

# INDIANA.

## INDUSTRIES IN GENERAL.

**General character of the state.**—Indiana, with a gross area of 36,354 square miles, of which 309 represent water surface, ranks thirty-seventh in size among the states and territories of continental United States. Its population in 1910 was 2,700,876, as compared with 2,516,462 in 1900 and 2,192,404 in 1890. It ranked ninth among the 49 states and territories as regards population in 1910 and eighth in 1900. In density of population Indiana ranked eleventh in 1910, having 74.9 persons per square mile, the corresponding figure for 1900 being 70.1. The state had 25 cities having a population of over 10,000 in 1910. Five of these—Evansville, Fort Wayne, Indianapolis, South Bend, and Terre Haute—had over 50,000 inhabitants and the other 20 had from 10,000 to 25,000. A list of these cities with the population of each in 1910 and 1900 is given on page 310. The urban population is comparatively large. Forty-two and four-tenths per cent of the entire population of the state resided in cities and incorporated towns having a population of 2,500 inhabitants or over in 1910, as against 34.3 per cent in 1900.

The facilities of the state for water transportation are fairly good. Lake Michigan furnishes an outlet on the north and the Ohio and Wabash Rivers on the south and southwest. The railroad facilities are exceptionally well developed.

**Importance and growth of manufactures.**—In 1849 Indiana ranked fourteenth among the states of the Union in the value of its manufactures, the total value of products being \$18,725,000. Each decade since then has shown a large increase, the value of the manufactured products of the state reaching the \$100,000,000 mark in 1869, while in 1909 it amounted to \$579,075,000, and the state ranked ninth in this respect. The growth has been dependent largely upon the natural resources of the state, consisting of an abundant supply of timber, important agricultural products, and a large production of petroleum and natural gas. During the past decade the supply of timber, petroleum, and natural gas has fallen off greatly, and some of the industries depending upon these materials show a decrease in their output or less advance than in previous years. The manufacturing industries of the state as a whole, however, have continued to flourish, lumber having been secured from outside the state to supplement the local supply, while the increasing amount of coal mined in the state

has compensated largely for the smaller supply of natural gas and has stimulated manufacturing in many lines.

During 1849 an average of 14,440 wage earners, representing 1.5 per cent of the total population, were employed in manufactures, while in 1909 an average of 186,984 wage earners, or 6.9 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 \$19 to \$214. The proportion which the manufactures of the state represented of the total value of products of manufacturing industries for the United States increased from 1.8 per cent in 1849 to 2.8 per cent in 1909.

The 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 Indiana had 7,969 manufacturing establishments, which gave employment to an average of 218,263 persons during the year and paid out \$121,816,000 in salaries and wages. Of the persons employed, 186,984 were wage earners. These establishments turned out products to the value of \$579,075,000, in the manufacture of which materials costing \$334,375,000 were utilized. The value added by manufacture was thus \$244,700,000, which figure, as explained in the Introduction, best represents the net wealth created by manufacturing operations during the year.

The totals presented in the table do not include the statistics for an establishment operated by the Federal Government, the general depot of the Quartermaster's Department, located at Jeffersonville. In 1909 this plant employed an average of 590 wage earners, and the products, which consisted principally of clothing, were valued at \$401,801.

In general, the table brings out the fact that the manufacturing industries of Indiana 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 13.1 per cent and the average number of wage earners 21.3 per cent, while the amount paid in wages increased 32.5 per cent, the value of products 47 per cent, and the value added by manufacture 41.1 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 com-

modities. The only decrease shown in the table is one of 1.2 per cent in the number of establishments during the period 1899-1904.

	NUMBER OR AMOUNT.			PER CENT OF INCREASE. <sup>1</sup>	
	1909	1904	1899	1904-1909	1899-1904
Number of establishments.....	7,969	7,044	7,128	13.1	-1.2
Persons engaged in manufactures.....	218,263	176,227	( <sup>2</sup> )	23.9	.....
Proprietors and firm members.....	7,674	7,191	( <sup>2</sup> )	6.7	.....
Salaried employees.....	23,605	14,862	10,447	58.8	42.3
Wage earners (average number).....	186,984	154,174	139,017	21.3	10.9
Primary horsepower.....	633,377	380,758	325,919	66.3	16.8
Capital.....	\$508,717,000	\$312,071,000	\$219,321,000	63.0	42.3
Expenses.....	525,061,000	354,277,000	295,221,000	48.2	20.0
Services.....	121,816,000	87,087,000	69,251,000	39.9	25.8
Salaries.....	26,305,000	15,029,000	9,971,000	75.0	50.7
Wages.....	95,511,000	72,058,000	59,280,000	32.5	21.6
Materials.....	334,375,000	220,507,000	195,163,000	51.6	13.0
Miscellaneous.....	68,870,000	46,683,000	30,807,000	47.5	51.5
Value of products.....	579,075,000	393,954,000	337,072,000	47.0	16.9
Value added by manufacture (value of products less cost of materials).....	244,700,000	173,447,000	141,909,000	41.1	22.2

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

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

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

It should be borne in mind, in considering the 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.

The table shows 55 industries or industry groups which had in 1909 products in excess of \$500,000 in value. Of the industries listed in the table there were 8 whose products exceeded \$20,000,000 in value, 6 with products between \$10,000,000 and \$20,000,000 in value, and 10 with products between \$5,000,000 and \$10,000,000 in value, making an aggregate of 24 industries with products in excess of \$5,000,000 in value. Statistics are also presented for 23 other industries with products between \$1,000,000 and \$5,000,000 in value, and 8 having products valued at from \$500,000 to \$1,000,000. The most important industries listed in the 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 establishments doing wholesale slaughtering and meat packing, and those engaged in the manufacture of sausage only. It does not include the numerous retail butcher shops, which slaughter a large number of animals. While from 1899 to 1904 the value of products decreased from \$43,890,000 to \$29,435,000, it had increased to \$47,289,000 by 1909, when the total value of products was \$3,399,000, or 7.7 per cent, greater than in 1899. The decrease during the earlier period was due largely to the fact that some of the large establishments reported in 1899 had removed from the state in 1904. Although the increase in value of products from 1904 to 1909 was influenced greatly by the general rise in prices, the number of

establishments, the average number of wage earners, and the amount paid for wages all show large increases.

