Persons engaged in the industry	184	51
Proprietors and firm members	74	35
Salaried employees	1	.....
Wage earners (average number)	109	16
Primary horsepower	3,340	1,906
Capital	$147,198	$61,076
Expenses	51,248	169,963
Services	41,991	3,227
Materials	1,865	[1] 165,181
Miscellaneous	7,392	1,555
Value of products	86,398	[1] 197,514

[1] Includes estimate of all grain ground. A similar estimate for value of lumber sawed by custom sawmills is impracticable.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899.

THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

INDUSTRY.	Census.	Number of establishments.	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—All industries	**1909**	**1,958**	**38,580**	**2,113**	**2,679**	**33,788**	**159,445**	**$73,470**	**$2,803**	**$17,272**	**$34,823**	**$68,310**	**$33,487**
	1904	**1,699**	**37,015**	**1,856**	**2,053**	**33,106**	**140,616**	**62,659**	**2,103**	**15,231**	**32,430**	**63,084**	**30,654**
	1899	**1,038**	.....	.....	**1,695**	**28,179**	**126,124**	**43,500**	**1,611**	**11,427**	**26,385**	**51,515**	**25,130**
Agricultural implements	1909	11	401	5	36	360	1,194	950	36	185	272	582	310
	1904	10	278	8	23	247	666	491	31	114	182	442	260
	1899	17	254	19	24	211	972	484	18	86	164	370	206
Bread and other bakery products	1909	75	373	76	55	242	136	330	35	121	624	994	370
	1904	57	271	64	20	187	63	214	14	84	277	499	222
	1899	50	235	54	33	148	.....	260	25	59	206	417	211
Brick and tile	1909	7	80	6	4	70	150	108	3	30	14	65	51
	1904	9	126	11	7	108	258	100	5	47	21	104	83
	1899	15	135	15	5	115	194	99	4	43	18	100	82
Butter, cheese, and condensed milk	1909	186	699	104	76	519	2,944	1,795	48	202	7,056	8,112	1,056
	1904	[1] 220	658	106	133	419	2,564	1,053	30	223	5,816	6,416	600
	1899	255	801	142	137	522	3,624	1,223	38	236	4,885	5,656	771
Canning and preserving	1909	8	142	11	13	118	240	319	14	46	214	330	116
	1904	7	69	4	8	57	124	98	5	17	63	123	60
	1899	8	.....	.....	7	128	.....	110	6	28	108	207	99
Carriages and wagons and materials	1909	38	140	45	1	94	429	222	(2)	50	58	158	100
	1904	[1] 32	155	46	1	108	324	214	1	59	55	164	109
	1899	[1] 57	.....	.....	3	186	.....	316	1	91	98	285	187
Cars and general shop construction and repairs by steam-railroad companies.	1909	7	1,023	.....	31	992	965	558	32	546	529	1,135	606
	1904	6	862	.....	29	833	1,010	624	21	450	377	860	483
	1899	7	811	.....	32	779	404	711	24	446	350	825	475
Clothing, men's, including shirts	1909	11	1,359	4	74	1,281	323	896	83	404	591	1,274	683
	1904	11	1,315	2	45	1,268	432	852	46	337	597	1,206	609
	1899	[3] 7	566	8	32	526	158	425	44	145	360	729	369
Clothing, women's	1909	6	375	2	40	333	150	318	30	110	285	503	218
	1904	8	569	1	22	546	233	188	20	179	424	722	298
	1899	5	218	6	10	202	182	47	5	53	115	198	83
Confectionery	1909	10	206	11	50	145	112	245	34	45	214	356	142
	1904	4	157	4	25	128	110	179	18	40	136	246	110
	1899	5	.....	.....	38	103	.....	203	26	33	110	248	138
Cooperage and wooden goods, not elsewhere specified.	1909	25	687	25	27	635	2,203	600	22	263	240	693	453
	1904	23	523	31	21	471	1,587	427	19	166	150	445	295
	1899	13	.....	.....	2	131	.....	91	1	40	56	160	104
Copper, tin, and sheet-iron products	1909	19	222	27	46	149	240	569	34	78	205	425	220
	1904	[3] 5	84	5	6	73	12	141	4	39	34	135	101
	1899	10	.....	.....	10	78	.....	78	39	21	83	152	69
Flour-mill and gristmill products	1909	133	350	161	33	156	8,714	1,552	24	76	3,528	4,133	605
	1904	109	338	139	14	185	7,043	1,320	11	91	2,872	3,206	334
	1899	115	.....	.....	28	170	.....	1,104	20	73	2,287	2,770	483
Foundry and machine-shop products	1909	56	2,141	48	233	1,860	4,519	4,959	295	1,085	1,335	3,755	2,420
	1904	60	2,087	62	207	1,818	2,879	3,385	227	992	943	3,379	2,436
	1899	67	.....	.....	166	1,429	.....	2,686	148	672	862	2,372	1,510
Furniture and refrigerators	1909	19	1,226	8	99	1,119	2,767	1,987	118	498	703	1,618	915
	1904	[1] 23	1,196	14	70	1,112	3,298	1,496	81	424	708	1,533	825
	1899	[1] 24	1,072	24	61	987	.....	1,040	61	358	555	1,253	698
Gas, illuminating and heating	1909	9	108	.....	38	70	153	1,479	20	43	100	278	178
	1904	6	46	.....	17	29	187	459	13	13	38	129	91
	1899	7	28	.....	13	15	.....	477	7	8	20	71	51
Hosiery and knit goods	1909	8	974	7	21	946	902	1,753	44	411	1,089	1,746	657
	1904	11	966	14	36	916	1,351	1,388	42	366	1,216	1,989	773
	1899	14	1,082	9	32	1,041	1,213	1,590	42	390	1,115	1,835	720
Leather goods	1909	3	20	4	2	14	.....	13	1	6	12	26	14
	1904	3	31	3	3	25	.....	24	2	9	16	39	23
	1899	3	.....	.....	.....	21	.....	11	.....	10	27	55	28
Lime	1909	11	204	10	9	185	248	258	8	72	119	250	131
	1904	10	196	13	5	178	267	320	3	73	135	266	131
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber and timber products	1909	593	5,720	716	214	4,790	41,937	8,989	198	2,013	4,131	8,598	4,467
	1904	493	6,392	614	164	5,614	39,009	7,845	153	2,343	4,056	9,477	4,821
	1899	575	.....	.....	151	6,322	39,662	7,257	113	2,000	4,563	8,799	4,236
Marble and stone work	1909	342	11,545	510	624	10,411	29,107	17,243	616	6,404	3,518	12,395	8,877
	1904	229	8,830	358	384	8,097	14,832	14,467	413	4,455	2,010	9,570	7,560
	1899	281	.....	.....	211	4,668	.....	5,357	202	2,050	1,881	6,380	4,499
Paper and wood pulp	1909	25	1,133	22	81	1,030	38,191	8,432	141	594	2,455	3,902	1,447
	1904	28	1,399	20	99	1,280	42,952	5,629	123	617	2,540	3,831	1,291
	1899	27	1,320	16	88	1,216	34,526	4,854	129	571	1,685	3,385	1,700

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[2] Less than $500.
[3] Excluding statistics for two establishments, to avoid disclosure of individual operations.
[4] Not reported separately.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY AND CITY.	Census.	Number of establishments.	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—Continued.													
Patent medicines and compounds and druggists' preparations.	1909	15	269	13	95	161	333	$776	$109	$68	$586	$1,290	$704
	1904	[1] 20	291	21	72	198	268	623	103	81	370	1,398	1,028
	1899	[1] 22	.....	.....	98	279	.....	758	160	110	690	2,124	1,434
Printing and publishing	1909	115	919	109	144	666	625	1,064	126	326	250	1,039	789
	1904	[2] 104	821	103	114	604	420	776	100	271	236	932	696
	1899	106	801	106	93	602	.....	687	65	240	190	792	602
Tobacco manufactures	1909	25	91	28	5	58	.....	65	5	34	43	118	75
	1904	23	106	26	3	77	.....	48	3	40	46	127	81
	1899	21	77	23	2	52	.....	43	2	26	31	86	55
Woolen, worsted, and felt goods, and wool hats.	1909	17	2,371	4	73	2,294	7,213	6,906	88	1,043	2,879	4,497	1,618
	1904	17	2,350	17	98	2,235	7,120	5,660	153	923	2,794	4,698	1,904
	1899	[1] 23	1,556	21	51	1,484	4,509	3,001	71	577	1,555	2,573	1,018
All other industries	1909	184	5,802	157	555	5,090	15,590	11,084	639	2,429	4,773	10,038	5,265
	1904	171	6,890	170	427	6,293	13,607	14,638	462	2,768	5,718	11,148	5,430
	1899	204	.....	.....	368	6,764	.....	10,588	360	2,461	4,371	9,673	5,302
CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.													
Barre	1909	139	2,780	219	221	2,340	4,645	$2,481	$236	$1,814	$1,108	$3,852	$2,744
	1904	105	2,490	185	107	2,198	.....	1,699	137	1,515	909	3,373	2,464
	1899	146	.....	.....	47	1,875	.....	1,202	43	1,186	783	2,761	1,978
Burlington	1909	82	2,777	53	353	2,371	8,350	6,460	355	982	4,323	6,800	2,477
	1904	67	2,580	42	238	2,300	.....	5,124	279	836	3,804	6,356	2,552
	1899	78	.....	.....	214	2,232	.....	4,502	312	767	3,294	6,066	2,772
Rutland	1909	63	1,861	51	174	1,636	1,862	2,650	161	763	1,207	2,680	1,473
	1904	51	1,963	45	115	1,803	.....	2,180	111	857	1,162	2,523	1,361
	1899	61	.....	.....	122	1,496	.....	1,981	98	644	836	1,959	1,123

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[2] Excluding statistics for two establishments, to avoid disclosure of individual operations.

TABLE II.—DETAIL STATEMENT FOR

	INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners. Average number.	Wage earners. Number. Maximum month.	Wage earners. Number. Minimum month.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horsepower.
1	**All industries**	**1,058**	**38,580**	**2,113**	**975**	**1,202**	**502**	**33,788**	**No 34,677**	**De 32,342**	(1)	(1)	(1)	(1)	(1)	**159,445**
2	Agricultural implements	11	401	5	14	15	7	360	Ap 393	Au 298	376	366	4	6	.....	1,194
3	Artificial stone	3	15	4	.....	.....	.....	11	Je [2] 21	Ja [3] 0	21	21	.....	.....	.....	4
4	Baskets, and rattan and willow ware	6	72	9	.....	.....	.....	63	De 72	Mh [2] 59	72	68	4	.....	.....	335
5	Boxes, fancy and paper	3	42	1	2	.....	2	37	Oc 48	Mh 17	46	14	31	1	.....	45
6	Bread and other bakery products	75	373	76	11	21	23	242	Je 257	Ja 227	248	195	38	15	.....	136
7	Brick and tile	7	80	6	4	.....	.....	70	Je 150	Ja 5	107	107	.....	.....	.....	150
8	Butter, cheese, and condensed milk	186	699	104	42	15	19	519	Jy 620	Fe 428	518	494	22	2	.....	2,944
9	Canning and preserving	8	142	11	8	2	3	118	Se 634	Mh 8	644	453	117	40	25	240
10	Carriages and wagons and materials	38	140	45	.....	.....	1	94	Fe 98	Au 91	97	96	.....	1	.....	429
11	Cars and general shop construction and repairs by steam-railroad companies.	7	1,023	.....	19	12	.....	992	Se 1,030	Jy 956	1,023	1,023	.....	.....	.....	965
12	Cars and general shop construction and repairs by street-railroad companies.	3	16	.....	2	.....	.....	14	Ja [4] 14	De [4] 14	14	14	.....	.....	.....	9
13	Clothing, men's, including shirts	11	1,359	4	24	33	17	1,281	De 1,423	Se 1,107	1,394	153	1,241	.....	.....	323
14	Clothing, women's	6	375	2	9	25	6	333	De 407	Je 290	407	41	366	.....	.....	150
15	Confectionery	10	206	11	9	31	10	145	No 183	Jy 114	181	75	106	.....	.....	112
16	Cooperage and wooden goods, not elsewhere specified.	25	687	25	16	6	5	635	De 691	Jy 556	690	548	129	3	10	2,203
17	Copper, tin, and sheet-iron products	19	222	27	12	28	6	149	De 227	My 96	229	223	6	.....	.....	240
18	Cutlery and tools, not elsewhere specified	8	291	5	14	15	5	252	Au 265	Ja 232	251	230	11	10	.....	1,019
19	Flour-mill and gristmill products	133	350	101	17	11	5	156	Mh 166	Se 145	182	182	.....	.....	.....	8,714
20	Foundry and machine-shop products	56	2,141	48	78	121	34	1,860	De 2,122	My 1,691	2,095	2,034	60	1	.....	4,519
21	Furniture and refrigerators	19	1,226	8	40	37	22	1,119	De 1,261	Jy 1,026	1,270	1,252	1	8	9	2,767
22	Gas, illuminating and heating	9	108	.....	14	14	10	70	My 97	Mh 60	62	62	.....	.....	.....	153
23	Hosiery and knit goods	8	974	7	10	7	4	946	No 1,000	Au 863	977	341	631	1	4	962
24	Leather goods	3	20	4	2	.....	.....	14	Ja [4] 14	Jy [4] 14	14	14	.....	.....	.....	.....
25	Lime	11	204	10	6	1	2	185	My 212	Ja 156	168	167	.....	1	.....	248
26	Lumber and timber products	593	5,720	716	127	53	34	4,790	De 5,460	Au 3,866	6,668	6,550	94	24	.....	41,937
27	Marble and stone work	342	11,545	510	235	294	95	10,411	Au 11,186	De 7,372	10,239	10,222	1	15	1	29,107
28	Musical instruments, pianos and organs and materials.	4	654	.....	9	23	12	610	Ja 635	Au 577	580	563	17	.....	.....	1,966
29	Paper and wood pulp	25	1,133	22	44	24	13	1,030	Mh 1,133	Au 885	1,113	1,035	78	.....	.....	38,191
30	Patent medicines and compounds and druggists' preparations.	15	269	13	15	53	27	161	Fe 178	No 147	151	67	84	.....	.....	333
31	Printing and publishing	115	919	109	45	55	44	666	De 699	Au 649	700	496	202	2	.....	625
32	Pumps, not including steam pumps	3	11	3	.....	.....	.....	8	Mh [2] 8	Ja [2] 7	8	8	.....	.....	.....	19
33	Shipbuilding, including boat building	7	20	8	.....	.....	1	11	Je 14	Ja [2] 9	10	10	.....	.....	.....	28
34	Tobacco manufactures	25	91	28	2	3	.....	58	Ap 67	My 43	68	59	8	1	.....	.....
35	Woolen, worsted, and felt goods, and wool hats.	17	2,371	4	30	29	14	2,294	De 2,508	Au 2,143	2,507	1,528	943	9	27	7,213
36	All other industries [5]	147	4,681	127	115	274	81	4,084	.....	.....	.....	.....	.....	.....	.....	12,165

[1] No figures given for reasons explained in the Introduction.
[2] Same number reported for one or more other months.
[3] None reported for one or more other months.
[4] Same number reported throughout the year.
[5] All other industries embrace—

Awnings, tents, and sails	2	Cash registers and calculating machines	1	Fancy articles, not elsewhere specified	1
Bags, other than paper	1	Charcoal	1	Firearms and ammunition	1
Bicycles, motorcycles, and parts	1	Chemicals	1	Flavoring extracts	1
Blacking and cleansing and polishing preparations	1	Coffee and spice, roasting and grinding	1	Food preparations	5
Boots and shoes, including cut stock and findings.	4	Coffins, burial cases, and undertakers' goods	2	Fur goods	2
Boxes, cigar	1	Cotton goods, including cotton small wares	3	Furnishing goods, men's	4
Brass and bronze products	1	Dairymen's, poulterers', and apiarists' supplies	3	Grease and tallow	1
Brushes	1	Electrical machinery, apparatus, and supplies	2	Hones and whetstones	1
Carpets, rag	1	Electroplating	1	Ice, manufactured	1

TABLE III.—DETAIL STATEMENT FOR CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES,

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

	CITY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners (average number). Total.	Wage earners. 16 and over. Male.	Wage earners. 16 and over. Female.	Wage earners. Under 16.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horsepower.
1	BARRE	130	2,780	219	96	91	34	2,340	2,325	3	12	2,364	2,348	3	12	1	4,645
2	BURLINGTON	82	2,777	53	121	149	83	2,371	1,601	740	30	2,484	1,677	775	22	10	8,359
3	RUTLAND	63	1,861	51	53	97	24	1,636	1,245	390	1	1,800	1,370	429	1	.....	1,862

THE STATE, BY INDUSTRIES: 1909.

	Capital.	EXPENSES. Total.	Services. Officials.	Services. Clerks.	Services. Wage earners.	Materials. Fuel and rent of power.	Materials. Other.	Miscellaneous. Rent of factory.	Miscellaneous. Taxes, including internal revenue.	Miscellaneous. Contract work.	Miscellaneous. Other.	Value of products.	Value added by manufacture.
1	$73,470,107	$59,850,800	$1,495,849	$1,307,580	$17,271,702	$1,468,187	$33,354,541	$166,426	$342,658	$591,481	$3,852,376	$68,309,824	$33,487,096
2	949,520	528,988	21,591	14,435	185,459	19,957	251,678	.....	3,683	438	31,747	531,949	310,314
3	9,750	8,699	.....	.....	5,304	110	2,900	15	40	.....	330	10,815	7,805
4	45,167	43,544	.....	.....	29,046	605	11,423	.....	276	.....	2,194	54,708	42,680
5	21,400	39,300	2,390	784	7,596	1,261	25,475	1,435	44	.....	315	42,000	15,264
6	329,930	820,409	10,930	24,399	120,627	18,767	605,369	15,029	2,073	.....	23,215	994,236	370,100
7	107,821	50,143	3,398	.....	29,951	13,788	475	125	475	.....	1,931	64,744	50,481
8	1,794,772	7,620,463	30,461	17,230	292,040	65,777	6,990,037	8,249	8,133	24,796	183,740	8,112,239	1,056,425
9	318,759	301,615	8,650	5,570	46,453	3,911	210,406	1,350	540	.....	24,735	330,435	116,118
10	222,257	114,605	.....	312	50,097	3,654	54,067	921	1,468	742	3,394	158,200	100,479
11	558,370	1,134,545	23,787	7,853	546,304	26,783	502,179	.....	.....	.....	27,639	1,134,946	605,984
12	48,100	25,921	1,732	.....	9,444	971	12,833	.....	90	304	547	25,921	12,117
13	895,994	1,140,338	34,451	48,557	403,983	14,059	576,920	3,023	3,851	.....	55,494	1,274,480	683,501
14	317,891	446,399	12,131	17,528	109,556	3,994	281,252	395	408	.....	21,135	502,643	217,397
15	245,088	340,867	8,650	25,254	45,471	4,636	209,208	6,903	1,682	.....	39,063	356,206	142,362
16	600,126	605,124	17,220	4,833	263,306	2,850	236,720	1,646	2,728	21,407	54,414	692,931	453,361
17	569,489	338,868	8,619	25,842	78,231	3,426	201,867	884	990	1,578	17,431	425,242	219,949
18	415,866	352,228	20,632	19,778	128,267	5,085	161,055	96	2,540	.....	14,775	405,097	238,957
19	1,551,691	3,678,539	15,420	8,760	76,411	13,369	3,514,953	5,808	8,953	856	34,009	4,133,337	605,015
20	4,958,618	3,084,954	152,229	142,617	1,085,145	68,737	1,256,374	3,298	30,484	10,256	325,814	3,754,801	2,419,690
21	1,986,964	1,460,661	61,508	56,980	498,415	15,745	687,522	4,743	9,883	838	125,027	1,617,759	914,492
22	1,478,518	192,438	11,684	8,028	43,209	66,408	33,185	60	9,079	.....	20,785	278,138	178,545
23	1,752,780	1,653,483	31,536	12,780	410,770	17,597	1,071,451	15,038	1,686	.....	92,625	1,745,670	656,622
24	12,880	19,753	1,040	.....	5,710	74	12,396	175	82	.....	276	26,131	13,661
25	258,161	208,703	6,200	1,550	72,434	83,658	35,574	1,300	1,384	290	6,313	250,402	131,170
26	8,988,774	7,219,486	136,510	61,847	2,013,458	21,663	4,109,079	16,868	53,852	357,042	449,167	8,598,084	4,467,342
27	17,242,591	10,330,298	338,756	277,714	6,403,880	438,768	2,079,080	28,265	76,190	91,566	596,079	12,395,379	9,877,531
28	1,076,652	937,887	21,450	43,217	326,641	13,452	388,485	1,760	3,147	21,000	118,735	1,267,566	865,629
29	8,431,703	3,462,582	111,090	29,922	593,752	243,335	2,212,020	2,300	36,324	.....	233,839	3,901,634	1,446,279
30	775,915	1,080,910	43,444	65,259	67,508	6,589	579,250	1,404	5,669	.....	311,787	1,289,566	703,727
31	1,064,164	850,256	62,876	63,390	325,564	22,259	227,551	21,724	5,934	16,692	104,266	1,038,843	789,033
32	9,500	21,228	.....	.....	3,740	122	16,500	172	181	.....	513	30,850	14,228
33	40,884	9,093	.....	400	3,861	337	4,013	82	119	45	236	14,010	9,660
34	64,546	99,859	1,725	2,964	34,019	443	42,965	3,531	9,607	.....	4,545	117,556	74,148
35	6,906,319	4,326,842	59,817	28,199	1,042,769	145,331	2,733,670	.....	22,013	22,075	272,968	4,496,903	1,617,902
36	9,419,147	7,301,772	235,922	291,578	1,913,281	120,666	4,006,609	19,827	38,990	21,556	653,343	8,186,403	4,059,128

[5] All other industries embrace—Continued.

Instruments, professional and scientific	1
Kaolin and ground earths	1
Leather, tanned, curried, and finished	2
Mineral and soda waters	13
Models and patterns, not including paper patterns	1
Needles, pins, and hooks and eyes	1
Paper goods, not elsewhere specified	2
Photographic apparatus and materials	1
Scales and balances	2
Shoddy	2
Slaughtering and meat packing	2
Soap	2
Sporting and athletic goods	2
Statuary and art goods	2
Stoves and furnaces, including gas and oil stoves	1
Toys and games	4
Upholstering materials	2
Vinegar and cider	24
Wall plaster	2
Window shades and fixtures	2
Wirework, including wire rope and cable	1
Wood distillation, not including turpentine and rosin	1
Wood, turned and carved	31

AND TOTALS FOR ALL INDUSTRIES IN CITIES OF 10,000 BUT LESS THAN 50,000 INHABITANTS: 1909.

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

	Capital.	EXPENSES. Total.	Services. Officials.	Services. Clerks.	Services. Wage earners.	Materials. Fuel and rent of power.	Materials. Other.	Miscellaneous. Rent of factory.	Miscellaneous. Taxes, including internal revenue.	Miscellaneous. Contract work.	Miscellaneous. Other.	Value of products.	Value added by manufacture.
1	$2,481,035	$3,344,459	$124,096	$112,076	$1,814,464	$128,130	$980,268	$17,997	$13,913	$10,661	$142,854	$3,852,177	$2,743,779
2	6,460,418	6,267,797	188,302	166,528	982,158	107,603	4,215,377	19,556	30,823	13,831	543,614	6,800,490	2,477,510
3	2,649,738	2,302,358	94,542	66,830	762,748	51,189	1,155,654	7,681	16,721	6,045	140,948	2,679,528	1,472,685

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VIRGINIA.

INDUSTRIES IN GENERAL.

General character of the state.—Virginia, with a gross area of 42,627 square miles, of which 2,365 represent water surface, ranks thirty-third in size among the states of the Union. Its population in 1910 was 2,061,612, as compared with 1,854,184 in 1900 and 1,655,980 in 1890. It ranked twentieth among the 49 states and territories in population in 1910 and seventeenth in 1900. The density of population per square mile was 51.2 in 1910, 46.1 in 1900, and 41.1 in 1890. Richmond, with a population of 127,628, and Norfolk, with 67,452, were the only cities in the state having over 50,000 inhabitants in 1910, but there were eight other cities which in 1910 had a population of over 10,000. These cities, named in the order of size, were: Roanoke, Portsmouth, Lynchburg, Petersburg, Newport News, Danville, Alexandria, and Staunton. Twenty-three and one-tenth per cent of the entire population of the state in 1910 resided in cities and incorporated towns of 2,500 inhabitants or over as against 17.6 per cent in 1900.

The state has excellent transportation facilities, both by rail and by water, its coal fields produce an abundance of fuel, and its iron mines, its forests, and its tobacco and cotton fields, together with those of neighboring states, afford an abundance of raw materials, while many of its streams afford excellent water power. These natural advantages are all favorable to the development of manufacturing in the state.

Importance and growth of manufactures.—Considering Virginia's many advantages for the economical operation of factories and disposition of products, the state does not occupy as high a position in manufactures as might be expected. In 1889 it ranked twenty-first among the states in value of manufactured products and in both 1899 and 1909, twenty-second. There has been a considerable advance, however, during recent years in the activities of most of the manufacturing industries of the state, the number of establishments, average number of wage earners, and value of products showing marked increases. Virginia reported 1 per cent of the total value of the products of the manufacturing industries in the United States in 1899 as against 1.1 per cent in 1909.

The following table gives the most important figures relative to all classes of manufactures combined for the state as returned at the censuses of 1909, 1904, and 1899, together with the percentages of increase from census to census:

	NUMBER OR AMOUNT.			PER CENT OF INCREASE.	
	1909	1904	1899	1904-1909	1899-1904
Number of establishments	5,685	3,187	3,186	78.4	(1)
Persons engaged in manufactures	120,797	88,898	(2)	35.9	.....
Proprietors and firm members	6,570	3,643	(2)	80.3	.....
Salaried employees	8,551	4,970	3,828	72.1	29.8
Wage earners (average number)	105,676	80,285	66,223	31.6	21.2
Primary horsepower	283,928	176,998	136,696	60.4	29.5
Capital	$216,392,000	$147,989,000	$92,300,000	46.2	60.3
Expenses	196,246,000	130,870,000	94,513,000	50.0	38.5
Services	47,255,000	32,818,000	23,904,000	44.0	37.3
Salaries	9,101,000	4,875,000	3,630,000	86.7	34.3
Wages	38,154,000	27,943,000	20,274,000	36.5	37.8
Materials	125,583,000	83,649,000	59,359,000	50.1	40.9
Miscellaneous	23,408,000	14,403,000	11,250,000	62.5	28.0
Value of products	219,794,000	148,857,000	108,644,000	47.7	37.0
Value added by manufacture (value of products less cost of materials)	94,211,000	65,208,000	49,285,000	44.5	32.3

[1] Less than one-tenth of 1 per cent.

[2] Figures not available.

In 1909 the state of Virginia had 5,685 manufacturing establishments, which gave employment to an average of 120,797 persons during the year and paid out $47,255,000 in salaries and wages. Of the persons employed, 105,676 were wage earners. These establishments turned out products to the value of $219,794,000, to produce which materials costing $125,583,000 were used. The value added by manufacture was thus $94,211,000, which figure, as explained in the Introduction, best represents the net wealth created by the manufacturing operations during the year.

The totals presented in the preceding table do not include the statistics for an establishment operated by

the Federal Government, the United States navy yard at Portsmouth. In 1909 this plant employed an average of 2,471 wage earners, and the value of the work done, which was almost exclusively repair work, was reported as $3,174,473.

In general, this table brings out the fact that the manufacturing industries of Virginia as a whole showed a greater development during the more recent five-year period, 1904–1909, than during the preceding five-year period, 1899–1904. During the later period the number of establishments increased 78.4 per cent and the average number of wage earners 31.6 per cent, while the value of products increased 47.7 per cent and the value added by manufacture 44.5 per cent. As pointed out in the Introduction, it would be improper to infer that manufactures increased in volume to the full extent indicated by these figures regarding values, since the increase shown is certainly due, in part, to the increase that has taken place in the prices of commodities.

The exceptionally high increase shown in the number of establishments between 1904 and 1909 was due largely to the more complete canvass of the lumber and timber products industry in the latter year, the number of establishments reported for this industry increasing from 938 in 1904 to 2,617 in 1909.

The relative importance and growth of the leading manufacturing industries of the state are shown in the following table:

INDUSTRY.	Number of establishments.	WAGE EARNERS		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		PER CENT OF INCREASE.[1]			
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	Value of products.		Value added by manufacture.	
								1904–1909	1899–1904	1904–1909	1899–1904
All industries	5,685	105,676	100.0	$219,794,000	100.0	$94,211,000	100.0	47.7	37.0	44.5	32.3
Lumber and timber products	2,617	33,287	31.5	35,855,000	16.3	21,963,000	23.3	91.5	23.1	85.6	41.5
Tobacco manufactures	104	7,882	7.5	25,385,000	11.5	14,196,000	15.1	51.4	7.8	40.5	−1.7
Flour-mill and gristmill products	458	1,014	1.0	17,598,000	8.0	2,434,000	2.6	27.2	54.7	46.5	13.9
Cars and general shop construction and repairs by steam-railroad companies	28	7,588	7.2	9,956,000	4.5	4,701,000	5.0	14.5	38.5	14.2	49.9
Leather, tanned, curried, and finished	39	1,590	1.5	8,267,000	3.8	1,822,000	1.9	41.8	23.6	64.0	8.8
Fertilizers	45	1,956	1.8	8,035,000	3.7	2,646,000	2.8	72.5	36.4	86.6	13.0
Peanuts, grading, roasting, cleaning, and shelling	25	1,516	1.4	7,933,000	3.6	807,000	0.9	12.4	.....	−10.9	.....
Cotton goods, including cotton small wares	10	5,057	4.8	7,490,000	3.4	2,791,000	3.0	67.0	68.9	65.9	35.3
Boots and shoes, including cut stock and findings	10	2,711	2.6	5,809,000	2.6	1,789,000	1.9	.....	.....	.....	.....
Foundry and machine-shop products	110	2,798	2.7	5,727,000	2.6	2,579,000	2.7	68.8	.....	29.7	.....
Iron and steel, blast furnaces	14	1,320	1.2	5,389,000	2.5	971,000	1.0	61.2	−48.6	55.1	−70.6
Printing and publishing	309	2,555	2.4	5,370,000	2.4	3,965,000	4.2	52.5	40.9	55.6	37.7
Slaughtering and meat packing	24	342	0.3	4,601,000	2.1	544,000	0.6	130.5	.....	117.6	.....
Paper and wood pulp	9	912	0.9	3,657,000	1.7	1,509,000	1.6	20.5	256.9	21.2	183.6
Leather goods	31	1,487	1.4	3,492,000	1.6	1,591,000	1.7	64.7	113.5	63.7	96.8
Bread and other bakery products	135	870	0.8	2,766,000	1.3	1,045,000	1.1	72.2	74.2	91.7	21.4
Carriages and wagons and materials	130	1,329	1.3	2,485,000	1.1	1,202,000	1.3	8.4	44.5	9.7	22.9
Hosiery and knit goods	11	1,715	1.6	2,463,000	1.1	996,000	1.1	16.8	40.7	27.4	11.7
Coke	16	1,425	1.4	2,416,000	1.1	598,000	0.6	28.2	75.7	−14.8	77.2
Cooperage and wooden goods, not elsewhere specified	118	1,566	1.5	2,069,000	0.9	958,000	1.0	20.6	59.6	30.2	39.9
Brick and tile	86	2,090	2.0	1,922,000	0.9	1,412,000	1.5	6.5	79.3	2.7	69.5
Canning and preserving	325	1,860	1.8	1,854,000	0.8	646,000	0.7	52.2	92.4	50.9	81.2
Clothing, men's, including shirts	23	1,160	1.1	1,819,000	0.8	659,000	0.7	59.3	105.4	31.8	104.9
Liquors, malt	6	354	0.3	1,616,000	0.7	1,205,000	1.3	34.6	23.4	32.6	20.1
Liquors, distilled	65	126	0.1	1,572,000	0.7	1,339,000	1.4	264.7	67.7	285.9	73.5
Confectionery	33	341	0.3	1,525,000	0.7	422,000	0.4	121.7	55.3	97.2	58.5
Gas, illuminating and heating	21	378	0.4	1,472,000	0.7	1,041,000	1.1	50.2	102.9	49.8	97.4
Furniture and refrigerators	34	990	0.9	1,438,000	0.7	714,000	0.8	79.1	277.0	69.6	234.1
Marble and stone work	70	1,585	1.5	1,306,000	0.6	955,000	1.0	119.5	6.1	123.7	6.2
Ice, manufactured	74	475	0.4	1,143,000	0.5	875,000	0.9	79.7	48.6	88.6	44.1
Wood preserving	5	222	0.2	1,078,000	0.5	390,000	0.4	206.2	.....	267.9	.....
Woolen, worsted, and felt goods, and wool hats	16	542	0.5	999,000	0.4	432,000	0.5	−20.1	99.0	−11.8	108.1
Lime	35	716	0.7	856,000	0.4	556,000	0.6	72.2	.....	112.2	.....
Patent medicines and compounds and druggists' preparations	41	212	0.2	812,000	0.4	507,000	0.5	.....	.....	.....	.....
Stoves and furnaces, including gas and oil stoves	9	363	0.3	683,000	0.3	441,000	0.5	27.2	.....	23.9	.....
Glass	5	524	0.5	682,000	0.3	431,000	0.5	24.2	.....	13.4	.....
Agricultural implements	16	272	0.3	516,000	0.2	272,000	0.3	27.7	17.8	22.5	3.3
Boxes, fancy and paper	10	558	0.5	413,000	0.2	260,000	0.3	27.5	−48.7	18.7	−32.0
Paint and varnish	8	53	(2)	345,000	0.2	157,000	0.2	.....	.....	.....	.....
Mattresses and spring beds	18	103	0.1	244,000	0.1	115,000	0.1	68.3	5.8	125.5	−16.4
All other industries	482	13,832	13.1	30,736,000	14.0	12,275,000	13.0	.....	.....	.....	.....

[1] Percentages are based on figures in Table I; a minus sign (−) denotes decrease. Where the percentages are omitted, comparable figures can not be given.
[2] Less than one-tenth of 1 per cent.

It should be borne in mind, in considering this table, that the value of products for some of the industries involves a certain amount of duplication, due to the use of the products of one establishment in the industry as material for another establishment. Although a few industries predominate greatly in importance, it will be seen from Table II that there is on the whole considerable diversity in the manufacturing activities of the state. The most important industries listed in the table given above, in which they are arranged in the order of the value of products, call for brief consideration.

Lumber and timber products.—Under this heading are included logging operations, sawmills, planing mills, and wooden packing-box factories. The industry embraced 2,617 establishments in 1909, or 46 per cent of the total for all manufacturing industries of the state, gave employment to nearly one-third of the total number of wage earners in such industries, and reported nearly one-sixth of the total value of manufactured products and nearly one-fourth of the total value added by manufacture. From 1899 to 1909 the average number of wage earners increased 129.9 per cent, and the value of products and the value added by manufacture 135.6 per cent and 162.7 per cent, respectively.

Tobacco manufactures.—This industry includes the manufacture of chewing tobacco, smoking tobacco, cigars and cigarettes, and snuff. The 104 establishments reported for the industry in 1909 gave employment to 7.5 per cent of the total number of wage earners in all manufacturing industries in the state and reported 11 per cent of the total value of manufactured products and 15.1 per cent of the total value added by manufacture. The industry shows an increase of 51.4 per cent in value of products and 40.5 per cent in value added by manufacture from 1904 to 1909, as compared with an increase of only 7.8 per cent in the former and a decrease of 1.7 per cent in the latter for the preceding five years.

Flour-mill and gristmill products.—This industry gave employment to 1,014 wage earners and reported products valued at $17,598,000, although of this amount only $2,434,000 represents the value added to the materials by the manufacturing processes. This comparatively small excess of the value of products over the cost of materials is due to the fact that the processes involved in this industry are comparatively simple and are to a large extent carried on by machinery. These conditions, together with the large proportion of small establishments operated by individuals, also account for the relatively small number of wage earners employed as compared with the value of products. The statistics do not include those for mills doing custom work only, which are presented separately on page 1275.

Cars and general shop construction and repairs by steam-railroad companies.—This industry represents the work done in the car shops operated by steam-railroad companies and is almost exclusively confined to repairs on the rolling stock and equipment of the roads which they operate; it does not, however, cover minor repairs in roundhouses. The industry gave employment to an average of 7,588 wage earners in 1909, and the value of its products amounted to $9,956,000.

Leather, tanned, curried, and finished.—Measured by value of products, this industry ranked fifth in importance among the manufacturing industries of the state in 1909. Although the number of tanneries decreased from 44 to 39 during the five-year period 1904–1909, the average number of wage earners increased 535, or 50.7 per cent, and the value of products $2,437,000, or 41.8 per cent.

Fertilizers.—The manufacture of fertilizers is an important industry in Virginia, the state ranking fourth among the states of the Union in the value of this class of products. The statistics gathered from the establishments engaged primarily in the manufacture of such products do not fully represent the magnitude of the industry, as some establishments engaged chiefly in the manufacture of other products use their by-products in the manufacture of fertilizers. The average number of wage earners employed in this industry in Virginia was 1,956 in 1909 and 1,801 in 1904. Products to the value of $8,035,000 were reported in 1909, the industry holding sixth place among the manufacturing industries of the state in this respect.

Peanuts, grading, roasting, cleaning, and shelling.—This industry is centered largely in Virginia, which reported 81.5 per cent of the total value of products for the industry in the United States in 1909 and 97.2 per cent in 1904. In 1909, 25 establishments, giving employment to an average of 1,516 wage earners and reporting products valued at $7,933,000, were engaged in this industry in the state.

Textiles.—The manufacture of cordage and twine and jute goods, cotton goods, hosiery and knit goods, silk and silk goods, including the operations of throwsters; and woolen goods constitute the textile industry of the state. The statistics for the manufacture of cordage and twine and jute goods and of silk and silk goods are not shown in the preceding table because comparative figures can not be given, but are shown in Table II, page 1280, in which statistics for 1909 only are presented. Combined the five allied industries included 47 establishments in 1909, gave employment to 8,221 wage earners, and reported products valued at $12,708,000. Of the combined value of products for these industries, the cotton-goods industry contributed 58.9 per cent; the hosiery and knit-goods industry, 19.4 per cent; the silk and silk-goods industry, 12.1 per cent; the woolen-goods industry, 7.9 per cent; and the manufacture of cordage and twine and jute goods, 1.7 per cent.

In addition to the 40 industries presented separately in the preceding table, there are 24 other industries in the state which had a value of products in 1909 in excess of $200,000.[1] These are included under the

[1] These industries are:

Bags, other than paper.
Bags, paper.
Baking powders and yeast.
Cement.
Chemicals.
Coffee and spice, roasting and grinding.
Copper, tin, and sheet-iron products.
Cordage and twine and jute and linen goods.
Dyestuffs and extracts.
Flavoring extracts.
Grease and tallow.
Iron and steel, steel works and rolling mills.
Iron and steel, doors and shutters.
Iron and steel forgings.
Liquors, vinous.
Locomotives, not made by railroad companies.
Mineral and soda waters.
Oil, cottonseed, and cake.
Shipbuilding, including boat building.
Silk and silk goods, including throwsters.
Smelting and refining, copper.
Smelting and refining, zinc.
Sulphuric, nitric, and mixed acids.
Vinegar and cider.

head of "All other industries" in the table in some cases, because the operations of individual establishments would be disclosed if they were shown separately; in others, because the returns do not properly present the true condition of the industry, for the reason that it is more or less interwoven with one or more other industries; and in still others, because comparative statistics can not be presented for either 1904 or 1899 on account of changes in classification. Statistics for 1909, however, for the manufacture of copper, tin, and sheet-iron products, cordage and twine and jute and linen goods, and silk and silk goods, including the operations of throwsters, are presented in Table II, page 1280.

Of the 40 industries shown separately in the preceding table, only 7 hold the same rank when measured by value added by manufacture as when measured by value of products, although lumber and timber products and tobacco manufactures hold first and second place, respectively, in either case. The flour-mill and gristmill industry, which is third in value of products, drops into eighth place in value added by manufacture, the steam-railroad repair shops advance from fourth place to third, and printing and publishing from twelfth to fourth, while slaughtering and meat packing drops from thirteenth to thirtieth place and the coke industry from nineteenth to twenty-eighth.

This table shows also the percentages of increase in value of products and value added by manufacture in all cases where comparative statistics can be presented. The distillery industry shows the greatest rate of increase in both value of products and value added by manufacture for the five-year period 1904–1909, 264.7 per cent and 285.9 per cent, respectively. These increases are, however, to a considerable extent more apparent than real, being due in part to a difference in the method of reporting the internal-revenue tax at the two censuses. In 1909 internal-revenue taxes to the amount of $1,025,940, representing the Federal tax on all taxable liquors manufactured by the distillers, including liquors placed in bond, were included in the value of the products, whereas at the previous census this tax was reported only when it had actually been paid by the manufacturers. Of the other industries, wood preserving shows the largest percentage of increase in both items, 206.2 and 267.9, respectively. Increases of more than 100 per cent in value of products from 1904 to 1909 are shown also for the slaughtering and meat-packing, confectionery, and marble and stone work industries, while increases exceeding 50 per cent are shown for 16 other industries presented in the table.

The manufacture of woolen goods was the only industry showing a decrease in value of products from 1904 to 1909, and this loss was not sufficient to offset the gain during the previous five-year period, so that a net increase is shown for the decade as a whole. The blast-furnace industry and the manufacture of fancy and paper boxes show decreases in value of products from 1899 to 1904. Increases were reported for the period from 1904 to 1909, but in neither case were these large enough to offset the loss during the preceding five years, so that the figures for 1909 are less than those for 1899. The value added by manufacture for the peanut, coke, and woolen-goods industries decreased between 1904 and 1909, but the two last-named industries show an increase in this respect for the decade as a whole.

Persons engaged in manufacturing industries.—The following table shows for 1909 the distribution of the number of persons engaged in manufactures, the average number of wage earners being distributed by sex and age. It should be borne in mind, however, that 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 Introduction.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.		
	Total.	Male.	Female.
All classes	120,797	104,662	16,135
Proprietors and officials	9,906	9,783	123
Proprietors and firm members	6,570	6,469	101
Salaried officers of corporations	1,139	1,128	11
Superintendents and managers	2,197	2,186	11
Clerks	5,215	4,833	382
Wage earners (average number)	105,676	90,546	15,130
16 years of age and over	102,054	88,191	13,863
Under 16 years of age	3,622	2,355	1,267

The average number of persons engaged in manufactures during 1909 was 120,797, of whom 105,676 were wage earners. Of the remainder, 5,215 were clerks and 9,906 were proprietors and officials. Corresponding figures for individual industries will be found in Table II, page 1280.

The next table shows, for 1909, the percentages of proprietors and officials, clerks, and wage earners, respectively, among the total number of persons employed in manufactures. It covers all industries combined and 20 important industries individually.

Of the total number of persons engaged in all manufacturing industries, 8.2 per cent were proprietors and officials, 4.3 per cent clerks, and 87.5 per cent wage earners. The highest proportion of proprietors and officials shown for any individual industry, 38.6 per cent, is for the flour-mill and gristmill industry, and the lowest, five-tenths of 1 per cent, for the cotton mills.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries	**120,797**	**8.2**	**4.3**	**87.5**
Boots and shoes, including cut stock and findings	2,973	2.5	6.3	91.2
Bread and other bakery products	1,196	15.8	11.5	72.7
Canning and preserving	2,427	22.2	1.2	76.7
Carriages and wagons and materials	1,609	13.1	4.4	82.6
Cars and general shop construction and repairs by steam-railroad companies	7,943	0.7	3.8	95.5
Clothing, men's, including shirts	1,279	3.9	5.4	90.8
Cotton goods, including cotton small wares	5,123	0.5	0.8	98.7
Fertilizers	2,199	4.6	6.4	88.9
Flour-mill and gristmill products	1,817	38.6	5.6	55.8
Foundry and machine-shop products	3,248	7.9	5.9	86.1
Hosiery and knit goods	1,780	2.3	1.3	96.3
Iron and steel, blast furnaces	1,425	2.2	5.2	92.6
Leather goods	1,725	5.6	8.2	86.2
Leather, tanned, curried, and finished	1,730	4.8	3.3	91.9
Lumber and timber products	37,931	10.9	1.3	87.8
Paper and wood pulp	981	3.6	3.5	93.0
Peanuts, grading, roasting, cleaning, and shelling	1,662	4.0	4.8	91.2
Printing and publishing	3,719	16.1	15.2	68.7
Slaughtering and meat packing	444	11.0	11.9	77.0
Tobacco manufactures	8,978	4.5	7.7	87.8
All other industries	30,608	7.0	5.7	87.3

The following table shows, for 1909, in percentages, for all industries combined, the distribution of the average number of wage earners by age periods, and for those 16 years of age and over by sex, calculated in the manner described in the Introduction. It also shows, for some of the important industries separately, a similar distribution of wage earners as reported for December 15, or the nearest representative day. As a means of judging the importance of the several industries the average number employed for the year is also given in each case.

INDUSTRY.	WAGE EARNERS.			
	Average number.[1]	Per cent of total.		
		16 years of age and over.		Under 16 years of age.
		Male.	Female.	
All industries	**105,676**	**83.5**	**13.1**	**3.4**
Boots and shoes, including cut stock and findings	2,711	73.6	21.8	4.6
Bread and other bakery products	870	84.6	11.4	4.0
Canning and preserving	1,860	29.1	49.2	21.7
Carriages and wagons and materials	1,329	98.0	0.5	1.4
Cars and general shop construction and repairs by steam-railroad companies	7,588	99.9	0.1	(2)
Clothing, men's, including shirts	1,160	11.6	85.0	3.4
Cotton goods, including cotton small wares	5,057	57.1	29.5	13.4
Fertilizers	1,956	99.5	0.3	0.2
Flour-mill and gristmill products	1,014	98.6	0.1	1.3
Foundry and machine-shop products	2,798	99.0	(2)	1.0
Hosiery and knit goods	1,715	32.8	54.2	12.9
Iron and steel, blast furnaces	1,320	99.1	.....	0.9
Leather goods	1,487	90.9	6.7	2.4
Leather, tanned, curried, and finished	1,590	97.6	1.9	0.4
Lumber and timber products	33,287	98.0	0.5	1.5
Paper and wood pulp	912	89.6	10.1	0.3
Peanuts, grading, roasting, cleaning, and shelling	1,516	21.0	76.8	2.2
Printing and publishing	2,555	72.6	22.7	4.7
Slaughtering and meat packing	342	95.0	4.7	0.3
Tobacco manufactures	7,882	39.4	54.5	6.1
All other industries	26,727	87.9	9.0	3.1

[1] For method of estimating the distribution, by sex and age periods, of the average number in all industries combined, see Introduction.
[2] Less than one-tenth of 1 per cent.

For all industries combined, 83.5 per cent of the wage earners were males 16 years of age and over; 13.1 per cent, females 16 years of age and over; and 3.4 per cent, children under 16 years of age. More than two-thirds (70.6 per cent) of the total number of female wage earners 16 years of age and over were employed in the tobacco, cotton-goods, hosiery and knit-goods, peanut, men's clothing, and canning and preserving industries. The proportion was highest in the men's clothing industry, in which such wage earners constituted more than five-sixths (85 per cent) of the total.

The industries employing the largest proportions of wage earners under 16 years of age were canning and preserving, cotton goods, hosiery and knit goods, and tobacco manufactures. These four industries combined with the lumber and timber products industry reported 63.5 per cent of the total number of wage earners under 16 years of age.

In order to compare the distribution of persons engaged in manufactures in 1909 with that shown at the census of 1904 it is necessary to use the classification employed at the earlier census. (See Introduction.) The following table makes this comparison according to occupational status:

CLASS.	PERSONS ENGAGED IN MANUFACTURES.				
	1909		1904		Per cent of increase, 1904-1909.
	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total	**120,797**	**100.0**	**88,898**	**100.0**	**35.9**
Proprietors and firm members	6,570	5.4	3,643	4.1	80.3
Salaried employees	8,551	7.1	4,970	5.6	72.1
Wage earners (average number)	105,676	87.5	80,285	90.3	31.6

Comparable figures are not obtainable for 1899. The table shows a much higher percentage of increase in the number of proprietors and firm members and of salaried employees than in the number of wage earners. The large increase shown for the former class, 80.3 per cent, was due largely to the increase in the number of small establishments under individual or firm ownership reported in 1909. More than four-fifths of the increase was in the lumber and timber products industry alone, and was due mainly to the more complete canvass of this industry in 1909.