*Flour-mill and gristmill products.*—This industry, the outgrowth of the large crops of cereals grown in Indiana, has long been one of the leading industries of the state. The value of products increased from \$29,038,000 in 1899 to \$40,541,000 in 1909, an increase of \$11,503,000, or 39.6 per cent, in the decade. The state, however, dropped from sixth place among the states and territories in this industry in 1899 to eighth place in 1909. In 1909 the value of the products of this industry represented 7 per cent of the total for all manufacturing industries in the state. Those mills which do custom grinding only are not included in the general tables, or in the totals for manufacturing industries, but are shown in a separate statement on page 320.

*Iron and steel, steel works and rolling mills.*—In 1889 the value of the products of this industry was but \$4,743,000, while by 1899 it had increased to \$19,338,000, and in 1909 to \$38,652,000, or over eight times the amount reported in 1889. On account of a general depression in the industry in 1904 the value of products reported for that year was 12.5 per cent less than that reported in 1899, but during the five years from 1904 to 1909 there was an increase of 128.4 per cent. This recent gain is in a large measure due to the establishment of large steel works and rolling mills at Gary, in the northern part of the state, on Lake Michigan. The importance of the iron and steel industry as a whole is much greater than is indicated by the figures for the steel works and rolling mills, since the statistics for blast furnaces and for the manufacture of tin plate and terneplate can not be shown without disclosing the operations of individual establishments.

*Liquors, distilled.*—In 1904 the state was second in importance in this industry, as measured by value of

products, but in 1909, notwithstanding a large increase in value of products, it dropped to third place. In 1909 internal-revenue taxes to the amount of \$25,111,967, representing the Federal tax on all taxable liquors manufactured by the distillers, including liquors placed in bond, were included in the value of products, whereas at the previous census this tax was

included only when it was actually paid and reported by the manufacturers. For this reason the importance of the industry in 1909, from a manufacturing standpoint, is greatly exaggerated. In 1909 employment was given to an average of only 428 wage earners, and judged on this basis the industry becomes of minor importance.

INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		PER CENT OF INCREASE. <sup>1</sup>			
		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.....	7,989	186,984	100.0	\$579,075,000	100.0	\$244,700,000	100.0	47.0	16.9	41.1	22.2
Slaughtering and meat packing.....	61	4,423	2.4	47,289,000	8.2	5,303,000	2.2	60.7	-32.9	66.4	-30.4
Flour-mill and gristmill products.....	563	2,298	1.2	40,541,000	7.0	5,530,000	2.3	11.2	25.6	7.9	21.2
Foundry and machine-shop products.....	415	15,800	8.5	39,884,000	6.9	21,285,000	8.7	55.8	24.9	52.6	32.2
Iron and steel, steel works and rolling mills.....	17	12,255	6.6	38,652,000	6.7	12,533,000	5.1	128.4	-12.5	108.7	-12.8
Liquors, distilled.....	14	428	0.2	31,610,000	5.5	20,898,000	11.0	54.0	21.0	63.6	10.6
Automobiles, including bodies and parts.....	67	6,797	3.6	23,764,000	4.1	8,769,000	3.6	1,349.9	.....	676.0	.....
Lumber and timber products.....	1,277	10,317	5.5	23,135,000	4.0	10,753,000	4.4	7.7	-16.3	10.6	-23.8
Carriages and wagons and materials.....	221	8,867	4.7	21,655,000	3.7	9,197,000	3.8	12.4	21.8	9.6	15.6
Furniture and refrigerators.....	201	11,284	6.0	18,456,000	3.2	9,906,000	4.1	32.2	59.2	21.3	74.0
Cars and general shop construction and repairs by steam-railroad companies.....	34	12,884	6.0	17,128,000	3.0	9,252,000	3.8	18.0	41.7	23.2	56.9
Printing and publishing.....	892	6,756	3.6	14,556,000	2.5	10,331,000	4.2	25.1	28.0	24.5	26.0
Agricultural implements.....	30	4,749	2.5	13,670,000	2.4	8,806,000	3.6	69.6	25.7	73.1	34.0
Glass.....	44	9,544	5.1	11,593,000	2.0	6,885,000	2.8	-21.2	-0.3	-25.0	-10.1
Bread and other bakery products.....	754	2,565	1.3	10,209,000	1.8	3,983,000	1.6	47.2	60.5	42.0	53.5
Cars, steam-railroad, not including operations of railroad companies.....	7	4,084	2.2	9,493,000	1.6	3,189,000	1.3	-5.4	11.4	-0.1	17.4
Canning and preserving.....	134	3,406	1.8	8,758,000	1.5	2,813,000	1.2	48.6	87.4	21.2	80.5
Liquors, malt.....	37	1,594	0.9	8,313,000	1.4	6,324,000	2.6	34.2	7.3	42.6	-4.6
Clothing, men's, including shirts.....	42	4,073	2.2	8,029,000	1.4	3,377,000	1.4	48.1	27.0	56.5	20.8
Electrical machinery, apparatus, and supplies.....	42	3,073	1.6	7,718,000	1.3	4,025,000	1.6	170.1	80.1	124.9	123.2
Cement.....	11	2,318	1.2	7,022,000	1.2	2,863,000	1.2	447.3	.....	232.6	.....
Copper, tin, and sheet-iron products.....	146	2,121	1.1	5,793,000	1.0	2,332,000	1.0	99.8	.....	68.1	.....
Marble and stone work.....	200	3,283	1.8	5,756,000	1.0	3,996,000	1.6	69.3	106.5	70.8	110.4
Glucose and starch.....	4	806	0.5	5,750,000	1.0	1,068,000	0.4	180.8	106.9	94.5	24.8
Paper and wood pulp.....	27	1,501	0.8	5,202,000	0.9	1,705,000	0.7	32.8	-6.1	21.8	-17.6
Brick and tile.....	311	3,788	2.0	4,719,000	0.8	3,414,000	1.4	23.6	30.3	20.4	10.2
Patent medicines and compounds and druggists' preparations.....	113	801	0.4	4,344,000	0.8	2,884,000	1.2	-1.5	83.5	-2.4	73.7
Tobacco manufactures.....	470	2,794	1.5	4,155,000	0.7	2,565,000	1.0	6.4	50.5	10.4	39.9
Butter, cheese, and condensed milk.....	132	498	0.3	3,950,000	0.7	763,000	0.3	.....	.....	.....	.....
Musical instruments, pianos and organs and materials.....	15	1,667	0.9	3,480,000	0.6	1,983,000	0.8	.....	.....	.....	.....
Leather goods.....	118	1,240	0.7	3,400,000	0.6	1,404,000	0.6	70.5	39.8	56.0	50.0
Wirework, including wire rope and cable.....	31	689	0.4	3,191,000	0.5	819,000	0.3	86.4	54.2	40.2	1.3
Gas, illuminating and heating.....	53	928	0.5	3,147,000	0.5	2,045,000	0.8	71.1	77.9	61.3	63.0
Pottery, terra-cotta, and fire-clay products.....	31	2,186	1.2	2,966,000	0.5	2,107,000	0.0	12.2	104.7	5.5	104.0
Stoves and furnaces, including gas and oil stoves.....	24	1,362	0.7	2,751,000	0.5	1,730,000	0.7	35.5	.....	41.5	.....
Confectionery.....	64	885	0.5	2,558,000	0.4	1,035,000	0.4	67.2	22.5	48.1	25.3
Cotton goods, including cotton small wares.....	7	1,582	0.8	2,502,000	0.4	832,000	0.3	68.6	11.2	141.9	-45.7
Copperage and wooden goods, not elsewhere specified.....	57	891	0.5	2,398,000	0.4	899,000	0.4	-13.6	.....	-9.5	.....
Hosiery and knit goods.....	5	1,933	1.0	2,881,000	0.4	1,466,000	0.6	13.1	-13.2	46.6	-18.3
Leather, tanned, curried, and finished.....	10	308	0.2	2,311,000	0.4	698,000	0.2	119.9	-33.9	103.4	-28.8
Clothing, women's.....	18	1,201	0.7	2,068,000	0.4	1,001,000	0.4	-2.4	67.8	-10.7	84.7
Paper goods, not elsewhere specified.....	8	719	0.4	1,887,000	0.3	683,000	0.3	142.2	101.8	133.3	30.0
Woolen, worsted, and felt goods, and wool hats.....	11	776	0.4	1,570,000	0.3	514,000	0.2	.....	.....	.....	.....
Coffins, burial cases, and undertakers' goods.....	19	669	0.4	1,448,000	0.2	747,000	0.3	30.8	38.5	17.6	49.1
Brass and bronze products.....	21	468	0.3	1,379,000	0.2	605,000	0.2	.....	.....	.....	.....
Ice, manufactured.....	85	593	0.3	1,311,000	0.2	985,000	0.4	75.3	37.5	67.8	38.8
Mattresses and spring beds.....	27	553	0.3	1,287,000	0.2	596,000	0.2	50.7	66.8	42.9	80.2
Paint and varnish.....	18	200	0.1	1,108,000	0.2	425,000	0.2	48.1	86.6	26.7	110.1
Boots and shoes, including cut stock and findings.....	8	436	0.2	978,000	0.2	314,000	0.1	112.6	-50.9	96.2	-38.2
Cutlery and tools, not elsewhere specified.....	24	572	0.3	933,000	0.2	530,000	0.2	10.7	-43.6	12.3	-50.5
Scales and balances.....	8	266	0.1	877,000	0.2	699,000	0.3	321.6	60.0	300.6	70.4
Artificial stone.....	219	498	0.2	851,000	0.1	551,000	0.2	295.8	.....	274.8	.....
Boxes, fancy and paper.....	13	550	0.3	782,000	0.1	360,000	0.1	92.1	74.7	87.5	39.1
Gas and electric fixtures and lamps and reflectors.....	12	342	0.2	620,000	0.1	335,000	0.2	.....	.....	.....	.....
Musical instruments and materials, not specified.....	9	390	0.2	610,000	0.1	502,000	0.2	73.3	70.0	90.2	58.1
Milinery and lace goods.....	7	166	0.1	533,000	0.1	207,000	0.1	96.4	169.5	52.2	126.7
All other industries.....	772	21,688	11.6	83,643,000	15.3	29,950,000	12.2	.....	.....	.....	.....

<sup>1</sup> Percentages are based on figures in Table I; a minus sign (-) denotes decrease. Where the percentages are omitted, comparable figures can not be given.

Automobiles, including bodies and parts.—This industry, for which but 1 establishment was reported in 1899, had increased in 1904 to 11 establishments, with products valued at \$1,639,000. In 1909 there were 67 establishments, the value of whose products amounted

to \$23,764,000, or more than fourteen times that reported for 1904. The manufacture of automobile bodies and parts has become so interwoven with other industries that it is not possible to state how fully the statistics show the magnitude of the industry.

A number of the foundries and machine shops and establishments engaged in the manufacture of electrical apparatus and supplies incidentally manufacture automobile accessories and parts, while a number of the establishments in Indiana classified under the heading "Rubber goods, not elsewhere specified," manufacture automobile tires.

*Carriages and wagons and materials.*—This classification includes those establishments which made five or more vehicles during the year or which were engaged in the manufacture of carriage or wagon bodies, tops, or other parts and accessories. It does not include blacksmith or wheelwright shops or establishments engaged primarily in the manufacture of children's carriages and sleds. This industry is more or less interwoven with other industries, such as the manufacture of foundry and machine-shop products and of rubber goods. The value of products increased from \$15,811,000 in 1899 to \$21,655,000 in 1909, a gain in the 10 years of \$5,844,000, or 37 per cent.

*Furniture and refrigerators.*—This industry, which is dependent largely on the local and near-by supply of hardwood, is well developed in the state. During the decade 1899-1909 the number of establishments increased from 129 to 201, the average number of wage earners from 7,149 to 11,284, or 57.8 per cent, and the value of products from \$8,770,000 to \$18,456,000, or 110.4 per cent. The industry ranked fourth in the state in 1909 in number of wage earners employed.

*Agricultural implements.*—This industry has been an important one in Indiana for a number of years, the value of products increasing from \$6,415,000 in 1899 to \$13,670,000 in 1909, or 113.1 per cent. The manufacture of agricultural implements is carried on also in many factories devoted primarily to the manufacture of foundry and machine-shop products, and for this reason the figures given fail to show the full extent of the industry.

*Glass.*—There were only two glass plants in Indiana when natural gas was discovered in the state about 1886. With the development with this cheap form of fuel, however, the number of such plants increased rapidly until in 1899 there were 110 glass factories, reporting products valued at \$14,758,000. As measured by the value of products the state rose from eighth place in this industry in 1879 to fourth place in 1889 and second place in 1899 and 1904. With a reduction in the supply of natural gas during the last 10 years, however, the growth of the industry has been checked, and the value of products fell off three-tenths of 1 per cent from 1899 to 1904 and 21.2 per cent from 1904 to 1909. As a result the state had in 1909 dropped back to third place in the value of glass products.

The utilization of bituminous coal, of which there is a large supply in Indiana, may result in making the manufacture of glass a more permanent and a better established industry in the state than would have

been the case if it had remained dependent upon an uncertain supply of natural gas for fuel.

If the leading industries were arranged according to value added by manufacture, there would be a considerable change from the order in which they stand in the table, where they are arranged according to value of products. On the basis of value added by manufacture the seven leading industries are, in the order named, the distilleries, the foundries and machine shops, the steel works and rolling mills, the lumber industry, the printing and publishing industry, the furniture industry, and the steam-railroad repair shops. The carriage and wagon industry remains in eighth place; the manufacture of agricultural implements becomes ninth in order instead of twelfth; and the glass industry becomes eleventh instead of thirteenth. The automobile industry drops from sixth to tenth place, and the brewery industry advances from seventeenth to twelfth.

Owing to the comparatively simple processes involved in both the slaughtering and meat-packing and the flour-mill and gristmill industries, and the extent to which the manufacturing processes are carried on by machinery in the latter industry, the value added by manufacture is not commensurate with the value of products, for which reason these two industries, which rank first and second in value of products, become fourteenth and thirteenth, respectively, in value added by manufacture.

This table shows also the percentages of increase for the leading industries in respect to value of products and value added by manufacture in all cases where comparative statistics can be presented. The automobile industry shows a far greater rate of increase from 1904 to 1909 in value of products and value added by manufacture (1,349.9 per cent and 976 per cent, respectively) than any of the other industries presented. Seven other industries show increases of over 100 per cent both in value of products and in value added by manufacture, two others show increases exceeding 100 per cent in value of products only, and one an increase of more than 100 per cent in value added by manufacture only. The most interesting of these are the artificial stone and the cement industries, which show increases of approximately 300 per cent and 450 per cent, respectively, in value of products, and 275 per cent and 230 per cent, respectively, in value added by manufacture.

Five of the industries presented separately show decreases in both value of products and value added by manufacture from 1904 to 1909, and nine show decreases in both respects from 1899 to 1904.

The refining of petroleum is the most important of the industries included under the head of "All other industries." There was only one establishment reported and for this reason the statistics can not be published. In addition to this industry and the 47 industries presented separately in the preceding table for which products valued at more than \$1,000,000 were reported,



17 other industries had a value of products in excess of this amount in 1909. They are included under the head of "All other industries" in the table, in some instances 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 comparable statistics for the different census years can not be presented on account of changes of classification. These industries are as follows: Bags, other than paper; boots and shoes, rubber; carriages and sleds, children's; cars and general shop construction and repairs by street-railroad companies; chemicals; coffee and spice, roasting and grinding; explosives; furnishing goods, men's; iron and steel, blast furnaces; rubber goods, "not elsewhere specified;" saws; sewing machines, cases, and attachments; smelting and refining, lead; tin plate and terneplate; windmills; wire; and wood, turned and carved. Statistics for street-railroad repair shops, the manufacture of men's furnishing goods, and of miscellaneous rubber goods, are given for 1909 in Table II, page 328.

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.....	218,263	180,664	27,579
Proprietors and officials.....	14,520	14,185	335
Proprietors and firm members.....	7,074	7,425	249
Salaried officers of corporations.....	2,021	2,577	44
Superintendents and managers.....	4,225	4,183	42
Clerks.....	16,759	12,801	3,958
Wage earners (average number).....	186,984	163,698	23,286
16 years of age and over.....	183,372	161,117	22,255
Under 16 years of age.....	3,612	2,581	1,031

The average number of persons engaged in manufactures during 1909 was 218,263, of whom 186,984 were wage earners. Of the remainder, 14,520 were proprietors and officials, and 16,759 were clerks. Corresponding figures for individual industries will be found in Table II, page 328.