The next table shows the average number of wage earners, distributed according to age periods, and in the case of those 16 years of age and over according to sex, for 1909, 1904, and 1899. The averages for 1909 are estimated on the basis of the actual number reported for a single representative day. (See Introduction.)

This table indicates that for all industries combined there was an increase in the proportion of male wage earners 16 years of age and over and a decrease in the proportion of females 16 years of age and over. The proportion of children under 16 years of age decreased at each census since 1899.

CLASS.	AVERAGE NUMBER OF WAGE EARNERS.					
	1909		1904		1899	
	Number.	Percent distribution.	Number.	Percent distribution.	Number.	Percent distribution.
Total	105,676	100.0	80,285	100.0	66,223	100.0
16 years of age and over	102,054	96.6	77,045	96.0	62,560	94.5
Male	88,191	83.5	65,055	81.0	52,671	79.5
Female	13,863	13.1	11,990	14.9	9,889	14.9
Under 16 years of age	3,622	3.4	3,240	4.0	3,663	5.5

Wage earners employed, by months.—The table in the next column gives the number of wage earners employed on the 15th of each month during the year 1909 for all industries combined, for the canning and preserving industry, and for all other industries combined; it gives also the percentage which the number reported for each month is of the greatest number reported for any month. In Table II, page 1280, are shown, for practically all of the important industries in the state, the largest number and the smallest number of wage earners reported for any month. The figures are for the 15th day, or the nearest representative day, of the month.

In all industries combined the number of wage earners employed was 18.2 per cent less in January, the month of minimum employment, than in September, the month of maximum employment. In the canning and preserving industry the irregularity of the employment is pronounced. The number of wage earners employed in this industry in September was 7,469, whereas in January of the same year the number was only 181. This industry and a few others of lesser importance materially affect the totals for the state.

MONTH.	WAGE EARNERS.					
	All industries.		Canning and preserving.		All other industries.	
	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.
January	94,885	81.8	181	2.4	94,704	87.0
February	97,714	84.2	184	2.5	97,530	89.6
March	101,750	87.7	353	4.7	101,397	93.2
April	104,393	90.0	850	11.4	103,543	95.1
May	104,865	90.4	901	12.1	103,964	95.5
June	105,036	90.5	518	6.9	104,518	96.0
July	104,231	89.9	994	13.3	103,237	94.8
August	110,659	95.4	6,644	89.0	104,015	95.6
September	115,998	100.0	7,469	100.0	108,529	99.7
October	112,276	96.8	3,623	48.5	108,653	99.8
November	109,216	94.2	372	5.0	108,844	100.0
December	107,092	92.3	237	3.2	106,855	98.2

Prevailing hours of labor.—In the following table wage earners have been classified according to the hours of labor prevailing in the establishment in which they are employed:

INDUSTRY.	AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS GROUPED ACCORDING TO PREVAILING HOURS OF WORK PER WEEK.								
	Total.	48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries	105,676	5,415	4,752	6,607	18,934	55,820	9,473	1,208	3,467
Agricultural implements	272			29	3	240			
Boots and shoes, including cut stock and findings	2,711				503	2,208			
Boxes, fancy and paper	558		350		159	49			
Bread and other bakery products	870	108	31	107	6	495	57	49	17
Brick and tile	2,090	137	60	49	195	1,633	16		
Canning and preserving	1,860	80	82	34	43	1,542	19	36	24
Carriages and wagons and materials	1,320	3	7	343	108	788	9	11	
Cars and general shop construction and repairs by steam-railroad companies	7,588	1,719	823	848	2,198	308	311		1,381
Clothing, men's, including shirts	1,160	288	45	10	680	137			
Coke	1,425	4	306		33	766			316
Confectionery	341	14	39	13	172	100	1		2
Cooperage and wooden goods, not elsewhere specified	1,566	29	74		67	1,391	2	3	
Cotton goods, including cotton small wares	5,057					5,057			
Fertilizers	1,956	4	3	14	108	1,465	255	107	
Flour-mill and gristmill products	1,014	83	12	18	13	510	71	300	7
Foundry and machine-shop products	2,708	3	35	581	583	1,595	1		
Furniture and refrigerators	990	7		73	90	820			
Gas, illuminating and heating	378	2				3	39		334
Glass	524		465	59					
Hosiery and knit goods	1,715				1,241	474			
Ice, manufactured	475			1	3	59	47	147	218
Iron and steel, blast furnaces	1,320				73		145	50	1,052
Leather goods	1,487	188	5	218	50	1,026			
Leather, tanned, curried, and finished	1,590	1	49	1	31	1,506		2	
Lime	716			23	9	329	229	59	67
Liquors, distilled	126	26		13	17	54		16	
Liquors, malt	354		29	68	131	126			
Lumber and timber products	33,287	888	1,222	969	3,396	20,349	6,295	145	23
Marble and stone work	1,585	107	142	144	273	464	454	1	
Mattresses and spring beds	103	7		1	2	93			
Paint and varnish	53	2			7	22			22
Paper and wood pulp	912				63	655		194	
Patent medicines and compounds and druggists' preparations	212	22	10	11	21	145	3		
Peanuts, grading, roasting, cleaning, and shelling	1,516		208	5	295	1,008			
Printing and publishing	2,555	726	341	1,105	178	197	6	2	
Slaughtering and meat packing	342	2	1	51	106	158	20	4	
Stoves and furnaces, including gas and oil stoves	363	167		103		93			
Tobacco manufactures	7,882	498	240	403	5,518	1,222			1
Wood preserving	222	2			21	199			
Woolen, worsted, and felt goods, and wool hats	542					542			
All other industries	13,832	298	173	1,313	2,478	7,992	1,493	82	3

In making the classification in the preceding table the average number of wage earners employed in each establishment is classified as a total according to the hours prevailing in that establishment, even though a few employees work a greater or less number of hours.

Of the wage earners employed in the manufacturing industries of Virginia, 81,361, or 77 per cent, worked in establishments where the usual hours of labor ranged from 54 to 60 a week. Only 9.6 per cent were employed in establishments where the prevailing hours of employment were less than 54 a week, and 13.4 per cent in establishments where they were more than 60 a week.

In 14 out of 21 manufacturing industries in the state employing over 1,000 wage earners each more than half the wage earners worked 60 hours a week, while in the cotton-goods industry all the wage earners worked in establishments where these hours prevailed. Most of the wage earners in the gas and blast-furnace industries worked more than 72 hours a week, and the majority of those in the manufactured-ice industry worked 72 hours or over. The wide range of hours shown for some industries, conspicuous among which are the steam-railroad repair shops, and the lumber and timber products, marble and stone work, and printing and publishing industries, is noteworthy.

Location of establishments.—The next table shows the extent to which the manufactures of Virginia are carried on in cities of 10,000 inhabitants or over. (See Introduction.) The comparison is confined here, as in other states, to the years 1899 and 1909, in the absence of a Federal census of population by which the grouping of cities in 1904 could be determined.

The statistics for Newport News are omitted from those for cities having the specified population and included with those for the remainder of the state in order to avoid a possible disclosure of individual operations.

Item.	Year.	Aggregate.	Cities having a population of 10,000 and over.								Districts outside of cities having a population of 10,000 and over.	
			Total.		10,000 to 25,000.		25,000 to 100,000.		100,000 and over.			
			Number or amount.	Percent of total.	Number or amount.	Percent of total.	Number or amount.	Percent of total.	Number or amount.	Percent of total.	Number or amount.	Percent of total.
Population	1910	2,061,612	361,718	17.5	69,080	3.3	165,010	8.0	127,628	6.2	1,699,894	82.5
	1900	1,854,184	252,060	13.6	110,671	6.0	141,389	7.6	.....	.....	1,602,124	86.4
Number of establishments	1909	5,685	992	17.4	222	3.9	390	6.8	380	6.7	4,693	82.6
	1899	3,186	717	22.5	301	9.5	416	13.1	.....	.....	2,469	77.5
Average number of wage earners	1909	105,676	36,782	34.8	8,772	8.3	13,161	12.4	14,849	14.1	68,894	65.2
	1899	66,223	28,142	42.5	11,789	17.8	16,353	24.7	.....	.....	38,081	57.5
Value of products	1909	$219,793,858	$96,603,688	44.0	$19,927,390	9.1	$29,318,313	13.3	$47,357,985	21.6	$123,190,170	56.0
	1899	108,644,150	49,239,397	45.3	19,877,907	18.3	29,361,490	27.0	.....	.....	59,404,753	54.7
Value added by manufacture	1909	94,211,171	42,968,849	45.6	7,305,029	7.8	12,557,970	13.3	23,105,850	24.5	51,242,322	54.4
	1899	49,284,666	23,827,644	48.3	8,493,683	17.2	15,333,961	31.1	.....	.....	25,457,022	51.7

In 1909 the cities having over 10,000 inhabitants, exclusive of Newport News, reported 44 per cent of the total value of manufactured products for the state and 34.8 per cent of the average number of wage earners in manufacturing industries, the former percentage being slightly larger and the latter considerably smaller than the corresponding figures for 1899. The proportions of the total number of establishments and total value added by manufacture reported from such cities also show decreases, that in number of establishments being considerable. The great increase during the decade in the number of manufacturing establishments located outside of this class of cities is due to some extent to the more complete canvass of the lumber industry in 1909.

The composition of the groups shown in the table, and consequently their relative industrial importance, has undergone considerable change since 1899, owing to the increase in the population of certain cities. In 1900 none of the cities had as many as 100,000 inhabitants, while Richmond and Norfolk were the only ones having more than 25,000 inhabitants. During the decade, however, the population of Richmond passed the 100,000 mark, so that for 1909 the statistics for this city are shown separately. The population of Lynchburg, Portsmouth, and Roanoke, which in 1900 were among the cities having between 10,000 and 25,000 inhabitants, increased to such an extent during the decade that for 1909 they are included with Norfolk in the group made up of cities having between 25,000 and 100,000 inhabitants. Their addition, however, failed to make up for the loss of Richmond, so that this class of cities shows a considerable decrease in relative industrial importance, as well as an actual decrease in number of establishments, average number of wage earners, and value added by manufacture. Staunton, which had less than 10,000 inhabitants in 1900, was added to the group of cities having between 10,000 and 25,000 inhabitants for 1909, but the loss of Lynchburg, Portsmouth, and Roanoke from this group of cities more than counterbalanced the effect of this addition and this group also shows a loss in relative industrial importance as well as actual decreases in every item shown in the table except value of products.

The population in 1910 and 1900 of the 10 cities which had 10,000 inhabitants or over in 1910 is given in the next statement.

CITY.	1910	1900	CITY.	1910	1900
Richmond	127,628	[1] 94,765	Petersburg	24,127	21,810
Norfolk	67,452	46,624	Newport News	20,205	19,635
Roanoke	34,874	21,495	Danville	19,020	16,520
Portsmouth	33,190	17,427	Alexandria	15,329	14,528
Lynchburg	29,494	18,891	Staunton	10,604	7,289

[1] Includes population of Manchester, annexed to Richmond in 1910.

The relative importance in manufactures of each of the 10 cities having a population of 10,000 or over in 1910, with the exception of Newport News, is shown in the following table; the value of products and average number of wage earners are shown separately for 1909, 1904, and 1899, so far as figures can be presented:

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Richmond [1]	14,849	12,444	13,715	$47,357,985	$27,744,929	$24,669,711
Norfolk [1]	4,749	2,935	2,638	10,341,321	5,738,906	4,601,770
Lynchburg	4,026	2,534	1,487	10,188,136	4,965,435	2,993,551
Petersburg	3,887	3,288	3,608	8,895,552	5,890,574	5,293,527
Newport News	(2)	7,406	5,285	(2)	9,053,900	5,937,820
Roanoke	3,544	3,089	2,431	7,200,859	5,544,907	5,397,903
Danville	3,076	3,018	2,933	5,389,430	4,774,818	3,603,792
Alexandria	1,470	1,291	859	4,410,502	2,186,058	1,538,871
Portsmouth	842	551	471	1,527,997	945,439	960,173
Staunton	339	(3)	(3)	1,222,846	(3)	(3)

[1] Figures for Richmond and for Norfolk do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city. For Richmond in 1904 and 1899, the statistics for Manchester, which was annexed in 1910, are included.
[2] Figures omitted, to avoid disclosure of individual operations.
[3] Figures not available.

Every city for which comparative figures are given shows an increase in value of products from 1904 to 1909, and all except Portsmouth an increase from 1899 to 1904. In all the cities, with the exception of Danville, the greater increases were for the later five-year period. The greatest relative gain from 1904 to 1909, 105.2 per cent, was made by Lynchburg, Alexandria following closely with 102.1 per cent. Richmond, the largest and most important city in the state, shows an increase of 70.7 per cent in value of products in 1909, as compared with 1904, and an increase of 19.3 per cent in the average number of wage earners.

The chief industry of Richmond was the manufacture of tobacco products. Other important industries were printing and publishing; the manufacture of boots and shoes; the flour-mill and gristmill industry; steam-railroad repair shops; and the manufacture of bags, other than paper.

Norfolk held second place in the value of manufactured products, showing an increase of 80.2 per cent in this respect together with an increase of 61.8 per cent in the average number of wage earners from 1904 to 1909. The manufacture of lumber and timber products, hosiery and knit goods, and silk goods, and the grading, roasting, cleaning, and shelling of peanuts were among the important industries in this city.

Lynchburg shows increases of 105.2 per cent in value of products and 58.9 per cent in number of wage earners from 1904 to 1909. The principal industries of the city were the manufacture of boots and shoes and of cotton goods, and the flour-mill and gristmill and foundry and machine-shop industries. Cast-iron pipe forms the chief product of the last-named industry.

Petersburg, Roanoke, and Danville show increases of 51 per cent, 30.9 per cent, and 12.9 per cent, respectively, in value of manufactured products from 1904 to 1909. The leading manufacturing industries of Petersburg were the manufacture of trunks and valises, the grading, roasting, cleaning, and shelling of peanuts, and the tobacco industry. In Roanoke the steam-railroad repair shops and foundries and machine shops, and in Danville the manufacture of cotton goods and tobacco products were the leading industries. In Alexandria the more prominent industries were the manufacture of fertilizers; the tanning, currying, and finishing of leather; the glass industry; and breweries. In Portsmouth the manufacture of hosiery and knit goods and lumber and timber products were the leading branches of manufacture, and the flour mills and gristmills formed the leading industry of Staunton.

In Newport News shipbuilding was by far the leading industry. The statistics for the city, however, can not be shown separately because of the possibility of disclosing individual operations.

The statistics for that part of Bristol which lies in Virginia are included with those for the outside district in the table on page 1267. The following statement presents the totals for the entire city and for the parts situated in Virginia and Tennessee, respectively.

	Total for city.	Bristol, Va.	Bristol, Tenn.
Population	13,395	6,247	7,148
Number of establishments	51	28	23
Persons engaged in manufactures	1,319	942	377
Proprietors and firm members	42	20	22
Salaried employees	148	80	68
Wage earners (average number)	1,129	842	287
Primary horsepower	3,914	2,625	1,289
Capital	$3,062,409	$1,716,738	$1,345,671
Expenses	2,619,392	1,798,716	820,676
Services	631,813	471,486	160,327
Salaries	142,741	89,126	53,615
Wages	489,072	382,360	106,712
Materials	1,828,296	1,234,322	593,974
Miscellaneous	159,283	92,908	66,375
Value of products	2,848,777	1,970,668	878,109
Value added by manufacture (value of products less cost of materials)	1,020,481	736,346	284,135

The leading industries in Bristol, Va., were flour mills and gristmills, railroad repair shops, the tanning, currying, and finishing of leather, the manufacture of paper and wood pulp, and the lumber industry, while the principal industries in Bristol, Tenn., were flour mills and gristmills and the manufacture of dyestuffs and extracts.

Character of ownership.—The next table has for its purpose the presentation of conditions in respect to the character of ownership, or legal organization, of manufacturing enterprises. For all industries combined comparative figures are given covering the censuses of 1909 and 1904. Comparative data for 1899 are not available. Figures for 1909 only are presented for several important industries individually. In order to avoid disclosing the operations of individual establishments it is necessary to omit several important industries from this table and the one following.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	5,685	105,676	$219,793,858	$94,211,171
1904	3,187	80,285	148,856,525	65,207,376
Individual:				
1909	3,061	19,037	29,954,089	14,254,269
1904	1,596	10,323	17,767,725	8,368,395
Firm:				
1909	1,492	13,673	25,267,970	10,216,652
1904	874	9,892	20,693,382	8,186,680
Corporation:				
1909	1,099	72,773	163,780,071	69,129,888
1904	702	59,735	109,546,390	48,102,559
Other:				
1909	33	193	791,728	610,362
1904	15	335	849,028	549,742
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Individual:				
1909	53.8	18.0	13.6	15.1
1904	50.1	12.9	11.9	12.8
Firm:				
1909	26.2	12.9	11.5	10.8
1904	27.4	12.3	13.9	12.6
Corporation:				
1909	19.3	68.9	74.5	73.4
1904	22.0	74.4	73.6	73.8
Other:				
1909	0.6	0.2	0.4	0.6
1904	0.5	0.4	0.6	0.8
Flour-mill and gristmill products, 1909	458	1,014	$17,598,045	$2,433,777
Individual	256	365	5,023,139	776,506
Firm	133	314	6,374,083	735,964
Corporation	69	335	6,200,823	921,247
Per cent of total	100.0	100.0	100.0	100.0
Individual	55.9	36.0	28.5	31.9
Firm	29.0	31.0	36.2	30.2
Corporation	15.1	33.0	35.2	37.9
Foundry and machine-shop products, 1909	110	2,798	$5,727,014	$2,579,006
Individual	46	273	478,304	293,651
Firm	24	237	394,473	267,587
Corporation	40	2,288	4,854,237	2,017,768
Per cent of total	100.0	100.0	100.0	100.0
Individual	41.8	9.8	8.4	11.4
Firm	21.8	8.5	6.9	10.4
Corporation	36.4	81.8	84.8	78.2
Leather goods, 1909	31	1,487	$3,492,051	$1,590,307
Individual	11	84	202,190	79,474
Firm	10	84	245,891	100,702
Corporation	10	1,319	3,043,970	1,410,731
Per cent of total	100.0	100.0	100.0	100.0
Individual	35.5	5.6	5.8	5.0
Firm	32.3	5.6	7.0	6.3
Corporation	32.3	88.7	87.2	88.7
Leather, tanned, curried, and finished, 1909	39	1,590	$8,266,850	$1,821,689
Individual	17	19	28,649	14,534
Firm	7	140	1,158,446	316,013
Corporation	15	1,431	7,079,755	1,491,142
Per cent of total	100.0	100.0	100.0	100.0
Individual	43.6	1.2	0.3	0.8
Firm	17.9	8.8	14.0	17.3
Corporation	38.5	90.0	85.6	81.9
Lumber and timber products, 1909	2,617	33,287	$35,855,310	$21,962,911
Individual	1,634	12,015	10,687,384	7,589,482
Firm	793	7,178	7,034,056	4,687,628
Corporation	190	14,094	18,133,870	9,685,801
Per cent of total	100.0	100.0	100.0	100.0
Individual	62.4	36.1	29.8	34.6
Firm	30.3	21.6	19.6	21.3
Corporation	7.3	42.3	50.6	44.1
Printing and publishing, 1909	369	2,555	$5,369,738	$3,964,864
Individual	186	734	1,188,764	875,675
Firm	66	440	717,294	488,571
Corporation	94	1,342	3,317,349	2,463,796
Other	23	39	146,331	136,822
Per cent of total	100.0	100.0	100.0	100.0
Individual	50.4	28.7	22.1	22.1
Firm	17.9	17.2	13.4	12.3
Corporation	25.5	52.5	61.8	62.1
Other	6.2	1.5	2.7	3.5
Slaughtering and meat packing, 1909	24	342	$4,600,630	$543,477
Individual	11	124	2,444,213	208,885
Firm	5	33	426,802	69,384
Corporation	8	185	1,729,615	265,208
Per cent of total	100.0	100.0	100.0	100.0
Individual	45.8	36.3	53.1	38.4
Firm	20.8	9.6	9.3	12.8
Corporation	33.3	54.1	37.6	48.8

The most important distinction shown is that between corporate and all other forms of ownership. For all manufacturing industries combined, 19.3 per cent of the total number of establishments were under corporate ownership in 1909, as against 80.7 per cent under all other forms. The corresponding figures for 1904 were 22 per cent and 78 per cent, respectively. On the other hand, in 1909 and in 1904 nearly three-fourths of the average number of wage earners, value of products, and value added by manufacture were reported by establishments operated by corporations. The proportion of the total number of wage earners reported by establishments operated by corporations was considerably smaller in 1909 than in 1904, but their proportions of the total value of products and value added by manufacture show very little change.

There was a marked increase in the relative importance of the establishments under individual ownership, a tendency in marked contrast to that shown for most of the states. This was due mainly to the more complete canvass of the lumber industry in 1909, which resulted in securing reports from many small establishments operated by individuals or firms from which reports were not secured in 1904. Outside of the lumber industry only 46.5 per cent of the manufacturing establishments in the state were under individual ownership in 1909.

Size of establishment.—The tendency for manufacturing to become concentrated in large establishments, or the reverse, is a matter of interest from the standpoint of industrial organization. In order to throw some light upon it the next table groups the establishments according to the value of their products. The table also shows the average size of establishments for all industries combined and for certain important industries separately as measured by number of wage earners, value of products, and value added by manufacture. The totals for all industries are shown for the last two censuses, while for individual industries figures are given for 1909 only.

The table shows that of the 5,685 manufacturing establishments in the state in 1909, only 26, or four-tenths of 1 per cent, reported products exceeding $1,000,000 in value. These establishments, however, employed an average of 22,615 wage earners, or 21.4 per cent of the total number in all establishments, and reported 26.9 per cent of the total value of products and 25.5 per cent of the total value added by manufacture.

On the other hand, the very small establishments—that is, those having a value of products less than $5,000—constituted nearly half (45.4 per cent) of the total number of establishments, but the value of their products amounted to only 2.7 per cent

of the total, and they employed only 6.8 per cent of the total number of wage earners. Seventy-three per cent of the total value of products was reported by establishments whose annual output was valued at $100,000 or over. These establishments employed 60.7 per cent of the total number of wage earners, and were credited with 66.1 per cent of the total value added by manufacture.

The group which embraces the smallest establishments shows the largest percentage of increase in all items shown in the table except value of products, largely as a result of the increase in the number of small establishments reported for the lumber industry in 1909. This fact also explains the decreases shown in the average number of wage earners, average value of products, and average value added by manufacture per establishment. From 1904 to 1909 the average value of products per establishment reported decreased from $46,707 to $38,662, and the average number of wage earners per establishment from 25 to 19.

INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	5,685	105,676	$219,793,858	$94,211,171
1904	3,187	80,285	148,856,525	65,207,376
Less than $5,000:				
1909	2,581	7,176	5,936,118	3,859,930
1904	1,109	2,374	2,710,615	1,788,004
$5,000 and less than $20,000:				
1909	1,917	15,254	19,134,920	11,171,420
1904	1,192	8,996	12,578,958	6,917,700
$20,000 and less than $100,000:				
1909	805	19,134	34,233,401	16,900,075
1904	603	14,992	25,678,424	12,089,249
$100,000 and less than $1,000,000:				
1909	356	41,497	101,364,437	38,289,549
1904	268	36,224	73,817,089	28,505,680
$1,000,000 and over:				
1909	20	22,615	59,124,982	23,990,107
1904	15	17,699	34,071,430	15,906,743
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Less than $5,000:				
1909	45.4	6.8	2.7	4.1
1904	34.8	3.0	1.8	2.7
$5,000 and less than $20,000:				
1909	33.7	14.4	8.7	11.9
1904	37.4	11.2	8.5	10.6
$20,000 and less than $100,000:				
1909	14.2	18.1	15.6	17.9
1904	18.9	18.7	17.2	18.5
$100,000 and less than $1,000,000:				
1909	6.3	39.3	46.1	40.6
1904	8.4	45.1	49.6	43.7
$1,000,000 and over:				
1909	0.4	21.4	26.9	25.5
1904	0.5	22.0	22.9	24.4
Average per establishment:				
1909	.....	19	$38,662	$16,572
1904	.....	25	46,707	20,460
Flour-mill and gristmill products, 1909	458	1,014	$17,598,045	$2,433,777
Less than $5,000	76	46	242,794	43,509
$5,000 and less than $20,000	217	235	2,514,095	446,149
$20,000 and less than $100,000	130	346	5,171,704	813,354
$100,000 and less than $1,000,000 [1]	35	387	9,669,392	1,130,765
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	16.6	4.5	1.4	1.8
$5,000 and less than $20,000	47.4	23.2	14.3	18.3
$20,000 and less than $100,000	28.4	34.1	29.4	33.4
$100,000 and less than $1,000,000 [1]	7.6	38.2	54.9	46.5
Average per establishment	.....	2	$38,424	$5,314
Foundry and machine-shop products, 1909	110	2,798	$5,727,014	$2,579,006
Less than $5,000	37	68	99,032	59,757
$5,000 and less than $20,000	32	243	369,875	248,245
$20,000 and less than $100,000	31	861	1,246,337	818,765
$100,000 and less than $1,000,000 [1]	10	1,626	4,011,770	1,452,239
Foundry and machine-shop products—Continued.				
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	33.6	2.4	1.7	2.3
$5,000 and less than $20,000	29.1	8.7	6.5	9.6
$20,000 and less than $100,000	28.2	30.8	21.8 [2]	31.7
$100,000 and less than $1,000,000 [1]	9.1	58.1	70.0	56.3
Average per establishment	.....	25	$52,064	$23,446
Leather goods, 1909	31	1,487	$3,492,051	$1,590,907
$5,000 and less than $20,000	15	54	168,718	85,152
$20,000 and less than $100,000	11	212	507,455	195,027
$100,000 and less than $1,000,000 [1]	5	1,221	2,815,878	1,310,728
Per cent of total	100.0	100.0	100.0	100.0
$5,000 and less than $20,000	48.4	3.6	4.8	5.3
$20,000 and less than $100,000	35.5	14.3	14.5	12.3
$100,000 and less than $1,000,000 [1]	16.1	82.1	80.6	82.4
Average per establishment	.....	48	$112,647	$51,320
Lumber and timber products, 1909	2,617	33,287	$35,855,310	$21,962,911
Less than $5,000	1,391	4,934	3,093,574	2,317,843
$5,000 and less than $20,000	941	10,308	8,755,981	6,397,874
$20,000 and less than $100,000	224	6,476	8,479,348	5,069,803
$100,000 and less than $1,000,000 [1]	61	11,569	15,526,407	8,177,391
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	53.2	14.8	8.6	10.6
$5,000 and less than $20,000	36.0	31.0	24.4	29.1
$20,000 and less than $100,000	8.6	19.4	23.7	23.1
$100,000 and less than $1,000,000 [1]	2.3	34.8	43.3	37.2
Average per establishment	.....	13	$13,701	$8,392
Printing and publishing, 1909	369	2,555	$5,369,738	$3,984,864
Less than $5,000	224	392	552,223	425,552
$5,000 and less than $20,000	95	580	918,171	685,578
$20,000 and less than $100,000	35	737	1,483,915	1,057,831
$100,000 and less than $1,000,000	15	846	2,415,429	1,795,903
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	60.7	15.3	10.3	10.7
$5,000 and less than $20,000	25.7	22.7	17.1	17.3
$20,000 and less than $100,000	9.5	28.8	27.6	26.7
$100,000 and less than $1,000,000	4.1	33.1	45.0	45.3
Average per establishment	.....	7	$14,552	$10,745
Slaughtering and meat packing, 1909	24	342	$4,600,630	$543,477
$5,000 and less than $20,000 [2]	8	11	84,522	26,684
$20,000 and less than $100,000	10	51	364,600	79,405
$100,000 and less than $1,000,000 [1]	6	280	4,151,508	437,388
Per cent of total	100.0	100.0	100.0	100.0
$5,000 and less than $20,000 [2]	33.3	3.2	1.8	4.9
$20,000 and less than $100,000	41.7	14.9	7.9	14.6
$100,000 and less than $1,000,000 [1]	25.0	81.9	90.2	80.5
Average per establishment	.....	14	$191,693	$22,645

[1] Includes the group "$1,000,000 and over."

[2] Includes the group "Less than $5,000."

In some respects, especially from the standpoint of conditions under which persons engaged in manufactures work, the best classification of establishments to bring out the feature of size is a classification according to the number of wage earners employed. The next table shows, for 1909, such a classification for all industries combined and for 18 important industries individually, and gives not only the number of establishments in each group but also the average number of wage earners employed.

Of the 5,685 establishments reported for all industries, 4.7 per cent employed no wage earners; 53.8 per cent employed from 1 to 5; 28.7 per cent, from 6 to 20; and 6.5 per cent, from 21 to 50. The most numerous group is that consisting of the 3,058 establishments employing from 1 to 5 wage earners. Of these, 1,281, or 41.9 per cent, were engaged in the manufacture of lumber and timber products. Fifty-nine establishments employed more than 250 wage earners each; 26, more than 500; and 7, more than 1,000.

INDUSTRY.	Total.	ESTABLISHMENTS EMPLOYING— 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.
	NUMBER OF ESTABLISHMENTS.									
All industries	5,685	270	3,058	1,631	370	192	105	33	19	7
Boots and shoes, including cut stock and findings	10	.....	1	1	1	2	2	1	1	1
Bread and other bakery products	135	12	87	26	8	1	1	.....	.....	.....
Carriages and wagons and materials	130	10	71	37	4	7	1	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	28	.....	2	3	1	5	9	2	5	1
Cotton goods, including cotton small wares	10	.....	.....	.....	1	2	3	1	1	2
Fertilizers	45	.....	10	11	9	10	4	1	.....	.....
Flour-mill and gristmill products	458	74	352	29	2	1	.....	.....	.....	.....
Foundry and machine-shop products	110	5	44	37	13	6	2	3	.....	.....
Hosiery and knit goods	11	.....	.....	.....	1	3	5	2	.....	.....
Iron and steel, blast furnaces	14	.....	.....	1	1	7	5	.....	.....	.....
Leather goods	31	.....	15	7	4	1	3	.....	1	.....
Leather, tanned, curried, and finished	39	4	16	.....	8	4	7	.....	.....	.....
Lumber and timber products	2,617	27	1,281	1,078	161	36	18	12	3	1
Paper and wood pulp	9	.....	1	1	.....	4	2	1	.....	.....
Peanuts, grading, roasting, cleaning, and shelling	25	.....	3	3	6	10	3	.....	.....	.....
Printing and publishing	369	62	219	59	18	10	1	.....	.....	.....
Slaughtering and meat packing	24	.....	16	2	5	.....	1	.....	.....	.....
Tobacco manufactures	104	13	46	12	8	11	7	2	4	1
All other industries	1,516	63	894	324	119	72	31	8	4	1
	AVERAGE NUMBER OF WAGE EARNERS.									
All industries	105,676	.....	7,666	17,825	11,884	13,686	16,046	11,066	13,600	13,903
Boots and shoes, including cut stock and findings	2,711	.....	3	6	31	140	277	343	802	1,109
Bread and other bakery products	870	.....	200	245	245	77	103	.....	.....	.....
Carriages and wagons and materials	1,329	.....	164	431	144	473	117	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	7,588	.....	8	38	28	427	1,617	511	3,240	1,719
Cotton goods, including cotton small wares	5,057	.....	.....	.....	27	117	371	450	909	3,183
Fertilizers	1,956	.....	20	135	332	676	541	252	.....	.....
Flour-mill and gristmill products	1,014	.....	624	254	68	68	.....	.....	.....	.....
Foundry and machine-shop products	2,798	.....	110	457	447	422	325	1,037	.....	.....
Hosiery and knit goods	1,715	.....	.....	.....	21	262	827	605	.....	.....
Iron and steel, blast furnaces	1,320	.....	.....	20	50	616	634	.....	.....	.....
Leather goods	1,487	.....	47	84	135	61	522	.....	638	.....
Leather, tanned, curried, and finished	1,590	.....	23	.....	309	272	986	.....	.....	.....
Lumber and timber products	33,287	.....	3,606	11,742	4,928	2,440	3,024	3,867	2,190	1,490
Paper and wood pulp	912	.....	2	12	.....	275	242	381	.....	.....
Peanuts, grading, roasting, cleaning, and shelling	1,516	.....	12	44	200	776	484	.....	.....	.....
Printing and publishing	2,555	.....	546	644	550	693	122	.....	.....	.....
Slaughtering and meat packing	342	.....	35	28	173	.....	106	.....	.....	.....
Tobacco manufactures	7,882	.....	117	148	334	777	1,153	835	3,181	1,337
All other industries	29,747	.....	2,149	3,537	3,862	5,114	4,595	2,785	2,640	5,065
	PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.									
All industries	100.0	.....	7.3	16.9	11.2	12.9	15.2	10.5	12.9	13.2
Boots and shoes, including cut stock and findings	100.0	.....	0.1	0.2	1.1	5.2	10.2	12.7	29.6	40.9
Bread and other bakery products	100.0	.....	23.0	28.2	28.2	8.8	11.8	.....	.....	.....
Carriages and wagons and materials	100.0	.....	12.3	32.4	10.8	35.6	8.8	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	100.0	.....	0.1	0.5	0.4	5.6	21.3	6.7	42.7	22.7
Cotton goods, including cotton small wares	100.0	.....	.....	.....	0.5	2.3	7.3	8.9	18.0	63.0
Fertilizers	100.0	.....	1.0	6.9	17.0	34.6	27.7	12.9	.....	.....
Flour-mill and gristmill products	100.0	.....	61.5	25.0	6.7	6.7	.....	.....	.....	.....
Foundry and machine-shop products	100.0	.....	3.9	16.3	16.0	15.1	11.6	37.1	.....	.....
Hosiery and knit goods	100.0	.....	.....	.....	1.2	15.3	48.2	35.3	.....	.....
Iron and steel, blast furnaces	100.0	.....	.....	1.5	3.8	46.7	48.0	.....	.....	.....
Leather goods	100.0	.....	3.2	5.6	9.1	4.1	35.1	.....	42.9	.....
Leather, tanned, curried, and finished	100.0	.....	1.4	.....	19.4	17.1	62.0	.....	.....	.....
Lumber and timber products	100.0	.....	10.8	35.3	14.8	7.3	9.1	11.6	6.6	4.5
Paper and wood pulp	100.0	.....	0.2	1.3	.....	30.2	26.5	41.8	.....	.....
Peanuts, grading, roasting, cleaning, and shelling	100.0	.....	0.8	2.9	13.2	51.2	31.9	.....	.....	.....
Printing and publishing	100.0	.....	21.4	25.2	21.5	27.1	4.8	.....	.....	.....
Slaughtering and meat packing	100.0	.....	10.2	8.2	50.6	.....	31.0	.....	.....	.....
Tobacco manufactures	100.0	.....	1.5	1.9	4.2	9.9	14.6	10.6	40.4	16.9
All other industries	100.0	.....	7.2	11.9	13.0	17.2	15.4	9.4	8.9	17.0

Of the total number of wage earners, 24.2 per cent were in establishments employing less than 21; 26.1 per cent in establishments employing more than 500; and 49.8 per cent in establishments employing from 21 to 500.

Expenses.—As stated in the Introduction, the census does not purport to furnish figures that can be used for determining the cost of manufacture and profits. Facts of interest can, however, be brought out concerning the relative importance of the different classes of expenses going to make up the total.

The next table shows, for 1909, in percentages, the distribution of expenses among the classes indicated for all industries combined and for certain important industries separately. The figures on which the percentages are based appear in Table II, page 1280.

This table shows that, for all industries combined, 64 per cent of the total expense was incurred for materials, 24 per cent for services—that is, salaries and wages—and 11.9 per cent for other purposes. These proportions vary greatly in the different industries. The proportions shown for cost of materials in the flour-mill and gristmill, slaughtering and meat-packing, and peanut industries are relatively very large, because the manufacturing operations are comparatively simple or are carried on largely by machinery.

The item "Miscellaneous expenses" is particularly large in tobacco manufactures, for the reason that in this industry it includes internal-revenue taxes.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries	4.6	19.4	64.0	11.9
Boots and shoes, including cut stock and findings	4.5	14.3	71.6	9.5
Bread and other bakery products	5.2	17.3	71.1	6.4
Canning and preserving	2.2	17.6	76.8	3.3
Carriages and wagons and materials	6.4	24.7	59.8	9.1
Cars and general shop construction and repairs by steam-railroad companies	3.3	41.0	52.8	2.9
Clothing, men's, including shirts	6.0	17.2	69.3	7.6
Cotton goods, including cotton small wares	1.9	21.5	68.3	8.3
Fertilizers	3.7	10.6	74.9	10.8
Flour-mill and gristmill products	1.2	2.5	94.6	1.7
Foundry and machine-shop products	7.1	26.3	59.7	6.9
Hosiery and knit goods	3.9	22.7	66.1	7.3
Iron and steel, blast furnaces	3.5	10.1	81.8	4.6
Leather goods	9.6	17.9	64.7	7.7
Leather, tanned, curried, and finished	2.3	7.8	85.2	4.7
Lumber and timber products	4.1	34.7	48.4	12.9
Paper and wood pulp	5.2	13.9	72.3	8.6
Peanuts, grading, roasting, cleaning, and shelling	1.8	3.4	92.5	2.3
Printing and publishing	15.6	29.6	31.8	23.0
Slaughtering and meat packing	2.0	2.7	94.2	1.1
Tobacco manufactures	5.3	9.3	48.2	37.2
All other industries	6.1	23.6	59.3	10.9

Engines and power.—The next table shows, for all industries combined, the number of engines or other motors, according to their character, employed in generating power (including electric motors operated by purchased current), and their total horsepower at the censuses of 1909, 1904, and 1899. It also shows separately the number and horsepower of electric motors, including those operated by current generated in the manufacturing establishments.

The table indicates that the increase in owned primary power was principally in power generated by steam, and in a less degree in that developed by the use of water wheels and gas engines. The more general use of gas engines is evidenced by the fact that the horsepower of such engines in 1909 was more than double that in 1904 and nearly five times the horsepower shown in 1899. The figures also show that the practice of renting electric power is on the increase, 4.7 per cent of the total power being of this character in 1909, as against 2.5 per cent in 1904 and six-tenths of 1 per cent in 1899. The use of electric motors for the purpose of applying the power generated in the manufacturing establishments reporting is increasing rapidly. The horsepower of such motors increased from 4,795 in 1899 to 28,687 in 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899 [1]	1909	1904	1899 [1]	1909	1904	1899
Primary power, total	7,388	3,326	3,105	283,928	176,998	136,696	100.0	100.0	100.0
Owned	5,727	3,326	3,105	270,160	172,213	134,905	95.2	97.3	98.7
Steam	4,650	2,621	2,358	221,303	143,917	109,392	77.9	81.3	80.0
Gas	306	131	70	3,664	1,715	748	1.3	1.0	0.5
Water wheels	751	556	668	45,122	25,895	23,550	15.9	14.6	17.2
Water motors	14	18	(2)	33	51	(2)	(3)	(3)	(2)
Other	.....	.....	.....	38	635	1,215	(3)	0.4	0.9
Rented	1,661	(2)	(2)	13,768	4,785	1,791	4.8	2.7	1.3
Electric	1,661	(2)	(2)	13,356	4,403	822	4.7	2.5	0.6
Other	.....	.....	.....	412	382	969	0.1	0.2	0.7
Electric motors	2,936	454	114	42,043	12,687	5,617	100.0	100.0	100.0
Run by current generated by establishment	1,275	454	114	28,687	8,284	4,795	68.2	65.3	85.4
Run by rented power	1,661	(2)	(2)	13,356	4,403	822	31.8	34.7	14.6

[1] Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.
[2] Not reported.
[3] Less than one-tenth of 1 per cent.

Fuel.—Closely related to the question of kind of power employed is that of the fuel consumed in generating this power, or otherwise utilized as material in the manufacturing processes.

The following table shows the quantity of each kind of fuel used in 1909 for all industries combined and for certain selected industries:

INDUSTRY.	Anthracite coal (tons).	Bituminous coal (tons).	Coke (tons).	Wood (cords).	Oil, including gasoline (barrels).	Gas (1,000 feet).
All industries	26,077	3,304,410	702,674	65,100	67,432	16,487
Bread and other bakery products	3,214	4,075	1,655	2,547	10	2,211
Brick and tile	.....	140,895	1,056	19,358	50	.....
Carriages and wagons and materials	34	4,879	80	716	228	141
Cars and general shop construction and repairs by steam-railroad companies	13	98,876	7,967	45	191	.....
Coke	.....	2,067,112	.....	.....	.....	.....
Cotton goods, including cotton small wares	5,500	21,448	.....	.....	.....	.....
Fertilizers	1,937	40,289	.....	283	37	.....
Flour-mill and gristmill products	4	19,744	.....	3,676	1,007	.....
Foundry and machine-shop products	490	31,520	23,178	1,602	4,355	774
Gas, illuminating and heating	.....	88,108	1,712	.....	52,422	.....
Iron and steel, blast furnaces	.....	39,341	628,163	.....	.....	.....
Leather, tanned, curried, and finished	4,723	15,069	.....	30	1	.....
Lime	434	41,520	2,600	21,419	10	.....
Lumber and timber products	75	33,096	140	908	1,085	422
Paper and wood pulp	.....	111,287	.....	200	.....	.....
Printing and publishing	770	3,996	11	380	326	5,774
Tobacco manufactures	356	28,667	.....	92	22	507
All other industries	8,467	505,488	36,112	13,844	7,688	6,658

NOTE.—In addition, there were 6,914 tons of other varieties of fuel reported.

SUPPLEMENTARY DATA REGARDING IMPORTANT INDUSTRIES.

(With statistics for laundries and custom sawmills and gristmills.)

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantity and cost of materials and the quantity and value of products and other information for securing which no provision is made on the general schedule. Data of this character for seven important industries in Virginia are here presented.

Lumber and timber products.—The following statement shows the quantity of rough lumber, lath, and shingles produced in 1909 and 1899:

PRODUCT.	QUANTITY.	
	1909	1899
Rough lumber.....M feet b. m..	2,101,716	959,119
Lath.....thousands...	127,555	36,502
Shingles.....thousands...	39,172	27,784

The increase in the production of rough lumber from 1899 to 1909 was 1,142,597 M feet board measure, or 119.1 per cent, and the increase in lath, 91,053,000, or 249.4 per cent. Yellow pine was the principal kind of lumber cut, constituting 58.1 per cent of the total in 1909.

Flour-mill and gristmill products.—Notwithstanding the increasing centralization of the milling industry in the Middle West, the industry in Virginia shows a considerable growth.

The following table gives the quantity and value of products for 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value	$17,598,045	$13,832,299	$8,942,198
Wheat flour:			
White—			
Barrels	1,898,327	1,776,312	1,508,929
Value	$10,261,121	$8,851,839	$5,580,887
Graham—			
Barrels	385	857	
Value	$1,910	$3,887	
Corn meal and corn flour:			
Barrels	1,410,351	1,218,294	1,046,490
Value	$4,456,117	$2,844,946	$2,156,577
Rye flour:			
Barrels	3,204	2,477	8,678
Value	$12,839	$6,866	$22,670
Buckwheat flour:			
Pounds	1,449,417	564,320	1,023,010
Value	$35,080	$14,336	$17,350
Barley meal:			
Pounds	338,770	150,400	186,900
Value	$5,657	$2,212	$2,643
Hominy and grits:			
Pounds	4,042,200	2,613,390	2,805,390
Value	$70,027	$34,388	$29,405
Feed:			
Tons	24,417	23,014	22,796
Value	$688,098	$509,954	$383,593
Offal:			
Tons	84,725	80,014	60,635
Value	$2,037,334	$1,549,814	$724,062
All other products	$29,862	$14,057	$25,011

The total value of products for the industry shows a substantial increase in 1909, as compared with either 1899 or 1904. Both the quantity and the value of the various products shown separately in the table, with the exception of Graham flour and rye flour, were larger in 1909 than in either of the two previous census years. White flour is the principal product of the industry, contributing 58.3 per cent of the total value of products in 1909, 64 per cent in 1904, and 62.4 per cent in 1899. Corn meal and corn flour, feed, and offal are important products and each shows an increase from 1904 to 1909. In 1909 these three products formed 25.3 per cent, 3.9 per cent, and 11.6 per cent, respectively, of the total value of products of the industry, as compared with 20.6 per cent, 3.7 per cent, and 11.2 per cent, respectively, in 1904.

Leather, tanned, curried, and finished.—The following table gives the quantity and value of the various kinds of leather produced in Virginia in 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value	$8,266,850	$5,829,812	$4,716,920
Leather:			
Oak sole—			
Sides	673,757	563,907	333,366
Value	$4,878,935	$2,926,054	$1,836,629
Belting—			
Sides	352,712	103,870	263,107
Value	$2,065,331	$459,496	$1,224,821
Harness—			
Sides	61,814	35,235	26,350
Value	$313,566	$130,563	$94,386
Sold in the rough	$9,475	$1,590,818	$489,642
All other	691,693	622,535	785,410
All other products	307,850	100,346	286,023

All kinds of leather for which separate statistics are presented, except rough leather, show large gains for the decade as a whole in both quantity and value. The chief classes of leather manufactured are oak sole and belting leather, the value of which formed 59 and 25 per cent, respectively, of the total value of products in 1909, as compared with 38.9 and 26 per cent, respectively, in 1899. The production of rough leather for sale by the tanneries in Virginia, an important branch of the industry in 1904, appears to have been practically discontinued in 1909. The output of belting leather decreased 60.5 per cent in quantity and 62.5 per cent in value from 1899 to 1904, but these losses were more than offset by increases of 239.6 and 349.5 per cent, respectively, during the next five years.

Iron and steel, blast furnaces.—The following table shows the quantity and value of the pig iron produced by the blast furnaces of the state, classified by grades, in 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value	$5,389,287	$3,343,427	$6,505,218
Pig iron:			
Tons	337,328	279,103	428,117
Value	$5,324,997	$3,333,273	$6,505,218
Classified by grades, tons—			
Foundry	321,813	219,322	304,466
Basic	62,324	25,533	72,981
All other, including direct castings	3,191	34,248	50,670
All other products	$64,290	$10,154	.....

All of the pig iron produced in Virginia with the exception of a small amount of charcoal pig iron—less than 1 per cent of the total in 1909—was made with coke fuel. Foundry pig iron, which is manufactured largely for local consumption, was the chief grade produced in Virginia, forming 83.1 per cent of the total output of pig iron in 1909, 78.6 per cent in 1904, and 71.1 per cent in 1899. The total tonnage and value of pig iron produced were less in 1909 than in 1899, although larger than in 1904.

Printing and publishing.—The relative importance of the different classes of newspapers and periodicals is probably best indicated by their aggregate circulation. In the following table the number of the different classes of publications and the aggregate circulation per issue is given for 1909, 1904, and 1899:

	Number of publications.			Aggregate circulation per issue.		
	1909	1904	1899	1909	1904	1899
Total	258	241	220	1,019,968	885,391	627,280
Daily	32	31	37	174,149	131,099	92,370
Sunday	8	10	16	79,258	62,688	(1)
Semiweekly and triweekly	12	8	9	16,789	17,000	16,130
Weekly	161	149	126	392,106	352,856	291,690
Monthly	28	30	23	183,605	167,448	96,890
All other classes	17	13	9	174,061	154,300	130,200

[1] Included in circulation of dailies.

Many newspapers publish daily, Sunday, and weekly or semiweekly editions, and each of these editions is counted as a separate publication in the above table. The total number of publications in 1909 was 258, of which 32, or 12.4 per cent, were dailies, and 161, or 62.4 per cent, weeklies. Of the total circulation, that of the dailies constituted 17.1 per cent; that of the weeklies, 38.4 per cent; and that of the monthlies, 18 per cent. All of the publications were in the English language except two, one daily and one weekly, which were printed in German. All classes made gains in circulation during both five-year periods except the semiweeklies and triweeklies, which show a slight decrease from 1904 to 1909.