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, 6.7 per cent were proprietors and

officials, 7.7 per cent clerks, and 85.7 per cent wage earners. The highest percentages of proprietors and officials shown among the individual industries are those for the flour mills and gristmills and the bakeries, 26.5 and 24.2, respectively. In these two industries the majority of the establishments are small and the work is to a large extent done 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 very much higher than for most other industries or for all industries combined. Similar conditions prevail to some extent in the lumber industry, where the proprietors and officials form 16 per cent of the total number of persons engaged, and in printing and publishing, where they form 13.7 per cent.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number)
All Industries.....	218,263	6.7	7.7	85.7
Agricultural implements.....	6,061	8.9	17.7	78.4
Automobiles, including bodies and parts.....	7,753	2.8	9.5	87.7
Bread and other bakery products.....	3,780	24.2	9.6	66.3
Canning and preserving.....	3,052	5.6	8.2	86.2
Carriages and wagons and materials.....	10,100	4.8	7.4	87.8
Cars and general shop construction and repairs by steam-railroad companies.....	13,745	1.4	4.9	93.7
Cars, steam-railroad, not including operations of railroad companies.....	4,449	2.2	6.0	91.8
Cement.....	2,616	1.3	10.1	88.6
Clothing, men's, including shirts.....	4,444	2.0	6.3	91.7
Electrical machinery, apparatus, and supplies.....	3,723	4.3	13.2	82.5
Flour-mill and gristmill products.....	3,598	26.5	8.0	65.5
Foundry and machine-shop products.....	18,439	5.8	8.4	85.7
Furniture and refrigerators.....	12,352	4.2	4.4	91.4
Glass.....	9,986	1.7	2.2	96.1
Iron and steel, steel works and rolling mills.....	13,206	1.0	6.2	92.8
Liquors, distilled.....	527	9.5	9.3	81.2
Liquors, malt.....	1,023	6.9	10.2	82.9
Lumber and timber products.....	12,840	16.0	3.6	80.4
Printing and publishing.....	9,600	13.7	16.0	70.4
Slaughtering and meat packing.....	4,862	2.8	6.2	91.0
All other industries.....	70,447	7.6	7.9	84.5

On account of the large average number of wage earners in the steel works and rolling mills and in the establishments manufacturing cement, these industries show a small proportion of proprietors and officials. The steam-railroad repair shops, also, reported a small proportion of proprietors and officials, as these shops are very large, and in addition are operated by corporations, which report no proprietors. The glass industry, which reports the smallest percentage of clerks, as well as a very small percentage of proprietors and officials, shows a larger percentage of wage earners than any other industry given in the table.

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. <sup>1</sup>	Per cent of total.		
		16 years of age and over.		Under 16 years of age.
Male.	Female.			
<b>All industries.....</b>	<b>186,984</b>	<b>86.2</b>	<b>11.9</b>	<b>1.9</b>
Agricultural implements.....	4,740	96.9	2.6	0.5
Automobiles, including bodies and parts.....	6,767	99.1	0.5	0.4
Bread and other bakery products.....	2,505	79.4	17.5	3.1
Canning and preserving.....	3,406	42.7	54.2	3.1
Carrriages and wagons and materials.....	8,867	95.8	3.0	1.2
Cars and general shop construction and repairs by steam-railroad companies.....	12,884	99.8	0.1	0.1
Cars, steam-railroad, not including operations of railroad companies.....	4,084	99.6	( <sup>2</sup> )	0.4
Cement.....	2,318	99.6	0.1	0.3
Clothing, men's, including shirts.....	4,073	13.6	83.3	3.2
Electrical machinery, apparatus, and supplies.....	3,073	69.2	29.9	0.9
Flour-mill and gristmill products.....	2,298	98.0	0.6	0.5
Foundry and machine-shop products.....	15,809	97.3	2.0	0.7
Furniture and refrigerators.....	11,284	95.2	2.7	2.1
Glass.....	9,544	89.5	5.4	5.1
Iron and steel, steel works and rolling mills.....	12,255	99.8	-----	0.2
Liquors, distilled.....	428	99.8	0.2	-----
Liquors, malt.....	1,594	95.6	0.9	3.6
Lumber and timber products.....	10,317	97.3	1.2	1.4
Printing and publishing.....	6,756	70.1	27.7	2.2
Slaughtering and meat packing.....	4,423	92.3	5.9	1.7
All other industries.....	59,520	77.2	19.8	3.0

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

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

For all industries combined, 86.2 per cent of the average number of wage earners were males 16 years of age and over; 11.9 per cent, females 16 years of age and over; and 1.9 per cent, children under the age of 16. The largest number of women were employed in the canning and preserving, men's clothing, and printing and publishing industries. In the men's clothing industry over four-fifths of the employees were women 16 years of age and over; in the canning and preserving industry, more than one-half; and in the manufacture of electrical machinery, apparatus, and supplies, almost three-tenths. The printing and publishing and the bakery industries also show large proportions of female wage earners, 27.7 per cent and 17.5 per cent, respectively.

The total number of wage earners under 16 years of age was small, and such employees were distributed widely among the several industries. The largest number of children, both absolutely and relatively, were employed in the glass industry, where they formed 5.1 per cent of all wage earners.

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 next table makes this comparison according to occupational status.