Fertilizers.—In 1909 Virginia ranked fourth among the states in the manufacture of fertilizers. The next table shows the quantity and cost of the principal materials and the quantity and value of the principal products for 1909, 1904, and 1899.

In 1909 fish was the principal material used, in respect to cost, representing 30.2 per cent of the cost of all materials in that year, as against 6 per cent in 1904 and only 2.7 per cent in 1899. From 1904 to 1909 the amount paid for ammoniates increased $475,587, or 83.8 per cent, while phosphate rock shows an increase of 5,738 tons, or 8.2 per cent, in quantity and of $94,292, or 25.4 per cent, in cost.

The total value of products increased 36.4 per cent from 1899 to 1904 and 72.4 per cent from 1904 to 1909. In the output of complete fertilizer, which was the product of chief value in 1909, there was an increase from 1904 to 1909 of 90,873 tons, or 155.8 per cent, the value increasing $2,067,631, or 202.2 per cent. During the same period the production of superphosphates from minerals, bones, etc., increased 30.3 per cent in tonnage and 56.6 per cent in value, while the quantity of ammoniated fertilizers produced decreased 61,325 tons, or 57 per cent, and their value $1,009,818, or 50.3 per cent.

Material or product.	1909	1904	1899
Materials used, total cost	$5,389,110	$3,240,675	$2,161,423
Ammoniates:			
Tons	59,635	(1)	(1)
Cost	$1,043,117	$567,530	$557,892
Ammonium sulphate:			
Tons	6,417	1,119	365
Cost	$378,451	$73,634	$21,900
Kainit:			
Tons	29,941	26,109	1,107
Cost	$256,883	$256,915	$10,781
Nitrate of soda:			
Tons	4,882	5,473	1,774
Cost	$216,431	$225,697	$64,901
Phosphate rock:			
Tons	75,493	69,755	82,482
Cost	$465,220	$370,928	$290,778
Potash salts:			
Tons	8,121	3,277	(1)
Cost	$266,368	$127,190	$237,207
Pyrites:			
Tons	28,283	31,142	35,988
Cost	$138,555	$145,927	$147,312
Sulphuric acid:			
Tons	21,250	14,343	16,211
Cost	$93,528	$83,507	$99,236
Superphosphates:			
Tons	30,877	14,003	14,646
Cost	$291,329	$115,281	$130,525
Fish	$1,625,792	$193,633	$57,451
All other materials	$613,436	$1,080,433	$543,440
Products, total value	[2] $8,034,543	$4,659,281	$3,415,850
Fertilizers:			
Tons	364,613	248,347	258,398
Value	$6,560,787	$3,879,385	$3,323,479
Superphosphates from minerals, bones, etc.—			
Tons	68,046	52,207	120,633
Value	$786,217	$502,016	$1,024,893
Ammoniated—			
Tons	46,318	107,643	4,300
Value	$996,454	$2,006,272	$72,100
Complete—			
Tons	149,181	58,308	106,828
Value	$3,090,124	$1,022,493	$1,820,771
Concentrated phosphate—			
Tons	38,552	(1)	(1)
Value	$759,235	(1)	(1)
Other—			
Tons	62,516	30,189	26,637
Value	$928,757	$348,604	$405,715
Sulphuric acid (reduced to 50° Baumé):			
Tons	933	(3)	1,514
Value	$5,598	(3)	$8,929
Fish scrap	$998,761	.....	.....
Pyrite cinder	$13,348	$779,896	$83,442
Fish oil	$142,835	.....	.....
Chemicals, not otherwise specified	$55,862	.....	.....
All other products	$257,352	.....	.....

[1] Figures not available.
[2] In addition, 8,794 tons of fertilizers, valued at $218,538, were made by establishments engaged primarily in the manufacture of other products.
[3] Not reported.

Boots and shoes.—The following statement shows the total number of pairs of the various kinds of boots, shoes, and slippers manufactured in Virginia during 1909, 1904, and 1899:

Product.	Number of pairs.		
	1909	1904	1899
Total	4,255,236	2,710,938	1,896,444
Boots and shoes, total	4,169,835	2,616,438	1,792,061
Men's	815,476	89,450	40,928
Boys' and youths'	361,846	216,116	2,930
Women's	2,370,961	2,013,468	1,450,989
Misses' and children's	621,552	297,404	297,214
Slippers, including infants' shoes and slippers	85,401	94,500	104,383

The total output of boots and shoes manufactured in the state increased 1,553,397 pairs, or 59.4 per cent, from 1904 to 1909, and 824,377 pairs, or 46 per cent, from 1899 to 1904. Women's boots and shoes formed the leading class of footwear in 1909, as at the two previous censuses, although constituting only 56.9 per cent of the total output, as against 77 per cent in 1904 and 81 per cent in 1899. Men's boots and shoes shows a marked development, the output having increased from 40,928 pairs in 1899 to 89,450 pairs in 1904 and 815,476 pairs in 1909. The output of boys' and youths' boots and shoes increased from 2,930 pairs in 1899 to 361,846 pairs in 1909, while that of misses' and children's was practically the same in 1904 as in 1899, but increased more than 100 per cent from 1904 to 1909.

The following table shows a distribution of the various kinds of footwear produced in 1909 according to the method employed in their manufacture:

PRODUCT.	NUMBER OF PAIRS, BY METHOD OF MANUFACTURE.			
	Total.	Machine or hand welt.	McKay.	All other methods.[1]
Boots and shoes	4,169,835	615,949	3,336,000	217,886
Men's	815,476	462,977	319,399	33,100
Boys' and youths'	361,846	35,884	285,362	40,600
Women's	2,370,961	117,088	2,185,873	68,000
Misses' and children's	621,552	.....	545,366	76,186
Slippers, including infants' shoes and slippers	85,401	.....	35,809	49,592

[1] Includes the wire-screw or metal-fastened, the turned, and the wooden-pegged.

Of the boots and shoes manufactured in the state in 1909, 3,336,000 pairs, or 80 per cent, were McKay sewed; 615,949 pairs, or 14.8 per cent, were machine or hand welt; and 217,886 pairs, or 5.2 per cent, were made by other methods. The women's, misses' and children's, and boys' and youths' boots and shoes were almost wholly McKay made, while more than half of the men's boots and shoes were machine or hand welt.

Laundries.—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. There were 57 such establishments in Virginia in 1909, 9 of which were in Richmond, 6 in Norfolk, 3 in Lynchburg, 3 in Petersburg, and 4 in Roanoke. The following statement summarizes the statistics:

Number of establishments	57
Persons engaged in the industry	1,523
Proprietors and firm members	63
Salaried employees	109
Wage earners (average number)	1,351
Primary horsepower	1,199
Capital	$835,607
Expenses	786,733
Services	503,946
Materials	173,097
Miscellaneous	109,690
Amount received for work done	1,003,191

Of the 57 establishments reported, 28 were operated by individuals, 17 by firms, and 12 by corporations. Thirteen establishments had receipts for the year's business of less than $5,000; 26, receipts of $5,000 but less than $20,000; and 18, receipts of $20,000 but less than $100,000.

The number of wage earners employed each month and the per cent which this number represented of the greatest number employed in any month were as follows:

MONTH.	WAGE EARNERS.		MONTH.	WAGE EARNERS.	
	Number.	Per cent of maximum.		Number.	Per cent of maximum.
January	1,283	90.9	July	1,412	100.0
February	1,275	90.3	August	1,401	99.2
March	1,279	90.6	September	1,395	98.8
April	1,314	93.1	October	1,376	97.5
May	1,370	97.0	November	1,361	96.4
June	1,390	98.4	December	1,354	95.9

The different kinds of primary power, the number of engines or motors, and the horsepower used in 1909 are shown in the following tabular statement:

KIND.	Number of engines or motors.	Horsepower.
Primary power, total	.....	1,199
Owned:		
Steam	53	1,031
Gas	2	17
Rented—Electric	59	151

The kind and amount of fuel used are shown in the following statement:

KIND.	Unit.	Quantity.
Anthracite coal	Tons	84
Bituminous coal	Tons	12,906
Coke	Tons	2,515
Wood	Cords	38
Oil	Barrels	38
Gas	1,000 feet	7,215

Custom sawmills and gristmills.—Statistics for custom sawmills and gristmills are not included in the general tables or in the totals for manufacturing industries, but are presented in the following summary:

	Custom sawmills.	Custom gristmills.
Number of establishments	284	1,261
Persons engaged in the industry	1,092	2,396
Proprietors and firm members	415	1,525
Salaried employees	1	9
Wage earners (average number)	676	862
Primary horsepower	4,609	20,716
Capital	$350,535	$2,439,564
Expenses	149,596	4,019,761
Services	119,533	143,191
Materials	5,482	[1] 3,824,256
Miscellaneous	24,581	52,314
Value of products	296,668	[1] 4,683,031

[1] Includes estimate of all grain ground. A similar estimate for value of lumber sawed by custom sawmills is impracticable.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899.

THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

INDUSTRY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—All industries	1909	5,685	120,797	6,570	8,551	105,676	283,928	$216,392	$9,101	$38,154	$125,583	$219,794	$94,211
	1904	3,187	88,898	3,643	4,970	80,285	176,998	147,989	4,875	27,943	83,649	148,857	65,208
	1899	3,186	.....	.....	3,828	66,223	136,696	92,300	3,630	20,274	59,359	108,644	49,285
Agricultural implements	1909	16	319	22	25	272	503	474	24	117	244	516	272
	1904	11	353	18	21	314	383	330	20	116	182	404	222
	1899	13	327	20	29	278	443	473	22	108	128	343	215
Boots and shoes, including cut stock and findings.	1909	10	2,973	6	256	2,711	1,410	3,999	252	805	4,020	5,809	1,789
	1904	[1] 6	1,801	.....	63	1,738	515	975	81	369	1,915	2,627	712
	1899	5	1,203	5	45	1,153	.....	641	51	206	1,160	1,452	292
Boxes, fancy and paper	1909	10	605	2	45	558	193	337	42	128	153	413	260
	1904	8	584	6	29	549	127	223	28	104	105	324	219
	1899	11	973	11	20	942	.....	371	31	191	310	632	322
Bread and other bakery products	1909	135	1,196	152	174	870	761	1,103	126	418	1,721	2,766	1,045
	1904	80	708	90	49	569	221	597	31	236	1,061	1,606	545
	1899	97	606	109	74	423	.....	321	30	157	473	922	449
Brick and tile	1909	86	2,311	87	134	2,090	5,540	3,983	142	732	510	1,922	1,412
	1904	84	2,176	84	128	1,904	4,977	3,146	118	680	429	1,804	1,375
	1899	80	1,564	90	56	1,418	3,110	1,531	46	404	195	1,006	811
Canning and preserving	1909	325	2,427	476	91	1,860	1,382	1,129	35	277	1,208	1,854	646
	1904	[2] 170	1,377	262	44	1,071	1,048	688	16	181	790	1,218	428
	1899	[2] 99	867	143	34	690	.....	203	6	89	397	633	236
Carriages and wagons and materials	1909	130	1,609	142	138	1,329	2,032	3,029	137	529	1,283	2,485	1,202
	1904	102	1,540	121	87	1,332	1,735	2,078	75	473	1,196	2,292	1,096
	1899	150	.....	.....	42	964	.....	1,373	37	371	694	1,586	892
Cars and general shop construction and repairs by steam-railroad companies.	1909	28	7,943	.....	355	7,588	6,412	3,998	332	4,082	5,255	9,956	4,701
	1904	29	7,746	.....	401	7,345	4,117	2,740	323	3,603	4,577	8,693	4,116
	1899	28	5,205	.....	283	4,922	1,433	1,733	248	2,452	3,531	6,277	2,746
Clothing, men's, including shirts	1909	23	1,279	11	108	1,160	346	1,250	100	288	1,160	1,819	659
	1904	20	966	15	60	891	239	530	46	201	642	1,142	500
	1899	15	.....	.....	44	512	.....	238	29	97	312	556	244
Coke	1909	16	1,553	5	123	1,425	1,760	6,287	109	543	1,818	2,416	598
	1904	13	1,164	.....	70	1,094	4,830	3,467	58	440	1,183	1,885	702
	1899	5	808	.....	23	785	1,349	1,252	26	226	677	1,073	396
Confectionery	1909	33	472	31	100	341	341	694	110	103	1,103	1,525	422
	1904	17	297	15	56	226	214	297	38	68	474	688	214
	1899	15	.....	.....	20	150	.....	100	16	35	308	443	135
Cooperage and wooden goods, not elsewhere specified.	1909	118	1,808	158	84	1,566	2,577	2,220	83	490	1,111	2,069	958
	1904	45	1,720	77	60	1,583	2,308	2,145	64	420	980	1,716	736
	1899	75	.....	.....	67	1,259	.....	902	60	299	549	1,075	526
Cotton goods, including cotton small wares.	1909	10	5,123	.....	66	5,057	19,750	14,070	130	1,480	4,699	7,490	2,791
	1904	10	3,501	.....	45	3,456	9,340	7,067	65	884	2,802	4,484	1,682
	1899	7	2,963	.....	32	2,931	5,020	4,403	50	669	1,412	2,655	1,243
Fertilizers	1909	45	2,199	10	233	1,956	5,560	9,767	269	760	5,389	8,035	2,646
	1904	37	1,035	16	118	1,801	5,643	4,872	111	571	3,241	4,659	1,418
	1899	39	1,318	35	112	1,171	.....	4,908	142	321	2,161	3,416	1,255
Flour-mill and gristmill products	1909	458	1,817	571	232	1,014	21,454	8,700	198	398	15,164	17,598	2,434
	1904	365	1,597	498	142	957	16,082	5,503	105	349	12,171	13,832	1,661
	1899	359	.....	.....	100	613	14,573	3,198	67	262	7,484	8,942	1,458
Foundry and machine-shop products	1909	110	3,248	100	350	2,798	4,012	7,103	376	1,385	3,148	5,727	2,579
	1904	[2] 74	2,378	81	202	2,095	2,671	3,466	238	917	1,404	3,393	1,989
	[3] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Furniture and refrigerators	1909	34	1,096	26	80	990	2,326	1,620	78	349	724	1,438	714
	1904	26	786	20	53	713	1,500	763	45	229	382	803	421
	1899	14	223	18	13	192	.....	160	7	55	87	213	126
Gas, illuminating and heating	1909	21	494	1	115	378	1,116	4,868	95	217	431	1,472	1,041
	1904	19	350	1	81	268	357	2,747	64	136	285	980	695
	1899	12	186	.....	53	133	.....	2,625	42	85	131	483	352
Glass	1909	5	549	.....	25	524	245	526	41	306	251	682	431
	1904	4	485	2	11	472	100	402	18	264	169	549	380
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hosiery and knit goods	1909	11	1,780	7	58	1,715	1,079	1,093	88	503	1,467	2,463	996
	1904	14	1,913	11	60	1,842	1,211	716	49	430	1,326	2,108	782
	1899	15	1,887	4	38	1,845	1,203	979	36	395	798	1,498	700
Ice, manufactured	1909	74	652	67	110	475	8,553	3,090	93	220	268	1,143	875
	1904	48	445	43	56	346	4,604	1,805	41	138	172	636	464
	1899	30	271	20	46	205	3,494	1,199	35	87	106	428	322
Iron and steel, blast furnaces	1909	14	1,425	.....	105	1,320	17,320	6,305	189	546	4,418	5,389	971
	1904	10	1,150	.....	69	1,081	12,465	3,157	82	346	2,717	3,343	626
	1899	16	1,710	.....	116	1,594	21,605	4,783	147	529	4,374	6,505	2,131

[1] Excluding statistics for two establishments, to avoid disclosure of individual operations.
[2] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[3] Figures not comparable.
[4] Figures can not be shown without disclosing individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—Continued.													
Leather goods	1909	31	1,725	33	205	1,487	958	$2,600	$283	$527	$1,901	$3,492	$1,591
	1904	22	1,495	22	110	1,363	599	1,307	111	479	1,148	2,120	972
	1899	19	.....	.....	80	767	.....	433	62	200	499	993	494
Leather, tanned, curried, and finished	1909	39	1,730	37	103	1,590	4,223	11,090	171	589	6,445	8,267	1,822
	1904	44	1,169	43	71	1,055	2,508	4,635	95	358	4,719	5,830	1,111
	1899	65	1,018	70	59	889	2,194	4,032	85	314	3,696	4,717	1,021
Lime	1909	35	803	29	58	716	924	938	47	232	300	856	556
	1904	20	461	19	24	418	371	368	19	148	235	497	262
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Liquors, distilled	1909	65	210	56	28	126	1,557	419	14	48	233	1,572	1,339
	1904	98	217	102	1	114	999	237	([2])	30	84	431	347
	1899	91	166	93	7	66	.....	271	3	15	57	257	200
Liquors, malt	1909	6	432	.....	78	354	3,176	2,687	115	185	411	1,616	1,205
	1904	6	331	.....	59	272	2,172	2,252	82	151	292	1,201	909
	1899	6	372	.....	72	300	1,870	2,001	96	145	216	973	757
Lumber and timber products	1909	2,617	37,931	3,479	1,165	33,287	99,474	28,392	1,170	9,962	13,892	35,855	21,963
	1904	938	17,000	1,263	603	15,134	44,212	13,253	538	4,972	6,891	18,727	11,836
	1899	991	.....	.....	539	14,480	34,467	8,255	389	3,915	6,856	15,218	8,362
Marble and stone work	1909	70	1,750	63	102	1,585	4,553	3,716	89	651	351	1,306	955
	1904	45	637	16	34	587	933	803	40	234	168	595	427
	1899	36	.....	.....	22	671	.....	336	30	236	159	561	402
Mattresses and spring beds	1909	18	139	12	24	103	181	155	17	41	129	244	115
	1904	14	93	13	7	73	90	69	5	28	94	145	51
	1899	16	.....	.....	8	81	.....	44	5	20	76	137	61
Paint and varnish	1909	8	80	5	22	53	241	294	25	21	188	345	157
	1904	[3] 3	115	5	17	93	645	213	23	23	114	195	81
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paper and wood pulp	1909	9	981	1	68	912	9,770	5,268	153	412	2,148	3,657	1,509
	1904	9	1,058	.....	65	993	7,800	5,517	134	303	1,789	3,034	1,245
	1899	7	336	.....	34	302	6,345	2,282	58	103	411	850	439
Patent medicines and compounds and druggists' preparations.	1909	41	311	27	72	212	623	724	89	72	305	812	507
	1904	[5] 22	125	20	33	72	198	240	25	24	115	296	181
	1899	[5] 14	87	13	15	59	.....	80	11	15	90	187	97
Peanuts, grading, roasting, cleaning, and shelling.	1909	25	1,662	15	131	1,516	2,271	2,865	135	258	7,126	7,933	807
	1904	26	1,458	14	112	1,332	1,562	1,115	113	196	6,149	7,055	906
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Printing and publishing	1909	369	3,719	347	817	2,555	2,210	5,456	688	1,307	1,405	5,370	3,965
	1904	309	2,934	330	503	2,101	1,309	3,566	382	903	973	3,522	2,549
	1899	259	.....	.....	326	1,655	.....	2,799	224	691	648	2,499	1,851
Slaughtering and meat packing	1909	24	444	23	79	342	1,491	2,251	85	118	4,057	4,601	544
	1904	[3] 14	200	12	30	158	650	683	28	69	1,746	1,996	250
	1899	[3] 3	63	4	17	42	.....	157	13	18	477	560	83
Stoves and furnaces, including gas and oil stoves.	1909	9	417	.....	54	363	464	923	72	206	242	683	441
	1904	4	331	.....	32	299	300	474	44	186	181	537	356
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tobacco manufactures	1909	104	8,978	104	992	7,882	3,591	13,131	1,244	2,162	11,189	25,385	14,196
	1904	143	8,597	145	521	7,931	3,385	23,478	519	1,829	6,664	16,768	10,104
	1899	158	9,471	180	635	8,656	.....	6,509	682	1,668	5,275	15,551	10,276
Wood preserving	1909	5	258	.....	36	222	660	1,186	61	93	688	1,078	390
	1904	3	140	.....	17	123	1,150	437	23	31	246	352	106
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Woolen, worsted, and felt goods, and wool hats.	1909	16	590	18	30	542	1,352	1,101	33	176	567	999	432
	1904	24	701	23	29	649	1,656	1,046	29	179	760	1,250	490
	1899	28	416	15	39	362	937	784	38	104	392	628	236
All other industries	1909	482	15,759	447	1,480	13,832	41,537	47,551	1,561	6,418	18,461	30,736	12,275
	1904	281	16,864	256	797	15,811	31,772	40,582	944	6,525	13,078	25,120	12,042
	1899	408	.....	.....	719	15,713	.....	32,864	806	5,792	15,220	25,375	10,155

[1] Not reported separately.
[2] Less than $500.
[3] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[4] Figures can not be shown without disclosing individual operations.
[5] Excluding statistics for two establishments, to avoid disclosure of individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY.	Census.	Number of establishments.	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
NORFOLK—All industries	1909	215	5,590	194	647	4,749	20,408	$10,744	$636	$2,041	$5,482	$10,341	$4,859
	[1] 1904	121	3,292	125	232	2,935	.....	4,374	236	1,091	3,202	5,739	2,537
	1899	140	.....	.....	231	2,638	.....	4,419	187	904	2,542	4,692	2,150
Bread and other bakery products	1909	17	247	13	56	178	210	307	35	95	350	595	245
	1904	13	132	15	5	112	.....	99	6	63	204	335	131
	1899	15	.....	.....	10	93	.....	59	6	35	117	238	121
Flour-mill and gristmill products	1909	4	15	3	5	7	78	28	1	3	97	107	10
	1904	3	21	.....	6	15	.....	107	5	9	190	210	20
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foundry and machine-shop products	1909	12	231	10	18	194	248	284	22	134	88	316	228
	1904	7	253	10	16	227	.....	215	19	107	62	240	178
	[3] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ice, manufactured	1909	6	95	2	14	79	1,500	719	15	43	63	225	162
	1904	4	71	2	9	60	.....	592	7	24	51	132	81
	1899	5	.....	.....	9	49	.....	489	8	26	39	116	77
Lumber and timber products	1909	13	1,128	6	70	1,052	14,082	2,284	76	498	748	1,515	767
	1904	[4] 7	284	7	13	264	.....	243	18	103	436	671	235
	1899	9	.....	.....	41	340	.....	363	29	129	342	634	292
Patent medicines and compounds and druggists' preparations.	1909	9	35	6	10	19	3	192	15	6	20	87	58
	1904	4	22	8	3	11	.....	8	1	5	5	18	13
	1899	4	.....	.....	.....	6	.....	3	.....	1	4	9	5
Peanuts, grading, roasting, cleaning, and shelling.	1909	4	202	2	21	179	355	469	16	31	914	991	77
	1904	3	256	.....	15	241	.....	101	19	28	650	792	142
	[5] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Printing and publishing	1909	33	443	32	160	251	255	711	127	155	151	684	533
	1904	22	300	21	46	233	.....	351	4	129	106	416	310
	1899	21	.....	.....	37	168	.....	186	29	89	59	267	208
Tobacco manufactures	1909	13	94	12	3	79	.....	65	3	42	59	139	80
	1904	9	94	8	10	76	.....	39	11	38	41	124	83
	1899	12	.....	.....	6	80	.....	46	4	30	44	111	67
All other industries	1909	104	3,100	99	290	2,711	3,677	5,085	326	1,034	2,983	5,682	2,699
	1904	49	1,859	54	109	1,696	.....	2,619	146	585	1,457	2,801	1,344
	1899	74	.....	.....	128	1,893	.....	3,273	111	594	1,937	3,317	1,380
RICHMOND—All industries [6]	1909	380	17,300	302	2,149	14,849	20,087	$31,660	$2,486	$5,821	$24,252	$47,358	$23,106
	[1] 1904	300	13,795	278	1,073	12,444	.....	30,942	1,125	4,150	13,763	27,745	13,982
	1899	276	.....	.....	1,032	13,715	.....	16,890	1,128	4,316	11,486	24,670	13,184
Boxes, fancy and paper	1909	6	478	2	32	444	160	271	30	99	90	276	186
	1904	4	493	4	23	466	.....	177	21	85	50	223	173
	1899	6	.....	.....	15	801	.....	337	26	169	281	549	268
Bread and other bakery products	1909	23	491	23	60	408	334	422	63	191	839	1,291	452
	1904	18	304	21	17	266	.....	297	15	100	521	769	248
	1899	17	.....	.....	20	162	.....	86	9	67	162	301	139
Carriages and wagons and materials	1909	14	156	20	12	124	53	166	10	71	104	286	182
	1904	[4] 12	140	14	4	122	.....	129	4	55	45	140	95
	1899	15	.....	.....	2	115	.....	121	2	49	49	159	110
Confectionery	1909	10	193	6	31	156	129	154	26	43	254	400	146
	1904	6	107	4	17	86	.....	94	11	28	186	274	88
	1899	7	.....	.....	16	46	.....	38	8	14	97	153	56
Foundry and machine-shop products	1909	21	355	18	41	296	410	488	49	175	309	625	316
	1904	13	356	10	29	317	.....	311	30	136	119	350	231
	[3] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ice manufactured	1909	6	77	4	13	60	1,452	500	16	33	37	199	162
	1904	4	84	2	8	74	.....	338	11	33	26	109	83
	1899	3	.....	.....	8	15	.....	222	8	11	14	65	51
Leather goods	1909	12	453	10	56	387	210	813	78	160	594	1,045	451
	1904	[4] 5	108	9	16	83	.....	86	17	28	144	236	92
	1899	[4] 5	.....	.....	10	66	.....	81	6	21	114	217	103
Lumber and timber products	1909	15	706	13	61	632	1,726	1,113	59	286	656	1,187	531
	1904	13	472	19	46	407	.....	656	36	186	377	718	341
	1899	9	.....	.....	32	389	.....	478	29	142	317	678	361
Marble and stone work	1909	9	66	10	3	53	54	43	3	36	34	92	58
	1904	[7] 3	77	4	1	72	.....	28	1	37	37	89	52
	1899	[4] 5	.....	.....	1	38	.....	29	1	20	11	38	27
Paper and wood pulp	1909	4	220	.....	25	195	1,405	816	49	82	382	748	366
	1904	3	181	.....	24	157	.....	744	49	57	209	446	237
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Figures do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city.
[2] Figures can not be shown without disclosing individual operations.
[3] Figures not comparable.
[4] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[5] Not reported separately.
[6] Includes statistics for Manchester.
[7] Excluding statistics for two establishments, to avoid disclosure of individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY AND CITY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
RICHMOND—Continued.													
Patent medicines and compounds and druggists' preparations.	1909	9	43	4	19	20	26	$66	$16	$7	$45	$103	$58
	1904	9	69	5	20	44	.....	154	18	12	79	166	87
	1899	4	.....	.....	15	37	.....	74	15	9	71	106	35
Printing and publishing	1909	82	1,510	68	353	1,089	941	2,281	339	585	732	2,786	2,054
	1904	71	1,207	73	237	897	.....	1,802	200	390	531	1,747	1,216
	1899	[1] 53	.....	.....	147	630	.....	1,596	110	300	250	1,082	832
All other industries	1909	169	12,552	124	1,443	10,985	13,187	24,527	1,748	4,053	20,176	38,320	18,144
	1904	139	10,197	113	631	9,453	.....	26,126	712	3,003	11,439	22,478	11,039
	1899	152	.....	.....	766	11,416	.....	13,828	914	3,514	10,120	21,322	11,202

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

Alexandria	1909	54	1,713	52	191	1,470	3,250	$4,687	$222	$697	$2,731	$4,420	$1,689
	1904	51	1,446	63	92	1,291	.....	2,328	93	655	992	2,187	1,195
	1899	57	.....	.....	94	859	.....	1,606	73	374	670	1,539	869
Danville	1909	52	3,346	46	224	3,076	4,634	6,059	279	963	3,236	5,389	2,153
	1904	34	3,177	28	131	3,018	.....	5,119	126	811	2,766	4,775	2,009
	1899	46	.....	.....	134	2,933	.....	4,324	106	664	1,868	3,694	1,826
Lynchburg	1909	82	4,519	48	445	4,026	7,952	9,217	454	1,544	6,468	10,188	3,720
	1904	55	2,793	41	218	2,534	.....	4,258	217	789	2,882	4,965	2,083
	1899	61	.....	.....	87	1,487	.....	2,300	79	451	1,525	2,994	1,469
Petersburg	1909	72	4,332	45	400	3,887	5,239	5,221	434	1,107	5,759	8,896	3,137
	1904	72	3,631	62	281	3,288	.....	4,562	240	866	3,794	5,891	2,097
	1899	77	.....	.....	222	3,608	.....	3,175	208	792	3,115	5,294	2,179
Portsmouth	1909	31	936	26	68	842	1,777	1,233	65	307	776	1,528	752
	1904	28	636	26	59	551	.....	564	46	185	486	945	459
	1899	22	.....	.....	53	471	.....	815	38	132	614	960	346
Roanoke	1909	62	3,989	43	402	3,544	6,774	4,828	389	1,718	4,044	7,261	3,217
	1904	54	3,463	43	331	3,089	.....	2,657	306	1,526	3,232	5,545	2,313
	1899	38	.....	.....	194	2,431	.....	1,916	162	1,107	3,593	5,398	1,805
Staunton	1909	44	447	56	52	339	601	715	43	118	896	1,223	327
	[2] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Excluding statistics for two establishments, to avoid disclosure of individual operations.

[2] Figures not available.

TABLE II.—DETAIL STATEMENT FOR

	INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, supts. and managers.	Clerks. Male.	Clerks. Female.	Wage earners. Average number.	Wage earners. Number. Maximum month.	Wage earners. Number. Minimum month.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horsepower.
1	**All industries**	5,685	120,797	6,570	3,336	4,333	882	105,676	Se 115,998	Ja 94,885	(1)	(1)	(1)	(1)	(1)	283,928
2	Agricultural implements	16	319	22	11	10	4	272	Fe 294	Jy 253	305	300	.....	5	.....	503
3	Boots and shoes, including cut stock and findings.	10	2,973	6	68	126	62	2,711	Je 2,768	Fe 2,648	2,694	1,984	586	72	52	1,410
4	Boxes, fancy and paper	10	605	2	31	9	5	558	No 587	Ja 480	586	96	451	9	30	193
5	Bread and other bakery products	135	1,196	152	37	83	54	870	Se 910	Ja 836	875	740	100	27	8	761
6	Brick and tile	86	2,311	87	88	39	7	2,090	Au 2,641	Ja 1,317	2,400	2,334	12	54	.....	5,540
7	Brooms	15	66	19	3	.....	.....	44	Se 47	My 40	45	40	2	3	.....	10
8	Butter, cheese, and condensed milk	11	28	10	2	.....	.....	16	Au [2] 20	Mh [2] 13	21	20	1	.....	.....	141
9	Canning and preserving	325	2,427	476	62	21	8	1,860	Se 7,409	Ja 181	7,473	2,175	3,675	573	1,045	1,382
10	Carriages and wagons and materials	130	1,609	142	68	57	13	1,329	My 1,392	Ja 1,225	1,410	1,383	7	19	1	2,032
11	Cars and general shop construction and repairs by steam-railroad companies.	28	7,943	.....	58	203	4	7,588	De 7,816	Jy 7,328	7,994	7,984	7	3	.....	6,412
12	Cars and general shop construction and repairs by street-railroad companies.	7	132	.....	10	4	1	117	Je 123	De 111	111	111	.....	.....	.....	121
13	Clothing, men's, including shirts	23	1,279	11	39	49	20	1,160	No 1,270	Jy 1,041	1,236	143	1,051	12	30	346
14	Coke	16	1,553	5	34	86	3	1,425	De 1,631	Jy 1,309	1,631	1,625	.....	6	.....	1,760
15	Confectionery	33	472	31	31	52	17	341	No [2] 388	Ja 283	374	233	139	1	1	341
16	Cooperage and wooden goods, not elsewhere specified.	118	1,808	158	39	41	4	1,566	Je 1,783	Au 1,344	1,841	1,439	335	53	14	2,577
17	Copper, tin, and sheet-iron products	43	945	49	30	39	9	818	Jy 931	Ja 635	956	764	126	53	13	296
18	Cordage and twine and jute and linen goods.	3	102	4	3	7	.....	88	My 112	Ja 61	69	22	45	2	.....	32
19	Cotton goods, including cotton small wares.	10	5,123	.....	26	39	1	5,057	Fe 5,240	Se 4,901	5,098	2,910	1,504	364	320	19,760
20	Dairymen's, poulterers', and apiarists' supplies.	12	42	14	1	.....	.....	27	Au [2] 33	Ja 13	36	31	.....	5	.....	98
21	Fertilizers	45	2,199	10	92	121	20	1,956	Se 2,517	De 1,027	2,516	2,504	7	5	.....	5,560
22	Flour-mill and gristmill products	458	1,817	571	130	76	26	1,014	Oc 1,062	My 979	1,068	1,053	1	14	.....	21,454
23	Foundry and machine-shop products	110	3,248	100	157	166	27	2,798	De 3,166	Fe. 2,473	3,166	3,133	1	32	.....	4,012
24	Furniture and refrigerators	34	1,096	26	56	17	7	990	De 1,033	My 944	1,073	976	5	92	.....	2,326
25	Gas, illuminating and heating	21	494	1	38	69	8	378	Jy 418	Je 338	381	380	.....	1	.....	1,116
26	Glass	5	540	.....	14	10	1	524	Je 663	Jy 46	609	552	3	54	.....	245
27	Hand stamps and stencils and brands.	5	99	6	5	26	6	56	Se 62	Ap 52	59	28	4	20	7	48
28	Hosiery and knit goods	11	1,780	7	34	22	2	1,715	De 1,764	Ja 1,633	1,764	579	957	96	132	1,079
29	Ice, manufactured	74	652	67	69	38	3	475	Jy 685	Ja 281	481	467	.....	14	.....	8,553
30	Iron and steel, blast furnaces	14	1,425	.....	31	69	5	1,320	De 1,704	My 1,114	1,699	1,684	.....	15	.....	17,320
31	Leather goods	31	1,725	33	63	121	21	1,487	Se 1,585	Ap 1,286	1,547	1,406	104	35	2	958
32	Leather, tanned, curried, and finished.	39	1,730	37	46	54	3	1,590	Au 1,710	Mh 1,487	1,561	1,524	30	7	.....	4,223
33	Lime	35	803	29	34	18	6	716	Se 918	Ja 480	702	702	.....	.....	.....	924
34	Liquors, distilled	65	210	56	16	11	1	126	De 182	My 90	218	218	.....	.....	.....	1,557
35	Liquors, malt	6	432	.....	37	36	5	354	Jy 409	Fe 306	337	337	.....	.....	.....	3,176
36	Lumber and timber products	2,617	37,931	3,479	670	425	70	33,287	No 35,949	Ja 29,919	40,692	39,875	187	630	.....	99,474
37	Marble and stone work	70	1,750	63	48	46	8	1,585	Au 1,697	Ja 1,421	1,682	1,672	.....	10	.....	4,553
38	Mattresses and spring beds	18	139	12	9	13	2	103	De 118	Ap 90	118	96	20	2	.....	181
39	Oil, essential	5	12	6	.....	.....	.....	6	My [2] 13	Ja 0	16	16	.....	.....	.....	48
40	Paint and varnish	8	80	5	12	5	5	53	Se [2] 58	Ap 48	57	55	2	.....	.....	241
41	Paper and wood pulp	9	981	1	34	28	6	912	Au 997	My [2] 865	935	838	94	3	.....	9,770
42	Patent medicines and compounds and druggists' preparations.	41	311	27	26	35	11	212	Mh 227	Jy 175	222	181	34	7	.....	623
43	Peanuts, grading, roasting, cleaning, and shelling.	25	1,662	15	51	64	16	1,516	Ja 1,800	Au 1,099	1,746	366	1,341	1	38	2,271
44	Pottery, terra-cotta, and fire-clay products.	4	76	4	3	1	.....	68	Je 87	Mh 49	81	58	17	6	.....	158
45	Printing and publishing	369	3,719	347	250	400	167	2,555	De 2,652	Jy 2,504	2,660	1,931	603	123	3	2,210
46	Silk and silk goods, including throwsters.	7	857	.....	13	21	4	819	De 869	Fe 798	862	335	410	44	73	1,858
47	Slaughtering and meat packing	24	444	23	26	41	12	342	Ja 424	My 297	415	394	20	1	.....	1,491
48	Stoves and furnaces, including gas and oil stoves.	9	417	.....	25	25	4	363	No 388	Ja 321	392	384	.....	8	.....	464
49	Tobacco manufactures	104	8,978	104	303	596	93	7,882	De 8,491	Ja 7,226	8,828	3,479	4,810	278	261	3,591
50	Wood preserving	5	258	.....	13	19	4	222	Se 289	My 132	269	266	.....	3	.....	660
51	Woolen, worsted, and felt goods, and wool hats.	16	590	18	22	7	1	542	Je 564	Fe 515	579	376	183	12	8	1,352
52	All other industries [3]	370	13,400	335	368	798	126	11,773	.....	.....	.....	.....	.....	.....	.....	38,727

[1] No figures given for reasons explained in the Introduction.
[2] Same number reported for one or more other months.
[3] All other industries embrace—

Artificial stone	28	Carpets and rugs, other than rag	1	Fancy articles, not elsewhere specified	1
Awnings, tents, and sails	7	Cars, steam-railroad, not including operations of railroad companies	2	Flags, banners, regalia, society badges, and emblems	4
Babbitt metal and solder	2	Cash registers and calculating machines	1	Flavoring extracts	6
Bags, other than paper	7	Cement	1	Food preparations	2
Bags, paper	3	Chemicals	4	Foundry supplies	1
Baking powders and yeast	3	Clothing, women's	3	Fur goods	1
Baskets, and rattan and willow ware	3	Coffee and spice, roasting and grinding	10	Furnishing goods, men's	1
Belting and hose, leather	1	Coffins, burial cases, and undertakers' goods	3	Glass, cutting, staining, and ornamenting	3
Billiard tables and materials	1	Cutlery and tools, not elsewhere specified	2	Gloves and mittens, leather	3
Blacking and cleansing and polishing preparations	3	Dyestuffs and extracts	14	Grease and tallow	5
Bluing	2	Electrical machinery, apparatus, and supplies	2	Hats and caps, other than felt, straw, and wool	3
Boxes, cigar	3	Electroplating	5	Hats, straw	1
Brass and bronze products	1	Engraving and diesinking	1	House-furnishing goods, not elsewhere specified	

THE STATE, BY INDUSTRIES: 1909.

	Capital.	EXPENSES.										Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.					
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.		
1	$216,392,388	$196,246,119	$5,029,417	$4,071,373	$38,154,566	$7,184,245	$118,398,442	$516,150	$6,235,001	$1,713,523	$14,943,402	$219,793,858	$94,211,171
2	473,693	426,580	12,667	11,367	117,015	13,664	230,140	3,630	1,720	12,202	24,175	516,358	272,554
3	3,999,009	5,610,340	141,577	110,624	804,921	20,615	3,998,889	14,836	27,295	565	491,018	5,808,503	1,788,999
4	337,008	374,802	31,402	10,383	128,278	6,030	146,767	7,375	2,278	.....	42,289	412,684	259,887
5	1,103,517	2,419,077	62,625	63,165	418,261	50,714	1,669,978	28,652	10,682	118	114,882	2,766,283	1,045,591
6	3,983,120	1,540,155	111,211	31,067	731,707	416,569	93,815	4,197	9,925	3,774	137,890	1,922,476	1,412,092
7	27,928	56,341	2,020	.....	11,133	531	40,208	905	213	10	1,321	67,800	27,061
8	96,812	62,313	660	.....	6,353	1,457	52,363	143	330	.....	1,007	67,457	13,637
9	1,128,576	1,573,307	23,567	11,713	277,153	19,961	1,188,306	3,377	4,104	2,703	42,423	1,854,318	646,051
10	3,028,729	2,145,699	90,153	46,620	529,313	23,176	1,260,104	15,951	15,838	7,564	156,980	2,485,221	1,201,941
11	3,998,169	9,955,501	77,519	254,282	4,082,312	163,706	5,091,167	.....	17,073	125,048	144,394	9,955,501	4,700,628
12	111,650	161,768	2,775	2,470	71,777	276	81,380	1,800	449	.....	841	161,768	80,112
13	1,250,150	1,674,839	47,081	53,086	288,198	10,957	1,149,053	5,973	6,917	4,062	109,512	1,818,885	658,875
14	6,286,982	2,646,821	50,650	58,825	542,747	1,728,106	90,146	.....	18,790	.....	157,557	2,415,769	597,517
15	693,997	1,424,942	47,490	62,796	102,639	9,834	1,093,100	9,614	3,613	2,274	93,582	1,525,119	422,185
16	2,220,123	1,864,121	37,957	44,640	489,967	10,252	1,100,290	3,754	8,395	3,782	165,084	2,069,087	958,545
17	4,364,054	1,641,024	48,030	44,771	360,940	11,123	1,049,484	8,648	4,640	1,633	111,755	2,047,690	987,083
18	198,600	191,292	3,336	4,600	27,660	559	146,025	2,225	1,138	.....	5,749	212,740	66,156
19	14,069,696	6,879,766	80,330	49,482	1,479,867	84,418	4,614,605	200	68,291	.....	502,573	7,489,653	2,790,630
20	18,267	16,042	500	.....	6,839	303	7,277	354	84	150	535	22,203	14,623
21	9,766,831	7,198,108	149,315	120,087	759,514	152,499	5,236,611	3,202	49,333	.....	727,547	8,034,543	2,645,433
22	8,699,852	16,026,735	131,361	66,423	398,460	96,270	15,067,998	27,605	33,431	2,588	202,599	17,598,045	2,433,777
23	7,102,703	5,273,380	225,313	150,273	1,385,486	168,907	2,979,101	19,408	25,928	150	318,814	5,727,014	2,579,006
24	1,620,085	1,246,491	61,501	16,601	348,857	14,682	709,644	3,598	5,983	.....	85,625	1,437,833	713,507
25	4,867,804	822,399	43,806	50,808	216,780	351,374	79,503	150	19,947	.....	60,031	1,472,384	1,041,507
26	526,462	628,027	25,525	15,580	305,719	50,896	199,891	.....	574	.....	29,842	681,900	431,113
27	58,950	71,851	7,200	6,800	22,560	795	16,409	1,400	433	.....	16,254	77,944	60,740
28	1,093,087	2,219,821	65,233	22,300	503,224	25,727	1,441,409	26,264	5,158	7,807	122,699	2,462,787	995,651
29	3,090,340	754,961	68,758	23,888	220,163	185,196	82,712	5,110	20,051	18	149,065	1,143,358	875,450
30	6,304,888	5,403,889	121,875	67,653	545,749	1,780,341	2,637,860	27,970	34,439	.....	188,002	5,389,287	971,086
31	2,600,003	2,938,430	113,660	169,774	526,686	9,237	1,891,907	9,778	18,439	25	198,924	3,492,051	1,590,907
32	11,089,660	7,562,403	111,787	59,583	588,591	43,504	6,401,657	8,550	31,669	.....	317,062	8,266,859	1,821,689
33	938,104	633,705	35,896	11,065	231,939	138,852	161,208	3,510	3,089	15	48,131	856,417	556,357
34	418,931	1,363,841	9,021	4,936	48,432	14,660	218,122	532	1,044,614	.....	23,524	1,572,112	1,339,330
35	2,687,346	1,294,284	75,397	39,444	185,451	44,700	365,845	.....	191,928	.....	391,519	1,615,962	1,205,417
36	28,392,248	28,731,977	826,006	344,333	9,961,588	106,153	13,786,246	39,981	127,685	1,144,784	2,395,201	35,855,310	21,962,911
37	3,715,747	1,161,926	53,185	35,929	650,936	49,708	301,190	4,072	9,078	1,775	56,053	1,305,860	954,962
38	155,333	204,862	8,864	8,246	41,267	2,151	126,933	2,406	686	.....	14,309	244,499	115,415
39	3,850	4,151	.....	.....	1,240	65	2,640	.....	28	.....	178	6,230	3,525
40	293,937	275,408	20,857	4,112	20,928	2,084	185,955	4,235	1,048	.....	36,189	344,626	156,587
41	5,267,553	2,969,729	112,430	40,751	412,122	194,063	1,954,309	.....	13,272	.....	242,782	3,656,745	1,508,373
42	723,556	559,138	38,625	50,144	72,269	15,117	290,045	6,162	3,062	.....	83,714	811,742	506,580
43	2,865,097	7,693,847	76,370	58,463	258,028	19,255	7,106,906	8,030	10,516	.....	156,279	7,933,440	807,279
44	94,307	43,760	2,920	650	20,175	7,425	11,155	.....	210	.....	1,225	51,586	33,006
45	5,456,014	4,417,837	354,442	333,487	1,307,388	74,381	1,330,493	76,813	29,369	237,021	674,443	5,369,738	3,964,864
46	1,226,412	1,491,203	23,307	13,742	260,598	10,104	1,000,729	900	3,541	78,024	100,198	1,543,723	532,830
47	2,250,799	4,308,501	45,685	38,943	117,684	23,663	4,033,490	7,140	7,130	.....	34,766	4,600,630	543,477
48	923,178	558,239	42,798	29,396	206,402	10,959	230,622	350	3,692	.....	34,020	682,713	441,132
49	13,130,654	23,234,549	508,880	734,693	2,161,546	95,698	11,093,575	44,995	4,222,871	3,016	4,369,275	25,385,314	14,196,041
50	1,186,073	929,223	42,840	17,916	93,243	17,128	670,928	2,800	2,364	1,931	80,073	1,077,704	389,648
51	1,100,760	816,757	28,353	4,850	175,659	12,819	554,274	450	2,195	131	38,026	999,441	432,348
52	41,352,474	24,740,957	726,657	670,612	5,628,802	803,521	15,125,978	69,105	110,463	72,353	1,443,466	26,476,555	10,457,056

[3] All other industries embrace—Continued.

Iron and steel, steel works and rolling mills	3
Iron and steel, doors and shutters	1
Iron and steel forgings	2
Kaolin and ground earths	5
Liquors, vinous	2
Locomotives, not made by railroad companies	1
Looking-glass and picture frames	3
Millinery and lace goods	1
Mineral and soda waters	76
Mirrors	1
Models and patterns, not including paper patterns	4
Musical instruments, pianos and organs and materials	1
Oil, cottonseed, and cake	1
Optical goods	1
Paper goods, not elsewhere specified	3
Photo-engraving	2
Pipes, tobacco	1
Roofing materials	1
Safes and vaults	1
Scales and balances	1
Shipbuilding, including boat building	36
Show cases	1
Signs and advertising novelties	1
Silverware and plated ware	1
Smelting and refining, copper	1
Smelting and refining, zinc	1
Smelting and refining, not from the ore	1
Soap	1
Stationery goods, not elsewhere specified	1
Statuary and art goods	1
Stereotyping and electrotyping	1
Sulphuric, nitric, and mixed acids	2
Surgical appliances and artificial limbs	1
Type founding and printing materials	1
Umbrellas and canes	1
Upholstering materials	10
Vinegar and cider	28
Wall plaster	2
Wire	1
Wirework, including wire rope and cable	3
Wood, turned and carved	19

TABLE III.—DETAIL STATEMENT FOR CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

CITIES HAVING 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

NORFOLK.

	Industry and city.	Number of establishments	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners (average number). Total.	Wage earners. 16 and over. Male.	Wage earners. 16 and over. Female.	Wage earners. Under 16.	Wage earners—number Dec. 15, or nearest representative day. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horse-power.
1	**All industries**	215	5,590	194	203	382	62	4,749	3,518	1,073	158	5,153	3,773	1,209	136	35	20,408
2	Bread and other bakery products	17	247	13	9	34	13	178	172	5	1	182	176	5	1	.....	210
3	Flour-mill and gristmill products	4	15	3	1	4	.....	7	7	.....	.....	7	7	.....	.....	.....	78
4	Foundry and machine-shop products	12	231	19	9	9	.....	194	191	.....	3	206	203	.....	3	.....	248
5	Ice, manufactured	6	95	2	9	5	.....	79	79	.....	.....	60	60	.....	.....	.....	1,500
6	Lumber and timber products	13	1,128	6	28	37	5	1,052	993	.....	59	1,121	1,058	.....	63	.....	14,082
7	Patent medicines and compounds and druggists' preparations.	9	35	6	.....	10	.....	19	11	8	.....	17	10	7	.....	.....	3
8	Peanuts, grading, roasting, cleaning, and shelling.	4	202	2	5	12	4	179	38	138	3	246	52	190	.....	4	355
9	Printing and publishing	33	443	32	28	115	17	251	203	35	13	258	209	36	13	.....	255
10	Tobacco manufactures	13	94	12	2	1	.....	79	70	4	5	86	76	4	5	1	.....
11	All other industries [1]	104	3,100	99	112	155	23	2,711	1,754	883	74	2,970	1,922	967	51	30	3,617

[1] All other industries embrace: Agricultural implements, 1; artificial stone, 5; awnings, tents, and sails, 2; bags, other than paper, 1; boots and shoes, including cut stock and findings, 1; boxes, fancy and paper, 2; brass and bronze products, 1; brick and tile, 1; brooms, 1; canning and preserving, 2; carriages and wagons and materials, 6; cars and general shop construction and repairs by steam-railroad companies, 1; clothing, women's, 1; coffins, burial cases, and undertakers' goods, 1; confectionery, 10, cooperage and wooden goods, not elsewhere specified, 3; copper, tin, and sheet-iron products, 6; cordage and twine and jute and linen goods, 2; electroplating, 3; fertilizers; 2; flags, banners, regalia, society badges, and emblems, 2; food preparations, 1; furniture and refrigerators, 1; gas, illuminating and heating, 1; hand stamps and stencils

RICHMOND.

1	**All industries**	380	17,300	302	662	1,176	311	14,849	10,010	4,538	301	15,898	10,708	4,869	214	107	20,087
2	Boxes, fancy and paper	6	478	2	20	7	5	444	59	348	37	466	62	365	9	30	160
3	Bread and other bakery products	23	491	23	14	23	23	408	303	85	20	405	301	84	12	8	334
4	Carriages and wagons and materials	14	156	20	7	5	.....	124	121	.....	3	125	122	.....	3	.....	53
5	Confectionery	10	193	6	13	12	6	156	102	54	.....	161	105	56	.....	.....	129
6	Foundry and machine-shop products	21	355	18	20	13	8	296	291	1	4	332	326	1	5	.....	410
7	Ice, manufactured	6	77	4	7	6	.....	60	60	.....	.....	51	51	.....	.....	.....	1,452
8	Leather goods	12	453	10	17	34	5	387	357	17	13	385	355	17	13	.....	210
9	Lumber and timber products	15	706	13	21	35	5	632	609	.....	23	689	664	.....	25	.....	1,726
10	Marble and stone work	9	66	10	2	1	.....	53	53	.....	.....	55	55	.....	.....	.....	54
11	Paper and wood pulp	4	220	.....	12	11	2	195	133	59	3	210	143	64	3	.....	1,405
12	Patent medicines and compounds and druggists' preparations.	9	43	4	9	5	5	20	11	7	2	22	12	8	2	.....	26
13	Printing and publishing	82	1,510	68	109	163	81	1,089	752	306	31	1,104	762	310	29	3	941
14	All other industries [1]	169	12,552	124	411	861	171	10,985	7,159	3,661	165	11,893	7,750	3,964	113	66	13,187

[1] All other industries embrace: Agricultural implements, 1; awnings, tents, and sails, 4; babbitt metal and solder, 2; bags, other than paper, 4; bags, paper, 3; baking powders and yeast, 3; billiard tables and materials, 1; blacking and cleansing and polishing preparations, 1; bluing, 1; boots and shoes, including cut stock and findings, 3; boxes, cigar, 1; brick and tile, 3; brooms, 4; canning and preserving 3; carpets and rugs, other than rag, 1; cars and general shop construction and repairs by steam-railroad companies, 3; clothing, men's, including shirts, 2; clothing, women's, 1; coffee and spice, roasting and grinding, 8; cooperage and wooden goods, not elsewhere specified, 2; copper, tin, and sheet-iron products, 7; cordage and twine and jute and linen goods, 1; electrical machinery, apparatus, and supplies, 2; electroplating, 2; engraving and diesinking, 1; fertilizers, 2; flavoring extracts, 4; flour-mill and gristmill products, 4; fur goods, 1; furniture and refrigerators, 5; gas, illuminating and heating, 3; glass, 1; glass, cutting, staining, and ornamenting, 1; grease and tallow, 1; hand stamps and stencils and brands, 2; hats and caps, other than felt, straw, and wool, 3; iron and

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

1	ALEXANDRIA	54	1,713	52	73	103	15	1,470	1,331	69	70	1,506	1,363	71	72	.....	3,250
2	DANVILLE	52	3,346	46	85	104	35	3,076	1,712	1,086	278	3,186	1,773	1,125	147	141	4,634
3	LYNCHBURG	82	4,519	48	163	197	85	4,026	2,801	968	257	4,143	2,882	996	140	125	7,952
4	PETERSBURG	72	4,332	45	107	162	41	3,887	2,434	1,271	182	4,237	2,653	1,386	108	90	5,239
5	PORTSMOUTH	31	936	26	31	29	8	842	678	130	34	839	676	129	11	23	1,777
6	ROANOKE	62	3,989	43	106	259	37	3,544	3,312	201	31	4,061	3,795	230	36	.....	6,774
7	STAUNTON	44	447	56	23	27	2	339	216	113	10	346	221	115	10	.....	601

AND TOTALS FOR ALL INDUSTRIES IN CITIES OF 10,000 BUT LESS THAN 50,000 INHABITANTS: 1909.

CITIES HAVING 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

NORFOLK.

	Capital.	EXPENSES.										Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.					
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.		
1	$10,743,763	$9,092,406	$317,303	$318,723	$2,041,492	$224,947	$5,257,139	$87,524	$61,392	$148,997	$634,889	$10,341,321	$4,859,235
2	306,594	511,405	9,180	25,850	94,708	9,570	340,393	4,789	2,285	.....	24,630	595,495	245,532
3	27,525	101,670	300	550	2,636	844	96,105	600	425	.....	210	107,048	10,099
4	283,828	258,501	14,410	7,644	133,989	6,219	81,302	5,112	1,136	.....	8,689	316,485	228,964
5	719,392	151,844	10,500	4,711	42,860	45,791	16,790	.....	5,072	18	26,102	224,549	161,968
6	2,283,514	1,432,956	44,380	32,016	498,136	13,100	734,941	5,600	9,851	45,082	49,850	1,514,826	766,785
7	192,075	55,277	.....	15,155	5,599	111	28,425	904	446	.....	4,637	86,806	58,270
8	469,023	990,810	4,850	10,898	31,005	4,740	908,774	2,550	2,953	.....	25,040	991,439	77,925
9	711,149	562,053	53,326	74,170	155,110	8,673	142,497	12,432	3,498	25,780	86,567	683,746	532,576
10	64,831	119,020	2,700	313	42,059	39	58,635	2,404	11,079	.....	1,791	138,899	80,225
11	5,685,832	4,908,870	177,657	147,416	1,035,390	135,860	2,849,277	53,133	24,647	78,117	407,373	5,682,028	2,696,891

and brands, 1; hats and caps, other than felt, straw, and wool, 2; hosiery and knit goods, 3; house-furnishing goods, not elsewhere specified, 1; leather goods, 3; lime, 1; liquors, vinous, 1; looking-glass and picture frames, 1; marble and stone work, 3; mattresses and spring beds, 4; mineral and soda waters, 5; models and patterns, not including paper patterns, 1; paint and varnish, 4; scales and balances, 1; shipbuilding, including boat building, 8; silk and silk goods, including throwsters, 2; silverware and plated ware, 1; slaughtering and meat packing, 1; stationery goods, not elsewhere specified, 1; umbrellas and canes, 1; vinegar and cider, 2.

RICHMOND.

1	$31,659,687	$42,749,366	$1,173,198	$1,312,616	$5,821,214	$535,991	$23,716,144	$150,983	$3,973,432	$330,145	$5,735,643	$47,357,985	$23,105,850
2	271,094	258,348	20,932	9,343	98,894	4,133	85,676	4,300	1,893	.....	33,177	276,212	186,403
3	421,749	1,173,318	39,803	23,134	191,438	21,385	817,810	9,092	5,259	.....	65,397	1,290,800	451,605
4	166,302	214,998	7,260	2,792	70,727	2,174	101,403	5,742	1,520	.....	23,380	285,626	182,049
5	154,161	366,988	16,860	9,360	43,165	3,595	250,636	3,294	915	2,274	36,889	400,065	145,834
6	487,515	567,062	30,768	18,437	175,052	12,240	297,061	6,296	4,505	.....	22,703	624,655	315,354
7	500,019	121,722	13,493	2,688	32,947	23,798	12,732	1,410	3,568	.....	31,086	198,815	162,285
8	812,844	910,008	36,216	42,259	160,368	4,381	589,275	4,520	7,370	25	65,594	1,044,785	451,129
9	1,112,584	1,075,793	30,978	27,592	286,102	4,526	651,430	4,374	6,504	1,392	62,895	1,186,695	530,739
10	43,320	76,200	2,325	675	35,947	1,472	32,679	625	407	.....	2,070	92,084	57,933
11	815,548	587,466	34,040	14,920	81,747	21,572	360,802	.....	2,579	.....	71,806	748,216	365,842
12	65,917	94,064	10,032	6,233	6,555	674	43,945	2,302	667	.....	23,656	103,082	58,463
13	2,281,409	2,336,890	181,892	157,305	584,631	34,399	697,966	34,808	15,078	188,407	442,404	2,786,132	2,053,767
14	24,527,225	34,966,509	748,599	997,878	4,053,641	401,642	19,774,729	74,220	3,923,167	138,047	4,854,586	38,320,818	18,144,447

steel, steel works and rolling mills, 2; iron and steel forgings, 1; kaolin and ground earths, 1; leather, tanned, curried, and finished, 3; liquors, distilled, 1; liquors, malt, 1; looking-glass and picture frames, 2; mattresses and spring beds, 5; millinery and lace goods, 1; mineral and soda waters, 7; mirrors, 1; models and patterns, not including paper patterns, 3; optical goods, 1; paint and varnish, 3; paper goods, not elsewhere specified, 3; peanuts, grading, roasting, cleaning, and shelling, 1; photo-engraving, 2; roofing materials, 1; safes and vaults, 1; slaughtering and meat packing, 3; statuary and art goods, 1; stereotyping and electrotyping, 1; stoves and furnaces, including gas and oil stoves, 2; surgical appliances and artificial limbs, 1; tobacco manufactures, 26; type founding and printing materials, 1; vinegar and cider, 2; wirework, including wire rope and cable, 1.

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

1	$4,686,720	$3,972,904	$128,548	$93,161	$696,949	$112,520	$2,618,890	$5,057	$76,772	$1,224	$239,183	$4,419,562	$1,688,152
2	6,058,851	5,119,677	147,757	130,929	962,551	80,786	3,155,163	6,101	194,069	720	441,601	5,389,430	2,153,481
3	9,217,240	9,387,198	254,419	199,771	1,544,480	154,777	6,312,892	36,682	153,669	1,280	729,228	10,188,136	3,720,467
4	5,221,269	7,886,697	240,386	193,492	1,107,131	56,203	5,702,742	34,007	103,480	113	449,143	8,895,552	3,136,607
5	1,232,633	1,280,484	44,929	20,016	306,589	51,681	724,187	13,204	6,503	32,719	80,656	1,527,997	752,129
6	4,828,211	6,754,531	155,532	233,741	1,717,654	143,931	3,899,789	19,526	175,050	200	409,108	7,260,859	3,217,139
7	714,524	1,094,954	20,734	21,783	117,927	23,304	872,824	6,391	5,539	2,433	24,019	1,222,846	326,718

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WASHINGTON.

INDUSTRIES IN GENERAL.

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 and territories of continental United States. Its population in 1910 was 1,141,990, as compared with 518,103 in 1900 and 357,232 in 1890. It ranked thirtieth among the 49 states and territories as regards population in 1910 and thirty-fourth in 1900, the rate of increase during the decade being 120.4 per cent, the largest shown for any state. The density of population for the entire state in 1910 was 17.1 per square mile, the corresponding figure for 1900 being 7.8. In 1910, 53 per cent of the entire population of the state resided in cities and incorporated towns having a population of 2,500 inhabitants or over, as against 39.9 per cent in 1900.

Three cities of the state had a population of over 50,000 in 1910, namely, Seattle, Spokane, and Tacoma. Five other cities—Everett, Bellingham, Walla Walla, North Yakima, and Aberdeen—each had a population exceeding 10,000. These eight cities contained 45.7 per cent of the total population of the state and were credited with 50.7 per cent of the total value of its manufactures. Only 7.4 per cent of the population resided in cities and towns having between 2,500 and 10,000 inhabitants.

The transportation facilities, already good, are being extended rapidly. Two of the most important railroad systems of the Northwest traverse the state and have their 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 development of the interurban trolley lines in eastern Washington has done much to open the fertile valleys of this section to farming and fruit growing. Numerous mountain streams afford abundant water power, and a considerable quantity of bituminous coal is mined in the western and central portions of the state.

Importance and growth of manufactures.—In 1889 there were 1,543 manufacturing establishments in the state which reported products valued at $41,768,022, and employed 18,677 wage earners, or 5.2 per cent of the total population. The proportion so employed in 1899 and 1909 was 6.1 per cent. In value of manufactured products, Washington ranked twenty-ninth among the states and territories in 1889 and twenty-first in 1909. During this period of 20 years the value of products per capita of the total population of the state increased from $117 to $193. The proportion which the manufactures of the state represented of the total value of manufactured products for the United States increased from four-tenths of 1 per cent in 1889 to 1.1 per cent in 1909.

Much of the growth in manufacturing has resulted directly from the development of the state's natural resources. The vast forests of Washington furnish lumber to many parts of the civilized world; its streams and bays support the important salmon-canning industry; and extensive grazing ranges and the luxuriant growth of bunch grass encourage stock raising, upon which the meat-packing and the butter, cheese, and condensed-milk industries depend.

The first table on page 1286 gives the most important figures relative to all classes of manufactures combined for 1909, 1904, and 1899, together with the percentages of increase from census to census.

In 1909 the state of Washington had 3,674 manufacturing establishments, which gave employment to an average of 80,118 persons during the year and paid out $59,593,000 in salaries and wages. Of the persons employed, 69,120 were wage earners. These establishments turned out products to the value of $220,746,000, in the manufacture of which materials costing $117,888,000 were utilized. The value added by manufacture was thus $102,858,000, which figure, as explained in the Introduction, best represents the net wealth created by manufacturing operations during the year.

The statistics presented in this report do not include those for an establishment owned and operated by the Federal Government, the Puget Sound Navy Yard, located at Bremerton. In 1909 this establishment employed an average of 1,065 wage earners, and the products, consisting principally of repair work, were valued at $1,771,683.

In general, this table brings out the fact that while the manufacturing activities of the state have shown great increases during the past 10 years the development during the more recent five-year period, 1904–1909, was not as rapid as during the preceding five-year period, 1899–1904. The absolute increases, however, for all items shown in the table were larger for the later period than for the earlier one. From 1904 to 1909 the number of establishments increased 33.6 per cent, and the average number of wage earners 52.9

per cent, while the value of products increased 71.4 per cent, and the value added by manufacture 64.2 per cent. As pointed out in the Introduction, it would be improper to infer that manufactures increased in volume to the full extent indicated by the figures representing values, since the increase shown is certainly due, in part, to the increase that has taken place in the prices of commodities.

	Number or amount.			Per cent of increase.	
	1909	1904	1899	1904–1909	1899–1904
Number of establishments	3,674	2,751	1,926	33.6	42.8
Persons engaged in manufactures	80,118	51,459	(1)	55.7	.....
Proprietors and firm members	3,264	2,602	(1)	25.4	.....
Salaried employees	7,734	3,658	2,103	111.4	73.9
Wage earners (average number)	69,120	45,199	31,523	52.9	43.4
Primary horsepower	297,897	168,342	87,601	77.0	92.2
Capital	$222,261,000	$96,953,000	$41,575,000	129.2	133.2
Expenses	196,275,000	111,381,000	61,333,000	76.2	81.6
Services	59,593,000	34,180,000	19,128,000	74.4	78.7
Salaries	9,827,000	4,093,000	2,063,000	140.1	98.4
Wages	49,766,000	30,087,000	17,065,000	65.4	76.3
Materials	117,888,000	66,166,000	38,277,000	78.2	72.9
Miscellaneous	18,794,000	11,035,000	3,928,000	70.3	180.9
Value of products	220,746,000	128,822,000	70,831,000	71.4	81.9
Value added by manufacture (value of products less cost of materials)	102,858,000	62,656,000	32,554,000	64.2	92.5

[1] Figures not available.

The relative importance and growth of the leading manufacturing industries of the state are shown in the following table. It should be borne in mind, in considering this table, that the value of products in some of the industries involves a certain amount of duplication, due to the use of the product of one establishment in the industry as material for another establishment.

Industry.	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Per cent of increase.[1]			
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	Value of products.		Value added by manufacture.	
								1904–1909	1899–1904	1904–1909	1899–1904
All industries	**3,674**	**69,120**	**100.0**	**$220,746,000**	**100.0**	**$102,858,000**	**100.0**	**71.4**	**81.9**	**64.2**	**92.5**
Lumber and timber products	1,263	43,749	63.3	89,155,000	40.4	52,276,000	50.8	62.1	73.7	46.9	99.1
Flour-mill and gristmill products	96	644	0.9	17,853,000	8.1	2,379,000	2.3	21.7	116.5	25.7	68.3
Slaughtering and meat packing	14	828	1.2	15,654,000	7.1	1,894,000	1.8	150.4	27.8	128.5	29.3
Canning and preserving	80	2,029	2.9	9,595,000	4.3	4,549,000	4.4	165.3	−28.9	259.3	−31.6
Printing and publishing	506	2,624	3.8	9,286,000	4.2	7,062,000	6.9	94.9	141.3	90.4	133.1
Foundry and machine-shop products	178	2,439	3.5	7,988,000	3.6	4,264,000	4.1	102.5	70.0	98.0	63.8
Butter, cheese, and condensed milk	97	735	1.1	7,271,000	3.3	1,595,000	1.6	142.9	151.5	165.4	132.9
Liquors, malt	31	765	1.1	6,903,000	3.1	4,672,000	4.5	54.4	263.3	33.9	272.6
Cars and general shop construction and repairs by steam-railroad companies	17	2,716	3.9	4,666,000	2.1	2,182,000	2.1	68.5	87.1	126.3	34.1
Bread and other bakery products	298	969	1.4	4,570,000	2.1	2,004,000	1.9	176.0	153.2	163.0	128.1
Brick and tile	58	1,300	1.9	2,559,000	1.2	1,908,000	1.9	279.1	58.1	262.7	52.0
Confectionery	52	612	0.9	2,208,000	1.0	807,000	0.9	68.4	194.6	50.0	170.6
Copper, tin, and sheet-iron products	81	583	0.8	1,946,000	0.9	1,043,000	1.0	.....	.....	.....	.....
Gas, illuminating and heating	12	465	0.7	1,684,000	0.8	1,023,000	1.0	179.7	90.5	125.8	89.5
Coffee and spice, roasting and grinding	15	131	0.2	1,399,000	0.6	575,000	0.6	167.0	35.1	122.0	197.7
Furniture and refrigerators	36	582	0.8	1,389,000	0.6	787,000	0.8	122.2	51.3	142.2	41.9
Marble and stone work	38	473	0.7	1,022,000	0.5	753,000	0.7	144.5	81.7	135.3	89.3
Leather goods	34	160	0.2	1,012,000	0.5	410,000	0.4	.....	.....	.....	.....
Awnings, tents, and sails	19	121	0.2	828,000	0.4	266,000	0.3	243.6	10.3	160.8	21.4
Carriages and wagons and materials	37	241	0.3	720,000	0.3	401,000	0.4	49.4	70.3	36.4	69.9
Mattresses and spring beds	12	166	0.2	718,000	0.3	281,000	0.3	166.9	77.0	65.3	120.8
Food preparations	30	121	0.2	695,000	0.3	323,000	0.3	802.6	.....	509.4	.....
Tobacco manufactures	114	305	0.4	681,000	0.3	441,000	0.4	12.7	105.4	16.7	126.3
Clothing, men's, including shirts	10	269	0.4	617,000	0.3	248,000	0.3	134.6	.....	113.8	.....
Ice, manufactured	25	163	0.2	558,000	0.3	417,000	0.4	120.6	133.7	106.4	132.2
Pottery, terra-cotta, and fire-clay products	8	289	0.4	523,000	0.2	411,000	0.4	25.7	165.0	39.3	130.5
Lime	12	188	0.3	370,000	0.2	267,000	0.3	12.2	.....	44.3	.....
Artificial stone	41	105	0.2	325,000	0.1	203,000	0.2	.....	.....	.....	.....
Fur goods	15	71	0.1	316,000	0.1	172,000	0.2	139.4	71.4	117.7	92.7
Paint and varnish	5	57	0.1	282,000	0.1	128,000	0.1	69.9	186.2	73.0	174.1
Cooperage and wooden goods, not elsewhere specified	8	97	0.1	273,000	0.1	139,000	0.1	.....	.....	.....	.....
Patent medicines and compounds and druggists' preparations	18	38	0.1	258,000	0.1	152,000	0.1	160.6	62.3	145.2	29.2
All other industries	414	5,085	7.4	27,416,000	12.4	8,736,000	8.5	.....	.....	.....	.....

[1] Percentages are based on figures in Table I; a minus sign (−) denotes decrease. Where the percentages are omitted, comparable figures can not be given.

Although a few industries predominate greatly in importance, it will be seen from Table II, page 1304, that there is, on the whole, considerable diversity in the manufacturing activities of the state. The most important industries listed in the preceding table, in which they are arranged in the order of the value of products, call for brief consideration.

Lumber and timber products.—Although 17 states surpassed it in the number of active mills, Washington occupied first place among the states in the quantity of rough lumber produced in 1909, when it reported 8.7 per cent of the total output of lumber for all states and territories; in 1899 the state stood sixth in this respect. This industry embraces logging operations, sawmills, shingle mills, planing mills, and establishments engaged in the manufacture of wooden packing boxes. It does not include mills engaged exclusively in custom sawing for local consumption, statistics for which are given on page 1299. In 1909 the establishments in the lumber and timber industry gave employment to an average of 43,749 wage earners, or nearly two-thirds of the total number in all manufacturing industries in the state, and reported products valued at $89,155,000, or 40.4 per cent of the state total.

Flour-mill and gristmill products.—This classification includes statistics for all mills manufacturing flour, meal, hominy and grits, feed, and offal, but it does not include statistics for factories making fancy cereals or other food preparations as a chief product. In 1909 products valued at $17,853,000 were reported, and employment was given to an average of 644 wage earners. While from 1904 to 1909 there was an increase of 21.7 per cent in the value of products, the rate of increase was not as large as it was during the earlier five-year period, when it was 116.5 per cent. The data for custom gristmills are not included in the general statistics for the state, but are given separately on page 1299.

Slaughtering and meat packing.—This classification includes the wholesale slaughtering and meat-packing establishments and those engaged in the manufacture of sausage only, but not the numerous retail butcher shops which slaughter a large number of animals. From 1904 to 1909 the value of products increased 150.4 per cent, and from 1899 to 1904 the increase was 27.8 per cent. The industry is confined largely to the cities of Seattle, Tacoma, and Spokane.

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. This industry experienced a decrease of 28.9 per cent in value of products from 1899 to 1904. In the following five years, however, there was a rapid growth, the number of establishments increasing from 61 to 80, the average number of wage earners from 689 to 2,029, and the value of products from $3,617,000 to $9,595,000, or 165.3 per cent.

Printing and publishing.—All 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. In 1909 printing and publishing was the second industry in the state in number of establishments and in value added by manufacture, third in the average number of wage earners, and fifth in value of products.

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 engaged primarily in the manufacture of hardware, plumbers' supplies, 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 1909 were milling machinery, logging and mining equipment, and marine machinery and ship parts.

Butter, cheese, and condensed milk.—This industry includes butter factories, cheese factories, and condensed-milk factories. In 1909 the state was third in the production of condensed milk, fifteenth in the output of cheese, and thirteenth in the output of butter. The industry gave employment to an average of 735 wage earners and reported products valued at $7,271,000, an increase of $4,278,000, or 142.9 per cent, over the figures for 1904.

Liquors, malt.—In 1909, as in 1904, there were 31 breweries in the state. The average number of wage earners employed increased during this period from 476 to 765. In value of products and in value added by manufacture there were increases of 54.4 per cent and 33.9 per cent, respectively, from 1904 to 1909. The corresponding increases for the previous five-year period were 263.3 per cent and 272.6 per cent, respectively.

Measured by value added by manufacture, the rank of these leading industries is somewhat different from their order when measured by value of products. The lumber and the canning and preserving industries remain in first and fourth places, respectively; the flour-mill and gristmill products industry drops from second to sixth; slaughtering and meat packing from third to tenth; and the butter, cheese,

and condensed-milk industry from seventh to eleventh place. Printing and publishing advances from fifth to second place, and the malt-liquor industry from eighth to third. The railroad repair shop, bakery, and brick and tile industries each advance two places—from ninth, tenth, and eleventh, to seventh, eighth, and ninth, respectively.

This table also shows the percentages of increase for these leading industries in respect to value of products and value added by manufacture where comparative statistics can be given. The manufacture of artificial stone showed the greatest rate of increase, the value of products in 1909 being twenty-five times the value reported in 1904. The manufacture of brick and tile; awnings, tents, and sails; and food preparations each shows an increase of over 200 per cent from 1904 to 1909, and 14 other industries presented in the table show increases of over 100 per cent.

None of the industries decreased in value of products or value added by manufacture during the period 1904–1909, but the canning and preserving industry decreased in both items from 1899 to 1904.

In addition to the 32 industries presented separately in the preceding table, there are 12 other industries which in 1909 had a value of products in excess of $500,000. They are included under the head of "All other industries" in the table, because in some cases the operations of individual establishments would be disclosed if they were shown separately; in others, because the returns do not present properly the true condition of the industry, for the reason that it is more or less interwoven with one or more other industries; and in still others, because comparable statistics for the different census years can not be presented on account of changes in classification. These industries are as follows: Bags, other than paper; boots and shoes, including cut stock and findings; cars and general shop construction and repairs by street-railroad companies; cement; jewelry; paper and wood pulp; shipbuilding, including boat building; smelting and refining, copper; smelting and refining, lead; wirework, including wire rope and cable; wood preserving; and wool pulling. Statistics, however, for the street-railroad repair shops and shipbuilding industries are given in Table II, page 1304, for 1909.

Persons engaged in manufacturing industries.—The next table shows, for 1909, the distribution of the number of persons engaged in manufactures, the average number of wage earners being distributed by sex and age. It should be borne in mind, however, that 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 Introduction.

The average number of persons engaged in manufactures during 1909 was 80,118, of whom 69,120 were wage earners. Of the remainder, 6,314 were proprietors and officials and 4,684 were clerks. Corresponding figures for individual industries will be found in Table II, page 1304.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.		
	Total.	Male.	Female.
All classes	80,118	76,342	3,776
Proprietors and officials	6,314	6,201	113
Proprietors and firm members	3,264	3,178	86
Salaried officers of corporations	1,094	1,078	16
Superintendents and managers	1,956	1,945	11
Clerks	4,684	3,880	804
Wage earners (average number)	69,120	66,261	2,859
16 years of age and over	68,854	66,042	2,812
Under 16 years of age	266	219	47

The following table shows, for 1909, the percentages of proprietors and officials, clerks, and wage earners, respectively, among the total number of persons employed in manufactures. It covers all industries combined and 14 important industries individually.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries	80,118	7.9	5.8	86.3
Bread and other bakery products	1,514	26.7	9.3	64.0
Brick and tile	1,447	8.1	2.1	89.8
Butter, cheese, and condensed milk	978	11.6	13.3	75.2
Canning and preserving	2,284	5.5	5.7	88.8
Cars and general shop construction and repairs by steam-railroad companies	2,880	2.5	3.2	94.3
Confectionery	780	10.8	10.8	78.5
Copper, tin, and sheet-iron products	750	18.1	4.1	77.7
Flour-mill and gristmill products	973	15.4	18.4	66.2
Foundry and machine-shop products	2,961	10.7	6.9	82.4
Gas, illuminating and heating	675	4.9	26.2	68.9
Liquors, malt	978	7.8	14.0	78.2
Lumber and timber products	47,447	5.1	2.7	92.2
Printing and publishing	4,583	17.2	25.6	57.3
Slaughtering and meat packing	971	3.9	10.8	85.3
All other industries	10,897	13.2	7.3	79.5

Of the total number of persons engaged in all manufacturing industries, 7.9 per cent were proprietors and officials, 5.8 per cent clerks, and 86.3 per cent wage earners. In the bakery industry, in the manufacture of copper, tin, and sheet-iron products, and in printing and publishing the majority of the establishments are small and the work is done to a large extent by the proprietors or their immediate representatives, so that the proportion of persons engaged in these industries falling into the class of proprietors and officials is higher than for most other industries or for all industries combined. The steam-railroad repair shops show the smallest percentage of proprietors and officials, chiefly on account of the large size of the establishments.

The following table shows, for 1909, in percentages, for all industries combined, the distribution of the average number of wage earners by age periods and of those 16 years of age and over by sex, calculated in the manner described in the Introduction. It also shows, for some of the important industries separately,

a similar distribution of wage earners as reported for December 15, or the nearest representative day. As a means of judging the importance of the several industries, the average number employed for the year is also given in each case.

INDUSTRY.	WAGE EARNERS.			
	Average number.[1]	Per cent of total.		
		16 years of age and over.		[1]Under 6 years of age.
		Male.	Female.	
All industries	69,120	95.5	4.1	0.4
Bread and other bakery products	969	70.4	28.9	0.7
Brick and tile	1,300	99.5	0.3	0.2
Butter, cheese, and condensed milk	735	84.4	15.0	0.7
Canning and preserving	2,029	75.1	23.5	1.4
Cars and general shop construction and repairs by steam-railroad companies	2,716	100.0	.....	.....
Confectionery	612	33.7	66.0	0.3
Copper, tin, and sheet-iron products	583	98.6	1.2	0.2
Flour-mill and gristmill products	644	98.9	1.1	.....
Foundry and machine-shop products	2,439	99.8	(2)	0.2
Gas, illuminating and heating	405	100.0	.....	.....
Liquors, malt	765	99.3	0.7	.....
Lumber and timber products	43,749	99.5	0.4	0.1
Printing and publishing	2,624	81.8	13.3	5.0
Slaughtering and meat packing	828	97.5	2.5	.....
All other industries	8,662	88.2	11.3	0.5

[1] For method of estimating the distribution, by sex and age periods, of the average number in all industries combined, see Introduction.
[2] Less than one-tenth of 1 per cent.

In all industries combined, 95.5 per cent of the average number of wage earners were males 16 years of age and over; 4.1 per cent, females 16 years of age and over; and but four-tenths of 1 per cent, children under the age of 16. The confectionery, bakery, and canning and preserving industries employed the largest proportions of women, 66 per cent, 28.9 per cent, and 23.5 per cent, respectively; while the proportion of children was greatest in the printing and publishing and in the canning and preserving industries.

In order to compare the distribution of persons engaged in manufactures in 1909 with that shown at the census of 1904, it is necessary to use the classification employed at the earlier census. (See Introduction.) The following table makes this comparison according to occupational status.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.				
	1909		1904		Per cent of increase, 1904-1909.
	Number.	Percent distribution.	Number.	Percent distribution.	
Total	80,118	100.0	51,459	100.0	55.7
Proprietors and firm members	3,264	4.1	2,602	5.1	25.4
Salaried employees	7,734	9.7	3,658	7.1	111.4
Wage earners (average number)	69,120	86.3	45,199	87.8	52.9

Comparable figures are not obtainable for 1899. The table shows a greater percentage of increase in the salaried employees than in either of the other two classes.

The following table shows the average number of wage earners distributed according to age periods, and in the case of those 16 years of age and over according to sex, for 1909, 1904, and 1899. The averages for 1909 are estimated on the basis of the actual number reported for a single representative day. (See Introduction.)

CLASS.	AVERAGE NUMBER OF WAGE EARNERS.					
	1909		1904		1899	
	Number.	Percent distribution.	Number.	Percent distribution.	Number.	Percent distribution.
Total	69,120	100.0	45,199	100.0	31,523	100.0
16 years of age and over	68,854	99.6	45,086	99.7	31,272	99.2
Male	66,042	95.5	43,782	96.9	30,641	97.2
Female	2,812	4.1	1,304	2.9	631	2.0
Under 16 years of age	266	0.4	113	0.2	251	0.8

This table indicates that during the last 10 years, for all industries combined, there has been a slight decrease in the proportion of male wage earners 16 years of age and over and a decided increase in the proportion of female wage earners 16 years of age and over employed. While the number of children under 16 years of age employed in 1909 was slightly larger than that reported in 1899, they constituted only four-tenths of 1 per cent of the total number in 1909 as compared with eight-tenths of 1 per cent in 1899. In 1909 males 16 years of age and over formed 95.5 per cent of all wage earners, as compared with 96.9 per cent in 1904 and 97.2 per cent in 1899.

Wage earners employed, by months.—The next table gives the number of wage earners employed on the 15th of each month during the year 1909 for all industries combined, for the canning and preserving industry, for the lumber and timber-products industry (the number employed in the mills and in logging operations being shown separately), and for all other industries combined; it gives also the percentage which the number reported for each month is of the greatest number reported for any month. In Table II, page 1304, are shown, for most of the important industries of the state, the largest number and also the smallest number of wage earners reported for any month. The figures are for the 15th day, or the nearest representative day, of the month.

The fluctuations in the average 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 industries. Of the total number of wage earners reported for this industry, approximately two-thirds were employed in the mills and one-third in logging operations. The greatest monthly variation occurred in the mills, 31,773 wage earners being employed in October, the month of maximum employment, and 22,168, or 69.8 per cent of the maximum, in January, the month of minimum employment. April was the month of greatest activity in logging operations. The number employed in the canning

and preserving industry was not sufficiently large to have much influence on the total number reported for the state. The number of wage earners employed ranged from 483 in January to 3,972 in August. Other seasonal industries, such as the beet-sugar industry, employed too small a number of wage earners to affect to any appreciable extent the general movement of employment in the state.

MONTH.	WAGE EARNERS.											
	All industries.		Canning and preserving.		Lumber and timber products.						All other industries.	
					Total.		In mills.		In logging operations.			
	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.
January	54,719	74.0	483	12.2	33,411	70.9	22,168	69.8	11,243	72.0	20,825	85.5
February	60,419	81.7	648	16.3	38,200	81.0	25,164	79.2	13,036	83.5	21,571	88.6
March	66,778	90.3	1,015	25.6	43,648	92.6	28,474	89.6	15,174	97.2	22,115	90.8
April	71,091	96.1	1,882	47.4	46,236	98.1	30,627	96.4	15,609	100.0	22,978	94.3
May	72,717	98.3	2,233	56.2	46,770	99.2	31,430	98.9	15,340	98.3	23,714	97.3
June	72,159	97.6	2,291	57.7	45,695	96.9	30,930	97.3	14,765	94.6	24,173	99.2
July	70,744	95.7	3,725	93.8	43,062	91.4	30,340	95.5	12,722	81.5	23,957	98.3
August	72,990	98.7	3,972	100.0	45,145	95.8	31,378	98.8	13,767	88.2	23,873	98.0
September	73,617	99.6	2,926	73.7	46,741	99.2	31,660	99.6	15,081	96.6	23,950	98.3
October	73,949	100.0	2,496	62.8	47,133	100.0	31,773	100.0	15,360	98.4	24,320	99.8
November	72,614	98.2	1,772	44.6	46,573	98.8	31,213	98.2	15,360	98.4	24,269	99.6
December	67,645	91.5	917	23.1	42,368	89.9	28,882	90.9	13,486	86.4	24,360	100.0

Prevailing hours of labor.—In the following table wage earners have been classified according to the hours of labor prevailing in the establishments in which they are employed. In making this classification the average number of wage earners employed during the year is used, and the number employed in each establishment is classified as a total according to the hours prevailing in that establishment, even though a few employees work a greater or less number of hours.

INDUSTRY.	AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS GROUPED ACCORDING TO PREVAILING HOURS OF WORK PER WEEK.								
	Total.	48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries	**39,120**	**5,677**	**1,725**	**7,986**	**1,619**	**48,781**	**2,653**	**270**	**409**
Artificial stone	105	47	4	30	3	21			
Awnings, tents, and sails	121	37	22	62					
Bread and other bakery products	969	22	150	341	42	364	16	21	13
Brick and tile	1,300	5		109	12	674	500		
Butter, cheese, and condensed milk	735	31		87	16	181	415	3	2
Canning and preserving	2,029	101		24	58	1,359	469	18	
Carriages and wagons and materials	241	8	4	212		17			
Cars and general shop construction and repairs by steam-railroad companies	2,716		574	1,419	23	601	99		
Clothing, men's, including shirts	269	255	10			4			
Coffee and spice, roasting and grinding	131	64	36	12	12	7			
Confectionery	612	34	22	207	221	124	3		1
Cooperage and wooden goods, not elsewhere specified	97	1	50			46			
Copper, tin, and sheet-iron products	583	470	7	43	43	20			
Flour-mill and gristmill products	644	45		45	17	333	27	177	
Food preparations	121	26	3	14	37	29	12		
Foundry and machine-shop products	2,439	332	58	1,984	9	47	9		
Fur goods	71	14	4	53					
Furniture and refrigerators	582	103	14	88		377			
Gas, illuminating and heating	465		2		99	267	84	13	
Ice, manufactured	163	15		8	55	24	37	6	18
Leather goods	160	13		111	13	20	3		
Lime	188			1	1	167	16	3	
Liquors, malt	705	613	67	58	9	16	2		
Lumber and timber products	43,749	113	32	988	313	42,102	137		64
Marble and stone work	473	259	15	149		50			
Mattresses and spring beds	166		2	3	18	143			
Paint and varnish	57			5	36	16			
Pottery, terra-cotta, and fire-clay products	289			78		211			
Printing and publishing	2,624	1,878	294	324	37	86	2	3	
Slaughtering and meat packing	828	16		31		776	5		
Tobacco manufactures	305	262	36	3		4			
All other industries	5,123	913	319	1,497	545	695	817	26	311

It is evident from these figures that for 70.6 per cent of the wage earners employed in the manufacturing industries of Washington the prevailing hours of labor were 60 a week. This large percentage is explained by the general prevalence of 60 hours per week in the predominant lumber industry. In the steam-railroad repair shops and the foundries and machine shops, the greater part of the wage earners were in establishments where 54 hours a week prevailed. In the manufacture of copper, tin, and sheet-iron products, and in the brewery, marble and stone work, printing and publishing, and a number of less important industries, the majority

of the wage earners were employed 48 hours or less per week, while in the butter, cheese, and condensed-milk industry the majority were employed in factories operating between 60 and 72 hours per week.

Location of establishments.—The following table shows the extent to which the manufactures of Washington are centralized in cities of 10,000 population or over. (See Introduction.) The comparison is confined here, as in other states, to the years 1899 and 1909, in the absence of a Federal census of population by which the grouping of cities in 1904 could be determined.

ITEM.	Year.	Aggregate.	CITIES HAVING A POPULATION OF 10,000 AND OVER.								DISTRICTS OUTSIDE OF CITIES HAVING A POPULATION OF 10,000 AND OVER.	
			Total.		10,000 to 25,000.		25,000 to 100,000.		100,000 and over.			
			Number or amount.	Per cent of total.	Number or amount.	Per cent of total.	Number or amount.	Per cent of total.	Number or amount.	Per cent of total.	Number or amount.	Per cent of total.
Population	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	1909	3,674	1,630	44.4	317	8.6	276	7.5	1,037	28.2	2,044	55.6
	1899	1,926	691	35.9	81	4.2	610	31.7	.....	.....	1,235	64.1
Average number of wage earners	1909	69,120	27,525	39.8	6,440	9.3	5,765	8.3	15,320	22.2	41,595	60.2
	1899	31,523	10,767	34.2	1,715	5.4	9,052	28.7	.....	.....	20,756	65.8
Value of products	1909	$220,746,421	$112,003,902	50.7	$20,105,134	9.1	$22,449,979	10.2	$69,448,789	31.5	$108,742,519	49.3
	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	1909	102,858,733	48,572,236	47.2	9,317,029	9.1	8,733,843	8.5	30,521,364	29.7	54,286,497	52.8
	1899	32,554,401	13,561,487	41.7	1,419,116	4.4	12,142,371	37.3	.....	.....	18,992,914	58.3

In 1909, 50.7 per cent of the total value of products was reported from cities having over 10,000 inhabitants in 1910 and 39.8 per cent of the average number of wage earners were employed in such cities, as compared with corresponding percentages of 46.6 and 34.2 in 1899. The increase in the relative industrial importance of this class of cities has, however, been somewhat less than the increase in their proportion of the total population. The large percentages of the various totals for manufacturing industries reported from the districts outside such cities are mainly the result of the development of the lumber, canning, and dairy-products industries, which are carried on chiefly in rural territory.

In 1910 the group of cities having between 10,000 and 25,000 inhabitants comprised Everett, Bellingham, Walla Walla, North Yakima, and Aberdeen. Tacoma was the only city having between 25,000 and 100,000 inhabitants, and Seattle and Spokane the only ones having over 100,000 inhabitants.

As a result of the large increases in the population of the various cities, the composition of the different groups shown in the table has changed considerably during the last decade. In 1900 Seattle and Spokane had less than 100,000 inhabitants, so that for 1899 they are included with Tacoma in the group of cities having between 25,000 and 100,000 inhabitants. Aberdeen, Everett, and North Yakima had less than 10,000 inhabitants in 1900, and hence for 1899 were included in the district outside of cities having a population of 10,000 or over. The statistics for cities of over 10,000 inhabitants for 1899 include those for the towns of Fairhaven and New Whatcom, with a combined population of 11,062 in 1900, which in 1903 were united and incorporated as the city of Bellingham.

The group of cities having between 10,000 and 25,000 inhabitants, to which three cities have been added since 1900, shows an increase in its percentage of the total for every item in 1909, as compared with 1899, and the group comprising cities having between 25,000 and 100,000 inhabitants, which lost two cities during the decade, shows a decrease for every item. The class of cities having over 100,000 inhabitants is shown for the first time for 1909. Of the total value of products reported for the state in 1909, 9.1 per cent was reported from the five cities having between 10,000 and 25,000 inhabitants, 10.2 per cent from Tacoma, and 31.5 per cent from Seattle and Spokane.

The population, for 1910 and 1900, of the eight cities which had 10,000 inhabitants or more in 1910 is given in the following statement:

CITY.	1910	1900
Seattle	237,194	80,671
Spokane	104,402	36,848
Tacoma	83,743	37,714
Everett	24,814	7,838
Bellingham	24,298	11,062
Walla Walla	19,364	10,049
North Yakima	14,082	3,154
Aberdeen	13,660	3,747

The relative importance in manufactures of the eight cities of 10,000 inhabitants or more in 1910 is shown in the following table, in which the value of products and average number of wage earners are shown separately, so far as available, for 1909, 1904, and 1899:

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Seattle	11,331	6,390	4,440	$50,569,198	$25,406,574	$15,322,531
Tacoma	5,765	4,457	3,552	22,449,979	14,263,818	10,301,353
Spokane	3,989	2,428	1,060	18,879,591	8,830,852	3,756,119
Everett	2,375	(1)	(1)	7,423,087	(1)	(1)
Bellingham [2]	1,566	1,314	1,502	4,599,637	3,293,988	2,629,046
Aberdeen	1,509	(1)	(1)	3,590,230	(1)	(1)
Walla Walla	388	242	213	2,316,813	1,485,791	964,434
North Yakima	602	(1)	(1)	2,175,367	(1)	(1)

[1] Figures not available.
[2] Not incorporated as Bellingham until 1903. Same area represented by towns of Fairhaven and New Whatcom in 1900.

Each of the five cities for which comparative statistics are given shows an increase in value of products and in average number of wage earners employed for both five-year periods, except that Bellingham shows a decrease in average number of wage earners for the period 1899–1904. The percentages of increase in value of products were on the whole slightly greater from 1904 to 1909 than from 1899 to 1904. The greatest relative gain in this respect for the period 1904–1909, 113.8 per cent, was made by Spokane, which shows a marked growth in practically all industries. The next largest increase, 99 per cent, was made by Seattle, which shows increased activity especially in the lumber, slaughtering, printing, and foundry and machine-shop industries. In the average number of wage earners, Seattle shows the greatest percentage of increase for the period 1904–1909, namely, 77.3 per cent, and Spokane the next largest, 64.3 per cent. Tacoma shows an increase of 57.4 per cent in value of products and 29.3 per cent in average number of wage earners for the same period, while Walla Walla shows increases of 55.9 per cent and 60.3 per cent, respectively, in these items. The lumber industry leads in importance in all of the cities of the state except Walla Walla, where the flour-mill and gristmill industry predominates.

Character of ownership.—The table that follows has for its purpose the presentation of conditions in respect to the character of ownership, or legal organization, of manufacturing enterprises. For all industries combined, comparative figures are given covering the censuses of 1909 and 1904. Comparative data for 1899 are not available. Figures for 1909 only are presented for several important industries individually. In order to avoid disclosing the operations of individual concerns it is necessary to omit several important industries from this table and the one following.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	3,674	69,120	$220,746,421	$102,858,793
1904	2,751	45,199	128,821,667	62,655,502
Individual:				
1909	1,445	6,814	20,580,962	11,658,583
1904	1,184	6,032	13,651,438	8,055,890
Firm:				
1909	752	5,100	14,250,336	8,252,151
1904	617	5,020	11,655,995	6,704,879
Corporation:				
1909	1,444	57,107	185,171,875	82,803,534
1904	920	34,107	103,215,882	47,796,352
Other:				
1909	33	99	743,248	144,465
1904	24	40	298,352	98,381
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Individual:				
1909	39.3	9.9	9.3	11.3
1904	43.0	13.3	10.6	12.9
Firm:				
1909	20.5	7.4	6.5	8.0
1904	22.4	11.1	9.0	10.7
Corporation:				
1909	39.3	82.6	83.9	80.5
1904	33.7	75.5	80.1	76.3
Other:				
1909	0.9	0.1	0.3	0.1
1904	0.9	0.1	0.2	0.2
Butter, cheese, and condensed milk, 1909	97	735	$7,271,047	$1,594,856
Individual	27	58	787,342	114,457
Firm	12	26	510,173	78,413
Corporation	40	616	5,333,026	1,333,994
Other	18	35	640,506	67,992
Per cent of total	100.0	100.0	100.0	100.0
Individual	27.8	7.9	10.8	7.2
Firm	12.4	3.5	7.0	4.9
Corporation	41.2	83.8	73.3	83.6
Other	18.6	4.8	8.8	4.3
Canning and preserving, 1909.	80	2,029	$9,595,387	$4,549,864
Individual	17	170	672,497	299,573
Firm	5	38	404,571	238,370
Corporation [1]	58	1,821	8,518,319	4,011,921
Canning and preserving, 1909—Continued.				
Per cent of total	100.0	100.0	100.0	100.0
Individual	21.2	8.4	7.0	6.6
Firm	6.2	1.9	4.2	5.2
Corporation [1]	72.5	89.7	88.8	88.2
Flour-mill and gristmill products, 1909	96	644	$17,852,944	$2,378,843
Individual	24	38	720,169	94,890
Firm	18	53	879,987	167,801
Corporation [1]	54	553	16,252,788	2,116,157
Per cent of total	100.0	100.0	100.0	100.0
Individual	25.0	5.9	4.0	4.0
Firm	18.7	8.2	4.9	7.1
Corporation [1]	56.2	85.9	91.0	89.0
Foundry and machine-shop products, 1909	178	2,439	$7,987,931	$4,263,909
Individual	62	238	608,682	396,926
Firm	37	188	629,196	356,987
Corporation	79	2,013	6,750,053	3,509,996
Per cent of total	100.0	100.0	100.0	100.0
Individual	34.8	9.8	7.6	9.3
Firm	20.8	7.7	7.9	8.4
Corporation	44.4	82.5	84.5	82.3
Lumber and timber products, 1909	1,263	43,749	$89,154,820	$52,275,954
Individual	322	3,273	6,290,252	4,078,616
Firm	284	3,190	6,068,031	3,965,766
Corporation	657	37,286	76,796,537	44,231,572
Per cent of total	100.0	100.0	100.0	100.0
Individual	25.5	7.5	7.1	7.8
Firm	22.5	7.3	6.8	7.6
Corporation	52.0	85.2	86.1	84.6
Printing and publishing, 1909	506	2,624	$9,266,188	$7,062,598
Individual	315	882	3,335,207	2,538,270
Firm	72	233	1,017,854	875,807
Corporation	107	1,498	4,883,678	3,605,131
Other	12	11	49,449	43,390
Per cent of total	100.0	100.0	100.0	100.0
Individual	62.3	33.6	35.9	35.9
Firm	14.2	8.9	11.0	12.4
Corporation	21.1	57.1	52.6	51.0
Other	2.4	0.4	0.5	0.6

[1] Includes the group "Other," to avoid disclosure of individual operations.