Comparable figures are not obtainable for 1899. The table shows that the greatest percentage of increase from 1904 to 1909 was in the number of salaried employees.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.				
	1909		1904		Per cent of increase, 1904-1909.
	Number.	Per cent distribution.	Number.	Per cent distribution.	
<b>Total.....</b>	<b>218,263</b>	<b>100.0</b>	<b>176,227</b>	<b>100.0</b>	<b>23.9</b>
Proprietors and firm members.....	7,674	3.5	7,191	4.1	6.7
Salaried employees.....	23,005	10.8	14,862	8.4	58.8
Wage earners (average number)....	186,984	85.7	154,174	87.5	21.3

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.
<b>Total.....</b>	<b>186,984</b>	<b>100.0</b>	<b>154,174</b>	<b>100.0</b>	<b>139,017</b>	<b>100.0</b>
16 years of age and over.....	183,372	98.1	150,781	97.8	135,497	97.5
Male.....	161,117	86.2	131,551	85.3	119,580	86.0
Female.....	22,255	11.9	19,230	12.5	15,917	11.4
Under 16 years of age.....	3,612	1.9	3,393	2.2	3,520	2.5

This table indicates that for all industries combined there has been little 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 86.2 per cent of all wage earners, as compared with 85.3 per cent in 1904 and 86 per cent in 1899. The actual number of children employed changed very little during the 10 years, but the proportion which they formed of the total number of wage earners decreased from 2.5 per cent to 1.9 per cent.

**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, 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 328, 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 there was a more or less regular increase throughout the year, due no doubt to a general improvement in business conditions. The minimum number was reported for January, when 172,475 wage earners, or 85.6 per cent of the maximum number, were employed. There was very little change from October, when the maximum number was employed, to the end of the year.

MONTH.	WAGE EARNERS.					
	All industries.		Canning and preserving.		All other industries.	
	Number.	Percent of maximum.	Number.	Percent of maximum.	Number.	Percent of maximum.
January.....	172,475	85.6	759	6.5	171,716	86.2
February.....	177,371	88.0	909	7.8	176,462	88.6
March.....	181,161	89.9	989	8.5	180,162	90.5
April.....	182,641	90.6	1,104	9.5	181,537	91.1
May.....	182,228	90.4	1,073	9.2	181,155	91.0
June.....	183,167	90.9	2,942	25.4	180,225	90.5
July.....	175,838	87.3	2,505	21.6	173,333	87.0
August.....	188,311	93.5	7,038	65.8	180,673	90.7
September.....	198,293	98.4	11,600	100.0	186,603	93.7
October.....	201,461	100.0	6,925	59.7	194,556	97.7
November.....	199,937	99.2	2,678	23.1	197,259	99.0
December.....	200,915	99.7	1,750	15.1	199,165	100.0

Canning and preserving is one of the most important seasonal industries in the state, and although the number of wage earners employed was relatively small, the great variation in the number, from

759 in January to 11,600 in September, affects to a small extent the totals for all industries combined. The number in all industries combined, exclusive of canning and preserving, increased constantly from January to December, except for a slight falling off in the summer months. In the glass industry, which is not shown in the table, the number of wage earners employed in July and August was only one-half the number employed in December, the month of greatest 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.....	186,684	13,609	10,974	23,552	48,040	76,343	4,832	7,129	2,505
Agricultural implements.....	4,749	16	539	459	2,879	872			
Artificial stone.....	468	16	3	79	26	344			
Automobiles, including bodies and parts.....	0,797	18	19	1,505	3,485	1,707			
Boots and shoes, including cut stock and findings.....	436			59	425	11			
Boxes, fancy and paper.....	550			59	467	24			
Brass and bronze products.....	468	1	7	24	153	283			
Bread and other bakery products.....	2,505	191	16	222	124	1,612	214	89	37
Brick and tile.....	3,788	212	86	428	118	2,937	7		
Butter, cheese, and condensed milk.....	488	44	1	6	19	323	81	2	12
Canning and preserving.....	3,406	211	55	39	616	2,485			
Carriages and wagons and materials.....	8,867	198	350	997	4,447	2,375			
Cars and general shop construction and repairs by steam-railroad companies.....	12,884	1,272	2,131	2,077	3,825	2,255	1,323		
Cars, steam-railroad, not including operations of railroad companies.....	4,084			458	410	3,216			
Cement.....	2,318		1		188	1,246			883
Clothing, men's, including shirts.....	4,073	980	189	353	2,502	40			
Clothing, women's.....	1,291	12	109	576	529	65			
Coffins, burial cases, and undertakers' goods.....	669		9	73	219	368			
Confectionery.....	385	74	76	18	373	332	9		8
Cooperage and wooden goods, not elsewhere specified.....	891	229	41	172	88	360		1	
Copper, tin, and sheet-iron products.....	2,121	227	74	220	506	1,094			
Cotton goods, including cotton small wares.....	1,582				38	1,544			
Cutlery and tools, not elsewhere specified.....	672	32		143	93	304			
Electrical machinery, apparatus, and supplies.....	3,073	17	164	184	1,772	936			
Flour-mill and gristmill products.....	2,298	114	13	43	13	1,140	343	571	47
Foundry and machine-shop products.....	15,809	386	1,412	2,129	5,658	6,222	1		1
Furniture and refrigerators.....	11,284	257	202	283	2,406	8,136			
Gas and electric fixtures and lamps and reflectors.....	342	11	5	37	112	177			
Gas, illuminating and heating.....	928	5			55	161	248	3	456
Glass.....	9,544	1,850	2,109	1,978	1,575	1,584	448		217
Glucose and starch.....	866					488		166	
Hosiery and knit goods.....	1,033				1,090	243			
Ice, manufactured.....	693	4			8	45	70	80	356
Iron and steel, steel works and rolling mills.....	12,255	101		1,647		4,120	1,518	4,869	
Leather goods.....	1,240	5	6	15	652	553	7	2	
Leather, tanned, curried, and finished.....	398	3	182	43	45	125			
Liquors, distilled.....	428	1						297	
Liquors, malt.....	1,594	96		1,046	259	146			20
Lumber and timber products.....	10,317	260	447	1,951	1,156	7,401	2		
Marble and stone work.....	3,283	169	65	193	143	2,693		17	
Mattresses and spring beds.....	553	12	211	26	112	192			
Millinery and lace goods.....	166	23	81	45	5	12			
Musical instruments and materials, not specified.....	390			346	13	31			
Musical instruments, pianos and organs and materials.....	1,667				486	1,181			
Paint and varnish.....	200	6	11	17	117	49			
Paper and wood pulp.....	1,501					283	141	954	143
Paper goods, not elsewhere specified.....	719	6				713			
Patent medicines and compounds and druggists' preparations.....	801	44	485	142	48	82			
Pottery, terra-cotta, and fire-clay products.....	2,189	142		512	560	972			
Printing and publishing.....	6,756	3,912	500	1,002	628	706	3	5	
Scales and balances.....	266		14	7	194	51			
Slaughtering and meat packing.....	4,423	28			22	4,373			
Stoves and furnaces, including gas and oil stoves.....	1,362	122	179	173	513	875			
Tobacco manufactures.....	2,794	1,022	48	45	974	99		6	
Wirework, including wire rope and cable.....	689	2	1	25	191	470			
Woolen, worsted, and felt goods, and wool hats.....	778			2		774			
All other industries.....	21,088	703	633	4,650	7,094	7,821	390	67	