The most important distinction shown is that between corporate and all other forms of ownership. For all industries combined, 39.3 per cent of the total number of establishments were in 1909 under corporate ownership, as compared with 60.7 per cent under all other forms. The corresponding figures for 1904 were 33.7 per cent and 66.3 per cent, respectively. The establishments operated by corporations, however, reported 83.9 per cent of the total value of products in 1909, as against 16.1 per cent for those under all other forms of ownership, while in 1904 the corresponding figures were 80.1 per cent and 19.9 per cent, respectively. Establishments operated by individuals show the greatest decrease in relative nu-

merical importance from 1904 to 1909, while those operated by firms show the greatest decrease in relative importance as measured by value of products.

Size of establishment.—The tendency for manufacturing to become concentrated in large establishments, or the reverse, is a matter of interest from the standpoint of industrial organization. In order to throw some light upon it the following table groups the establishments according to the value of their products. The table also shows the average size of establishments for all industries combined and for certain important industries separately as measured by number of wage earners, value of products, and value added by manufacture. The totals for all industries are shown for the last two censuses, while for the industries presented separately figures are given for 1909 only.

INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	3,674	69,120	$220,746,421	$102,858,733
1904	2,751	45,199	128,821,667	62,655,502
Less than $5,000:				
1909	902	963	2,397,468	1,639,474
1904	765	895	1,962,006	1,353,090
$5,000 and less than $20,000:				
1909	1,276	5,918	13,824,059	8,598,987
1904	977	5,234	10,749,963	6,942,196
$20,000 and less than $100,000:				
1909	1,073	18,671	47,224,421	26,287,103
1904	758	14,562	32,957,702	19,105,365
$100,000 and less than $1,000,000:				
1909	403	37,553	114,920,746	55,916,259
1904	238	20,411	55,150,426	27,624,134
$1,000,000 and over:				
1909	20	6,015	42,379,727	10,416,910
1904	13	4,097	28,001,570	7,630,717
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Less than $5,000:				
1909	24.6	1.4	1.1	1.6
1904	27.8	2.0	1.5	2.2
$5,000 and less than $20,000:				
1909	34.7	8.6	6.3	8.4
1904	35.5	11.6	8.3	11.1
$20,000 and less than $100,000:				
1909	29.2	27.0	21.4	25.6
1904	27.6	32.2	25.6	30.5
$100,000 and less than $1,000,000:				
1909	11.0	54.3	52.1	54.4
1904	8.7	45.2	42.8	44.1
$1,000,000 and over:				
1909	0.5	8.7	19.2	10.1
1904	0.5	9.1	21.7	12.2
Average per establishment:				
1909	.....	19	$60,083	$27,996
1904	.....	16	46,827	22,776
Butter, cheese, and condensed milk, 1909	97	735	$7,271,047	$1,594,856
Less than $5,000	5	2	19,358	3,894
$5,000 and less than $20,000	27	35	325,382	60,071
$20,000 and less than $100,000	50	148	2,372,212	338,208
$100,000 and less than $1,000,000	15	550	4,554,095	1,192,683
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	5.2	0.3	0.3	0.2
$5,000 and less than $20,000	27.8	4.8	4.5	3.8
$20,000 and less than $100,000	51.5	20.1	32.6	21.2
$100,000 and less than $1,000 000	15.5	74.8	62.6	74.8
Average per establishment	.....	8	$74,959	$16,442
Canning and preserving, 1909	80	2,029	$9,595,387	$4,549,864
Less than $5,000	8	14	21,237	11,236
$5,000 and less than $20,000	15	111	105,447	92,392
$20,000 and less than $100,000	25	334	1,064,505	458,446
$100,000 and less than $1,000,000[1]	32	1,570	8,344,198	3,987,790
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	10.0	0.7	0.2	0.2
$5,000 and less than $20,000	18.8	5.5	1.7	2.0
$20,000 and less than $100,000	31.2	16.5	11.1	10.1
$100,000 and less than $1,000,000[1]	40.0	77.4	87.0	87.6
Average per establishment	.....	25	$119,942	$56,873
Flour-mill and gristmill products, 1909	96	644	$17,852,944	$2,378,848
Less than $5,000	3	1	7,040	1,475
$5,000 and less than $20,000	24	24	294,065	55,148
$20,000 and less than $100,000	33	90	1,529,688	260,368
$100,000 and less than $1,000,000	32	390	10,630,124	1,503,703
$1,000,000 and over	4	139	5,392,027	558,154
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	3.1	0.2	(2)	0.1
$5,000 and less than $20,000	25.0	3.7	1.6	2.3
$20,000 and less than $100,000	34.4	14.0	8.6	10.9
$100,000 and less than $1,000,000	33.3	60.6	59.5	63.2
$1,000,000 and over	4.2	21.6	30.2	23.5
Average per establishment	.....	7	$185,968	$24,780
Foundry and machine-shop products, 1909	178	2,439	$7,987,931	$4,263,909
Less than $5,000	42	52	128,740	86,426
$5,000 and less than $20,000	60	230	625,964	387,864
$20,000 and less than $100,000	64	921	2,626,980	1,524,797
$100,000 and less than $1,000,000	12	1,236	4,606,247	2,264,822
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	23.6	2.1	1.6	2.0
$5,000 and less than $20,000	33.7	9.4	7.8	9.1
$20,000 and less than $100,000	36.0	37.8	32.9	35.8
$100,000 and less than $1,000,000	6.7	50.7	57.7	53.1
Average per establishment	.....	14	$44,876	$23,955
Lumber and timber products, 1909	1,263	43,749	$89,154,820	$52,275,954
Less than $5,000	161	323	437,304	322,212
$5,000 and less than $20,000	390	2,844	4,595,974	3,074,419
$20,000 and less than $100,000	505	11,998	22,997,212	14,473,202
$100,000 and less than $1,000,000	204	26,884	57,507,240	32,604,937
$1,000,000 and over	3	1,700	3,617,090	1,711,184
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	12.7	0.7	0.5	0.6
$5,000 and less than $20,000	30.9	6.5	5.2	5.9
$20,000 and less than $100,000	40.0	27.4	25.8	27.7
$100,000 and less than $1,000,000	16.2	61.4	64.5	62.5
$1,000,000 and over	0.2	3.9	4.1	3.3
Average per establishment	.....	35	$70,590	$41,390
Printing and publishing, 1909	506	2,624	$9,286,188	$7,062,598
Less than $5,000	242	220	647,984	512,531
$5,000 and less than $20,000	200	684	1,859,002	1,449,025
$20,000 and less than $100,000	54	885	2,290,718	1,689,976
$100,000 and less than $1,000,000[1]	10	835	4,488,484	3,411,066
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	47.8	8.4	7.0	7.3
$5,000 and less than $20,000	39.5	26.1	20.0	20.5
$20,000 and less than $100,000	10.7	33.7	24.7	23.9
$100,000 and less than $1,000,000[1]	2.0	31.8	48.3	48.3
Average per establishment	.....	5	$18,352	$13,958

[1] Includes the group "$1,000,000 and over."

[2] Less than one-tenth of 1 per cent.

This table shows that, in 1909, of the 3,674 manufacturing establishments in the state, only 20, or one-half of 1 per cent, manufactured products exceeding $1,000,000 in value. These establishments, however, employed an average of 6,015 wage earners, or 8.7 per cent of the total number in all establishments, and reported 19.2 per cent of the total value of products and 10.1 per cent of the total value added by manufacture.

On the other hand, the very small establishments—that is, those reporting products valued at less than $5,000—constituted a considerable proportion (24.6 per cent) of the total number of establishments, but the value of their products amounted to only 1.1 per cent of the total. Nearly three-fourths of the total value of products was reported from establishments having a product valued at not less than $100,000.

It will be seen from the preceding table that during the five years from 1904 to 1909 the establishments reporting products valued at $100,000 but less than $1,000,000 increased considerably in relative importance as measured by average number of wage earners, value of products, and value added by manufacture, while, on the other hand, all other classes decreased.

The fact that between 1904 and 1909 the average value of products per establishment increased from $46,827 to $60,083, and the average value added by manufacture from $22,776 to $27,996, can not be taken as in itself indicating a tendency toward concentration. The increased values may be, and probably are, due wholly or in part to the increase that has taken place in the prices of commodities. The average number of wage earners per establishment increased during this period from 16 to 19.

In some respects, and especially from the standpoint of conditions under which persons engaged in manufactures work, the best classification of establishments to bring out the feature of size is a classification according to the number of wage earners employed. The following table shows for 1909 such a classification for all industries combined and for 14 important industries individually, and gives not only the number of establishments falling into each group but also the average number of wage earners employed.

INDUSTRY.	Total.	ESTABLISHMENTS EMPLOYING— 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.
	NUMBER OF ESTABLISHMENTS.									
All industries	3,674	322	1,694	1,019	334	149	123	30	2	1
Bread and other bakery products	298	69	196	29	2	1	1	.....	.....	.....
Brick and tile	58	.....	26	20	10	.....	.....	2	.....	.....
Butter, cheese, and condensed milk	97	6	73	11	3	3	1	.....	.....	.....
Canning and preserving	80	2	22	35	15	4	.....	2	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	17	.....	2	3	2	3	4	2	.....	1
Confectionery	52	3	30	14	1	3	1	.....	.....	.....
Copper, tin, and sheet-iron products	81	2	49	24	6	.....	.....	.....	.....	.....
Flour-mill and gristmill products	96	5	62	23	5	1	.....	.....	.....	.....
Foundry and machine-shop products	178	10	83	64	13	2	6	.....	.....	.....
Gas, illuminating and heating	12	1	2	5	1	2	1	.....	.....	.....
Liquors, malt	31	3	5	15	5	2	.....	1	.....	.....
Lumber and timber products	1,203	14	333	491	200	109	94	20	2	.....
Printing and publishing	506	102	312	73	11	6	2	.....	.....	.....
Slaughtering and meat packing	14	.....	4	5	1	1	2	1	.....	.....
All other industries	801	105	495	207	59	12	11	2	.....	.....
	AVERAGE NUMBER OF WAGE EARNERS.									
All industries	69,120	.....	4,108	11,750	10,852	10,969	19,009	9,922	1,425	1,085
Bread and other bakery products	969	.....	407	270	73	99	120	.....	.....	.....
Brick and tile	1,300	.....	70	213	271	.....	.....	746	.....	.....
Butter, cheese, and condensed milk	735	.....	141	102	121	206	165	.....	.....	.....
Canning and preserving	2,029	.....	70	444	484	302	.....	729	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	2,716	.....	7	43	77	248	575	681	.....	1,085
Confectionery	612	.....	80	144	22	262	104	.....	.....	.....
Copper, tin, and sheet-iron products	583	.....	115	264	204	.....	.....	.....	.....	.....
Flour-mill and gristmill products	644	.....	145	266	178	55	.....	.....	.....	.....
Foundry and machine-shop products	2,439	.....	199	726	391	158	965	.....	.....	.....
Gas, illuminating and heating	465	.....	4	51	26	143	241	.....	.....	.....
Liquors, malt	765	.....	13	186	152	134	.....	280	.....	.....
Lumber and timber products	43,749	.....	1,023	5,948	6,428	7,908	14,458	6,559	1,425	.....
Printing and publishing	2,624	.....	659	762	412	494	297	.....	.....	.....
Slaughtering and meat packing	828	.....	7	69	40	61	392	259	.....	.....
All other industries	8,662	.....	1,108	2,262	1,073	899	1,692	668	.....	.....
	PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.									
All industries	100.0	.....	5.9	17.0	15.7	15.9	27.5	14.4	2.1	1.6
Bread and other bakery products	100.0	.....	42.0	27.9	7.5	10.2	12.4	.....	.....	.....
Brick and tile	100.0	.....	5.4	16.4	20.8	.....	.....	57.4	.....	.....
Butter, cheese, and condensed milk	100.0	.....	19.2	13.9	16.5	28.0	22.4	.....	.....	.....
Canning and preserving	100.0	.....	3.4	21.9	23.9	14.9	.....	35.9	.....	.....
Cars and general shop construction and repairs by steam-railroad companies	100.0	.....	0.3	1.6	2.8	9.1	21.2	25.1	.....	39.9
Confectionery	100.0	.....	13.1	23.5	3.6	42.8	17.0	.....	.....	.....
Copper, tin, and sheet-iron products	100.0	.....	19.7	45.3	35.0	.....	.....	.....	.....	.....
Flour-mill and gristmill products	100.0	.....	22.5	41.3	27.6	8.5	.....	.....	.....	.....
Foundry and machine-shop products	100.0	.....	8.2	29.8	16.0	6.5	39.6	.....	.....	.....
Gas, illuminating and heating	100.0	.....	0.9	11.0	5.6	30.8	51.8	.....	.....	.....
Liquors, malt	100.0	.....	1.7	24.3	19.9	17.5	.....	36.6	.....	.....
Lumber and timber products	100.0	.....	2.3	13.6	14.7	18.1	33.0	15.0	3.3	.....
Printing and publishing	100.0	.....	25.1	29.0	15.7	18.8	11.3	.....	.....	.....
Slaughtering and meat packing	100.0	.....	0.8	8.3	4.8	7.4	47.3	31.3	.....	.....
All other industries	100.0	.....	13.5	26.1	22.8	10.4	19.5	7.7	.....	.....

Of the 3,674 establishments reported for all industries, 8.8 per cent employed no wage earners; 46.1 per cent, from 1 to 5; 27.7 per cent, 6 to 20; and 9.1 per cent, 21 to 50. The most numerous single group consists of the 1,694 establishments employing from 1 to 5 wage earners each, and the next of the 1,019 establishments employing from 6 to 20 wage earners each. There were 33 establishments that employed over 250 wage earners; of these, 2, both of which were lumber mills, employed between 501 and 1,000 wage

earners each, and 1, a steam-railroad repair shop, more than 1,000 wage earners.

Of the total number of wage earners, 45.5 per cent were in establishments employing over 100 wage earners each. The group having the largest number of wage earners was that comprising establishments employing from 101 to 250 each. This group employed 19,009 wage earners, or 27.5 per cent of the total.

Expenses.—As stated in the Introduction, the census does not purport to furnish figures that can be used for determining the cost of manufacture and profits. Facts of interest can, however, be brought out concerning the relative importance of the different classes of expenses which make up the total.

The following table shows, for 1909, in percentages, the distribution of expenses among the classes indicated for all industries combined and for certain important industries separately. The figures on which the percentages are based appear in Table II, page 1304.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries	5.0	25.4	60.1	9.6
Bread and other bakery products	4.6	18.6	67.7	9.2
Brick and tile	7.0	47.8	39.3	5.9
Butter, cheese, and condensed milk	3.0	6.8	84.7	5.5
Canning and preserving	3.8	16.5	65.6	14.1
Cars and general shop construction and repairs by steam-railroad companies	3.9	42.6	53.2	0.3
Confectionery	7.0	15.0	66.4	11.6
Copper, tin, and sheet-iron products	6.2	32.0	55.4	6.5
Flour-mill and gristmill products	2.2	2.8	91.7	3.3
Foundry and machine-shop products	7.7	28.8	54.6	8.9
Gas, illuminating and heating	14.6	19.9	48.1	17.4
Liquors, malt	8.0	13.3	42.0	36.7
Lumber and timber products	4.5	39.1	46.0	10.5
Printing and publishing	20.3	28.4	29.5	21.8
Slaughtering and meat packing	1.6	3.8	91.7	2.9
All other industries	4.9	17.9	69.4	7.8

This table shows that, for all industries combined, 60.1 per cent of the total expenses was incurred for materials, 30.4 per cent for services—that is, salaries and wages—and but 9.6 per cent for other purposes. As would be expected, these proportions vary greatly in the different industries. The high proportion shown for miscellaneous expenses for the brewery industry results from the fact that internal-revenue taxes are included under this head.

Engines and power.—The following table shows, for all industries combined, the number of engines or other motors, according to their character, employed in generating power (including electric motors operated by purchased current), and their total horsepower at the censuses of 1909, 1904, and 1899. It also shows separately the number and horsepower of electric motors, including those operated by current generated in the manufacturing establishments.

The amount of primary power used in the manufacturing industries of Washington increased 92.2 per cent from 1899 to 1904, and 77 per cent from 1904 to 1909. Of the total increase from 1899 to 1909 in primary power, 179,481 horsepower, or 85.3 per cent, was in that generated by steam. The more general use of gas engines is shown, their number increasing from 31 in 1899 to 178 in 1909, during which time the total indicated horsepower of such engines increased from 189 to 1,494. In 1909 water power formed 2.7 per cent of the total primary horsepower. The figures show that the practice of renting power is on the increase, 10.4 per cent of the total power being rented in 1909, as against 3.1 per cent in 1899—the actual increase being 28,351 horsepower, or more than ten times the amount reported in 1899. The use of electric motors for the purpose of applying the power generated within the establishments is also increasing rapidly, the horsepower of such motors having increased from 575 in 1899 to 12,664 in 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899[1]	1909	1904	1899[1]	1909	1904	1899
Primary power, total	6,149	2,257	1,628	297,897	168,342	87,601	100.0	100.0	100.0
Owned	3,291	2,257	1,628	266,808	155,933	84,863	89.6	92.6	96.9
Steam	2,957	2,038	1,441	257,230	150,312	77,749	86.3	89.3	88.8
Gas	178	72	31	1,494	493	189	0.5	0.3	0.2
Water wheels	117	103	156	7,842	4,482	6,853	2.6	2.7	7.8
Water motors	39	44	(2)	223	160	(3)	0.1	0.1	.....
Other	.....	.....	.....	19	486	72	(3)	0.3	0.1
Rented	2,858	(2)	(2)	31,089	12,409	2,738	10.4	7.4	3.1
Electric	2,858	(2)	(2)	30,951	11,650	2,562	10.4	6.9	2.9
Other	.....	.....	.....	138	759	176	(3)	0.4	0.2
Electric motors	3,564	274	36	43,615	15,290	3,137	100.0	100.0	100.0
Run by current generated by establishment	706	274	36	12,664	3,640	575	29.0	23.8	18.3
Run by rented power	2,858	(2)	(2)	30,951	11,650	2,562	71.0	76.2	81.7

[1] Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.
[2] Not reported. [3] Less than one-tenth of 1 per cent.

Fuel.—Closely related to the question of kind of power employed is that of the fuel consumed in generating this power, or otherwise used as material in the manufacturing processes. The following table shows the quantity of each kind of fuel used in 1909 for all industries combined and for certain selected industries:

INDUSTRY.	Anthracite coal (tons).	Bituminous coal (tons).	Coke (tons).	Wood (cords).	Oil, including gasoline (barrels).	Gas (1,000 feet).
All industries	6,268	417,466	47,420	220,727	674,952	90,115
Bread and other bakery products	258	2,056	1,043	8,973	3,667	2,267
Brick and tile	.....	91,805	213	62,057	402	.....
Butter, cheese, and condensed milk	.....	10,151	78	10,846	22,018	.....
Canning and preserving	4	8,726	50	14,553	1,631	2,796
Cars and general shop construction and repairs by steam-railroad companies	2,082	29,555	88	726	2,863	.....
Flour-mill and gristmill products	2	4,601	.....	6,318	8,304	.....
Foundry and machine-shop products	100	4,514	8,873	7,451	4,332	832
Gas, illuminating and heating	.....	85,907	1,372	.....	53,585	.....
Ice, manufactured	150	9,094	.....	11,995	10,652	.....
Liquors, malt	3,471	24,159	270	13,549	28,679	.....
Lumber and timber products	4	36,741	.....	24,714	20,832	500
Pottery, terra-cotta, and fire-clay products	.....	10,271	.....	7,860	16,806	.....
Printing and publishing	123	1,136	10	1,700	309	48,156
Slaughtering and meat packing	.....	11,805	.....	8,786	50	12
All other industries	74	86,945	35,423	41,199	500,822	35,552

NOTE.—In addition, there were 288 tons of other varieties of fuel reported.

SUPPLEMENTARY DATA REGARDING IMPORTANT INDUSTRIES.

(With statistics for laundries and custom sawmills and gristmills.)

For certain industries the Census Bureau collects, by means of special schedules, detailed information regarding 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 six important industries in Washington are here presented.

Flour-mill and gristmill products.—The fertile plateau of eastern Washington and the western slopes of the Cascades are particularly well adapted to the raising of wheat and other grains, much of which is utilized by the flour mills and gristmills of the state. The following table shows the quantities and values of the different products of the industry for 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value	$17,852,944	$14,663,612	$6,773,574
Wheat flour:			
White—			
Barrels	2,764,257	2,978,264	1,853,271
Value	$12,287,736	$10,959,241	$4,719,797
Graham—			
Barrels	39,985	46,023	(1)
Value	$196,965	$195,089	(1)
Corn meal and corn flour:			
Barrels	6,240	7,625	10,229
Value	$23,669	$21,034	$29,146
Rye flour:			
Barrels	5,500	1,115	4,069
Value	$27,500	$4,670	$12,714
Barley meal:			
Pounds	517,700	7,164,000	1,478,200
Value	$9,413	$87,795	$14,400
Hominy and grits:			
Pounds	4,000	27,680	(1)
Value	$100	$744	(1)
Feed:			
Tons	87,375	46,358	54,860
Value	$2,425,940	$1,080,480	$1,004,735
Offal:			
Tons	102,045	109,362	57,869
Value	$2,362,733	$1,933,974	$640,998
All other products	$518,888	$380,585	$351,784

[1] Not reported separately.

The most important product of the mills, white flour, increased $1,328,495, or 12.1 per cent, in value from 1904 to 1909, notwithstanding a decrease in quantity amounting to 214,007 barrels, or 7.2 per cent. Comparatively little corn is raised in Washington, and the corn products of the mills are therefore unimportant. There was a large increase in the quantity and value of rye flour but a decrease in the output of barley meal. Feed ranked second in value in 1909, having increased 88.5 per cent in quantity and 124.5 per cent in value from 1904 to 1909. Offal, which is principally a by-product of the manufacture of wheat flour, shows, like wheat flour, a decrease in quantity and an increase in value.

The mills of the state reported 1,038 pairs of rolls and 38 runs of stone in 1909, as compared with 875 pairs of rolls and 31 runs of stone in 1904. In 1909 six of the establishments were engaged also in the manufacture of sacks.

Slaughtering and meat packing.—The table which follows gives the quantities and values of the main products and the by-products of the industry for the three census years 1909, 1904, and 1899:

PRODUCT.	1909	1904 [1]	1899 [2]
Total value	$15,653,998	$6,251,705	$4,892,857
Beef, fresh:			
Pounds	69,288,504	33,548,474	21,418,889
Value	$6,035,883	$2,253,838	$1,611,064
Veal, fresh:			
Pounds	1,949,493	761,286	936,150
Value	$219,574	$61,700	$82,930
Mutton, fresh:			
Pounds	13,393,776	8,355,285	6,298,881
Value	$1,361,955	$610,336	$479,529
Pork, fresh:			
Pounds	16,774,450	8,092,695	6,887,071
Value	$1,876,529	$699,795	$612,120
Pork, salted or cured:			
Pounds	17,116,659	10,900,124	12,288,100
Value	$2,486,833	$1,305,726	$1,267,988
Sausage, fresh or cured	$300,188	$108,430	$76,451
Lard:			
Pounds	9,050,739	3,783,666	1,682,000
Value	$1,069,633	$307,468	$156,855
Hides:			
Number	124,887	59,893	47,140
Pounds	7,325,634	3,416,270	2,510,962
Value	$902,944	$317,169	$232,968
Pelts:			
Number	290,298	179,819	(3)
Value	$326,207	$196,084	(3)
All other products	$1,074,252	$391,159	$372,952

[1] Two establishments excluded, to avoid disclosure of individual operations.
[2] One establishment excluded, to avoid disclosure of individual operations.
[3] Not reported separately.

The growth of this industry is best measured by the production of the two staple commodities, beef and pork. The table shows that the output of fresh beef increased 56.6 per cent from 1899 to 1904 and 106.5 per cent from 1904 to 1909. The increases during the corresponding five-year periods for fresh pork were 17.5 per cent and 107.3 per cent, respectively, and for salted or cured pork, although there was a decrease of 11.3 per cent from 1899 to 1904, there was an increase of 39.3 per cent during the decade. The decided increases in the output of all products from 1904 to 1909 have established the industry more firmly among the leading industries of the state. There were 117,522 beeves, 14,218 calves, 290,383 sheep, and 239,352 hogs slaughtered in the wholesale establishments of the state in 1909, as compared with 54,539 beeves, 5,463 calves, 179,819 sheep, and 122,313 hogs slaughtered in 1904.

Canning and preserving.—As shown in the next table, this industry in Washington is confined largely to the canning and curing of fish and the canning of oysters and clams. In recent years this branch of the industry has received a decided 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 conserving the natural supplies of fish.

The following table shows the quantities and values of the different products for the years 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value	$9,595,387	$3,617,310	$5,089,857
Fruits and vegetables	$478,895		
Canned vegetables:			
Cases	30,585		
Value	$65,594		
Canned fruits:			
Cases	78,936		
Value	$154,392		
Apples—			
Cases	22,533		
Value	$42,319		
Berries—			
Cases	36,549	$173,289	$63,141
Value	$72,832		
Pears—			
Cases	11,549		
Value	$26,058		
All other—			
Cases	8,305		
Value	$13,183		
Dried fruits (prunes):			
Pounds	5,445,017		
Value	$258,909		
Fish and oysters	$8,624,717	$3,229,844	$4,311,417
Canned fish, oysters, etc.:			
Pounds	90,312,421	27,108,329	43,419,650
Value	$7,690,370	$2,492,080	$3,791,624
Salmon—			
Pounds	86,588,258	26,601,429	42,969,114
Value	$7,354,569	$2,431,605	$3,745,957
Clams—			
Pounds	2,309,271	481,900	289,440
Value	$178,596	$57,475	$18,420
Oysters, crabs, and all other fish—			
Pounds	1,414,892	25,000	161,096
Value	$157,205	$3,000	$27,247
Smoked fish:			
Pounds	4,173,700	6,040,560	3,700,800
Value	$415,204	$565,746	$225,992
Halibut—			
Pounds	191,600	1,550,000	1,757,000
Value	$18,692	$151,400	$114,400
Salmon—			
Pounds	3,827,000	4,189,560	1,347,400
Value	$389,620	$405,026	$93,772
All other—			
Pounds	155,100	301,000	596,400
Value	$6,892	$9,320	$17,820
Salted fish:			
Pounds	9,763,799	3,594,071	8,303,160
Value	$519,143	$172,018	$293,801
Cod—			
Pounds	4,910,329	876,850	954,400
Value	$201,118	$49,366	$45,445
Herring—			
Pounds	96,500	750,000	736,260
Value	$3,305	$26,000	$15,344
All other—			
Pounds	4,756,970	1,967,221	6,612,500
Value	$314,720	$96,652	$233,012
All other products	$491,775	$214,177	$715,299

The value of fruits and vegetables canned and preserved formed nearly one-twentieth of the total for the industry in 1909. In the past decade this branch of the industry has shown a remarkable growth, the value of products in 1909 being over seven and one-half times that reported for 1899. Canned vegetables shows the greatest rate of increase both in quantity and in value. The quantity of dried prunes increased 215 per cent from 1904 to 1909.

The year 1904 was not a good season for the fish canneries, and the output of canned salmon, which was the most important item, showed a decrease of 38.1 per cent in that year, as compared with 1899. The quantity of canned salmon reported in 1909, however, represents an increase of 225.5 per cent, as compared with 1904. The greatest production of smoked fish was reported for 1904, the year of least production for canned and salted fish. In 1899 the production of smoked halibut exceeded that of smoked salmon, but in recent years the latter has furnished by far the greater part of the total output of smoked fish. Of the salted fish products, cod, which shows a decrease of 8.1 per cent in quantity for 1904, as compared with 1899, shows an extraordinary increase (460 per cent) for 1909, as compared with 1904, representing more than one-half of the total output of salted fish in 1909.

Butter, cheese, and condensed milk.—That part of western Washington lying between Puget Sound and the Cascade Range is especially well adapted for dairying, the most important feature being the climatic conditions, which are such that cows can feed on green grass practically all the year. The nine condensed-milk factories reported in 1909 were all located in this part of the state. The growth of the industry as a whole during the past decade has been remarkable, as is indicated by the following table, which shows the quantity and value of the different classes of products for 1909, 1904, and 1899.

PRODUCT.	1909	1904	1899
Total value	$7,271,047	$2,992,576	$1,190,239
Butter:			
Pounds	11,302,591	7,722,911	3,198,421
Value	$3,692,931	$1,968,682	$792,778
Packed solid—			
Pounds	1,418,308	466,999	1,100,070
Value	$434,227	$126,974	$284,775
Prints or rolls—			
Pounds	9,884,283	7,255,912	2,098,351
Value	$3,258,704	$1,841,708	$508,003
Cream sold:			
Pounds	3,009,180	830,662	437,072
Value	$341,981	$89,095	$48,977
All other butter-factory products [1]	$45,330	$41,125	$17,382
Cheese:			
Pounds	422,290	921,383	1,482,127
Value	$65,597	$102,601	$174,025
Full-cream—			
Pounds	419,290	913,383	1,436,127
Value	$65,297	$101,961	$169,285
Part-cream—			
Pounds	3,000	(2)	(2)
Value	$300	(2)	(2)
Other kinds [3]—			
Pounds	.....	8,000	46,000
Value	.....	$640	$4,740
All other cheese-factory products [4]	$270	$743	$77
Condensed milk:			
Unsweetened—			
Pounds	53,614,242	13,841,906	[5] 1,962,500
Value	$2,976,326	$738,688	$157,000
All other condensed-milk factory products	$2,360	.....	.....
All other products not specified	$146,252	$51,642	.....

[1] Includes skimmed milk and casein.
[2] Included with full-cream cheese.
[3] Includes skimmed cheese.
[4] Includes whey.
[5] Total condensed-milk product, whether sweetened or unsweetened.

From 1904 to 1909 the production of butter increased 3,579,680 pounds, or 46.4 per cent, as compared with an increase of 4,524,490 pounds, or 141.5 per cent, from 1899 to 1904. Butter put up in prints or rolls formed nearly seven-eighths of the total quantity reported in 1909.

Lumber and timber products.—The heavily wooded areas of the Cascade Mountains and the Olympic Peninsula afford extensive opportunities for lumbering on a large scale. The next statement, which shows the quantities of the principal products of the sawmills and shingle mills for 1909 and 1899, indicates the extent to which the industry has been developed in the state.

PRODUCT.	QUANTITY.	
	1909	1899
Rough lumber.....M feet b. m..	3,862,916	1,429,032
Lath.....thousands..	451,384	145,134
Shingles.....thousands..	8,879,467	4,337,992

The production of rough lumber, already large in 1899, increased 170.3 per cent during the decade. In 1909 the state produced 3,060,983 M feet board measure of Douglas fir, or 63 per cent of the total quantity cut in the United States. In the same year the state was first in the production of cedar, reporting 183,952 M feet, or 53.2 per cent of the total amount cut in the United States; second in the production of western pine, with 266,357 M feet, or 17.8 per cent of the total cut; and third in the production of larch, with 39,795 M feet, or 15.1 per cent of the total. Washington produced nearly three-fifths of all the shingles manufactured in the United States in 1909, and was second among the states in the production of lath, with 12.2 per cent of the total. From 1899 to 1909 the output of shingles increased 104.7 per cent and that of lath 211 per cent. Only 1,779 M feet board measure of hardwood was cut in the state in 1909. There were more mills in the state in 1909 sawing over 50,000 M feet board measure of lumber than were reported for any other state, notwithstanding the fact that 73 mills were reported idle during the year.

Printing and publishing.—The following table shows the number of the different classes of publications in the state and their aggregate circulation in 1909, 1904, and 1899:

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1909	1904	1899	1909	1904	1899
Total.....	369	316	206	1,068,554	755,326	307,128
Daily.....	41	29	15	317,158	186,618	84,570
Sunday.....	13	9	7	243,663	130,161	(1)
Semiweekly.....	10	7	[2] 4	59,037	85,811	8,350
Weekly.....	268	220	154	252,396	217,845	161,990
Monthly.....	32	42	21	161,624	118,491	41,418
All other classes.....	5	3	5	33,776	16,400	10,800

[1] Included in circulation of dailies. [2] Includes one triweekly.

As might be expected in a rapidly developing state, the newspapers and periodicals of Washington show a rapid increase in circulation. The aggregate circulation per issue increased 145.9 per cent during the five years from 1899 to 1904, and 41.5 per cent during the following five-year period. The dailies reported the greatest increase in circulation. Semiweeklies decreased in circulation, and monthlies decreased in number of publications from 1904 to 1909.

In 1909 there were published in the state 1 daily in Japanese and 1 in Japanese and English; 1 semiweekly in Japanese; 16 weeklies in languages other than English, of which 5 were in Swedish, 5 in Norwegian, 4 in German, 1 in Italian, and 1 in Indian and English; and 1 semimonthly in Norwegian.

Laundries.—Statistics for steam laundries are not included in the general tables, or in the totals for manufacturing industries. In 1909 there were 172 such establishments in the state of Washington, 51 of which were in Seattle, 23 in Spokane, 14 in Tacoma, 7 in Everett, 6 in Bellingham, 4 in Walla Walla, and 2 each in Aberdeen and North Yakima. The following statement summarizes the statistics:

Number of establishments.....	172
Persons engaged in the industry.....	3,731
Proprietors and firm members.....	195
Salaried employees.....	272
Wage earners (average number).....	3,264
Primary horsepower.....	3,084
Capital.....	$2,165,715
Expenses.....	3,046,673
Services.....	2,032,703
Materials.....	546,545
Miscellaneous.....	467,425
Amount received for work done.....	3,814,825

Eighty-six of the 172 establishments were under individual ownership, 47 under firm ownership, and 39 under corporate ownership. Forty-one establishments had receipts for the year's business of less than $5,000 each; 75, receipts of between $5,000 and $20,000; 50, receipts of between $20,000 and $100,000; and 6, receipts between $100,000 and $1,000,000.

The number of wage earners employed each month and the percentage which this number represented of the greatest number employed in any month were as follows:

MONTH.	WAGE EARNERS.		MONTH.	WAGE EARNERS.	
	Number.	Per cent of maximum.		Number.	Per cent of maximum.
January.....	2,946	80.4	July.....	3,537	96.6
February.....	2,957	80.7	August.....	3,663	100.0
March.....	2,986	81.5	September.....	3,679	97.7
April.....	3,066	83.7	October.....	3,391	92.6
May.....	3,169	86.5	November.....	3,262	89.1
June.....	3,389	92.5	December.....	3,229	88.2

The different kinds of primary power, the number of engines or motors, and the horsepower used in 1909 are shown in the following tabular statement:

KIND.	Number of engines or motors.	Horsepower.
Primary power, total.....	.....	3,084
Owned:		
Steam.....	98	2,392
Gas.....	5	24
Water motors.....	1	2
Rented:		
Electric.....	96	594
Other.....	.....	72

The kind and amount of fuel used are shown in the next statement.

KIND.	Unit.	Quantity.
Anthracite coal	Tons	8
Bituminous coal	Tons	10,279
Coke	Tons	1,883
Wood	Cords	34,097
Oil	Barrels	17,499
Gas	1,000 feet	14,765
Other	Tons	1,264

Custom sawmills and gristmills.—Statistics for custom sawmills and gristmills are not included in the general tables, or in the totals for manufacturing industries, but are presented in the next summary.

	Custom sawmills.	Custom gristmills.
Number of establishments	10	21
Persons engaged in the industry	25	35
Proprietors and firm members	13	26
Wage earners (average number)	12	9
Primary horsepower	207	410
Capital	$16,612	$52,458
Expenses	8,398	244,210
Services	7,442	4,855
Materials	167	[1] 237,127
Miscellaneous	789	2,228
Value of products	13,970	[1] 266,590

[1] Includes estimate of all grain ground. A similar estimate for value of lumber sawed by custom sawmills is impracticable.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899.

THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

INDUSTRY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—All industries	1909	3,674	80,118	3,264	7,734	69,120	297,897	$222,261	$9,827	$49,766	$117,888	$220,746	$102,858
	1904	2,751	51,459	2,602	3,658	45,199	168,342	96,953	4,093	30,087	66,166	128,822	62,656
	1899	1,926	.....	.....	2,103	31,523	87,601	41,575	2,063	17,065	38,277	70,831	32,554
Artificial stone	1909	41	157	39	13	105	117	277	12	79	122	325	203
	1904	3	14	6	.....	8	.....	26	.....	8	3	13	10
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Awnings, tents, and sails	1909	19	169	17	31	121	42	453	35	88	562	828	266
	1904	9	67	7	14	46	14	77	13	32	139	241	102
	1899	7	.....	.....	13	49	.....	50	8	32	118	202	84
Bread and other bakery products	1909	298	1,514	363	182	969	412	1,676	175	704	2,566	4,570	2,004
	1904	165	665	193	18	454	117	445	14	314	894	1,656	762
	1899	65	306	73	31	202	.....	157	19	120	320	654	334
Brick and tile	1909	58	1,447	61	86	1,300	4,797	5,188	116	792	651	2,550	1,908
	1904	51	609	52	45	512	1,486	966	37	306	149	675	526
	1899	32	385	20	27	329	624	370	28	186	81	427	346
Butter, cheese, and condensed milk	1909	97	978	58	185	735	2,203	2,277	199	457	5,676	7,271	1,595
	1904	88	502	60	68	374	987	871	61	219	2,392	2,993	601
	1899	60	237	56	35	146	526	304	27	81	932	1,190	258
Canning and preserving	1909	80	2,284	27	228	2,029	2,433	7,355	292	1,272	5,046	9,595	4,549
	1904	61	834	38	107	689	1,401	2,261	112	380	2,351	3,617	1,266
	1899	60	2,463	58	124	2,281	.....	2,349	100	746	3,238	5,090	1,852
Carriages and wagons and materials	1909	37	317	46	30	241	254	538	33	203	319	720	401
	1904	[2] 25	249	36	12	201	130	230	11	158	188	482	294
	1899	[2] 25	.....	.....	8	132	.....	98	9	89	110	283	173
Cars and general shop construction and repairs by steam-railroad companies.	1909	17	2,880	.....	164	2,716	3,609	3,206	181	1,990	2,484	4,666	2,182
	1904	10	1,390	.....	63	1,327	1,341	1,094	70	869	1,805	2,769	964
	1899	16	1,011	.....	55	956	1,017	945	51	653	761	1,480	719
Clothing, men's, including shirts	1909	10	313	9	35	269	81	345	40	100	369	617	248
	1904	11	201	10	21	170	31	154	11	61	147	263	116
	[3] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coffee and spice, roasting and grinding	1909	15	202	4	67	131	280	710	90	76	824	1,399	575
	1904	8	92	9	19	64	104	248	24	38	265	524	259
	1899	14	78	16	21	41	.....	138	24	23	301	388	87
Confectionery	1909	52	780	51	117	612	333	1,609	139	296	1,311	2,208	897
	1904	28	556	28	70	458	234	642	80	204	713	1,311	598
	1899	10	.....	.....	34	195	.....	165	41	76	224	445	221
Cooperage and wooden goods, not elsewhere specified.	1909	8	111	3	11	97	912	372	12	61	134	273	139
	1904	[2] 4	90	2	2	86	90	204	2	41	61	143	82
	1899	6	54	13	2	39	.....	16	1	12	12	33	21
Copper, tin, and sheet-iron products	1909	81	750	85	82	583	207	985	100	521	903	1,946	1,043
	1904	[2] 33	297	34	17	246	41	397	21	238	288	727	439
	1899	25	.....	.....	17	217	.....	433	19	146	433	766	333
Flour-mill and gristmill products	1909	96	973	61	268	644	11,773	11,077	372	464	15,474	17,853	2,379
	1904	76	840	56	171	613	8,516	6,490	212	410	12,771	14,664	1,893
	1899	66	.....	.....	107	482	5,190	2,627	123	279	5,649	6,774	1,125
Food preparations	1909	30	176	29	26	121	157	449	30	72	372	695	323
	1904	6	34	4	5	25	76	52	5	13	24	77	53
	[3] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foundry and machine-shop products	1909	178	2,961	144	378	2,439	5,117	9,367	523	1,967	3,724	7,988	4,264
	1904	112	1,788	88	212	1,488	2,849	3,549	264	1,090	1,791	3,945	2,154
	1899	83	.....	.....	93	1,093	.....	1,642	85	704	1,006	2,321	1,315
Fur goods	1909	15	107	16	20	71	14	290	22	55	144	316	172
	1904	11	70	13	6	51	6	120	8	31	53	132	79
	1899	5	.....	.....	3	32	.....	38	1	13	36	77	41
Furniture and refrigerators	1909	36	676	42	52	582	1,284	1,177	56	410	602	1,389	787
	1904	23	355	28	21	306	677	366	22	174	300	625	325
	1899	[2] 12	248	15	20	213	378	227	14	94	184	413	229
Gas, illuminating and heating	1909	12	675	.....	210	465	1,479	13,978	200	273	661	1,684	1,023
	1904	7	197	.....	89	108	454	7,633	74	78	149	602	453
	1899	6	118	.....	37	81	13	1,621	26	42	77	316	239
Ice, manufactured	1909	25	231	10	58	163	2,210	1,487	64	140	141	558	417
	1904	12	119	9	11	99	905	486	14	78	41	243	202
	1899	4	49	1	13	35	425	252	14	26	17	104	87
Leather goods	1909	34	251	38	53	160	76	560	57	123	602	1,012	410
	1904	[2] 30	171	35	19	117	31	260	17	81	203	436	233
	1899	22	.....	.....	10	71	.....	147	11	50	189	354	165
Lime	1909	12	218	8	22	188	245	1,282	36	126	109	376	267
	1904	6	196	1	24	171	68	636	34	87	150	335	185
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Liquors, malt	1909	31	978	12	201	765	5,675	11,119	423	709	2,231	6,903	4,672
	1904	31	570	13	90	476	2,907	5,886	165	501	984	4,472	3,488
	1899	25	283	19	53	211	1,047	1,507	82	171	295	1,231	936

[1] Not reported separately.
[2] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[3] Figures can not be shown without disclosing individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—Continued.													
Lumber and timber products	1909	1,263	47,447	1,013	2,685	43,749	224,455	$97,224	$3,615	$31,327	$36,879	$89,155	$52,276
	1904	1,099	32,579	1,039	1,403	30,137	128,236	44,799	1,706	19,820	19,418	54,099	35,581
	1899	813	22,374	1,004	802	20,568	63,914	19,858	805	11,092	13,791	31,665	17,874
Marble and stone work	1909	38	563	34	56	473	1,210	1,100	68	410	269	1,022	753
	1904	18	232	15	21	196	394	343	21	157	98	418	320
	1899	15	.....	.....	13	86	.....	155	10	58	61	230	169
Mattresses and spring beds	1909	12	195	3	26	166	485	505	26	131	437	718	281
	1904	5	151	1	18	132	218	140	16	61	99	269	170
	1899	5	95	7	4	84	.....	39	5	39	75	152	77
Paint and varnish	1909	5	74	.....	17	57	221	296	18	51	154	282	128
	1904	6	62	1	27	34	80	121	14	23	92	166	74
	1899	3	16	2	4	10	.....	66	5	7	31	58	27
Patent medicines and compounds and druggists' preparations.	1909	18	72	13	21	38	95	249	26	19	106	258	152
	1904	10	39	5	5	29	.....	32	3	13	37	99	62
	1899	7	44	6	4	34	.....	16	4	22	13	61	48
Pottery, terra-cotta, and fire-clay products	1909	8	321	1	31	289	1,263	1,023	39	197	112	523	411
	1904	6	182	1	19	162	1,179	987	26	114	121	416	295
	1899	8	149	8	15	126	155	437	18	60	29	157	128
Printing and publishing	1909	506	4,583	552	1,407	2,624	2,232	5,867	1,529	2,140	2,224	9,286	7,062
	1904	[1] 383	2,834	387	650	1,797	2,035	2,850	524	1,354	1,056	4,765	3,709
	1899	257	1,540	266	267	1,007	.....	1,308	222	543	384	1,975	1,591
Slaughtering and meat packing	1909	14	971	4	139	828	1,883	5,103	233	575	13,760	15,654	1,894
	1904	[1] 13	402	9	58	335	550	2,284	79	287	5,423	6,252	829
	1899	[2] 18	337	18	88	231	474	1,014	81	157	4,252	4,893	641
Tobacco manufactures	1909	114	455	128	22	305	.....	367	22	205	240	681	441
	1904	102	373	114	3	256	.....	191	3	175	226	604	378
	1899	57	197	60	4	133	.....	89	3	69	127	294	167
All other industries	1909	414	6,289	393	811	5,085	22,343	34,750	1,035	3,733	18,680	27,416	8,736
	1904	299	4,690	308	350	4,032	13,095	11,423	430	2,672	13,735	19,889	6,154
	1899	200	.....	.....	199	2,439	.....	5,507	227	1,475	5,531	8,798	3,267

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

SEATTLE—All industries	**1909**	**751**	**14,014**	**621**	**2,062**	**11,331**	**37,732**	**$46,472**	**$2,750**	**$8,569**	**$28,685**	**$50,569**	**$21,884**
	1904	**467**	**7,532**	**415**	**727**	**6,390**	.....	**22,344**	**853**	**4,318**	**14,358**	**25,406**	**11,048**
	1899	**352**	.....	.....	**623**	**4,440**	.....	**7,682**	**561**	**2,682**	**8,864**	**15,323**	**6,459**
Bread and other bakery products	1909	78	461	92	74	295	148	445	65	260	893	1,550	657
	1904	38	177	43	.....	134	.....	130	.....	109	264	495	231
	1899	25	133	27	11	95	.....	63	6	64	143	295	152
Brick and tile	1909	5	154	2	15	137	482	293	20	100	37	259	222
	1904	4	65	1	3	61	.....	120	4	29	16	67	51
	[3] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Butter, cheese, and condensed milk	1909	6	36	5	9	22	55	110	10	19	439	514	75
	1904	5	40	3	7	30	.....	143	6	22	496	562	66
	1899	3	26	4	1	21	.....	39	1	13	193	224	31
Canning and preserving	1909	7	85	.....	26	59	233	298	26	44	234	394	160
	1904	[1] 4	119	.....	7	112	.....	205	8	65	429	610	181
	1899	14	.....	.....	38	320	.....	435	31	132	874	1,247	373
Carriages and wagons and materials	1909	12	136	16	11	109	73	163	13	95	117	298	181
	1904	10	115	19	6	90	.....	125	6	76	100	254	154
	1899	10	93	14	7	72	.....	42	8	47	58	152	94
Clothing, men's, including shirts	1909	5	165	2	22	141	47	243	26	58	236	374	138
	1904	[1] 4	123	4	10	109	.....	95	7	40	115	188	73
Confectionery	1909	20	464	15	66	383	213	1,020	89	190	890	1,491	601
	1904	14	324	17	37	270	.....	332	47	122	456	821	365
	1899	6	.....	.....	25	133	.....	85	32	55	134	306	172
Copper, tin, and sheet-iron products	1909	36	429	36	41	352	116	448	55	282	557	1,131	574
	1904	13	141	15	6	120	.....	152	9	125	141	352	211
	1899	10	.....	.....	8	85	.....	70	9	68	81	209	128
Flour-mill and gristmill products	1909	7	227	2	70	155	2,365	2,415	112	111	3,872	4,430	558
	1904	6	174	1	26	147	.....	936	35	99	4,158	4,594	436
	1899	6	97	1	23	73	.....	470	22	44	1,110	1,298	188
Foundry and machine-shop products	1909	71	1,479	44	205	1,230	2,787	5,023	292	1,023	2,042	4,290	2,248
	1904	41	691	25	104	562	.....	1,949	140	431	870	1,817	947
	1899	[1] 34	504	33	46	425	.....	624	39	320	457	1,143	686
Fur goods	1909	7	48	4	7	37	4	109	10	32	75	150	75
	1904	5	43	5	6	32	.....	76	8	19	37	91	54
	1899	3	.....	.....	2	21	.....	34	1	9	32	63	31
Furniture and refrigerators	1909	17	195	19	10	166	239	173	12	139	140	405	265
	1904	5	31	7	.....	24	.....	12	.....	19	18	52	34
	1899	8	.....	12	10	66	.....	72	4	38	56	147	91

[1] Excluding statistics for two establishments, to avoid disclosure of individual operations.
[2] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[3] Figures can not be shown without disclosing individual operations.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
SEATTLE—Continued.													
Gloves and mittens, leather	1909	3	31	5	3	23	3	$24	$3	$10	$25	$53	$28
	1904	4	46	5	1	40	.....	29	1	13	36	77	41
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ice, manufactured	1909	5	79	.....	18	61	721	828	23	53	68	225	157
	1904	4	60	.....	5	55	.....	330	9	45	22	116	94
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leather goods	1909	8	122	8	33	81	41	222	35	60	267	444	177
	1904	[2] 9	74	12	6	56	.....	84	6	37	86	191	105
	1899	7	.....	.....	4	31	.....	35	4	22	62	132	70
Liquors, malt	1909	5	440	.....	78	362	1,880	4,408	185	300	877	2,815	1,938
	1904	5	190	1	13	176	.....	2,216	27	200	391	2,122	1,731
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber and timber products	1909	63	3,337	39	222	3,076	19,436	7,720	324	2,222	3,676	7,739	4,063
	1904	[2] 21	1,126	10	51	1,065	.....	1,848	69	644	657	1,835	1,178
	1899	[3] 17	.....	.....	83	1,252	.....	1,691	80	776	1,155	2,563	1,408
Marble and stone work	1909	5	68	3	11	54	38	89	12	47	81	218	137
	1904	[2] 3	38	2	2	34	.....	28	3	25	44	111	67
	1899	4	.....	.....	.....	18	.....	39	.....	15	21	54	33
Patent medicines and compounds and druggists' preparations.	1909	8	42	4	14	24	54	59	19	12	42	153	111
	1904	3	20	2	3	15	.....	11	1	4	14	41	27
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Printing and publishing	1909	133	1,597	117	438	1,042	791	2,542	551	904	1,042	4,009	2,967
	1904	[3] 90	1,080	77	111	892	.....	1,094	125	656	511	1,987	1,476
	1899	65	.....	.....	151	463	.....	520	125	245	189	894	705
Slaughtering and meat packing	1909	4	383	1	57	325	468	2,308	105	240	6,410	7,171	761
	1904	4	205	1	38	166	.....	1,127	50	125	3,029	3,419	390
	1899	8	186	6	48	132	.....	570	45	89	2,667	3,072	405
Tobacco manufactures	1909	24	95	26	4	65	.....	71	4	45	46	140	94
	1904	26	86	27	2	57	.....	44	2	42	57	143	86
	1899	15	53	18	2	33	.....	25	1	19	36	88	52
All other industries	1909	222	3,941	181	628	3,132	7,538	17,461	759	2,323	6,619	12,316	5,697
	1904	149	2,564	138	283	2,143	.....	11,258	290	1,371	2,411	5,461	3,050
	1899	117	.....	.....	164	1,200	.....	2,868	153	726	1,506	3,436	1,840
SPOKANE—All industries	**1909**	**286**	**5,294**	**263**	**1,042**	**3,989**	**9,295**	**$16,434**	**$1,333**	**$3,098**	**$10,243**	**$18,880**	**$8,637**
	1904	**188**	**3,231**	**184**	**619**	**2,428**	.....	**5,407**	**551**	**1,669**	**4,700**	**8,831**	**4,131**
	1899	**84**	.....	.....	**207**	**1,060**	.....	**2,211**	**195**	**616**	**2,033**	**3,756**	**1,723**
Bread and other bakery products	1909	33	345	42	43	260	84	503	66	170	686	1,211	525
	1904	18	133	22	10	101	.....	100	12	58	216	359	143
	1899	5	61	6	19	36	.....	17	12	19	56	126	70
Carriages and wagons and materials	1909	5	44	7	2	35	35	131	3	28	46	99	53
	1904	3	30	3	1	26	.....	18	1	19	20	53	33
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Confectionery	1909	10	163	12	25	126	78	437	29	58	252	406	154
	1904	5	138	3	17	118	.....	208	19	53	165	271	106
	1899	3	63	4	7	52	.....	71	7	18	80	118	38
Copper, tin, and sheet-iron products	1909	13	140	12	17	111	50	318	20	120	195	408	213
	1904	6	71	5	6	60	.....	110	7	51	70	164	94
	1899	3	.....	.....	1	22	.....	14	(4)	21	33	68	35
Foundry and machine-shop products	1909	14	344	11	45	288	531	856	63	213	415	871	456
	1904	10	230	8	26	196	.....	402	33	148	230	515	285
	1899	5	112	5	10	97	.....	133	11	68	96	203	107
Leather goods	1909	6	48	5	14	29	11	129	18	21	150	224	74
	1904	[3] 3	20	2	5	13	.....	30	3	9	30	64	34
	1899	3	.....	.....	3	12	.....	26	3	8	31	52	21
Liquors, malt	1909	4	117	.....	25	92	883	2,135	56	113	380	1,199	819
	1904	3	67	.....	14	53	.....	1,111	31	79	162	679	517
	1899	4	62	1	14	47	.....	419	25	47	84	445	361
Lumber and timber products	1909	23	1,422	7	148	1,267	4,238	3,602	186	932	1,484	3,302	1,818
	1904	24	1,097	19	112	966	.....	1,706	120	581	1,467	2,458	991
	1899	10	375	2	38	335	.....	425	38	166	417	740	323
Marble and stone work	1909	5	51	3	7	41	55	154	10	45	53	148	95
	1904	3	35	1	5	29	.....	64	6	29	13	77	64
	1899	3	.....	.....	10	19	.....	21	8	15	14	64	50
Printing and publishing	1909	46	839	41	433	365	387	782	536	376	477	2,120	1,643
	1904	40	598	47	327	224	.....	346	224	194	205	1,042	837
	1899	[3] 15	120	14	32	74	.....	100	28	51	37	211	174
Tobacco manufactures	1909	15	67	17	4	46	.....	67	6	38	39	108	69
	1904	16	66	19	.....	47	.....	34	.....	37	50	125	75
	1899	3	18	3	.....	15	.....	5	.....	7	12	27	15
All other industries	1909	112	1,714	106	279	1,329	2,943	7,320	340	984	6,066	8,784	2,718
	1904	57	746	55	96	595	.....	1,278	95	411	2,072	3,024	952
	1899	30	.....	.....	73	350	.....	980	63	196	1,173	1,702	529

[1] Figures can not be shown without disclosing individual operations.
[2] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[3] Excluding statistics for two establisments, to avoid disclosure of individual operations.
[4] Less than $500.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY AND CITY.	Census.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
TACOMA—All industries	1909	276	6,866	216	885	5,765	21,546	$21,533	$1,031	$3,985	$13,716	$22,450	$8,734
	[1] 1904	236	5,158	195	506	4,457	.....	11,769	565	2,906	8,157	14,264	6,107
	1899	174	.....	.....	288	3,552	.....	6,790	322	1,955	6,341	10,301	3,960
Bread and other bakery products	1909	26	214	29	21	164	109	262	22	84	333	567	234
	1904	19	93	24	4	65	.....	39	2	46	110	211	101
	1899	9	40	10	.....	30	.....	19	.....	16	52	91	39
Canning and preserving	1909	4	54	1	12	41	75	148	15	41	120	190	70
	1904	6	63	3	16	44	.....	177	15	28	159	239	80
	1899	3	32	3	2	27	.....	27	1	12	49	74	25
Carriages and wagons and materials	1909	7	68	4	11	53	96	128	13	36	107	191	84
	1904	[2] 7	72	8	4	60	.....	54	3	45	46	120	74
	1899	[2] 5	.....	.....	1	35	.....	33	1	26	31	75	44
Copper, tin, and sheet-iron products	1909	13	94	12	13	69	37	142	15	67	89	231	142
	1904	8	61	7	5	49	.....	120	5	48	64	172	108
	1899	7	.....	.....	3	43	.....	73	2	29	48	125	77
Flour-mill and gristmill products	1909	5	156	2	38	116	2,630	2,397	64	76	3,430	3,844	414
	1904	4	123	.....	21	102	.....	1,063	27	70	2,069	2,294	225
	1899	5	143	.....	20	123	.....	595	36	69	1,145	1,398	253
Foundry and machine-shop products	1909	23	462	16	54	392	649	1,836	71	289	697	1,368	671
	1904	[2] 15	410	10	42	358	.....	579	48	253	439	898	459
	1899	[2] 11	371	12	21	338	.....	457	20	177	258	541	283
Furniture and refrigerators	1909	7	319	2	32	285	625	812	35	194	348	690	342
	1904	10	198	9	16	173	.....	236	16	97	218	420	202
	1899	4	160	3	10	147	.....	156	10	56	128	266	138
Lumber and timber products	1909	31	3,116	12	169	2,935	12,862	7,412	278	1,959	2,889	6,040	3,151
	1904	[3] 24	1,955	5	135	1,815	.....	4,190	187	1,120	1,310	3,408	2,098
	1899	[3] 16	1,334	11	55	1,268	.....	3,423	74	664	1,692	2,721	1,029
Printing and publishing	1909	42	617	37	287	293	264	603	219	253	247	1,094	847
	1904	[2] 35	318	32	119	167	.....	324	95	141	119	623	504
	1899	35	.....	.....	67	179	.....	254	56	113	79	401	322
Shipbuilding, including boat building	1909	6	40	8	1	31	58	57	2	29	38	90	52
	1904	5	81	6	.....	75	.....	17	.....	65	170	274	104
	1899	3	179	3	7	169	.....	118	11	96	116	210	94
Tobacco manufactures	1909	17	100	21	2	77	.....	66	3	47	53	150	97
	1904	15	84	19	1	64	.....	40	1	37	40	125	85
	1899	13	54	14	1	39	.....	20	1	20	41	83	42
All other industries	1909	95	1,626	72	245	1,309	4,141	7,670	294	910	5,365	7,995	2,630
	1904	88	1,700	72	143	1,485	.....	4,930	166	956	3,413	5,480	2,067
	1899	63	.....	.....	101	1,154	.....	1,615	110	677	2,702	4,316	1,614

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

Aberdeen	1909	43	1,651	26	116	1,509	9,582	$4,560	$161	$995	$2,172	$3,590	$1,418
	[4] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bellingham	1909	96	1,795	89	140	1,566	5,176	3,288	158	1,027	2,422	4,600	2,178
	1904	73	1,466	55	97	1,314	.....	2,981	107	858	1,651	3,294	1,643
	[5] 1899	47	.....	.....	51	1,502	.....	1,719	59	549	1,553	2,629	1,076
Everett	1909	94	2,723	77	271	2,375	11,481	6,605	359	1,720	3,859	7,423	3,564
	[4] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Yakima	1909	36	723	32	89	602	1,975	2,297	105	374	950	2,175	1,225
	[4] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Walla Walla	1909	48	529	39	102	388	1,500	2,336	127	323	1,385	2,317	932
	1904	33	328	31	55	242	.....	1,063	63	181	929	1,486	557
	1899	34	.....	.....	15	213	.....	708	17	132	621	964	343

[1] Figures do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city.
[2] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[3] Excluding statistics for two establishments, to avoid disclosure of individual operations.
[4] Figures not available.
[5] Represents the statistics for Fairhaven and New Whatcom, incorporated as Bellingham in 1903.

TABLE II.—DETAIL STATEMENT FOR

	INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners. Average number.	Wage earners. Number. Maximum month.	Wage earners. Number. Minimum month.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horsepower.
1	**All industries**	3,674	80,118	3,264	3,050	3,880	804	69,120	Oc 73,949	Ja 54,719	(1)	(1)	(1)	(1)	(1)	297,897
2	Artificial stone	41	157	39	12	1	.....	105	Oc 147	Ja [2] 68	173	173	.....	.....	.....	117
3	Automobiles, including bodies and parts	5	22	6	1	.....	1	14	Je 18	Ja [2] 12	14	14	.....	.....	.....	15
4	Awnings, tents, and sails	19	169	17	17	10	4	121	Je 157	Ja [2] 96	116	60	56	.....	.....	42
5	Blacking and cleansing and polishing preparations	3	6	3	2	.....	.....	1	Au [2] 2	Ja [2] 1	2	2	.....	.....	.....	2
6	Boxes, fancy and paper	6	125	4	8	1	2	110	De 136	Ja 98	136	47	85	.....	4	42
7	Brass and bronze products	7	55	3	7	4	1	40	Jy 47	Fe 25	44	44	.....	.....	.....	60
8	Bread and other bakery products	298	1,514	363	41	78	63	969	No 1,051	Fe [2] 907	1,047	737	302	7	1	412
9	Brick and tile	58	1,447	61	56	24	6	1,300	Je 1,690	Ja 854	1,589	1,582	5	2	.....	4,797
10	Brooms	7	60	7	2	7	1	43	Ap 46	Se 40	46	35	11	.....	.....	47
11	Butter, cheese, and condensed milk	97	978	58	55	106	24	735	Je 884	Ja 603	650	548	97	4	1	2,203
12	Canning and preserving	80	2,284	27	98	108	22	2,029	Au 3,972	Ja 483	3,011	2,261	707	20	23	2,433
13	Carriages and wagons and materials	37	317	46	22	5	3	241	Au 285	Fe 209	223	223	.....	.....	.....	254
14	Cars and general shop construction and repairs by steam-railroad companies	17	2,880	.....	71	83	10	2,716	No 3,042	Ap 2,364	3,135	3,134	1	.....	.....	3,609
15	Cars and general shop construction and repairs by street-railroad companies	11	446	.....	9	26	1	410	My 482	Mh 383	410	410	.....	.....	.....	598
16	Clothing, men's, including shirts	10	313	9	7	25	3	269	De 325	Au 223	326	25	301	.....	.....	81
17	Coffee and spice, roasting and grinding	15	202	4	17	38	12	131	De 146	Ja [2] 123	146	88	58	.....	.....	280
18	Coffins, burial cases, and undertakers' goods	4	89	4	6	4	1	74	De [2] 79	Ap 66	79	72	7	.....	.....	205
19	Confectionery	52	780	51	33	72	12	612	De 721	Ja 556	724	244	478	1	1	333
20	Cooperage and wooden goods, not elsewhere specified	8	111	3	8	1	2	97	No 143	Fe 74	138	137	1	.....	.....	912
21	Copper, tin, and sheet-iron products	81	750	85	51	24	7	583	Oc 662	Ja 505	620	611	8	1	.....	207
22	Cutlery and tools, not elsewhere specified	7	25	10	2	.....	3	10	Fe [2] 11	Ja [2] 10	11	11	.....	.....	.....	45
23	Electroplating	3	18	5	.....	.....	.....	13	Oc 15	Ja [2] 12	12	12	.....	.....	.....	20
24	Flour-mill and gristmill products	96	973	61	80	163	16	644	Oc 815	Je 518	742	734	8	.....	.....	11,773
25	Food preparations	30	176	29	12	11	3	121	Jy 193	De 97	123	101	21	.....	1	157
26	Foundry and machine-shop products	178	2,961	144	173	171	34	2,439	No 2,636	Ja 2,184	2,603	2,597	1	5	.....	5,117
27	Fur goods	15	107	16	9	5	6	71	Oc 111	My 38	110	42	68	.....	.....	14
28	Furnishing goods, men's	7	68	14	6	4	3	41	De 64	Ja [2] 22	64	9	53	2	.....	39
29	Furniture and refrigerators	36	676	42	28	16	8	582	Je [2] 628	Ja 488	587	566	11	10	.....	1,284
30	Gas, illuminating and heating	12	675	.....	33	153	24	465	My 523	Oc 403	522	522	.....	.....	.....	1,479
31	Gloves and mittens, leather	6	74	9	4	2	.....	59	De 72	My 54	72	30	42	.....	.....	10
32	Hand stamps and stencils and brands	11	78	11	6	6	4	51	No 56	My [2] 47	49	47	2	.....	.....	53
33	Ice, manufactured	25	231	10	31	23	4	163	Jy 198	Ja 120	162	162	.....	.....	.....	2,210
34	Leather goods	34	251	38	23	25	5	160	My 170	Ja 150	156	147	8	1	.....	76
35	Lime	12	218	8	9	11	2	188	Je 221	Ja 128	185	183	2	.....	.....	245
36	Liquors, malt	31	978	12	64	128	9	765	Jy 827	Ja 715	737	732	5	.....	.....	5,675
37	Lumber and timber products	1,263	47,447	1,013	1,414	1,095	176	43,749	Oc 47,133	Ja 33,411	50,964	50,714	198	52	.....	224,455
38	Marble and stone work	38	563	34	30	21	5	473	My 570	De 354	521	521	.....	.....	.....	1,210
39	Mattresses and spring beds	12	195	3	8	13	5	166	Au 189	Ja 127	176	159	14	3	.....	485
40	Models and patterns, not including paper patterns	7	35	11	3	1	.....	20	Oc 24	Ja 17	20	18	.....	2	.....	63
41	Musical instruments and materials, not specified	5	6	6	.....	.....	.....	.....	(3)	(3)	.....	.....	.....	.....	.....	.....
42	Optical goods	6	26	2	4	4	2	14	De 16	Ja [2] 13	16	15	1	.....	.....	11
43	Paint and varnish	5	74	.....	5	8	4	57	My 67	Ja 41	57	55	1	1	.....	221
44	Patent medicines and compounds and druggists' preparations	18	72	13	8	13	.....	38	Ap 41	Jy 30	40	27	12	1	.....	95
45	Photo-engraving	9	84	7	6	5	4	62	Oc [2] 71	Ja 51	71	64	6	1	.....	54
46	Pottery, terra-cotta, and fire-clay products	8	321	1	18	10	3	289	Jy 329	Fe 202	292	292	.....	.....	.....	1,263
47	Printing and publishing	506	4,583	552	236	966	205	2,624	No 2,687	Ja 2,529	2,718	2,223	360	113	22	2,232
48	Shipbuilding, including boat building	60	900	84	39	28	5	744	My 952	Ja 619	852	851	1	.....	.....	2,105
49	Show cases	11	72	12	3	2	1	54	My 63	Ap [2] 50	53	53	.....	.....	.....	92
50	Slaughtering and meat packing	14	971	4	34	78	27	828	De 956	Ja 772	962	938	24	.....	.....	1,883
51	Stoves and furnaces, including gas and oil stoves	9	91	6	7	5	1	72	Oc 90	Fe 59	84	81	2	1	.....	99
52	Surgical appliances and artificial limbs	6	18	6	.....	.....	.....	12	Au [2] 15	Fe [2] 9	14	13	1	.....	.....	9
53	Tobacco manufactures	114	455	128	10	10	2	305	De 324	Ap 293	339	278	58	3	.....	.....
54	Umbrellas and canes	3	12	5	3	.....	.....	4	Oc 5	Ja [2] 4	5	2	3	.....	.....	.....
55	Wall plaster	4	76	.....	7	9	1	59	My 85	Fe 39	59	59	.....	.....	.....	445
56	All other industries [4]	217	3,903	178	203	277	67	3,178	.....	.....	.....	.....	.....	.....	.....	18,329

[1] No figures given for reasons explained in the Introduction.
[2] Same number reported for one or more other months.
[3] No wage earners employed.
[4] All other industries embrace—

Agricultural implements	5
Artificial flowers and feathers and plumes	1
Babbitt metal and solder	3
Bags, other than paper	1
Baskets, and rattan and willow ware	2
Beet sugar	1
Belting and hose, leather	2
Bluing	1
Boots and shoes, including cut stock and findings	12
Boxes, cigar	1
Brushes	2
Buttons	1
Carpets, rag	2
Cars, steam-railroad, not including operations of railroad companies	1
Cars, street-railroad, not including operations of railroad companies	1
Cement	2
Chemicals	2
Clothing, women's	6
Coke	3
Cordage and twine and jute and linen goods	1
Cordials and sirups	1
Electrical machinery, apparatus, and supplies	4
Emery and other abrasive wheels	1
Engraving and diesinking	1
Explosives	2
Fancy articles, not elsewhere specified	1
Fireworks	1
Flags, banners, regalia, society badges, and emblems	1
Flavoring extracts	3
Gas and electric fixtures and lamps and reflectors	3
Glass, cutting, staining, and ornamenting	6
Gold and silver, reducing and refining, not from the ore	1
Grease and tallow	2
Hair work	1
Hats and caps, other than felt, straw, and wool	1

THE STATE, BY INDUSTRIES: 1909.

	Capital.	EXPENSES. Total.	Services. Officials.	Services. Clerks.	Services. Wage earners.	Materials. Fuel and rent of power.	Materials. Other.	Miscellaneous. Rent of factory.	Miscellaneous. Taxes, including internal revenue.	Miscellaneous. Contract work.	Miscellaneous. Other.	Value of products.	Value added by manufacture.
1	$222,261,229	$196,274,694	$5,664,998	$4,161,581	$49,766,368	$3,464,218	$114,423,470	$1,031,882	$2,425,368	$2,175,766	$13,161,043	$220,746,421	$102,858,733
2	276,531	234,727	12,257	125	79,314	1,514	120,946	4,550	1,220	20	14,781	325,158	202,698
3	15,794	45,366	1,200	900	15,063	581	21,889	2,652	73	.....	3,008	56,358	33,888
4	453,430	728,042	19,992	14,760	87,949	1,898	560,352	14,021	1,933	.....	27,137	827,892	265,642
5	6,360	12,120	1,600	.....	1,365	47	4,937	597	52	1,275	2,247	18,688	13,704
6	119,526	180,233	14,288	4,060	46,430	5,171	91,817	8,472	411	.....	9,584	196,901	99,913
7	78,749	117,786	9,260	5,300	33,313	3,552	56,435	4,076	370	1,400	4,080	135,546	75,559
8	1,676,204	3,793,411	57,216	117,598	703,791	79,318	2,487,127	98,287	10,928	7,527	231,619	4,569,677	2,003,232
9	5,187,951	1,657,307	89,708	26,308	792,228	421,475	229,930	4,559	13,236	1,314	78,549	2,558,828	1,907,423
10	124,682	117,438	2,700	7,800	26,506	2,494	73,458	60	884	.....	3,536	143,244	67,292
11	2,277,138	6,698,647	78,787	119,839	456,906	83,405	5,592,786	14,039	19,226	.....	333,659	7,271,047	1,594,856
12	7,355,195	7,694,518	186,969	105,326	1,271,704	80,491	4,965,032	11,771	44,095	318,045	711,085	9,595,387	4,549,864
13	538,026	596,646	28,118	4,564	202,601	14,844	304,297	20,868	3,582	531	17,241	720,054	400,913
14	3,206,077	4,666,469	104,938	76,004	1,989,670	125,411	2,358,612	.....	857	.....	10,917	4,666,469	2,182,446
15	963,120	732,490	9,730	16,842	345,861	6,282	335,223	.....	9,641	.....	8,911	732,590	391,085
16	345,323	562,778	13,030	26,722	100,160	3,265	365,534	8,780	1,412	244	43,631	617,071	248,272
17	709,946	1,283,429	42,436	56,068	75,502	7,043	817,158	13,736	3,948	.....	267,538	1,399,312	575,111
18	334,593	189,046	11,180	6,615	61,953	3,269	89,730	600	989	.....	14,710	195,535	102,536
19	1,608,527	1,974,711	54,101	84,491	295,605	30,145	1,281,317	41,900	7,368	.....	179,784	2,208,424	896,962
20	371,661	231,787	10,290	2,194	60,916	1,501	132,547	400	3,984	.....	19,955	272,822	138,774
21	984,910	1,630,414	73,500	26,966	521,025	12,069	890,761	47,314	5,738	1,434	51,607	1,945,720	1,042,890
22	62,838	24,266	3,050	1,160	8,749	1,151	6,300	780	452	1,100	1,524	39,943	32,492
23	8,224	16,067	.....	.....	10,150	732	3,040	1,340	20	.....	785	22,081	18,309
24	11,077,186	16,866,093	192,012	179,704	464,239	158,997	15,315,099	29,372	61,657	4,395	460,618	17,852,944	2,378,848
25	448,706	561,314	15,091	15,347	72,001	11,354	361,010	20,130	2,242	231	63,908	694,984	322,620
26	9,367,151	6,822,747	327,068	195,769	1,967,160	136,597	3,587,425	74,441	56,281	12,929	465,077	7,987,931	4,263,909
27	290,174	257,670	14,450	7,606	54,697	1,956	141,580	10,780	1,650	3,560	21,391	316,043	172,507
28	47,293	79,225	4,520	4,195	17,364	654	45,776	1,790	72	.....	4,854	87,885	41,455
29	1,176,654	1,168,370	40,964	15,454	409,762	15,107	587,329	14,794	11,589	8,542	64,829	1,389,191	786,755
30	13,978,035	1,373,586	63,140	136,977	273,260	450,266	210,642	.....	166,823	.....	72,478	1,683,635	1,022,727
31	84,468	99,231	3,480	2,500	21,313	531	58,179	2,090	351	.....	10,787	119,633	60,923
32	89,240	121,278	7,440	7,776	36,204	1,187	46,046	12,030	407	.....	10,188	139,592	92,359
33	1,486,894	437,785	39,546	24,903	139,576	70,261	70,867	8,631	9,658	.....	74,343	557,711	416,583
34	559,610	854,236	33,952	22,951	122,961	6,953	594,881	35,760	3,865	86	32,827	1,011,597	409,763
35	1,282,153	316,391	23,520	12,721	126,305	43,353	65,437	.....	5,760	12,487	26,808	376,033	267,243
36	11,119,072	5,310,588	220,973	202,237	708,783	171,742	2,059,073	180	890,688	.....	1,056,912	6,902,697	4,671,882
37	97,224,264	80,206,950	2,427,125	1,188,254	31,326,917	262,779	36,616,087	139,140	870,831	1,405,091	5,970,126	89,154,820	52,275,954
38	1,099,773	827,136	46,620	20,890	410,256	16,597	252,446	10,104	4,714	2,779	62,730	1,021,988	752,945
39	504,855	649,253	13,478	12,728	131,017	13,403	423,775	10,054	4,973	.....	39,825	718,021	280,843
40	27,982	33,052	3,600	240	18,584	1,067	5,783	1,920	95	.....	1,763	47,550	40,700
41	6,404	2,532	.....	.....	.....	.....	1,408	842	14	.....	268	9,995	8,587
42	67,015	88,569	13,400	6,450	14,751	650	42,465	4,500	150	.....	6,203	104,655	61,540
43	296,273	265,178	7,370	10,806	60,745	3,382	151,113	3,740	1,445	.....	36,577	281,838	127,343
44	249,103	200,789	9,405	16,480	19,329	1,880	104,605	4,254	1,250	.....	43,586	257,904	151,419
45	87,514	135,798	9,310	7,758	72,865	2,958	26,874	6,025	320	.....	9,688	184,192	154,360
46	1,022,709	389,942	27,075	11,595	197,036	60,978	50,940	.....	3,634	.....	38,684	523,350	411,432
47	5,867,064	7,537,158	664,116	865,284	2,140,453	82,918	2,140,672	211,798	33,146	367,389	1,031,382	9,286,188	7,062,598
48	2,038,706	1,435,384	73,760	27,560	642,582	35,903	526,455	11,407	10,844	3,359	103,514	1,550,187	987,829
49	48,488	139,531	4,800	3,420	49,061	2,590	67,688	5,257	291	344	6,080	163,416	93,138
50	5,103,334	15,009,578	107,020	126,379	574,839	81,946	13,678,036	7,849	23,874	.....	409,635	15,653,998	1,894,016
51	99,142	194,521	9,110	4,875	53,213	856	112,367	5,784	412	.....	7,904	211,049	97,826
52	14,352	24,171	.....	.....	11,066	320	6,410	2,350	60	.....	3,965	35,216	28,486
53	367,183	560,086	11,002	11,018	205,148	2,433	238,045	13,272	43,071	126	35,971	680,604	440,126
54	15,526	17,269	3,800	.....	1,361	78	8,609	1,440	58	.....	1,923	20,184	11,497
55	167,977	233,960	13,150	10,737	25,851	13,103	153,200	2,650	1,698	.....	13,571	325,045	158,742
56	30,242,124	20,867,625	410,351	305,265	2,220,908	925,761	15,883,920	80,696	83,026	20,958	936,740	22,877,598	6,067,917

[4] All other industries embrace—Continued.

Hosiery and knit goods	3
Instruments, professional and scientific	1
Iron and steel, steel works and rolling mills	1
Iron and steel, bolts, nuts, washers, and rivets, not made in steel works or rolling mills	2
Iron and steel forgings	2
Iron and steel pipe, wrought	1
Jewelry	9
Jewelry and instrument cases	1
Leather, tanned, curried, and finished	4
Liquors, distilled	1
Looking-glass and picture frames	4
Malt	2
Millinery and lace goods	2
Mineral and soda waters	49
Musical instruments, pianos and organs and materials	2
Paper and wood pulp	2
Paper goods, not elsewhere specified	2
Paving materials	1
Pipes, tobacco	1
Rice, cleaning and polishing	3
Roofing materials	2
Saws	2
Signs and advertising novelties	2
Smelting and refining, copper	2
Smelting and refining, lead	1
Soap	2
Statuary and art goods	4
Stereotyping and electrotyping	1
Type founding and printing materials	2
Upholstering materials	1
Vault lights and ventilators	1
Vinegar and cider	7
Washing machines and clothes wringers	1
Window shades and fixtures	1
Wirework, including wire rope and cable	5
Wood preserving	3
Wood, turned and carved	6
Wool pulling	2

TABLE III.—DETAIL STATEMENT FOR CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES,

CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

SEATTLE.

	INDUSTRY.	Number of establishments	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners (average number). Total.	Wage earners. 16 and over. Male.	Wage earners. 16 and over. Female.	Wage earners. Under 16.	Wage earners—number Dec. 15, or nearest representative day. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horse-power.
1	**All industries**	751	14,014	621	680	1,124	258	11,331	10,260	1,023	48	12,112	10,904	1,159	44	5	37,732
2	Bread and other bakery products	78	461	92	19	35	20	295	251	43	1	294	250	43	.....	1	148
3	Brick and tile	5	154	2	10	2	3	137	137	.....	.....	140	140	.....	.....	.....	482
4	Butter, cheese, and condensed milk	6	36	5	3	4	2	22	18	4	.....	22	18	4	.....	.....	55
5	Canning and preserving	7	85	.....	9	12	5	59	53	6	.....	57	51	6	.....	.....	233
6	Carriages and wagons and materials	12	136	16	9	2	.....	109	109	.....	.....	99	99	.....	.....	.....	73
7	Clothing, men's, including shirts	5	165	2	4	17	1	141	10	131	.....	203	14	189	.....	.....	47
8	Confectionery	20	464	15	16	44	6	383	120	262	1	436	137	298	.....	1	213
9	Copper, tin, and sheet-iron products	36	429	36	25	12	4	352	344	7	1	356	348	7	1	.....	116
10	Flour-mill and gristmill products	7	227	2	15	51	4	155	152	3	.....	185	182	3	.....	.....	2,365
11	Foundry and machine-shop products	71	1,479	44	90	97	18	1,230	1,228	.....	2	1,289	1,287	.....	2	.....	2,787
12	Fur goods	7	48	4	3	3	1	37	13	24	.....	56	19	37	.....	.....	4
13	Furniture and refrigerators	17	195	19	6	3	1	166	166	.....	.....	167	167	.....	.....	.....	239
14	Gloves and mittens, leather	3	31	5	2	1	.....	23	12	11	.....	26	14	12	.....	.....	3
15	Ice, manufactured	5	79	.....	9	9	.....	61	61	.....	.....	61	61	.....	.....	.....	721
16	Leather goods	8	122	8	12	17	4	81	77	4	.....	75	71	4	.....	.....	41
17	Liquors, malt	5	440	.....	18	54	6	362	357	5	.....	352	347	5	.....	.....	1,880
18	Lumber and timber products	63	3,337	39	104	101	17	3,076	3,072	1	3	3,437	3,433	1	3	.....	19,436
19	Marble and stone work	5	68	3	3	5	3	54	54	.....	.....	52	52	.....	.....	.....	38
20	Patent medicines and compounds and druggists' preparations.	8	42	4	5	9	.....	24	15	9	.....	25	16	9	.....	.....	54
21	Printing and publishing	133	1,597	117	88	283	67	1,042	888	129	25	1,055	899	131	23	2	791
22	Slaughtering and meat packing	4	383	1	12	34	11	325	318	7	.....	309	302	7	.....	.....	468
23	Tobacco manufactures	24	95	26	1	2	1	65	54	10	1	75	62	12	1	.....	.....
24	All other industries [1]	222	3,941	181	217	327	84	3,132	2,751	367	14	3,341	2,935	391	14	1	7,538

[1] All other industries embrace: Artificial flowers and feathers and plumes, 1; artificial stone, 3; automobiles, including bodies and parts, 4; awnings, tents, and sails, 9; babbitt metal and solder, 2; bags, other than paper, 1; baskets, and rattan and willow ware, 1; belting and hose, leather, 2; blacking and cleansing and polishing preparations, 3; bluing, 1; boots and shoes, including cut stock and findings, 9; boxes, fancy and paper, 4; brass and bronze products, 4; brooms, 1; brushes, 2; buttons, 1; carpets, rag, 1; cars and general shop construction and repairs by steam-railroad companies, 2; cars and general shop construction and repairs by street-railroad companies, 2; cars, street-railroad, not including operations of railroad companies, 1; chemicals, 1; clothing, women's, 5; coffee and spice, roasting and grinding, 7; cooperage and wooden goods, not elsewhere specified, 2; cordage and twine and jute and linen goods, 1; cutlery and tools, not elsewhere specified, 6; electrical machinery, apparatus, and supplies, 3; electroplating, 2; fireworks, 1; flags, banners, regalia, society badges, and emblems, 1; food preparations, 11; furnishing goods, men's, 3; gas and electric fixtures and lamps and reflectors, 2; gas, illuminating and heating, 1; glass, cutting, staining, and ornamenting, 3; gold and silver, reducing and refining, not from the ore, 1; grease and tallow, 1;

SPOKANE.

1	**All industries**	286	5,294	263	257	654	131	3,989	3,609	365	16	4,287	3,847	425	14	1	9,295
2	Bread and other bakery products	33	345	42	11	25	7	260	151	108	1	290	169	120	1	.....	84
3	Carriages and wagons and materials	5	44	7	1	1	.....	35	35	.....	.....	33	33	.....	.....	.....	35
4	Confectionery	10	163	12	7	17	1	126	53	72	1	164	69	94	1	.....	78
5	Copper, tin, and sheet-iron products	13	140	12	8	8	1	111	111	.....	.....	131	131	.....	.....	.....	50
6	Foundry and machine-shop products	14	344	11	24	19	2	288	286	1	1	280	278	1	1	.....	531
7	Leather goods	6	48	5	5	8	1	29	29	.....	.....	29	29	.....	.....	.....	11
8	Liquors, malt	4	117	.....	8	15	2	92	92	.....	.....	86	86	.....	.....	.....	883
9	Lumber and timber products	23	1,422	7	53	87	8	1,267	1,260	.....	8	1,249	1,242	.....	7	.....	4,238
10	Marble and stone work	5	51	3	2	5	.....	41	41	.....	.....	34	34	.....	.....	.....	55
11	Printing and publishing	46	839	41	46	324	63	365	305	56	4	396	331	61	4	.....	387
12	Tobacco manufactures	15	67	17	2	2	.....	46	41	5	.....	52	46	6	.....	.....	.....
13	All other industries [1]	112	1,714	106	90	143	46	1,329	1,205	123	1	1,543	1,399	143	.....	1	2,943

[1] All other industries embrace: Agricultural implements, 1; artificial stone, 6; awnings, tents, and sails, 2; boots and shoes, including cut stock and findings, 1; boxes, fancy and paper, 1; brass and bronze products, 2; brick and tile, 3; brooms, 2; butter, cheese, and condensed milk, 3; canning and preserving, 2; cars and general shop construction and repairs by steam-railroad companies, 2; cars and general shop construction and repairs by street-railroad companies, 2; clothing, men's, including shirts, 2; coffee and spice, roasting and grinding, 3; coffins, burial cases, and undertakers' goods, 2; electroplating, 1; flavoring extracts, 1; flour-mill and gristmill products, 4; food preparations, 13; fur goods, 5; furnishing goods, men's, 1; furniture and refrigerators, 4; gas and electric fixtures and lamps and reflectors, 1; gas, illuminating and heating, 1; glass, cutting, staining, and ornamenting, 1; hair work, 1; hand stamps and stencils and brands, 3; ice, manufactured, 2; jewelry, 1; jewelry and instrument cases, 1;

TACOMA.

1	**All industries**	276	6,866	216	254	548	83	5,765	5,441	312	12	6,156	5,799	343	11	3	21,546
2	Bread and other bakery products	26	214	29	3	9	9	164	87	75	2	190	101	87	2	.....	109
3	Canning and preserving	4	54	1	4	7	1	41	32	9	.....	44	34	10	.....	.....	75
4	Carriages and wagons and materials	7	68	4	9	.....	2	53	53	.....	.....	47	47	.....	.....	.....	96
5	Copper, tin, and sheet-iron products	13	94	12	10	3	.....	69	69	.....	.....	76	76	.....	.....	.....	37
6	Flour-mill and gristmill products	5	156	2	9	26	3	116	112	4	.....	133	129	4	.....	.....	2,630
7	Foundry and machine-shop products	23	462	16	25	25	4	392	390	.....	2	477	475	.....	2	.....	649
8	Furniture and refrigerators	7	319	2	15	13	4	285	274	11	.....	288	277	11	.....	.....	625
9	Lumber and timber products	31	3,116	12	72	84	13	2,935	2,931	2	2	3,014	3,010	2	2	.....	12,862
10	Printing and publishing	42	617	37	27	242	18	293	249	42	2	300	255	42	3	.....	264
11	Shipbuilding, including boat building	6	40	8	1	.....	.....	31	31	.....	.....	44	44	.....	.....	.....	58
12	Tobacco manufactures	17	100	21	1	1	.....	77	59	18	.....	82	63	19	.....	.....	.....
13	All other industries [1]	95	1,626	72	78	138	29	1,309	1,154	151	4	1,461	1,288	168	2	3	4,141

[1] All other industries embrace: Artificial stone, 8; automobiles, including bodies and parts, 1; awnings, tents, and sails, 3; babbitt metal and solder, 1; boots and shoes, including cut stock and findings, 2; boxes, cigar, 1; boxes, fancy and paper, 1; brass and bronze products, 1; brick and tile, 1; brooms, 2; butter, cheese, and condensed milk, 3; carpets, rag, 1; cars and general shop construction and repairs by steam-railroad companies, 2; cars and general shop construction and repairs by street-railroad companies, 1; clothing, men's, including shirts, 2; coffee and spice, roasting and grinding, 4; coffins, burial cases, and undertakers' goods, 1; confectionery, 5; cooperage and wooden goods, not elsewhere specified, 2; cordials and sirups, 1; electrical machinery, apparatus, and supplies, 1; flavoring extracts, 1; food preparations, 5; fur goods, 2;

AND TOTALS FOR ALL INDUSTRIES IN CITIES OF 10,000 BUT LESS THAN 50,000 INHABITANTS: 1909.

CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES.

SEATTLE.

	Capital.	EXPENSES.										Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.					
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.		
1	$46,471,630	$44,665,203	$1,399,303	$1,350,471	$8,568,818	$738,442	$27,946,292	$496,046	$705,306	$127,553	$3,332,972	$50,569,198	$21,884,464
2	445,493	1,325,255	25,000	39,619	260,048	24,732	868,762	33,883	2,829	1,872	68,510	1,550,251	656,757
3	292,871	184,385	16,890	3,165	100,378	34,208	2,636	664	2,969	.....	23,575	259,239	222,495
4	110,443	488,088	5,100	5,220	19,277	1,225	437,624	3,000	352	.....	16,290	513,923	75,074
5	298,198	334,028	14,450	11,472	44,446	1,972	231,926	3,600	1,644	.....	24,518	394,040	160,142
6	163,135	242,268	11,260	1,320	95,491	6,152	110,413	8,700	694	150	8,088	298,402	181,837
7	242,533	349,577	8,920	17,299	57,915	2,242	233,690	6,210	977	144	22,180	374,059	138,127
8	1,019,571	1,324,417	33,695	55,583	189,701	16,787	873,291	26,493	5,300	.....	123,567	1,490,610	600,532
9	448,319	948,998	40,511	14,699	281,946	8,007	548,987	26,036	2,043	122	26,647	1,130,762	573,768
10	2,414,538	4,240,947	50,460	61,079	111,013	36,670	3,835,485	8,800	13,163	.....	124,277	4,430,408	558,253
11	5,022,814	3,680,650	188,938	103,466	1,022,664	65,081	1,976,531	56,407	31,730	3,443	232,390	4,289,630	2,248,018
12	109,336	130,830	6,800	3,140	32,215	314	74,367	5,820	625	.....	7,549	149,652	74,971
13	173,028	311,202	8,124	3,600	139,307	4,378	135,695	10,693	801	.....	8,604	404,502	264,429
14	23,968	41,524	1,800	1,000	10,497	175	24,545	1,860	156	.....	1,491	52,848	28,128
15	828,266	185,091	13,300	9,300	52,785	37,175	31,305	6,000	4,534	.....	30,692	224,950	156,470
16	222,493	396,628	18,012	17,051	60,272	5,175	261,883	16,090	1,312	86	16,747	443,593	176,535
17	4,407,745	2,244,095	96,033	89,245	299,795	64,212	812,885	180	356,878	.....	524,867	2,815,047	1,937,950
18	7,719,960	6,792,779	205,162	119,133	2,222,217	14,406	3,661,960	33,766	56,876	12,800	466,459	7,739,199	4,062,833
19	88,994	161,891	5,500	6,340	46,884	1,145	79,373	4,416	261	.....	17,972	218,406	137,888
20	58,721	112,350	6,880	12,220	12,256	666	41,161	3,198	509	.....	35,460	152,563	110,736
21	2,542,293	3,212,720	190,347	360,227	903,843	24,486	1,017,872	86,388	11,828	90,527	527,202	4,009,378	2,967,020
22	2,308,337	6,932,177	52,120	52,682	239,938	18,181	6,391,363	3,829	13,830	.....	160,234	7,170,724	761,180
23	71,478	115,684	1,200	3,200	44,798	254	46,090	2,227	8,553	6	9,356	139,962	93,618
24	17,459,096	10,909,619	398,801	360,411	2,321,132	370,799	6,248,548	147,786	187,442	18,403	856,297	12,317,050	5,697,703

hand stamps and stencils and brands, 4; hats and caps, other than felt, straw, and wool, 1; hosiery and knit goods, 2; instruments, professional and scientific, 1; iron and steel, steel works and rolling mills, 1; iron and steel, bolts, nuts, washers, and rivets, not made in steel works or rolling mills, 1; iron and steel forgings, 2; iron and steel pipe, wrought, 1; jewelry, 7; leather, tanned, curried, and finished, 1; mattresses and spring beds, 6; millinery and lace goods, 2; mineral and soda waters, 10; models and patterns, not including paper patterns, 3; musical instruments and materials, not specified, 4; optical goods, 5; paint and varnish, 2; paper goods, not elsewhere specified, 2; paving materials, 1; photo-engraving, 4; pipes, tobacco, 1; rice, cleaning and polishing, 2; roofing materials, 1; saws, 2; shipbuilding, including boat building, 18; show cases, 3; signs and advertising novelties, 1; soap, 1; statuary and art goods, 3; stereotyping and electrotyping, 1; stoves and furnaces, including gas and oil stoves, 5; surgical appliances and artificial limbs, 4; type founding and printing materials, 1; umbrellas and canes, 1; vault lights and ventilators, 1; vinegar and cider, 2; wall plaster, 2; window shades and fixtures, 1; wirework, including wire rope and cable, 3; wood preserving, 1; wood, turned and carved, 1; wool pulling, 2.

SPOKANE.

1	$16,434,413	$16,533,807	$639,558	$693,138	$3,098,063	$317,019	$9,925,672	$182,408	$211,562	$332,360	$1,134,027	$18,879,591	$8,636,900
2	502,564	1,029,156	15,081	51,292	170,180	21,254	664,673	23,473	2,368	5,485	75,350	1,210,728	524,801
3	130,735	79,547	1,900	1,000	27,577	2,781	43,317	600	1,349	90	933	99,452	53,354
4	437,452	387,398	10,820	18,006	57,944	9,062	242,636	5,680	1,158	.....	42,092	406,321	154,623
5	318,495	359,907	12,296	8,047	120,044	1,842	193,275	7,211	2,359	800	14,033	407,699	212,582
6	856,457	765,455	41,470	21,075	212,512	13,356	401,242	4,145	5,300	5,980	60,375	870,791	456,193
7	129,390	202,307	11,740	5,900	21,487	467	149,827	6,490	692	.....	5,704	224,176	73,882
8	2,134,501	797,383	23,800	32,315	113,041	34,234	346,181	.....	136,347	.....	111,465	1,198,860	818,445
9	3,601,768	3,024,312	93,302	92,817	931,863	25,447	1,458,340	19,839	23,688	76,215	302,801	3,301,660	1,817,873
10	154,379	114,310	4,800	4,710	45,103	1,641	51,573	1,696	306	.....	4,481	147,781	94,567
11	781,808	1,868,872	271,764	264,121	375,831	12,442	464,308	38,312	4,250	241,915	195,929	2,120,401	1,643,651
12	66,714	97,908	2,848	2,700	38,280	831	37,956	2,192	5,614	.....	7,487	108,302	69,515
13	7,320,150	7,807,252	149,737	191,155	984,201	193,662	5,872,344	72,770	28,131	1,875	313,377	8,783,420	2,717,414

looking-glass and picture frames, 4; mattresses and spring beds, 3; mineral and soda waters, 3; models and patterns, not including paper patterns, 1; musical instruments and materials, not specified, 1; paint and varnish, 2; patent medicines and compounds and druggists' preparations, 1; photo-engraving, 2; roofing materials, 1; shipbuilding, including boat building, 1; show cases, 5; signs and advertising novelties, 1; slaughtering and meat packing, 2; soap, 1; statuary and art goods, 1; stoves and furnaces, including gas and oil stoves, 1; surgical appliances and artificial limbs, 1; type founding and printing materials, 1; vinegar and cider, 3; wall plaster, 1; wirework, including wire rope and cable, 1; wood, turned and carved, 1.

TACOMA.