It is evident from these figures that for the great majority of wage earners employed in the manufacturing industries of Indiana the usual hours of labor ranged from 54 to 60 a week, only 13.1 per cent of the total having been employed in establishments where they were less than 54 a week, and only 7.7 per cent in establishments where they were more than 60 a week.

The prevailing hours of labor in the foundries and machine shops, which employed a larger number of wage earners than any other single industry, were from 54 to 60 a week, inclusive. In the repair shops of the steam railroads the hours varied widely, but over one-half of the wage earners worked more than 54 hours a week. The steel works and rolling mills, operating in some departments seven days a week, reported uniformly long hours, over five-sixths of the wage earners working 60 hours or more a week, and about two-fifths, 72 hours a week. The furniture factories and lumber mills operated mainly on a 60-hour basis, while the glass factories reported 54 hours or less per week as the prevailing hours for nearly two-thirds of their employees. In the printing and

publishing and the tobacco-products industries nearly three-fifths of the wage earners were in establishments operating 48 hours or less a week, while in the gas and the manufactured-ice industries about one-half and two-thirds, respectively, were in establishments where the prevailing hours were more than 72 a week. These two last-named industries and the cement industry gave employment to more than two-thirds of the wage earners who were employed more than 72 hours a week.

**Location of establishments.**—The next table shows the extent to which in 1909 the manufactures of Indiana were 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. Statistics for Gary, a city having a population of over 10,000, whose manufactures are practically all carried on by a single corporation, are, however, included with those for the sections of the state outside of such cities, so as to avoid 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	2,700,876	802,205	29.7	323,194	12.0	245,421	9.1	233,650	8.6	1,898,611	70.3
	1900	2,516,462	564,581	22.4	218,623	8.7	176,794	7.0	169,164	6.7	1,951,881	77.6
Number of establishments.....	1909	7,969	2,975	37.3	1,203	15.1	917	11.5	855	10.7	4,994	62.3
	1899	7,128	2,334	32.7	912	12.8	725	10.2	697	9.8	4,794	67.7
Average number of wage earners	1909	186,984	112,658	60.3	45,400	24.3	35,443	19.0	31,815	17.0	74,326	39.7
	1899	139,017	78,097	56.2	31,952	23.0	25,160	18.1	20,985	15.1	60,920	43.8
Value of products.....	1909	\$579,075,046	\$348,759,733	60.2	\$125,973,814	21.8	\$96,263,806	16.6	\$126,522,113	21.8	\$230,315,313	39.8
	1899	337,071,630	208,226,871	61.8	86,218,946	25.6	62,685,691	18.6	59,322,234	17.6	128,844,759	38.2
Value added by manufacture...	1909	244,700,293	148,009,815	60.7	58,094,467	23.7	48,144,171	19.7	42,371,177	17.3	96,000,478	39.3
	1899	141,909,064	88,116,611	62.1	31,181,888	22.0	35,899,395	25.3	21,035,328	14.8	53,792,453	37.9

In 1909, 60.2 per cent of the total value of products was reported from cities having over 10,000 inhabitants and 60.3 per cent of the average number of wage earners were employed in such cities. The industries located in cities of this size show a slight loss during the decade in relative importance, measured by value of products, as compared with those located outside of this class of cities.

Five cities in Indiana which had less than 10,000 inhabitants in 1900 had over 10,000 in 1910, and accordingly their statistics of manufactures for 1899 are included with the outside districts and for 1909 with the first city group. These cities—East Chicago, Mishawaka, Peru, Laporte, and Huntington—had in 1909 a combined value of products amounting to \$23,662,684. Otherwise the city groups contain the same cities for both censuses.

In 1909, as compared with 1899, the cities having between 10,000 and 25,000 inhabitants and those having between 25,000 and 100,000 inhabitants show a loss in their proportion of the total value of products reported for the state, while Indianapolis, the only

city of more than 100,000 inhabitants, shows a gain in this respect.

The population for 1910 and 1900 of the 25 cities which had 10,000 inhabitants or over in 1910 is given in the following statement:

CITY.	1910	1900	CITY.	1910	1900
Indianapolis.....	233,650	169,164	East Chicago.....	19,098	3,411
Evansville.....	69,647	59,007	Logansport.....	19,050	16,204
Fort Wayne.....	63,938	45,115	Michigan City.....	19,027	14,850
Terre Haute.....	58,157	39,673	Kokomo.....	17,010	10,609
South Bend.....	53,684	35,939	Gary <sup>1</sup> .....	16,802	.....
Muncie.....	24,005	20,842	Vincennes.....	14,895	10,249
Anderson.....	22,470	20,178	Mishawaka.....	11,836	5,560
Richmond.....	22,324	18,226	Elwood.....	11,028	12,950
Hammond.....	20,825	12,376	New Albany.....	10,910	8,463
New Albany.....	20,629	20,628	Laporte.....	10,525	7,113
Lafayette.....	20,081	18,116	Jeffersonville.....	10,412	10,774
Marion.....	19,859	17,337	Huntington.....	10,272	9,491
Elkhart.....	19,282	15,184			

<sup>1</sup> City incorporated in 1906.