1	$21,532,825	$20,432,215	$579,209	$451,882	$3,985,495	$246,074	$13,470,026	$121,448	$351,374	$58,189	$1,168,518	$22,449,979	$8,733,879
2	261,539	499,657	8,000	13,617	83,606	7,817	325,590	5,636	1,912	.....	53,479	566,623	233,216
3	148,190	183,984	7,200	8,244	41,056	2,479	117,046	1,169	646	.....	6,144	190,228	70,703
4	128,101	170,912	12,208	1,080	35,987	2,782	104,476	8,820	919	61	4,579	191,017	83,759
5	142,238	189,327	12,216	3,130	67,233	1,077	87,640	9,585	886	.....	7,560	230,818	142,101
6	2,397,014	3,677,093	39,895	24,023	76,128	30,834	3,398,934	.....	14,144	3,195	89,940	3,844,348	414,580
7	1,836,087	1,154,368	43,619	27,425	289,286	25,075	671,867	4,716	8,274	1,733	82,373	1,367,629	670,687
8	812,444	636,721	23,520	10,994	194,091	6,406	341,859	1,065	9,869	.....	48,917	690,497	342,232
9	7,411,857	5,591,670	182,880	95,331	1,959,076	8,871	2,880,384	21,385	131,333	36,140	276,270	6,040,235	3,150,980
10	603,039	936,175	101,959	117,127	253,056	5,891	240,899	37,097	4,507	13,400	162,239	1,094,099	847,309
11	56,705	70,715	1,600	.....	28,568	685	37,683	1,464	98	.....	617	90,065	51,697
12	65,689	121,315	1,404	1,300	47,300	402	52,212	2,608	11,119	.....	4,970	149,954	97,340
13	7,669,922	7,200,278	144,708	149,611	910,108	153,755	5,211,436	27,903	167,667	3,660	431,430	7,994,466	2,629,275

furnishing goods, men's, 1; gas, illuminating and heating, 1; glass, cutting, staining and ornamenting, 2; hand stamps and stencils and brands, 2; ice, manufactured, 2; jewelry, 1; leather goods, 3; leather, tanned, curried, and finished, 1; liquors, malt, 2; malt, 1; marble and stone work, 7; mattresses and spring beds, 1; mineral and soda waters, 3; models and patterns, not including paper patterns, 2; paint and varnish, 1; patent medicines and compounds and druggists' preparations, 4; photo-engraving, 1; rice, cleaning and polishing, 1; show cases, 2; slaughtering and meat packing, 1; stoves and furnaces, including gas and oil stoves, 1; surgical appliances and artificial limbs, 1; wall plaster, 1; wood, turned and carved, 1.

TABLE III.—DETAIL STATEMENT FOR CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES, AND CITIES OF 10,000 TO 50,000 INHABITANTS—ALL INDUSTRIES COMBINED.

	CITY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY.									WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horsepower
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners (average number).				Total.	16 and over.		Under 16.		
						Male.	Female.	Total.	16 and over.		Under 16.		Male.	Female.	Male.	Female.	
									Male.	Female.							
1	ABERDEEN	43	1,651	26	56	44	16	1,509	1,480	26	3	1,761	1,727	30	2	2	9,582
2	BELLINGHAM	96	1,795	80	38	80	22	1,566	1,456	73	37	1,270	1,181	59	30	.....	5,176
3	EVERETT	94	2,723	77	138	94	39	2,375	2,290	70	15	2,528	2,437	75	14	2	11,481
4	NORTH YAKIMA	36	723	32	23	57	9	602	559	23	20	745	692	28	25	.....	1,975
5	WALLA WALLA	48	529	39	36	49	17	388	370	16	2	396	378	16	2	.....	1,500

TOTALS FOR ALL INDUSTRIES IN CITIES OF 10,000 BUT LESS THAN 50,000 INHABITANTS: 1909—Continued.

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

	Capital.	EXPENSES.											Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.						
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.			
1	$4,559,565	$3,515,307	$99,400	$62,081	$994,651	$26,221	$2,146,199	$6,423	$48,854	$6,197	$125,281		$3,590,230	$1,417,810
2	3,287,558	3,885,775	71,705	86,602	1,025,739	68,922	2,352,824	25,061	35,850	21,543	196,529		4,599,637	2,177,891
3	6,604,979	6,777,133	228,661	130,348	1,719,044	113,007	3,745,695	16,834	58,096	10,253	754,595		7,423,087	3,564,385
4	2,296,953	1,814,953	37,460	67,562	374,127	35,608	914,527	9,284	33,245	150,874	192,266		2,175,367	1,225,232
5	2,336,063	2,011,509	67,732	59,253	322,831	66,176	1,318,926	12,883	37,919	5,033	120,756		2,316,813	931,711

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WEST VIRGINIA.

INDUSTRIES IN GENERAL.

General character of the state.—West Virginia, with a gross area of 24,170 square miles, of which only 148 represent water surface, and with a population in 1910 of 1,221,119, ranks fortieth among the 49 states and territories of continental United States in area and twenty-eighth in population. The total population was 958,800 in 1900 and 762,794 in 1890. In 1910 the density of population for the entire state was 50.8 per square mile, the corresponding figure for 1900 being 39.9. Eighteen and seven-tenths per cent of the entire population of the state in 1910 resided in cities and incorporated towns having 2,500 inhabitants or over, as against 13.1 per cent in 1900.

There were no cities in the state having a population in 1910 of over 50,000, but there were six cities which had a population of 10,000 or more, as follows: Wheeling, Huntington, Charleston, Parkersburg, Bluefield, and Martinsburg. These six cities contained 11.1 per cent of the total population of the state and were credited with 28.6 per cent of the total value of its manufactures. Apart from these cities, only 7.6 per cent of the population resided in incorporated places of 2,500 inhabitants or over.

The cities and mining districts of the state are well supplied with railway transportation facilities, though certain of the heavily wooded areas are not traversed by railroads. The Ohio River, which is of decided commercial importance, forms the greater part of the western boundary of the state, affording cheap and adequate shipping facilities, and many of the numerous mountain streams are utilized for rafting lumber.

Importance and growth of manufactures.—West Virginia is in general more a mining than a manufacturing state. Over one-half of the counties have deposits of bituminous coal, in the production of which the state has held a high rank for many years, its output in 1909 being exceeded only by that of Pennsylvania. The state is especially well adapted, however, to the development of manufactures. The vast deposits of coal, the abundance of petroleum and natural gas, the extensive timber areas, and the excellent water-power facilities which are being rapidly developed are directly responsible for much of the growth in manufactures.

Since 1869 the growth of the population of the state has not kept pace with the increase in the importance of its manufacturing industries. During 1869 an average of 11,672 wage earners, representing 2.6 per cent of the population, were employed in manufactures, while in 1909 an average of 63,893 wage earners, or 5.2 per cent of the total population, were so engaged. During the intervening period the gross value of products per capita of the entire population of the state increased from $55 to $133.

The following table gives the most important figures relative to all classes of manufactures combined for 1909, 1904, and 1899, together with the percentages of increase from census to census:

	NUMBER OR AMOUNT.			PER CENT OF INCREASE.	
	1909	1904	1899	1904-1909	1899-1904
Number of establishments	2,586	2,109	1,824	22.6	15.6
Persons engaged in manufactures	71,463	48,880	(1)	46.2	.....
Proprietors and firm members	2,599	2,230	(1)	16.5	.....
Salaried employees	4,971	2,892	1,744	71.9	65.8
Wage earners (average number)	63,893	43,758	33,080	46.0	32.3
Primary horsepower	217,496	138,578	91,894	56.9	50.8
Capital	$150,923,000	$86,821,000	$49,103,000	73.8	76.8
Expenses	144,666,000	86,738,000	55,551,000	66.8	56.1
Services	38,710,000	24,052,000	14,159,000	60.9	69.9
Salaries	5,710,000	2,899,000	1,519,000	97.0	90.8
Wages	33,000,000	21,153,000	12,640,000	56.0	67.3
Materials	92,878,000	54,419,000	37,228,000	70.7	46.2
Miscellaneous	13,078,000	8,267,000	4,164,000	58.2	98.5
Value of products	161,950,000	99,041,000	67,007,000	63.5	47.8
Value added by manufacture (value of products less cost of materials)	69,072,000	44,622,000	29,779,000	54.8	49.8

[1] Figures not available.

The proportion which the manufactures of the state represented of the total value of the products of the manufacturing industries of the United States increased from 0.6 per cent in 1869 to 0.8 per cent in 1909.

In 1909 the state of West Virginia had 2,586 manufacturing establishments, which gave employment to an average of 71,463 persons during the year and paid out $38,710,000 in salaries and wages. Of the persons employed, 63,893 were wage earners. These establishments turned out products to the value of $161,950,000, to produce which materials costing $92,878,000 were used. The value added by manufacture was thus $69,072,000, which figure, as explained in the Introduction, best represents the net wealth created by manufacturing operations during the year.

In general, this table brings out the fact that the manufacturing industries of West Virginia as a whole showed a greater development during the more recent five-year period, 1904–1909, than during the preceding five-year period, 1899–1904. During the later period the number of establishments increased 22.6 per cent and the averagemumber of wage earners 46 per cent, while the value of products increased 63.5 per cent and the value added by manufacture 54.8 per cent. As pointed out in the Introduction, it would be improper to infer that manufactures increased in volume to the full extent indicated by these figures regarding values, since the increase shown is certainly due, in part, to the increase that has taken place in the prices of commodities.

The relative importance and growth of the leading manufacturing industries of the state are shown in the following table:

INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		PER CENT OF INCREASE.[1]			
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	Value of products.		Value added by manufacture.	
								1904–1909	1899–1904	1904–1909	1899–1904
All industries	**2,586**	**63,893**	**100.0**	**$161,950,000**	**100.0**	**$69,072,000**	**100.0**	**63.5**	**47.8**	**54.8**	**49.8**
Lumber and timber products	1,016	18,643	29.2	28,758,000	17.8	20,082,000	29.1	53.8	54.9	60.7	78.2
Iron and steel, steel works and rolling mills	16	5,060	7.9	22,435,000	13.9	6,539,000	9.5	66.7	0.4	38.7	1.0
Leather, tanned, curried, and finished	20	1,571	2.5	12,451,000	7.7	2,068,000	3.0	105.4	88.8	59.9	93.0
Glass	51	6,190	9.7	7,779,000	4.8	5,483,000	7.9	69.1	145.7	64.2	161.1
Flour-mill and gristmill products	207	452	0.7	7,696,000	4.8	1,095,000	1.6	24.1	63.5	10.9	44.3
Coke	71	4,426	6.9	7,563,000	4.7	2,551,000	3.7	81.2	18.3	67.1	−2.2
Cars and general shop construction and repairs by steam-railroad companies	24	5,652	8.8	6,733,000	4.2	3,670,000	5.3	63.4	39.9	58.8	70.3
Slaughtering and meat packing	6	167	0.3	3,764,000	2.3	379,000	0.5	95.2	44.1	45.8	27.4
Foundry and machine-shop products	83	1,354	2.1	3,392,000	2.1	1,632,000	2.4	18.5	88.7	12.6	82.2
Pottery, terra-cotta, and fire-clay products	16	2,034	3.2	2,679,000	1.7	1,893,000	2.7	108.3	16.4	101.4	6.1
Paper and wood pulp	9	1,162	1.8	2,652,000	1.6	969,000	1.4	104.3	145.8	80.1	111.8
Liquors, malt	13	415	0.7	2,271,000	1.4	1,652,000	2.4	5.8	92.8	−0.8	82.0
Copper, tin, and sheet-iron products	19	916	1.4	2,151,000	1.3	797,000	1.2	179.0	.....	183.6	.....
Printing and publishing	235	1,255	2.0	1,992,000	1.2	1,451,000	2.1	28.2	50.1	20.6	48.7
Bread and other bakery products	151	346	0.5	1,470,000	0.9	611,000	0.9	61.2	131.5	58.7	112.7
Clothing, men's, including shirts	9	403	0.6	1,469,000	0.9	414,000	0.6	71.8	70.7	49.5	91.0
Patent medicines and compounds and druggists' preparations	17	196	0.3	1,292,000	0.8	1,036,000	1.5	.....	.....	.....	.....
Woolen, worsted, and felt goods, and wool hats	13	599	0.9	1,224,000	0.8	429,000	0.6	.....	.....	.....	.....
Furniture and refrigerators	25	578	0.9	965,000	0.6	581,000	0.8	48.9	42.7	51.3	37.6
Brick and tile	34	882	1.4	950,000	0.6	675,000	1.0	9.2	99.5	2.3	94.7
Carriages and wagons and materials	51	347	0.5	675,000	0.4	357,000	0.5	5.6	30.4	5.3	21.1
Cooperage and wooden goods, not elsewhere specified	31	366	0.6	658,000	0.4	324,000	0.5	.....	.....	.....	.....
Lime	13	514	0.8	644,000	0.4	420,000	0.6	455.2	.....	445.5	.....
Canning and preserving	30	271	0.4	605,000	0.4	175,000	0.3	−20.8	−1.3	−53.6	6.2
Bone, carbon, and lamp black	16	101	0.2	596,000	0.3	347,000	0.5	117.5	.....	56.3	.....
Ice, manufactured	35	233	0.4	476,000	0.3	365,000	0.5	34.8	196.6	25.0	201.0
Leather goods	8	127	0.2	472,000	0.3	195,000	0.3	28.3	15.4	46.6	−2.2
Marble and stone work	29	144	0.2	365,000	0.2	231,000	0.3	135.5	−46.6	148.4	−52.8
Mattresses and spring beds	7	72	0.1	267,000	0.2	113,000	0.2	88.0	.....	145.7	.....
Confectionery	10	82	0.1	244,000	0.1	97,000	0.1	8.0	130.6	−11.0	211.4
All other industries	321	9,335	14.6	37,262,000	23.0	12,441,000	18.0	.....	.....	.....	.....

[1] Percentages are based on figures in Table I; a minus sign (−) denotes decrease. Where the percentages are omitted, comparable figures can not be given.

It should be borne in mind, in considering this table, that the value of products in some of the industries involves a certain amount of duplication due to the use of the products of one establishment in the industry as material for another establishment.

Of the industries included under the head of "All other industries" in the table, the tin-plate and terneplate industry is the most important, ranking fourth in the state when measured by value of products. West Virginia, with six mills, which had a total output for 1909 valued at $9,257,524, was second among the states in this industry. Other statistics for this industry for 1909 are presented in Table II, page 1326.

In addition to the 30 industries presented separately in the table, and the tin-plate and terneplate industry, all of which reported products valued at more than $200,000 in 1909, 24 other industries in the state had a value of products in excess of this amount. These industries are included under the head of "All other industries" in the table, because in some cases the operations of individual establishments would be disclosed if they were shown separately; in others, because the returns do not present properly the true condition of the industry, as it is interwoven with one or more other industries; and in still others, because comparative statistics for the previous censuses can not

be presented on account of changes in classification. These industries are as follows: Boots and shoes, including cut stock and findings; brooms; cars, steam-railroad, not including operations of railroad companies; chemicals; clothing, women's; cutlery and tools, "not elsewhere specified;" dyeing and finishing textiles; dyestuffs and extracts; electrical machinery, apparatus, and supplies; explosives; galvanizing; gas and electric fixtures and lamps and reflectors; gas, illuminating and heating; hosiery and knit goods; iron and steel, blast furnaces; iron and steel pipe, wrought; liquors, distilled; mineral and soda waters; oil, "not elsewhere specified;" petroleum, refining; smelting and refining, zinc; smelting and refining, not from the ore; tobacco manufactures; and wood, turned and carved.

Although a few industries predominate greatly in importance, it will be seen from Table II, page 1326, that there is on the whole considerable diversity in the manufacturing activities of the state. The most important industries listed in the preceding table, in which they are arranged in the order of the value of products, call for brief consideration.

Lumber and timber products.—Under this head are included statistics for logging and sawmill operations, for planing mills, and for establishments engaged in the manufacture of wooden packing boxes. The industry afforded employment in 1909 to an average of 18,643 wage earners and turned out products valued at $28,758,000, these figures representing 29.2 per cent and 17.8 per cent of the respective totals reported for all manufacturing industries of the state. Much of the virgin timber has been cut, but extensive areas in all parts of the state are still wooded. Statistics for the custom sawmills, most of which are small, are not included with the general statistics of this industry, but are shown separately on page 1323.

Iron and steel, steel works and rolling mills.—With extensive deposits of coal, and because of the favorable location of that part of the state in which the steel works and rolling mills are situated, West Virginia is particularly well adapted to the manufactures peculiar to this industry. Between 1899 and 1904 practically no change took place in the value of products, but between 1904 and 1909 there was an increase of $8,980,000, or 66.7 per cent. The industry is second in importance in the state, as measured by value of products.

Leather, tanned, curried, and finished.—With an abundant and convenient supply of oak and hemlock bark there was a marked growth in the leather industry of the state during the decade 1899–1909. Measured by value of products this industry was third in importance among the industries of the state in 1909. Although the number of tanneries decreased from 33 in 1904 to 20 in 1909, there were increases of 625, or 66.1 per cent, in the average number of wage earners; $341,000, or 78.6 per cent, in wages; and $6,389,000, or 105.4 per cent, in the value of products during the same period.

Glass.—The large deposits of white siliceous sand admirably adapted to glass making found in West Virginia and an abundant supply of coal and natural gas have caused a rapid growth in the industry. The number of establishments engaged in this industry increased from 16 in 1899 to 39 in 1904 and to 51 in 1909, when West Virginia reported next to the largest number shown for any state in the Union. During the decade the average number of wage earners increased from 1,949 to 6,190, or more than trebled, and the value of products increased from $1,872,000 to $7,779,000, or more than quadrupled.

Flour-mill and gristmill products.—This classification includes statistics for all mills grinding wheat, rye, buckwheat, or corn, as well as those making hominy and grits, but it does not include statistics for factories manufacturing fancy cereals or other food preparations as chief products. In 1909 there were 207 merchant mills in West Virginia, which manufactured products valued at $7,696,000, or 4.8 per cent of the value of all manufactured products of the state. The figures for the mills doing custom grinding for local consumption are excluded from the general statistics, but they are shown separately on page 1323.

Coke.—The industry includes establishments operating coke ovens for the manufacture of coke from coal or slack. The manufacture of coke at gas houses is not included. Since 1899 there has been a decrease in the number of establishments in this industry, but increases have occurred both in the average number of wage earners employed and in the value of products. In 1909 West Virginia occupied second place among the states in the tonnage of coke produced and third in the value of the output. The increased activity of the iron and steel industry during recent years has given an added impetus to the production of coke in the state. The total value of products reported for this industry in 1909 was $7,563,000, which was more than double that shown for 1899.

Owing to the comparatively simple processes involved in the flour mills and gristmills and in the tanning, currying, and finishing of leather, as well as the extent to which these processes are carried on by machinery, the value added by manufacture and the number of wage earners employed in these industries are not commensurate with the gross value of products. On the other hand, steam-railroad repair shops, which rank seventh, and the manufacture of pottery, terra-cotta, and fire-clay products, which ranks tenth among the industries shown in the table when measured by value of products, occupy third and sixth positions, respectively, in the number of wage earners employed, and fourth and seventh places, respectively, when measured

by value added by manufacture. In fact, the lumber industry and the steel works and rolling mills are the only two of the six leading industries which hold the same relative rank when measured by value added by manufacture as when measured by value of products. Furthermore, it will be seen that there is considerable change in the order of the other industries shown separately in the table when ranked according to value added by manufacture. The most conspicuous change is in the case of slaughtering and meat packing, which drops from eighth to twenty-first place.

The table on page 1312 shows also the percentages of increase for these leading industries in respect to value of products and value added by manufacture where these statistics are comparable. In the case of several of these industries there were increases which indicate exceptional development. The manufacture of lime shows a greater relative gain from 1904 to 1909, both in value of products and in value added by manufacture, than any other of the industries for which comparative figures are presented in the table, each showing increases of about 450 per cent. All of the six leading industries, with the exception of flour mills and gristmills, show large gains in both these respects from 1904 to 1909.

In the canning and preserving industry decreases in the value of products occurred during both five-year periods. Each of the other industries presented separately shows an increase in value of products from 1904 to 1909, and all except three an increase in value added by manufacture. For the preceding five-year period, two industries show a decrease in the former item and three in the latter.

Persons engaged in manufacturing industries.—The following table shows for 1909 the distribution of the number of persons engaged in manufactures, the average number of wage earners being distributed by sex and age. It should be borne in mind, however, that 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 Introduction.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.		
	Total.	Male.	Female.
All classes	71,463	66,121	5,342
Proprietors and officials	4,508	4,423	85
Proprietors and firm members	2,599	2,527	72
Salaried officers of corporations	568	562	6
Superintendents and managers	1,341	1,334	7
Clerks	3,062	2,505	557
Wage earners (average number)	63,893	59,193	4,700
16 years of age and over	62,840	58,335	4,505
Under 16 years of age	1,053	858	195

The average number of persons engaged in manufactures during 1909 was 71,463, of whom 63,893 were wage earners. Of the remainder, 4,508 were proprietors and officials and 3,062 were clerks. Corresponding figures for individual industries will be found in Table II, page 1326.

The following table shows, for 1909, the percentages of proprietors and officials, clerks, and wage earners, respectively, among the total number of persons employed in manufactures. It covers all industries combined and 15 important industries individually.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries	71,463	6.3	4.3	89.4
Cars and general shop construction and repairs by steam-railroad companies	5,920	1.0	3.5	95.5
Coke	4,746	2.9	3.9	93.3
Copper, tin, and sheet-iron products	998	3.3	4.9	91.8
Flour-mill and gristmill products	884	38.8	10.1	51.1
Foundry and machine-shop products	1,633	9.7	7.3	82.9
Glass	6,509	2.3	2.6	95.1
Iron and steel, steel works and rolling mills	5,445	1.7	5.3	92.9
Leather, tanned, curried, and finished	1,688	2.5	4.4	93.1
Liquors, malt	524	7.1	13.7	79.2
Lumber and timber products	20,799	8.1	2.3	89.6
Paper and wood pulp	1,221	2.5	2.3	95.2
Pottery, terra-cotta, and fire-clay products	2,149	2.4	2.9	94.6
Printing and publishing	1,772	19.2	10.0	70.8
Slaughtering and meat packing	209	6.7	13.4	79.9
Tin plate and terneplate	1,465	2.1	6.8	91.1
All other industries	15,501	8.5	6.0	85.5

Of the total number of persons engaged in all manufacturing industries, 6.3 per cent were proprietors and officials, 4.3 per cent clerks, and 89.4 per cent wage earners. The highest percentage of proprietors and officials shown for any individual industry, 38.8, is for the flour mills and gristmills. Measured by number of persons engaged, the establishments in this industry are generally small and the work is done largely by the proprietors or their immediate representatives, so that the proportion of persons in this industry falling into the class of proprietors and officials is very much higher than for the other industries or for all industries combined. In printing and publishing, where the situation is somewhat similar, proprietors and officials constituted 19.2 per cent of the total number of persons engaged in the industry.

On account of the large average number of wage earners to an individual establishment in the steam-railroad repair shops and in the steel works and rolling mills, these industries show the smallest proportions of proprietors and officials.

The next table shows, for 1909, in percentages, for all industries combined, the distribution of the average number of wage earners by age periods, and for those 16 years of age and over by sex, calculated in the manner described in the Introduction. It also shows, for some of the important industries separately, a similar distribution of wage earners as reported for December 15, or the nearest representative day. As a means of judging the importance of the several industries, the average number employed for the year is also given in each case.

INDUSTRY.	WAGE EARNERS.			
	Average number.[1]	Per cent of total.		
		16 years of age and over.		Under 16 years of age.
		Male.	Female.	
All industries	63,893	91.3	7.0	1.6
Cars and general shop construction and repairs by steam-railroad companies	5,652	99.0	0.3	0.7
Coke	4,426	100.0	.....	(2)
Copper, tin, and sheet-iron products	916	60.7	32.2	7.1
Flour-mill and gristmill products	452	98.9	0.4	0.7
Foundry and machine-shop products	1,354	99.8	.....	0.2
Glass	6,190	86.1	8.7	5.2
Iron and steel, steel works and rolling mills	5,060	99.3	0.2	0.5
Leather, tanned, curried, and finished	1,571	100.0	.....	.....
Liquors, malt	415	99.0	.....	1.0
Lumber and timber products	18,643	99.4	0.1	0.6
Paper and wood pulp	1,162	96.1	3.9	.....
Pottery, terra-cotta, and fire-clay products	2,034	71.3	27.8	0.9
Printing and publishing	1,255	72.7	21.8	5.5
Slaughtering and meat packing	167	100.0	.....	.....
Tin plate and terneplate	1,335	90.9	8.5	0.7
All other industries	13,261	77.2	19.8	2.9

[1] For method of estimating the distribution, by sex and age periods, of the average number in all industries combined, see Introduction.
[2] Less than one-tenth of 1 per cent.

For all industries combined, 91.3 per cent of the average number of wage earners were males 16 years of age and over; 7 per cent, females 16 years of age and over; and 1.6 per cent, children under the age of 16. In the manufacture of copper, tin, and sheet-iron products nearly one-third of the wage earners were women 16 years of age and over; in the pottery, terra-cotta, and fire-clay industry the proportion was over one-fourth; and in printing and publishing, more than one-fifth.

The manufacture of copper, tin, and sheet-iron products, the glass industry, and printing and publishing show the largest proportions of wage earners under 16 years of age.

In order to compare the distribution of persons engaged in manufactures in 1909 with that shown at the census of 1904 it is necessary to use the classification employed at the earlier census. (See Introduction.) The following table makes this comparison according to occupational status:

CLASS.	PERSONS ENGAGED IN MANUFACTURES.				
	1909		1904		Per cent of increase, 1904–1909.
	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total	71,463	100.0	48,880	100.0	46.2
Proprietors and firm members	2,599	3.6	2,230	4.6	16.5
Salaried employees	4,971	7.0	2,892	5.9	71.9
Wage earners (average number)	63,893	89.4	43,758	89.5	46.0

Comparable figures are not obtainable for 1899. The table shows a greater percentage of increase in the salaried employees than in the other two classes.

The following table shows the average number of wage earners, distributed according to age periods, and in the case of those 16 years of age and over according to sex, for 1909, 1904, and 1899. The averages for 1909 are estimated on the basis of the actual number reported for a single representative day. (See Introduction.)

CLASS.	AVERAGE NUMBER OF WAGE EARNERS.					
	1909		1904		1899	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total	63,893	100.0	43,758	100.0	33,080	100.0
16 years of age and over	62,840	98.4	42,627	97.4	32,270	97.6
Male	58,335	91.3	39,378	90.0	29,458	89.0
Female	4,505	7.1	3,249	7.4	2,812	8.5
Under 16 years of age	1,053	1.6	1,131	2.6	810	2.4

This table indicates that while there was an actual increase during the 10 years in the number of children under the age of 16 and of females 16 years of age and over employed in the manufacturing industries of the state, the proportion which each of these two classes of wage earners formed of the total was less in 1909 than in 1899. In 1909 males 16 years of age and over formed 91.3 per cent of all wage earners, as compared with 90 per cent in 1904 and 89 per cent in 1899.

Wage earners employed, by months.—The following table gives the number of wage earners employed on the 15th of each month during the year 1909 for all industries combined; it gives also the percentage which the number reported for each month is of the greatest number reported for any month. In Table II, page 1326, are shown, for practically all of the important industries in the state, the largest number and the smallest number of wage earners reported for any month. The figures are for the 15th day, or the nearest representative day, of the month.

MONTH.	WAGE EARNERS.		MONTH.	WAGE EARNERS.	
	Number.	Per cent of maximum.		Number.	Per cent of maximum.
January	56,191	81.2	July	62,187	89.9
February	57,393	82.9	August	65,651	94.9
March	60,499	87.4	September	68,299	98.7
April	62,456	90.3	October	69,202	100.0
May	62,665	90.6	November	68,647	99.2
June	65,467	94.6	December	68,056	98.3

Such seasonal industries as the brick and tile and canning and preserving industries did not give employment to sufficiently large numbers of wage earners to influence greatly the general movement of employment in the state; and in the glass industry the period of relatively small employment was limited to the two months of July and August. For all industries combined the month of least activity was January, in which the number of wage earners reported represented 81.2 per cent of the number in October, the month of maximum activity.

Prevailing hours of labor.—In the following table wage earners have been classified according to the hours of labor prevailing in the establishments in which they are employed. In making this classification the average number of wage earners employed during the year is used, and the number employed in each establishment is classified as a total according to the hours prevailing in that establishment, even though a few employees work a greater or less number of hours.

INDUSTRY.	AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS GROUPED ACCORDING TO PREVAILING HOURS OF WORK PER WEEK.								
	Total.	48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.	Over 72.
All industries	**63,893**	**7,181**	**3,162**	**6,503**	**7,304**	**31,480**	**6,20.**	**274**	**1,780**
Bone, carbon, and lamp black	101				5	20		17	59
Bread and other bakery products	346	29		27	5	227	8	33	17
Brick and tile	882	90	3	60	32	697			
Canning and preserving	271			2		261		8	
Carriages and wagons and materials	347	3		117	90	136		1	
Cars and general shop construction and repairs by steam-railroad companies	5,652		50	35	1,614	2,489	411		1,053
Clothing, men's, including shirts	403			82	236	85			
Coke	4,426	21	38	316	16	3,966			69
Confectionery	82	6		25	29	22			
Cooperage and wooden goods, not elsewhere specified	366	18	14	54	42	233		5	
Copper, tin, and sheet-iron products	916	8		67	248	593			
Flour-mill and gristmill products	452	74	4	17	25	273	35	22	2
Foundry and machine-shop products	1,354	10	31	512	169	598	34		
Furniture and refrigerators	578		12	94	1	469		2	
Glass	6,190	1,866	2,252	1,424	385	263			
Ice, manufactured	233			35	5	71	20	33	69
Iron and steel, steel works and rolling mills	5,060	1,779		812	312	315	1,842		
Leather goods	127			32	94	1			
Leather, tanned, curried, and finished	1,571		1	68	128	1,374			
Lime	514			1		513			
Liquors, malt	415	208		129		42	36		
Lumber and timber products	18,643	168	205	364	757	13,998	3,148	3	
Marble and stone work	144	11	5	79	5	44			
Mattresses and spring beds	72	29				43			
Paper and wood pulp	1,162				57	680	329	96	
Patent medicines and compounds and druggists' preparations	196	1	181	7		7			
Pottery, terra-cotta, and fire-clay products	2,034	1,201	217	420	33	163			
Printing and publishing	1,255	601	35	479	41	99			
Slaughtering and meat packing	167					21	146		
Tin plate and terneplate	1,335	523		456	356				
Woolen, worsted, and felt goods, and wool hats	599			4	1	594			
All other industries	8,000	535	114	785	2,586	3,215	200	54	511

These figures show that for more than two-thirds of the wage earners employed in the manufacturing industries of West Virginia the usual hours of labor ranged from 54 to 60 a week, only 16.2 per cent of the total working in establishments where the prevailing hours were less than 54 a week, and 12.9 per cent in establishments where they were more than 60 a week.

Practically one-half, 49.3 per cent, of the wage earners, including the great majority of those engaged in the making of coke, in the tanning, currying, and finishing of leather, and in the lumber industry, are employed 60 hours a week. Nearly all of the wage earners engaged in the manufacture of glass; pottery, terra-cotta, and fire-clay products; and tin plate and terneplate, however, are employed in plants where the prevailing hours are less than 60 a week.

Location of establishments.—The next table shows the extent to which the manufactures of West Virginia are centralized in cities of 10,000 inhabitants or over. (See Introduction.) The comparison is confined here, as in other states, to the years 1899 and 1909, in the absence of a Federal census of population by which the grouping of cities in 1904 could be determined.

In 1909 only 28.6 per cent of the total value of products was reported from the six cities having over 10,000 inhabitants, and 24.3 per cent of the average number of wage earners were employed in such cities. The figures indicate that the proportion of manufacturing in the outside districts, which was already large in 1899, increased decidedly during the following decade. This increase is the result, in part, of the increased activity in the lumber and in the coke industries, both of which are carried on principally in the outside districts. The fact that the statistics for Bluefield and Martinsburg were included in those for the outside territory in 1899 and in those for the cities in 1909 makes these gains even more conspicuous.

ITEM.	Year.	Total.	LOCATION OF ESTABLISHMENTS.		PER CENT OF TOTAL.	
			In cities with population of 10,000 and over.	Outside districts.	In cities with population of 10,000 and over.	Outside districts.
Population	1910	1,221,119	135,526	1,085,593	11.1	88.9
	1900	958,800	73,603	885,197	7.7	92.3
Number of establishments.	1909	2,586	435	2,151	16.8	83.2
	1899	1,824	327	1,497	17.9	82.1
Average number of wage earners.	1909	63,893	15,501	48,392	24.3	75.7
	1899	33,080	9,830	23,250	29.7	70.3
Value of products	1909	$161,949,526	$46,302,723	$115,646,803	28.6	71.4
	1899	67,006,822	23,079,313	43,927,509	34.4	65.6
Value added by manufacture.	1909	69,071,538	19,032,710	50,038,828	27.6	72.4
	1899	29,778,569	9,630,783	20,147,786	32.3	67.7

The population for 1910 and 1900 of the six cities which had 10,000 inhabitants or over in 1910 is given in the following tabular statement:

CITY.	1910	1900	CITY.	1910	1900
Wheeling	41,641	38,878	Parkersburg	17,842	11,703
Huntington	31,161	11,923	Bluefield	11,188	4,644
Charleston	22,996	11,099	Martinsburg	10,698	7,564

The relative importance in manufactures of each of these six cities is shown in the following table, in which the value of products and average number of wage earners are shown separately for 1909, 1904, and 1899:

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Wheeling [1]	7,809	7,127	6,190	$27,077,151	$21,797,475	$15,074,345
Huntington	3,156	2,229	1,717	6,511,260	4,407,153	3,642,565
Parkersburg	1,495	1,444	1,237	5,498,452	3,778,139	3,100,588
Charleston [1]	951	887	686	3,235,363	2,100,470	1,261,815
Martinsburg	1,420	(2)	(2)	2,515,458	(2)	(2)
Bluefield	670	(2)	(2)	1,465,039	(2)	(2)

[1] Figures do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city.
[2] Figures not available.

Each of the four cities for which comparative figures are available shows an increase in value of products for each of the five-year periods. The percentages of increase for Huntington and Parkersburg were much greater from 1904 to 1909 than from 1899 to 1904, while those for Wheeling and Charleston were greater during the earlier period. From 1904 to 1909 the greatest relative gain in value of products, 54 per cent, was made by Charleston, as a result in part of the increased output of its flour mills and gristmills, foundries and machine shops, and sawmills and planing mills. The next largest increase, 47.7 per cent, is shown for Huntington, and is due in part to the establishment of new plants manufacturing boots and shoes, malt liquors, and looking-glass and picture frames, and turning and carving wood, as well as to the increased production of the steam-railroad repair shops, steel works and rolling mills, furniture factories, and flour mills and gristmills. Parkersburg shows a gain in value of products of 45.5 per cent, as against 21.9 per cent from 1899 to 1904. The manufacturing activity of this city is due in a measure to its proximity to the oil fields. The chief industries are foundries and machine shops, petroleum refining, oil, "not elsewhere specified," steam-railroad repair shops, and flour-mill and gristmill products.

Wheeling, the largest and most important city in the state, shows a diversity of manufacturing. The total value of products increased 44.6 per cent during the earlier five-year period, as compared with an increase of only 24.2 per cent from 1904 to 1909. The principal industries in 1909 were galvanizing, steel works and rolling mills, blast furnaces, breweries, and the manufacture of patent medicines, tin plate and terneplate, and tobacco products. These seven industries combined contributed 69.2 per cent of the total value of manufactured products reported for the city.

The two leading industries in Martinsburg were the manufacture of hosiery and knit goods and of woolen goods, and in Bluefield, steam-railroad repair shops and flour-mill and gristmill products.

Character of ownership.—The table on the following page has for its purpose the presentation of conditions in respect to the character of ownership, or legal organization, of manufacturing enterprises. For all industries combined comparative figures are given covering the censuses of 1909 and 1904. Comparative data for 1899 are not available. Figures for 1909 only are presented for several important industries individually. In order to avoid disclosing the operations of individual concerns, it is necessary to omit several important industries from this table and the one following.

The most important distinction shown is that between corporate and all other forms of ownership. For all industries combined, 31.4 per cent of the total number of establishments were in 1909 under corporate ownership, as against 68.6 per cent under all other forms. The corresponding figures for 1904 were 30.3 per cent and 69.7 per cent, respectively. When measured by value of products the establishments under corporate ownership are the more important. In 1909 the establishments operated by corporations reported 86.7 per cent of the total value, as against 13.3 per cent for those under all other forms of ownership, while in 1904 the corresponding figures were 79.7 per cent and 20.3 per cent, respectively. The establishments operated by firms represented 22.4 per cent of the total number of establishments in 1909, as compared with 25.7 per cent in 1904.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	2,586	63,893	$161,949,526	$69,071,538
1904	2,109	43,758	99,040,676	44,621,470
Individual:				
1909	1,188	6,113	11,086,973	6,226,769
1904	920	4,922	10,014,225	5,520,148
Firm:				
1909	579	4,422	10,293,351	4,948,918
1904	542	3,556	9,557,940	4,369,886
Corporation:				
1909	813	53,306	140,385,264	57,737,308
1904	638	35,065	78,951,053	34,439,463
Other:				
1909	6	52	183,938	158,543
1904	9	215	517,458	291,973
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Individual:				
1909	45.9	9.6	6.8	9.0
1904	43.6	11.2	10.1	12.4
Firm:				
1909	22.4	6.9	6.4	7.2
1904	25.7	8.1	9.6	9.8
Corporation:				
1909	31.4	83.4	86.7	83.6
1904	30.3	80.1	79.7	77.2
Other:				
1909	0.2	0.1	0.1	0.2
1904	0.4	0.5	0.5	0.7
Copper, tin, and sheet-iron products, 1909	19	916	$2,150,789	$796,565
Individual	3	14	32,965	16,472
Firm	5	17	32,935	19,793
Corporation	11	885	2,084,889	760,300
Per cent of total	100.0	100.0	100.0	100.0
Individual	15.8	1.5	1.5	2.1
Firm	26.3	1.9	1.5	2.5
Corporation	57.9	96.6	96.9	95.4
Flour-mill and gristmill products, 1909	207	452	$7,695,801	$1,094,654
Individual	90	126	1,517,216	278,870
Firm	79	106	1,392,351	254,224
Corporation	38	220	4,786,234	561,560
Per cent of total	100.0	100.0	100.0	100.0
Individual	43.5	27.9	19.7	25.5
Firm	38.2	23.5	18.1	23.2
Corporation	18.4	48.7	62.2	51.3
Foundry and machine-shop products, 1909	83	1,354	$3,391,930	$1,632,252
Individual	27	144	286,552	155,531
Firm	18	122	356,851	173,613
Corporation	38	1,088	2,748,527	1,303,108
Per cent of total	100.0	100.0	100.0	100.0
Individual	32.5	10.6	8.4	9.5
Firm	21.7	9.0	10.5	10.6
Corporation	45.8	80.4	81.0	79.8
Glass, 1909	51	6,190	$7,779,483	$5,483,555
Individual	5	44	49,969	37,189
Firm	4	80	72,213	59,101
Corporation	42	6,066	7,657,301	5,387,265
Per cent of total	100.0	100.0	100.0	100.0
Individual	9.8	0.7	0.6	0.7
Firm	7.8	1.3	0.9	1.1
Corporation	82.4	98.0	98.4	98.2
Lumber and timber products, 1909	1,016	18,643	$28,758,481	$20,082,394
Individual	549	3,249	4,137,601	2,846,554
Firm	294	3,074	4,353,467	3,109,076
Corporation	173	12,320	20,267,413	14,126,764
Per cent of total	100.0	100.0	100.0	100.0
Individual	54.0	17.4	14.4	14.2
Firm	28.9	16.5	15.1	15.5
Corporation	17.0	66.1	70.5	70.3
Printing and publishing, 1909	235	1,255	$1,992,036	$1,451,498
Individual	132	296	498,579	384,493
Firm	32	87	134,993	101,732
Corporation	68	872	1,353,748	960,557
Other	3	.....	4,716	4,716
Per cent of total	100.0	100.0	100.0	100.0
Individual	56.2	23.6	25.0	26.5
Firm	13.6	6.9	6.8	7.0
Corporation	28.9	69.5	68.0	66.2
Other	1.3	.....	0.2	0.3

Size of establishment.—The tendency for manufacturing to become concentrated in large establishments, or the reverse, is a matter of interest from the standpoint of industrial organization. In order to throw some light upon it the next table groups the establishments according to the value of their products. The table also shows the average size of establishments for all industries combined and for certain important industries separately, as measured by number of wage earners, value of products, and value added by manufacture. The totals for all industries are shown for the last two censuses, while for individual industries figures are given for 1909 only.

This table shows that, in 1909, of the 2,586 establishments only 33, or 1.3 per cent, had a value of products exceeding $1,000,000. These establishments, however, reported 23.1 per cent of the total average number of wage earners, 38.6 per cent of the total value of products, and 27.2 per cent of the total value added by manufacture.

On the other hand, the very small establishments—that is, those having a value of products of less than $5,000—constituted a very considerable proportion (41.8 per cent) of the total number of establishments, but the value of their products amounted to only 1.6 per cent of the total. The great bulk of the manufacturing was reported by establishments having a product valued at not less than $100,000.

It will be seen from the table that during the five years from 1904 to 1909 there was a considerable increase as measured by value of products in the relative importance of the largest establishments—those reporting products of not less than $1,000,000 in value—and a decrease in that of all other classes.

The fact that the average value of products per establishment increased from $46,961 to $62,625, and the average value added by manufacture from $21,158 to $26,710, should not be taken as in itself indicating a tendency toward concentration. The increased values shown may be, and probably are, due in part to the increase that has taken place in the prices of commodities.

The average number of wage earners per establishment increased from 21 to 25.

INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
ALL INDUSTRIES:				
1909	2,586	63,893	$161,949,526	$69,071,538
1904	2,109	43,758	99,040,676	44,621,470
Less than $5,000:				
1909	1,082	1,988	2,548,624	1,734,907
1904	775	1,180	1,818,126	1,209,794
$5,000 and less than $20,000:				
1909	759	4,240	7,566,470	4,352,873
1904	707	3,914	7,340,887	4,036,852
$20,000 and less than $100,000:				
1909	462	10,384	21,017,729	10,417,819
1904	443	10,657	19,041,458	10,011,781
$100,000 and less than $1,000,000:				
1909	250	32,553	68,334,808	33,764,126
1904	170	21,487	45,685,216	21,889,469
$1,000,000 and over:				
1909	33	14,728	62,481,895	18,801,813
1904	14	6,520	25,154,989	7,473,574
Per cent of total:				
1909	100.0	100.0	100.0	100.0
1904	100.0	100.0	100.0	100.0
Less than $5,000:				
1909	41.8	3.1	1.6	2.5
1904	36.7	2.7	1.8	2.7
$5,000 and less than $20,000:				
1909	29.4	6.6	4.7	6.3
1904	33.5	8.9	7.4	9.0
$20,000 and less than $100,000:				
1909	17.9	16.3	13.0	15.1
1904	21.0	24.4	19.2	22.4
$100,000 and less than $1,000,000:				
1909	9.7	50.9	42.2	48.9
1904	8.1	49.1	46.1	49.1
$1,000,000 and over:				
1909	1.3	23.1	38.6	27.2
1904	0.7	14.9	25.4	16.7
Average per establishment:				
1909	.....	25	$62,625	$26,710
1904	.....	21	46,961	21,158
Copper, tin, and sheet-iron products, 1909	19	916	$2,150,789	$796,565
Less than $5,000	3	3	9,985	6,351
$5,000 and less than $20,000 [1]	10	59	136,765	73,394
$100,000 and less than $1,000,000	6	854	2,004,039	716,820
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	15.8	0.3	0.5	0.8
$5,000 and less than $20,000 [1]	52.6	6.4	6.3	9.2
$100,000 and less than $1,000,000	31.6	93.2	93.2	90.0
Average per establishment	.....	48	$113,199	$41,924
Flour-mill and gristmill products, 1909	207	452	$7,695,801	$1,094,654
Less than $5,000	34	26	109,153	20,702
$5,000 and less than $20,000	93	105	1,037,257	214,799
$20,000 and less than $100,000	67	164	2,594,193	426,012
$100,000 and less than $1,000,000	13	157	3,955,198	433,141
Flour-mill and gristmill products, 1909—Continued.				
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	16.4	5.8	1.4	1.9
$5,000 and less than $20,000	44.9	23.2	13.5	19.6
$20,000 and less than $100,000	32.4	36.3	33.7	38.9
$100,000 and less than $1,000,000	6.3	34.7	51.4	39.6
Average per establishment	.....	2	$37,178	$5,288
Foundry and machine-shop products, 1909	83	1,354	$3,391,930	$1,632,252
Less than $5,000	22	45	65,683	37,711
$5,000 and less than $20,000	25	146	242,844	160,587
$20,000 and less than $100,000	29	587	1,418,392	731,322
$100,000 and less than $1,000,000	7	576	1,665,011	702,632
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	26.5	3.3	1.9	2.3
$5,000 and less than $20,000	30.1	10.8	7.2	9.8
$20,000 and less than $100,000	34.9	43.4	41.8	44.8
$100,000 and less than $1,000,000	8.4	42.5	49.1	43.0
Average per establishment	.....	16	$40,867	$19,666
Glass, 1909	51	6,190	$7,779,483	$5,483,555
$5,000 and less than $20,000 [2]	7	40	37,675	29,349
$20,000 and less than $100,000	15	755	844,316	579,102
$100,000 and less than $1,000,000	29	5,395	6,897,492	4,875,104
Per cent of total	100.0	100.0	100.0	100.0
$5,000 and less than $20,000 [2]	13.7	0.6	0.5	0.5
$20,000 and less than $100,000	29.4	12.2	10.9	10.6
$100,000 and less than $1,000,000	56.9	87.2	88.7	88.9
Average per establishment	.....	121	$152,539	$107,521
Lumber and timber products, 1909	1,016	18,643	$28,758,481	$20,082,394
Less than $5,000	524	1,130	1,185,419	880,883
$5,000 and less than $20,000	294	2,286	2,839,905	2,002,584
$20,000 and less than $100,000	128	3,379	5,847,802	3,467,986
$100,000 and less than $1,000,000 [3]	70	11,848	18,885,355	13,730,941
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	51.6	6.1	4.1	4.4
$5,000 and less than $20,000	28.9	12.3	9.9	10.0
$20,000 and less than $100,000	12.6	18.1	20.3	17.3
$100,000 and less than $1,000,000 [3]	6.9	63.6	65.7	68.4
Average per establishment	.....	18	$28,306	$19,766
Printing and publishing, 1909	235	1,255	$1,992,036	$1,451,498
Less than $5,000	158	274	368,047	290,596
$5,000 and less than $20,000	54	315	477,927	370,669
$20,000 and less than $100,000 [4]	23	666	1,146,062	790,233
Per cent of total	100.0	100.0	100.0	100.0
Less than $5,000	67.2	21.8	18.5	20.0
$5,000 and less than $20,000	23.0	25.1	24.0	25.5
$20,000 and less than $100,000 [4]	9.8	53.1	57.5	54.4
Average per establishment	.....	5	$8,477	$6,177

[1] Includes the group "$20,000 and less than $100,000."
[2] Includes the group "Less than $5,000."
[3] Includes the group "$1,000,000 and over."
[4] Includes the group "$100,000 and less than $1,000,000."

In some respects, and especially from the standpoint of conditions under which persons engaged in manufactures work, the best classification of establishments to bring out the feature of size is a classification according to the number of wage earners employed. The next table shows, for 1909, such a classification for all industries combined and for 15 important industries individually, and gives not only the number of establishments falling into each group but also the average number of wage earners employed.

Of the 2,586 establishments reported for all industries, 7.7 per cent employed no wage earners; 54.8 cent, from 1 to 5; 19.4 per cent, from 6 to 20; and 8.1 per cent, from 21 to 50. The most numerous single group consists of the 1,417 establishments employing from 1 to 5 wage earners and the next of the 503 establishments employing from 6 to 20 wage earners. There were 50 establishments that employed over 250 wage earners each; of these, 18 employed over 500, and 2 employed over 1,000 each, 1 being a steel works and rolling mill and the other a steam-railroad repair shop.

Of the total number of wage earners, 39.3 per cent were in establishments employing over 250 wage earners. The single group having the largest number of wage earners was the group comprising the establishments employing from 101 to 250 each. This group employed 14,893 wage earners, or 23.3 per cent of the total. The individual industries listed in this table but not in the preceding one are all industries in which comparatively large establishments do most of the business, as appears from the classification according to the number of wage earners.

INDUSTRY.	Total.	ESTABLISHMENTS EMPLOYING— 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.
	NUMBER OF ESTABLISHMENTS.									
All industries	**2,586**	**200**	**1,417**	**503**	**209**	**114**	**93**	**32**	**16**	**2**
Cars and general shop construction and repairs by steam-railroad companies	24			5	2	4	6	4	2	1
Coke	71		5	9	32	19	4		2	
Copper, tin, and sheet-iron products	19		9	5	1	1	2	1		
Flour-mill and gristmill products	207	32	160	13	2					
Foundry and machine-shop products	83	3	34	30	12	3		1		
Glass	51		5	4	7	11	18	5	1	
Iron and steel, steel works and rolling mills	16			1	1	2	3	7	1	1
Leather, tanned, curried, and finished	20	1	4		5	4	5	1		
Liquors, malt	13			7	3	3				
Lumber and timber products	1,016	34	604	231	76	30	32	6	3	
Paper and wood pulp	9				4	2	2		1	
Pottery, terra-cotta, and fire-clay products	16		1	3	2	5	4		1	
Printing and publishing	235	30	161	34	8		2			
Slaughtering and meat packing	6			5			1			
Tin plate and terneplate	6				1		4		1	
All other industries	794	100	434	156	53	30	10	7	4	
	AVERAGE NUMBER OF WAGE EARNERS.									
All industries	**63,893**		**3,266**	**5,460**	**7,043**	**8,140**	**14,893**	**11,298**	**11,095**	**2,698**
Cars and general shop construction and repairs by steam-railroad companies	5,652			48	79	282	1,069	1,592	1,047	1,535
Coke	4,426		17	122	1,077	1,229	696		1,285	
Copper, tin, and sheet-iron products	916		24	57	38	68	325	404		
Flour-mill and gristmill products	452		277	114	61					
Foundry and machine-shop products	1,354		87	354	385	202		326		
Glass	6,190		12	51	214	864	2,647	1,774	628	
Iron and steel, steel works and rolling mills	5,060			13	44	164	489	2,537	650	1,163
Leather, tanned, curried, and finished	1,571		4		214	288	759	306		
Liquors, malt	415			104	84	227				
Lumber and timber products	18,643		1,455	2,464	2,533	2,226	5,225	1,994	2,746	
Paper and wood pulp	1,162				139	111	329		583	
Pottery, terra-cotta, and fire-clay products	2,034		2	41	70	370	701		850	
Printing and publishing	1,255		390	356	273		236			
Slaughtering and meat packing	107			59			108			
Tin plate and terneplate	1,335				38		775		522	
All other industries	13,261		998	1,677	1,794	2,109	1,534	2,365	2,784	
	PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.									
All industries	**100.0**		**5.1**	**8.5**	**11.0**	**12.7**	**23.3**	**17.7**	**17.4**	**4.2**
Cars and general shop construction and repairs by steam-railroad companies	100.0			0.8	1.4	5.0	18.9	28.2	18.5	27.2
Coke	100.0		0.4	2.8	24.3	27.8	15.7		29.0	
Copper, tin, and sheet-iron products	100.0		2.6	6.2	4.1	7.4	35.5	44.1		
Flour-mill and gristmill products	100.0		61.3	25.2	13.5					
Foundry and machine-shop products	100.0		6.4	26.1	28.4	14.9		24.1		
Glass	100.0		0.2	0.8	3.5	14.0	42.8	28.7	10.1	
Iron and steel, steel works and rolling mills	100.0			0.3	0.9	3.2	9.7	50.1	12.8	23.0
Leather, tanned, curried, and finished	100.0		0.3		13.6	18.3	48.3	19.5		
Liquors, malt	100.0			25.1	20.2	54.7				
Lumber and timber products	100.0		7.8	13.2	13.6	11.9	28.0	10.7	14.7	
Paper and wood pulp	100.0				12.0	9.6	28.3		50.2	
Pottery, terra-cotta, and fire-clay products	100.0		0.1	2.0	3.4	18.2	34.5		41.8	
Printing and publishing	100.0		31.1	28.4	21.8		18.8			
Slaughtering and meat packing	100.0			35.3			64.7			
Tin plate and terneplate	100.0				2.8		58.1		39.1	
All other industries	100.0		7.5	12.6	13.5	15.9	11.6	17.8	21.0	

Expenses.—As stated in the Introduction, the census does not purport to furnish figures that can be used for determining the cost of manufacture and profits. Facts of interest can, however, be brought out concerning the relative importance of the different classes of expenses which make up the total.

The following table shows, for 1909, in percentages, the distribution of expenses among the classes indicated for all industries combined and for certain important industries separately. The figures on which the percentages are based appear in Table II, page 1326.

This table shows that, for all industries combined, 64.2 per cent of the total expenses was incurred for materials, 26.7 per cent for services—that is, salaries and wages—and but 9 per cent for other purposes. As would be expected, these proportions vary greatly in the different industries. The large percentage of miscellaneous expenses in the brewery industry is due to the inclusion under that head of internal-revenue taxes.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED. Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries	**3.9**	**22.8**	**64.2**	**9.0**
Cars and general shop construction and repairs by steam-railroad companies	3.7	47.1	45.5	3.8
Coke	3.8	22.8	68.6	4.8
Copper, tin, and sheet-iron products	4.0	20.0	70.7	5.3
Flour-mill and gristmill products	1.6	3.0	92.9	2.6
Foundry and machine-shop products	8.0	27.6	59.2	5.2
Glass	6.2	51.5	32.6	9.7
Iron and steel, steel works and rolling mills	2.2	18.8	76.8	2.1
Leather, tanned, curried, and finished	1.7	6.5	86.6	5.3
Liquors, malt	8.1	14.4	29.8	47.7
Lumber and timber products	4.9	38.4	38.6	18.1
Paper and wood pulp	3.9	19.3	68.1	8.6
Pottery, terra-cotta, and fire-clay products	6.6	51.9	32.4	9.1
Printing and publishing	14.3	40.8	34.8	10.1
Slaughtering and meat packing	1.1	3.4	93.3	2.2
Tin plate and terneplate	1.6	9.7	84.2	4.6
All other industries	4.9	17.4	66.0	11.7

Engines and power.—The following table shows, for all industries combined, the number of engines or other motors, according to their character, employed in generating power (including electric motors operated by purchased current), and their total horsepower at the censuses of 1909, 1904, and 1899. It also shows separately the number and horsepower of electric motors, including those operated by current generated in the manufacturing establishments.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899[1]	1909	1904	1899[1]	1909	1904	1899
Primary power, total	**4,527**	**2,326**	**1,895**	**217,496**	**138,578**	**91,894**	**100.0**	**100.0**	**100.0**
Owned	4,078	2,326	1,895	211,913	137,708	91,609	97.4	99.4	99.7
Steam	3,336	1,864	1,649	184,591	124,212	84 234	84.9	89.6	91.7
Gas	574	312	90	16,705	6,569	1,045	7.7	4.7	1.1
Water wheels	143	121	156	10,546	6,274	5,425	4.8	4.5	5.9
Water motors	25	29	(2)	71	130	(2)	(3)	0.1	(2)
Other	.....	.....	.....	.....	523	905	.....	0.4	1.0
Rented	449	(2)	(2)	5,583	870	285	2.6	0.6	0.3
Electric	449	(2)	(2)	5,330	776	27	2.5	0.6	(3)
Other	.....	.....	.....	253	94	258	0.1	0.1	0.3
Electric motors	**1,715**	**311**	**20**	**28,543**	**5,199**	**454**	**100.0**	**100.0**	**100.0**
Run by current generated by establishment	1,266	311	20	23,213	4,423	427	81.3	85.1	94.1
Run by rented power	449	(2)	(2)	5,330	776	27	18.7	14.9	5.9

[1] Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.
[2] Not reported. [3] Less than one-tenth of 1 per cent.

The table indicates that from 1904 to 1909 there was an increase of 78,918 horsepower, or 56.9 per cent, in the total primary power used in manufactures, while from 1899 to 1904 the increase was 46,684 horsepower, or 50.8 per cent. Of the total increase from 1904 to 1909 in primary power used, 60,379 horsepower was in that generated by steam engines, 4,272 horsepower in that generated by water wheels, and 4,554 horsepower in rented electric power. Notwithstanding the decided absolute increases in steam power, the ratio of this class of power to the total primary power has been less at each census since 1899. It constituted 91.7 per cent of the total in 1899, 89.6 per cent in 1904, and 84.9 per cent in 1909. The more general use of gas engines is shown, there being 574 such engines, with an indicated capacity of 16,705 horsepower, reported in 1909, as against 312 engines, with 6,569 horsepower, in 1904, and 90 engines, with 1,045 horsepower, in 1899. The figures also show that the practice of renting electric power is becoming more common, 5,330 horsepower, or 2.5 per cent of the total power, being of this character in 1909, as compared with 776 horsepower, or six-tenths of 1 per cent, in 1904. The use of electric motors for the purpose of applying power generated within the establishments is also increasing rapidly, the horsepower of such motors having increased from 427 in 1899 to 4,423 in 1904 and 23,213 in 1909.

Fuel.—Closely related to the question of kind of power employed is that of the fuel consumed in generating this power, or otherwise used as material in the manufacturing processes. The table following shows the quantity of each kind of fuel used in 1909 for all industries combined and for certain selected industries.

INDUSTRY.	Bituminous coal (tons).	Coke (tons).	Wood (cords).	Oil, including gasoline (barrels).	Gas (1,000 feet).
All industries	**7,275,075**	**325,738**	**14,992**	**29,010**	**30,894,329**
Bone, carbon, and lamp black	.....	.....	.....	.....	12,284,733
Brick and tile	72,137	373	.....	2	1,054,911
Cars and general shop construction and repairs by steam-railroad companies	65,653	1,038	18	3,300	159,460
Coke	6,372,577	.....	.....	.....	6,000
Copper, tin, and sheet-iron products	722	.....	.....	.....	186,857
Flour-mill and gristmill products	13,980	.....	2,456	434	155,797
Foundry and machine-shop products	9,265	8,899	16	46	233,273
Glass	3,483	.....	.....	30	5,734,514
Ice, manufactured	37,931	.....	.....	621	266,738
Iron and steel, blast furnaces	11,349	248,855	86	.....	2,863
Iron and steel, steel works and rolling mills	275,223	24,650	240	.....	3,704,375
Leather, tanned, curried, and finished	41,357	.....	2,156	3	89,010
Liquors, malt	12,341	.....	.....	.....	1,380,520
Lumber and timber products	83,955	.....	551	280	132,261
Paper and wood pulp	49,442	.....	.....	.....	1,392,857
Pottery, terra-cotta, and fire-clay products	18,535	.....	.....	.....	1,279,930
Printing and publishing	750	.....	27	222	65,369
Slaughtering and meat packing	7,159	.....	104	5	10,856
Tin plate and terneplate	5,611	.....	.....	.....	517,189
All other industries	193,599	41,923	9,338	24,067	2,236,816

NOTE.—In addition, there were 6,589 tons of anthracite coal reported, of which 4,018 tons were used in the brick and tile industry and 2,571 tons in other industries; there were also 19 tons of other varieties of fuel reported.

SUPPLEMENTARY DATA REGARDING IMPORTANT INDUSTRIES.

(With statistics for laundries and custom sawmills and gristmills.)

For certain industries the Census Bureau collects, by means of special schedules, details regarding the quantity and cost of materials and the quantity and value of products and other information for securing which no provision is made on the general schedule. Data of this character for five important industries in West Virginia are here presented.

Lumber and timber products.—This industry, which is the most important in the state, grew rapidly during the decade 1899–1909, and in the latter year reported 3.3 per cent of the total production of rough lumber in the United States. The following statement gives the quantity of rough lumber, lath, and shingles produced by the sawmills of the state in 1909 and 1899:

PRODUCT.		1909	1899
Rough lumber	M feet b. m.	1,472,942	778,051
Lath	thousands	150,820	58,440
Shingles	thousands	6,829	34,350

The quantity of rough lumber increased 89.3 per cent, and that of lath 158.1 per cent, while that of

shingles decreased 80.1 per cent. In West Virginia lath, almost entirely, and shingles, to some extent, are secondary products in the manufacture of lumber, and the output of both is influenced to some extent by local demand.

Of the total of 1,472,942 M feet board measure of rough lumber reported in 1909, 907,547 M feet was hardwood. Of the hardwood sawed, 456,424 M feet was oak, 154,581 M feet yellow poplar, and 119,762 M feet chestnut. The cut of softwood amounted to 565,395 M feet, of which hemlock contributed 279,832 M feet and spruce 242,897 M feet. West Virginia was first among the states in the production of cherry and chestnut lumber, reporting 20.6 per cent and 18 per cent of the respective totals shown for the United States in 1909. The state was second in the output of oak and yellow poplar, third in spruce, fourth in basswood and hemlock, and fifth in maple. In 1909 more than three times as much hemlock was cut in the state as in 1899.

Iron and steel, steel works and rolling mills.—The following table shows the quantity and value of the chief products reported for 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value	$22,435,411	$13,454,802	$13,394,911
Rolled, forged, and other classified products:			
Tons	609,022	384,032	352,814
Value	$20,069,576	$11,243,473	$11,731,561
Plates and sheets, not including nail and tack plates—			
Tons	98,322	34,036	39,215
Value	$4,349,096	$2,052,449	$2,005,291
Black plates for tinning—			
Tons	111,152	42,803	
Value	$4,887,291	$2,008,954	
Skelp—			
Tons	201,794	192,644	313,599
Value	$6,060,225	$5,108,286	$9,726,270
Other rolled, forged, etc., products:			
Tons	197,754	49,948	
Value	$4,772,964	$1,983,784	
Miscellaneous iron and steel products, not rolled, including scrap sold and value added to rolling-mill products by further manufacture	$2,209,563	$2,208,329	$1,663,350
All other products	$156,272	$3,000	

Of the combined rolled, forged, and other classified products, which in 1909 contributed 89.5 per cent of the value of all products, skelp was the most important, both in tonnage and value. The increase of 58.2 per cent from 1904 to 1909 in the total tonnage of rolled, forged, and other classified products indicates a decided growth in the industry after the poor business year of 1904.

The tin-plate and terneplate industry is allied closely to the steel works and rolling mills. During 1909 there were 189,239,233 pounds of tin plate, valued at $6,360,880, and 68,567,923 pounds of terneplate, valued at $2,561,219, produced in the state. The value of all other products, which include other sheet iron or sheet steel, tinned or terneplated, tagger's tin, etc., was $335,425. Comparative statistics for 1899 and 1904 can not be given without disclosing the operations of individual establishments, but further statistics for 1909 are shown in Table II, page 1326.

Leather, tanned, curried, and finished.—The following table shows the quantity and value of the various products for 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value	$12,450,592	$6,061,509	$3,210,753
Sole leather:			
Sides	1,933,037	1,262,538	363,954
Value	$10,276,164	$5,270,545	$1,742,354
Hemlock—			
Sides	713,182	488,366	335
Value	$3,560,895	$1,474,158	$1,330
Oak—			
Sides	153,495	424,824	195,874
Value	$1,157,270	$2,382,515	$1,107,080
Union—			
Sides	1,066,360	349,348	167,745
Value	$5,557,999	$1,413,872	$633,944
Harness, belting, and rough leather	$1,617,354	$713,191	$1,399,203
Work on materials for others	$426,399	$335	$1,220
All other products	$130,675	$77,438	$67,976

The value of sole leather in 1909 represented 82.5 per cent of the value of all products for the industry in the state. Of the total value reported for this group of products in 1909, union leather contributed 54.1 per cent, hemlock 34.7 per cent, and oak 11.3 per cent, while of the total quantity 55.2 per cent was union leather, 36.9 per cent hemlock, and 7.9 per cent oak. Considerable change has occurred since 1899 in the relative importance, as measured by quantity, of these different kinds of sole leather. In that year oak leather predominated, furnishing 53.8 per cent of the total, while union leather furnished 46.1 per cent, and hemlock one-tenth of 1 per cent. The greatest absolute gain in quantity since 1899 is shown for union leather. From 1904 to 1909 the value of harness, belting, and rough leather more than doubled, and a decided increase also occurred in the amount received for work on materials for others.

Glass.—The following table shows the values of the principal classes of glass products reported in 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value	$7,779,483	$4,598,563	$1,871,795
Building glass	2,751,133	1,323,896	101,242
Pressed and blown glass	4,306,528	2,620,665	1,379,706
Bottles, jars, etc	646,521	602,002	381,847
All other products	75,301	52,000	9,000

The value of pressed and blown glass, the most important product in 1909, as measured by value, increased $1,685,863, or 64.3 per cent, from 1904 to 1909; that of building glass, $1,427,237, or 107.8 per cent; and that of bottles, jars, etc., $44,519, or 7.4 per cent.

In 1909 the active equipment of the glass factories of the state consisted of 37 furnaces, with a total capacity of 339 pots; 33 continuous tanks, with a total capacity of 422 rings; and 12 intermittent or day tanks, with a total capacity of 96 tons. In addition, there were 2 furnaces, 2 continuous tanks, and 2 intermittent or day tanks, which were idle during the year.

Flour-mill and gristmill products.—The next table gives the quantity and value of the principal products reported for 1909, 1904, and 1899.

PRODUCT.	1909	1904	1899
Total value	$7,695,801	$6,200,291	$3,792,629
Wheat flour:			
White—			
Barrels	632,309	625,866	590,917
Value	$3,606,285	$3,387,142	$2,284,571
Graham—			
Barrels	1,823	804	(1)
Value	$9,628	$3,014	(1)
Corn meal and corn flour:			
Barrels	318,293	339,872	334,275
Value	$986,375	$841,827	$711,968
Rye flour:			
Barrels	609	58	680
Value	$2,354	$234	$1,656
Buckwheat flour:			
Pounds	4,496,790	2,213,610	3,315,625
Value	$120,061	$61,138	$68,536
Barley meal:			
Pounds	26,640	.....	2,300
Value	$568	.....	$30
Hominy and grits:			
Pounds	301,200	2,172,000	101,000
Value	$5,772	$29,708	$2,025
Feed:			
Tons	74,385	52,563	21,359
Value	$2,262,265	$1,281,168	$404,769
Offal:			
Tons	27,148	29,059	26,253
Value	$669,477	$588,982	$315,911
All other products	$33,016	$7,078	$3,163

[1] Not reported separately.

This table shows increases from 1904 to 1909 in the quantities of all classes of products except corn meal and corn flour, hominy and grits, and offal, and from 1899 to 1904 in all except rye flour, buckwheat flour, and barley meal. Wheat flour, which contributed 47 per cent of the total value of all flour-mill and gristmill products manufactured in 1909, showed but little increase either in quantity or in value in 1909, as compared with 1904, but a larger increase in both items when compared with 1899. The largest relative increase in quantity from 1904 to 1909 is shown for buckwheat flour, the production of which increased 2,283,180 pounds, or 103.1 per cent. West Virginia is among the leading states in the manufacture of this product. In 1909 the mills of the state were equipped with 1,073 pairs of rolls and 237 runs of stone. Four mills manufactured barrels.

Laundries.—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. In 1909 there were 43 such establishments in West Virginia, 5 of which were in Wheeling, 4 in Charleston, 3 each in Huntington and Parkersburg, and 2 each in Bluefield and Martinsburg.

The following statement summarizes the statistics:

Number of establishments	43
Persons engaged in the industry	793
Proprietors and firm members	41
Salaried employees	73
Wage earners (average number)	679
Primary horsepower	1,048
Capital	$415,216
Expenses	462,687
Services	297,741
Materials	102,057
Miscellaneous	62,889
Amount received for work done	581,865

Of the 43 establishments reported, 18 were operated by corporations, 14 by individuals, and 11 by firms. Ten establishments had receipts for the year's business of less than $5,000; 22, of $5,000 but less than $20,000; and 11, of $20,000 but less than $100,000.

The number of wage earners employed each month and the percentage which this number represented of the greatest number employed in any month were as follows:

MONTH.	WAGE EARNERS.		MONTH.	WAGE EARNERS.	
	Number.	Per cent of maximum.		Number.	Per cent of maximum.
January	633	88.8	July	713	100.0
February	644	90.3	August	708	99.3
March	644	90.3	September	712	99.9
April	654	91.7	October	689	96.6
May	684	95.9	November	677	95.0
June	696	97.6	December	694	97.3

The different kinds of primary power, the number of engines or motors, and the horsepower used in 1909 are shown in the following tabular statement:

KIND.	Number of engines or motors.	Horsepower.
Primary power, total	.....	1,048
Owned:		
Steam	33	752
Gas	8	150
Rented:		
Electric	11	131
Other	.....	15

The kind and amount of fuel used are shown in the following statement:

KIND.	Unit.	Quantity.
Bituminous coal	Tons	3,369
Gas	1,000 feet	145,661

Custom sawmills and gristmills.—Statistics for custom sawmills and gristmills are not included in the general tables or in the totals for manufacturing industries, but are presented in the following summary:

	Custom sawmills.	Custom gristmills.
Number of establishments	187	437
Persons engaged in the industry	596	737
Proprietors and firm members	282	579
Salaried employees	2	.....
Wage earners (average number)	312	158
Primary horsepower	3,403	7,763
Capital	$223,976	$564,623
Expenses	95,974	1,244,564
Services	75,133	28,135
Materials	3,767	[1] 1,203,590
Miscellaneous	17,074	12,839
Value of products	208,092	[1] 1,495,457

[1] Includes estimate of all grain ground. A similar estimate for value of lumber sawed by custom sawmills is impracticable.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899.

THE STATE—ALL INDUSTRIES COMBINED AND SELECTED INDUSTRIES.

INDUSTRY.	Census.	Number of establishments.	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—All industries	1909	2,586	71,463	2,599	4,971	63,893	217,496	$150,923	$5,710	$33,000	$92,878	$161,950	$69,072
	1904	2,109	48,880	2,230	2,892	43,758	138,578	86,821	2,899	21,153	54,419	99,041	44,622
	1899	1,824	.....	.....	1,744	33,080	91,894	49,103	1,519	12,640	37,228	67,007	29,779
Bone, carbon, and lamp black	1909	16	137	1	35	101	641	1,313	35	66	249	596	347
	1904	10	90	1	29	60	310	774	24	34	52	274	222
Bread and other bakery products	1909	151	559	162	51	346	411	652	34	188	859	1,470	611
	1904	111	415	131	21	263	198	298	8	127	527	912	385
	1899	58	202	64	27	111	.....	191	12	41	213	394	181
Brick and tile	1909	34	979	17	80	882	4,983	2,300	73	383	275	950	675
	1904	37	840	29	48	763	3,447	1,962	56	330	210	870	660
	1899	42	620	48	22	550	1,680	610	18	184	97	436	339
Canning and preserving	1909	30	345	49	25	271	484	390	24	58	430	605	175
	1904	19	394	30	37	327	424	353	34	84	387	764	377
	1899	14	620	11	44	565	.....	370	43	84	419	774	355
Carriages and wagons and materials	1909	51	446	62	37	347	893	671	41	180	318	675	357
	1904	38	383	43	29	311	1,117	493	30	155	300	639	339
	1899	53	.....	.....	15	312	.....	437	13	133	210	490	280
Cars and general shop construction and repairs by steam-railroad companies.	1909	24	5,920	.....	268	5,652	5,394	2,117	247	3,170	3,063	6,733	3,670
	1904	24	4,427	.....	172	4,255	2,469	1,054	129	2,114	1,809	4,120	2,311
	1899	23	2,695	.....	90	2,605	834	1,040	68	1,257	1,587	2,944	1,357
Clothing, men's, including shirts	1909	9	469	3	63	403	210	637	48	126	1,055	1,469	414
	1904	9	358	8	36	314	98	537	34	76	578	855	277
	1899	[1] 3	95	1	6	88	21	210	6	29	356	501	145
Coke	1909	71	4,746	2	318	4,426	5,307	12,821	281	1,664	5,012	7,563	2,551
	1904	74	2,764	.....	231	2,533	3,507	8,064	160	1,004	2,647	4,174	1,527
	1899	77	3,340	1	208	3,131	4,055	4,453	127	890	1,967	3,529	1,562
Confectionery	1909	10	109	4	23	82	38	97	20	33	147	244	97
	1904	10	123	4	21	98	38	119	22	33	117	226	109
	1899	9	.....	.....	2	48	.....	52	2	16	63	98	35
Cooperage and wooden goods, not elsewhere specified.	1909	31	419	30	23	366	1,013	483	23	168	334	658	324
	1904	[1] 18	127	15	7	105	195	107	4	42	148	221	73
	1899	14	.....	.....	3	150	.....	90	2	67	144	357	213
Copper, tin, and sheet-iron products	1909	19	998	14	68	916	973	1,690	77	383	1,354	2,151	797
	1904	11	403	11	17	375	150	491	24	142	490	771	281
	1899	[1] 9	.....	.....	2	36	.....	44	2	19	41	88	47
Flour-mill and gristmill products	1909	207	884	288	144	452	9,950	3,766	113	210	6,601	7,696	1,095
	1904	194	780	301	79	400	8,339	2,623	66	183	5,213	6,200	987
	1899	185	.....	.....	22	254	7,356	1,429	14	125	3,109	3,793	684
Foundry and machine-shop products	1909	83	1,633	68	211	1,354	3,539	3,453	239	820	1,760	3,392	1,632
	1904	76	1,469	48	143	1,278	2,802	2,060	149	721	1,413	2,863	1,450
	1899	65	.....	.....	61	685	.....	1,021	58	344	721	1,517	796
Furniture and refrigerators	1909	25	666	17	71	578	1,469	1,361	75	253	384	965	581
	1904	19	554	12	34	508	971	759	37	197	264	648	384
	1899	8	413	6	24	383	520	493	30	135	175	454	279
Glass	1909	51	6,509	13	306	6,190	5,233	7,369	435	3,628	2,296	7,779	5,483
	1904	39	3,867	5	189	3,673	2,346	4,300	209	2,054	1,259	4,599	3,340
	1899	16	2,040	6	85	1,949	938	1,338	98	789	593	1,872	1,279
Ice, manufactured	1909	35	305	23	49	233	5,554	1,595	41	113	111	476	365
	1904	30	217	5	36	176	2,764	1,287	28	94	61	353	292
	1899	8	100	1	19	80	607	413	14	40	22	119	97
Iron and steel, steel works and rolling mills	1909	16	5,445	.....	385	5,060	46,508	16,276	460	3,887	15,896	22,435	6,539
	1904	12	4,516	.....	107	4,409	34,250	8,716	142	2,813	8,742	13,455	4,713
	1899	8	4,056	.....	81	3,975	23,416	7,122	108	2,066	8,729	13,395	4,666
Leather goods	1909	8	150	10	13	127	120	237	12	53	277	472	195
	1904	9	109	14	9	86	44	189	8	34	235	368	133
	1899	10	.....	.....	6	159	.....	160	9	39	183	319	136
Leather, tanned, curried, and finished	1909	20	1,688	13	104	1,571	5,305	18,164	201	775	10,383	12,451	2,068
	1904	33	1,043	49	48	946	2,973	8,751	89	434	4,769	6,062	1,293
	1899	46	739	38	37	664	1,713	5,050	63	224	2,541	3,211	670
Lime	1909	13	550	15	21	514	1,000	546	17	188	224	644	420
	1904	5	134	3	11	120	10	161	9	52	39	116	77
	[2] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Liquors, malt	1909	13	524	1	108	415	6,110	4,748	168	298	619	2,271	1,652
	1904	10	401	1	69	331	2,438	3,556	88	227	481	2,146	1,665
	1899	8	318	2	60	256	519	1,714	71	117	198	1,113	915
Lumber and timber products	1909	1,016	20,799	1,226	930	18,643	62,356	30,333	1,090	8,632	8,676	28,758	20,082
	1904	765	13,257	1,032	606	11,619	37,585	14,663	574	5,390	6,202	18,697	12,495
	1899	697	.....	.....	326	8,834	27,156	7,884	254	2,968	5,060	12,073	7,013

[1] Excluding statistics for one establishment, to avoid disclosure of individual operations.

[2] Not reported separately.

TABLE I.—COMPARATIVE SUMMARY FOR 1909, 1904, AND 1899—Continued.

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

INDUSTRY AND CITY.	Census.	Number of establishments.	Persons engaged in industry. Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).	Primary horsepower.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
								Expressed in thousands.					
STATE—Continued.													
Marble and stone work	1909	29	203	30	29	144	469	$227	$23	$87	$134	$365	$231
	1904	13	92	15	12	65	167	89	8	31	62	155	93
	1899	18	.....	.....	37	237	.....	138	10	94	93	290	197
Mattresses and spring beds	1909	7	92	6	14	72	263	181	11	39	154	267	113
	1904	4	76	4	4	68	125	64	2	25	96	142	46
	[1] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paper and wood pulp	1909	9	1,221	2	57	1,162	11,025	3,603	97	478	1,683	2,652	969
	1904	7	585	3	37	545	4,575	2,215	47	230	760	1,298	538
	1899	6	305	2	22	281	4,785	926	26	98	274	528	254
Patent medicines and compounds and druggists' preparations.	1909	17	301	12	93	196	76	462	116	39	256	1,292	1,036
	1904	[2] 11	59	6	18	35	.....	217	15	9	49	135	86
	1899	5	11	4	3	4	.....	18	1	1	11	77	66
Pottery, terra-cotta, and fire-clay products	1909	16	2,149	6	109	2,034	1,674	2,921	160	1,256	786	2,679	1,893
	1904	17	1,346	5	71	1,270	1,974	2,267	135	634	346	1,286	940
	1899	14	1,339	13	57	1,269	1,837	1,610	52	500	219	1,105	886
Printing and publishing	1909	235	1,772	237	280	1,255	1,560	2,455	222	634	541	1,992	1,451
	1904	222	1,316	214	158	944	1,196	1,754	125	480	351	1,554	1,203
	1899	178	1,103	186	107	810	.....	1,148	83	324	226	1,035	809
Slaughtering and meat packing	1909	6	209	4	38	167	1,321	1,116	39	123	3,385	3,764	379
	1904	[3] 6	168	6	29	133	635	478	20	74	1,668	1,928	260
	1899	3	103	3	16	84	356	313	12	43	1,134	1,338	204
Woolen, worsted, and felt goods, and wool hats.	1909	13	640	10	31	599	1,327	1,106	31	222	795	1,224	429
	1904	[2] 12	324	13	21	290	726	426	24	102	218	469	251
	1899	[3] 33	412	12	16	384	1,118	684	17	99	319	507	188
All other industries	1909	321	10,596	274	987	9,335	32,290	27,833	1,257	4,846	24,821	37,262	12,441
	1904	264	8,243	222	563	7,458	22,615	17,994	599	3,224	14,926	22,741	7,815
	1899	214	.....	.....	346	5,176	.....	10,145	306	1,904	8,524	14,650	6,126
CITIES OF 10,000 OR MORE INHABITANTS—ALL INDUSTRIES COMBINED.													
Bluefield	1909	15	748	5	73	670	1,648	$948	$74	$377	$889	$1,465	$576
	[4] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charleston	1909	63	1,153	47	155	951	4,106	2,825	158	469	2,137	3,235	1,098
	[5] 1904	54	1,048	42	119	887	.....	2,228	116	403	998	2,100	1,102
	1899	48	.....	.....	73	686	.....	1,054	64	257	659	1,262	603
Huntington	1909	67	3,489	36	297	3,156	8,860	4,917	274	1,681	3,382	6,511	3,129
	1904	44	2,359	24	106	2,229	.....	2,762	95	1,033	2,676	4,407	1,731
	1899	29	.....	.....	82	1,717	.....	2,198	71	812	2,498	3,643	1,145
Martinsburg	1909	39	1,551	28	103	1,420	1,598	2,100	99	520	1,277	2,515	1,238
	[4] 1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[4] 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Parkersburg	1909	75	1,766	61	210	1,495	4,031	4,424	221	767	3,560	5,498	1,938
	1904	68	1,652	52	156	1,444	.....	3,310	164	694	2,488	3,778	1,290
	1899	72	.....	.....	107	1,237	.....	2,358	103	508	1,886	3,101	1,215
Wheeling	1909	176	8,744	116	819	7,809	29,486	19,297	1,075	4,427	16,025	27,077	11,052
	[5] 1904	195	7,841	151	563	7,127	.....	17,808	660	3,793	12,489	21,797	9,308
	1899	178	.....	.....	407	6,190	.....	12,275	409	2,679	8,406	15,074	6,668

[1] Figures can not be shown without disclosing individual operations.
[2] Excluding statistics for two establishments, to avoid disclosure of individual operations.
[3] Excluding statistics for one establishment, to avoid disclosure of individual operations.
[4] Figures not available.
[5] Figures do not agree with those published in 1904, because it was necessary to revise the totals in order to include data only for those establishments located within the corporate limits of the city.

TABLE II.—DETAIL STATEMENT FOR

	INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks. Male.	Clerks. Female.	Wage earners. Average number.	Wage earners. Number. Maximum month.	Wage earners. Number. Minimum month.	WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Primary horsepower.
1	**All industries**	**2,586**	**71,463**	**2,599**	**1,909**	**2,505**	**557**	**63,893**	**Oc 69,202**	**Ja 56,191**	(1)	(1)	(1)	(1)	(1)	**217,496**
2	Artificial stone	20	119	24	6	8	2	79	Je 97	Ja 35	105	101	2	2	.....	132
3	Bone, carbon, and lamp black	16	137	1	28	5	2	101	Ja 104	No 95	102	102	.....	.....	.....	641
4	Brass and bronze products	3	66	1	15	.....	9	41	Mh 43	Ap 37	42	42	.....	.....	.....	140
5	Bread and other bakery products	151	559	162	16	16	19	346	Se 369	Ja 319	372	336	26	9	1	411
6	Brick and tile	34	979	17	44	34	2	882	Je 1,179	Fe 386	915	902	3	10	.....	4,983
7	Canning and preserving	30	345	49	10	10	5	271	Se 944	Ap[2] 65	913	211	463	74	165	484
8	Carriages and wagons and materials	51	446	62	22	8	7	347	My 373	Au 331	362	357	1	4	.....	893
9	Cars and general shop construction and repairs by steam-railroad companies	24	5,920	.....	58	205	5	5,652	No 6,140	Ap 5,211	5,901	5,845	15	41	.....	5,394
10	Cars and general shop construction and repairs by street-railroad companies	8	96	.....	5	3	.....	88	Se 94	De 83	83	83	.....	.....	.....	85
11	Clothing, men's, including shirts	9	469	3	15	33	15	403	Oc 444	Je 371	433	78	352	.....	3	210
12	Coke	71	4,746	2	134	174	10	4,426	De 5,073	Jy 4,069	5,072	5,071	.....	1	.....	5,307
13	Confectionery	10	109	4	8	12	3	82	No 98	Au 70	94	47	47	.....	.....	38
14	Cooperage and wooden goods, not elsewhere specified.	31	419	30	16	5	2	366	Oc 380	Mh 351	396	338	45	8	5	1,013
15	Copper, tin, and sheet-iron products	19	998	14	19	31	18	916	Se 1,108	Ja 746	893	542	288	31	32	973
16	Flour-mill and gristmill products	207	884	288	55	77	12	452	No 466	Ja 437	479	474	2	3	.....	9,950
17	Foundry and machine-shop products	83	1,633	68	91	96	24	1,354	De 1,572	Mh 1,126	1,596	1,592	.....	4	.....	3,539
18	Furniture and refrigerators	25	666	17	26	39	6	578	De 654	Jy 477	662	643	11	8	.....	1,469
19	Glass	51	6,509	13	135	121	50	6,190	De 7,669	Jy 3,316	7,655	6,589	669	341	56	5,233
20	Ice, manufactured	35	305	23	30	17	2	233	Jy 351	Ja 130	214	213	.....	1	.....	5,554
21	Iron and steel, steel works and rolling mills.	16	5,445	.....	95	265	25	5,060	Se 6,288	Ja 3,469	6,403	6,356	15	32	.....	46,508
22	Kaolin and ground earths	3	70	.....	7	3	2	58	Mh[2] 63	Ja 51	57	57	.....	.....	.....	795
23	Leather goods	8	150	10	4	8	1	127	Ja[2] 128	Jy 116	128	112	16	.....	.....	120
24	Leather, tanned, curried, and finished	20	1,688	13	30	72	2	1,571	Au 1,760	Fe 1,431	1,658	1,658	.....	.....	.....	5,305
25	Lime	13	550	15	10	10	1	514	No 595	Ja[2] 384	622	618	.....	4	.....	1,000
26	Liquors, malt	13	524	1	36	70	2	415	Au 477	Fe 376	400	396	.....	4	.....	6,110
27	Lumber and timber products	1,016	20,799	1,226	449	403	78	18,643	Je 19,564	Ja 16,288	21,185	21,051	12	122	.....	62,356
28	Marble and stone work	23	203	30	11	17	1	144	De 178	Ja 108	183	183	.....	.....	.....	469
29	Mattresses and spring beds	7	92	6	6	4	4	72	No 82	Ap 62	76	59	17	.....	.....	263
30	Paper and wood pulp	9	1,221	2	29	24	4	1,162	Au 1,311	Ap 1,050	1,202	1,155	47	.....	.....	11,025
31	Patent medicines and compounds and druggists' preparations.	17	301	12	28	16	49	196	De 295	Ja 136	294	30	264	.....	.....	76
32	Pottery, terra-cotta, and fire-clay products.	16	2,149	6	46	40	23	2,034	De 2,235	Ja 1,769	2,245	1,600	624	15	6	1,674
33	Printing and publishing	235	1,772	237	103	136	41	1,255	De 1,311	Fe 1,228	1,314	955	287	69	3	1,560
34	Salt	3	123	1	5	5	2	110	No 120	Au 91	116	116	.....	.....	.....	335
35	Shipbuilding, including boat building	3	117	4	3	3	.....	107	No 153	Ja 81	149	149	.....	.....	.....	128
36	Slaughtering and meat packing	6	209	4	10	26	2	167	Au 172	Ap 164	165	165	.....	.....	.....	1,321
37	Stoves and furnaces, including gas and oil stoves.	6	79	.....	6	4	2	67	No 90	Jy 44	79	74	5	.....	.....	165
38	Tin plate and terneplate	6	1,465	.....	31	86	13	1,335	Je 1,444	Ja 1,159	1,476	1,341	125	10	.....	890
39	Wall plaster	4	29	2	4	1	1	21	Oc 24	Mh[2] 19	23	23	.....	.....	.....	155
40	Woolen, worsted, and felt goods, and wool hats.	13	640	10	17	11	3	599	My 622	Se 552	629	370	231	15	13	1,327
41	All other industries[3]	265	8,432	242	246	407	108	7,429	.....	.....	.....	.....	.....	.....	.....	29,465

[1] No figures given for reasons explained in the Introduction.
[2] Same number reported for one or more other months.
[3] All other industries embrace—

Agricultural implements	2	Cement	1	Explosives	3
Awnings, tents, and sails	1	Chemicals	2	Fancy articles, not elsewhere specified	1
Blacking and cleansing and polishing preparations	1	Clothing, women's	7	Firearms and ammunition	3
Bluing	1	Coffee and spice, roasting and grinding	4	Flavoring extracts	3
Boots and shoes, including cut stock and findings	2	Coffins, burial cases, and undertakers' goods	1	Food preparations	1
Boxes, fancy and paper	3	Cutlery and tools, not elsewhere specified	4	Furnishing goods, men's	2
Brooms	3	Dyeing and finishing textiles	1	Galvanizing	1
Butter, cheese, and condensed milk	2	Dyestuffs and extracts	3	Gas and electric fixtures and lamps and reflectors	1
Cars, steam-railroad, not including operations of railroad companies	1	Electrical machinery, apparatus, and supplies	5	Gas, illuminating and heating	4
		Enameling and japanning	2	Glass, cutting, staining, and ornamenting	6

THE STATE, BY INDUSTRIES: 1909.

	Capital.	EXPENSES.											Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.						
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.			
1	$150,922,586	$144,665,644	$3,233,498	$2,476,194	$33,000,355	$8,793,336	$84,084,652	$215,354	$2,013,941	$2,201,287	$8,647,027		$161,949,526	$69,071,538
2	328,898	131,105	9,570	8,331	38,753	3,839	51,391	456	437	283	18,045		163,623	108,393
3	1,313,226	426,050	31,350	3,780	66,249	116,983	132,055	5,677	5,682	.....	64,274		596,058	347,020
4	236,803	162,109	16,023	3,068	20,747	2,598	98,441	225	586	12,576	7,845		193,315	92,276
5	651,601	1,151,566	17,625	16,564	187,994	24,088	834,602	19,820	3,955	172	46,746		1,469,911	611,221
6	2,300,229	831,675	52,667	20,605	383,019	167,088	108,203	60	7,573	118	92,342		950,364	675,073
7	389,743	557,517	7,701	16,796	57,617	3,258	426,739	335	1,624	205	43,242		604,794	174,797
8	670,757	568,719	30,010	10,594	180,099	7,113	310,971	8,869	3,234	.....	17,829		675,478	357,394
9	2,116,664	6,733,578	75,107	171,731	3,169,662	86,219	2,976,597	.....	15,207	13,743	225,312		6,732,575	3,669,759
10	97,568	106,249	4,480	1,600	58,466	600	39,711	.....	475	720	197		106,249	65,938
11	637,224	1,342,003	13,734	33,775	126,349	7,942	1,047,362	2,175	3,524	72,000	35,142		1,469,318	414,014
12	12,820,651	7,306,687	154,532	126,154	1,664,152	4,720,282	292,191	.....	51,203	.....	298,173		7,563,419	2,550,946
13	96,804	213,611	8,915	11,011	32,543	1,236	145,958	5,395	403	33	8,057		244,270	97,076
14	482,556	562,258	17,714	5,130	168,133	2,024	332,078	1,213	2,659	75	33,232		658,379	324,277
15	1,689,772	1,916,281	38,106	38,420	383,323	24,779	1,329,445	2,434	4,996	.....	94,778		2,150,789	796,565
16	3,765,932	7,107,296	50,188	62,563	210,283	48,888	6,552,259	8,734	18,521	507	155,353		7,695,801	1,094,654
17	3,452,797	2,973,062	164,398	74,647	819,617	65,454	1,694,224	7,887	14,748	.....	132,087		3,391,930	1,632,252
18	1,360,762	826,750	37,767	37,635	253,284	7,199	377,149	120	5,858	70	107,668		964,700	580,352
19	7,368,665	7,045,692	240,939	194,408	3,628,117	400,055	1,895,873	5,885	25,667	28,778	625,970		7,779,483	5,483,555
20	1,594,863	319,950	29,499	11,877	113,181	62,718	47,857	2,164	8,566	1,069	42,989		475,527	364,922
21	16,275,615	20,687,832	219,541	240,450	3,887,340	754,436	15,141,864	.....	63,331	.....	380,870		22,435,411	6,539,111
22	174,397	106,126	9,980	2,200	44,592	12,999	30,127	.....	1,499	.....	4,729		115,855	72,729
23	236,530	363,244	3,500	8,100	52,711	1,615	275,303	4,380	1,192	.....	16,443		471,530	194,612
24	18,164,283	11,989,675	120,180	80,788	774,922	84,708	10,298,493	.....	37,004	44,640	548,940		12,450,592	2,067,391
25	545,630	441,650	8,938	8,126	188,403	150,904	73,273	425	1,408	.....	10,173		644,408	420,231
26	4,748,015	2,073,739	100,846	66,969	298,404	84,559	534,439	.....	337,640	.....	650,882		2,270,981	1,651,983
27	30,332,960	22,460,731	683,051	406,892	8,631,652	223,790	8,452,297	17,933	188,585	1,914,800	1,941,731		28,758,481	20,082,394
28	226,582	271,377	12,742	10,145	86,630	2,853	131,646	1,613	1,284	600	23,864		364,683	230,184
29	180,510	218,026	6,550	4,420	39,451	1,425	152,268	2,860	583	.....	10,469		267,462	113,769
30	3,603,392	2,471,610	61,217	36,046	478,113	204,818	1,478,601	.....	23,392	16,000	173,423		2,652,037	968,618
31	461,974	1,045,243	92,315	23,951	39,421	1,338	254,513	4,314	2,625	300	626,466		1,291,713	1,035,862
32	2,921,056	2,421,294	92,585	67,429	1,255,844	167,810	617,838	4,830	10,619	.....	204,339		2,678,673	1,893,025
33	2,455,140	1,553,698	117,495	104,873	634,488	26,389	514,149	39,845	12,589	16,030	87,840		1,992,036	1,451,498
34	150,934	126,732	6,000	3,540	45,533	27,632	41,517	.....	1,325	.....	1,185		131,414	62,265
35	158,467	128,854	4,000	1,988	57,248	235	59,851	30	731	.....	4,771		151,156	91,070
36	1,115,912	3,627,819	16,500	22,394	123,356	20,193	3,364,634	1,380	4,985	.....	74,377		3,763,888	379,061
37	171,774	106,151	7,536	3,768	33,685	2,347	45,121	690	914	.....	12,090		107,106	59,638
38	2,497,863	8,752,686	50,253	87,532	847,192	42,375	7,324,891	.....	10,553	.....	389,890		9,257,524	1,890,258
39	109,065	142,678	4,500	720	11,248	1,131	113,674	400	261	.....	10,744		186,459	71,654
40	1,105,810	1,116,167	21,159	9,756	221,613	18,301	776,258	70	3,135	.....	65,875		1,224,247	429,688
41	23,911,162	24,278,154	594,285	437,418	3,686,921	1,211,115	15,710,759	65,135	1,135,308	78,568	1,358,645		26,847,887	9,926,013

[8] All other industries embrace—Continued.

Glue	1	Mineral and soda waters	63	Smelting and refining, not from the ore	1
Grindstones	1	Models and patterns, not including paper patterns	1	Tobacco manufactures	86
Hats, fur-felt	1	Oil, not elsewhere specified	1	Vinegar and cider	17
Hosiery and knit goods	2	Paint and varnish	1	Wirework, including wire rope and cable	1
Iron and steel, blast furnaces	3	Paper goods, not elsewhere specified	1	Wood distillation, not including turpentine and rosin	1
Iron and steel pipe, wrought	1	Petroleum, refining	1	Wood, turned and carved	6
Liquors, distilled	2	Photo-engraving	1		
Looking-glass and picture frames	1	Smelting and refining, zinc	1		

TABLE III.—DETAIL STATEMENT FOR CITIES OF 50,000 INHABITANTS OR MORE, BY INDUSTRIES,

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

	City.	Number of establishments	Persons engaged in industry.									Wage earners—number Dec. 15, or nearest representative day.					Primary horsepower.
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners (average number).				Total.	16 and over.		Under 16.		
						Male.	Female.	Total.	16 and over. Male.	16 and over. Female.	Under 16.		Male.	Female.	Male.	Female.	
1	BLUEFIELD	15	748	5	23	45	5	670	644	17	9	611	587	16	8	.....	1,648
2	CHARLESTON	63	1,153	47	59	83	13	951	789	155	7	983	816	160	7	.....	4,106
3	HUNTINGTON	67	3,489	36	109	156	32	3,156	2,955	108	93	3,820	3,577	130	97	16	8,860
4	MARTINSBURG	39	1,551	28	37	47	19	1,420	756	629	35	1,478	787	655	26	10	1,598
5	PARKERSBURG	75	1,766	61	76	108	26	1,495	1,286	187	22	1,671	1,437	209	25	.....	4,031
6	WHEELING	176	8,744	116	265	394	160	7,809	6,052	1,492	265	8,617	6,678	1,647	255	37	29,486

AND TOTALS FOR ALL INDUSTRIES IN CITIES OF 10,000 BUT LESS THAN 50,000 INHABITANTS: 1909.

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

	Capital.	EXPENSES.										Value of products.	Value added by manufacture.
		Total.	Services.			Materials.		Miscellaneous.					
			Officials.	Clerks.	Wage earners.	Fuel and rent of power.	Other.	Rent of factory.	Taxes, including internal revenue.	Contract work.	Other.		
1	$948,184	$1,410,873	$30,348	$43,243	$376,775	$13,267	$875,904	$1,569	$17,832	.....	$51,935	$1,465,039	$575,868
2	2,824,882	2,943,314	90,276	67,684	469,357	30,004	2,106,892	18,209	23,510	$1,780	135,602	3,235,368	1,098,467
3	4,916,559	6,039,147	146,936	127,179	1,681,460	96,416	3,285,702	7,324	58,801	325	635,004	6,511,260	3,120,142
4	2,099,962	2,256,861	53,400	46,030	520,189	65,343	1,211,243	3,466	217,437	350	139,403	2,515,458	1,238,872
5	4,423,895	4,914,666	122,805	98,611	766,649	105,910	3,454,289	35,577	47,850	15,106	267,869	5,498,452	1,938,253
6	19,297,332	24,593,537	610,997	464,424	4,427,188	768,878	15,256,165	55,260	1,044,990	15,150	1,950,485	27,077,151	11,052,108