The relative importance in manufactures of each of the cities except Gary is shown in the next table, in which the value of products and the average number of wage earners are shown separately, as far as comparative figures can be given, for 1909, 1904, and 1899.

CITY. <sup>1</sup>	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Indianapolis.....	31,815	26,725	20,985	\$126,522,113	\$82,227,950	\$59,322,234
South Bend <sup>2</sup> .....	11,789	8,997	7,678	27,854,527	16,170,490	12,959,866
Fort Wayne <sup>2</sup> .....	10,298	7,729	6,519	23,686,809	14,011,356	11,202,672
Evansville <sup>2</sup> .....	8,997	7,758	6,284	22,929,024	18,091,140	12,167,524
Terre Haute <sup>2</sup> .....	4,359	4,044	4,670	21,793,446	18,007,639	26,295,029
Hammond.....	3,841	1,548	2,683	15,580,250	7,671,203	25,070,551
Anderson <sup>2</sup> .....	4,393	3,079	3,537	13,794,933	8,180,595	8,295,533
Mishawaka.....	3,445	( <sup>3</sup> )	( <sup>3</sup> )	10,882,846	( <sup>3</sup> )	( <sup>3</sup> )
Richmond.....	3,621	2,970	2,688	10,373,837	6,781,740	4,753,546
Muncie <sup>2</sup> .....	4,033	2,855	3,848	9,684,238	5,890,750	7,041,675
Elwood.....	2,073	1,779	2,745	8,407,550	6,111,083	9,433,513
Michigan City.....	2,887	3,140	2,912	8,289,579	6,314,226	6,032,301
Elkhart.....	3,010	2,265	2,123	6,932,065	4,345,466	3,932,308
Lafayette.....	1,690	1,786	1,343	5,541,966	4,631,415	3,514,275
East Chicago.....	2,370	( <sup>3</sup> )	( <sup>3</sup> )	5,483,500	( <sup>3</sup> )	( <sup>3</sup> )
Kokomo.....	2,051	1,617	1,355	5,451,441	3,651,105	2,062,156
Marion <sup>2</sup> .....	2,269	2,210	2,843	4,442,116	4,034,152	4,592,922
Vincennes <sup>2</sup> .....	1,233	1,354	906	4,233,574	3,028,585	1,979,342
Logansport.....	2,169	1,720	1,316	4,201,359	2,955,921	2,100,394
Laporte.....	1,674	( <sup>3</sup> )	( <sup>3</sup> )	3,971,624	( <sup>3</sup> )	( <sup>3</sup> )
New Albany <sup>2</sup> .....	1,910	2,240	2,137	3,492,530	3,834,608	3,638,193
Huntington.....	1,376	1,311	1,246	2,227,558	2,081,019	1,725,082
Jeffersonville.....	766	1,492	1,516	1,915,682	4,526,443	3,771,635
Peru <sup>2</sup> .....	619	912	1,136	1,097,156	1,342,877	1,338,248

<sup>1</sup> Statistics for Gary can not be shown without disclosing individual operations.  
<sup>2</sup> 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.  
<sup>3</sup> Figures not available.

Of the cities for which comparative statistics are given, only three—New Albany, Jeffersonville, and Peru—show a decrease in value of products from 1904 to 1909. From 1899 to 1904, however, decreases took place in six cities, while for most of the remaining cities the increases were smaller than those reported for the period 1904–1909. The greatest relative gain in value of products shown by any city from 1904 to 1909, 103.1 per cent, was made by Hammond. Large increases were also reported for South Bend, Fort Wayne, and Anderson, but Indianapolis, the industrial center of the state, shows by far the greatest absolute increase. The city of Gary, which was not incorporated until 1906, has experienced remarkable growth on account of the location there of extensive steel works and rolling mills, but statistics for this city can not be published without disclosing individual operations.

Indianapolis contributed 21.8 per cent of the total value of manufactured products for the state in 1909. It shows an increase, for the period 1904–1909, of \$44,294,163, or 53.9 per cent, in value of products, and 5,090, or 19 per cent, in the average number of wage earners. It was the center of the slaughtering and meat-packing industry of the state, reporting over four-fifths of the value of the entire output of this industry in Indiana. Among other important industries in Indianapolis may be mentioned foundries and machine shops; flour mills and gristmills; the manufacture of automobiles, including bodies and parts; printing and publishing; canning and preserving; and the lumber industry. Six industries in addition to those shown in Table I had products in excess of \$1,000,000 in value, these industries being the manufacture of bags, other than paper; the roasting and grinding of coffee and spice; and the manufacture of copper, tin, and sheet-iron products; glucose and starch; rubber goods, "not elsewhere specified;" and

saws. The manufacture of saws in the state was confined practically to Indianapolis.

South Bend held second place in manufacturing among the municipalities of the state in 1909, having displaced Evansville from this position since 1904. The increase of 83.5 per cent in the total value of its manufactured products was due principally to the large increases in the manufacture of carriages and wagons, agricultural implements, sewing machine cases, and men's shirts, and to the establishment and growth of the automobile industry. Each of these industries had a value of products in excess of \$1,000,000, but the carriage and wagon industry is the only one which can be shown separately without disclosing individual operations. The city ranked first among the cities of the state in the manufacture of carriages and wagons, contributing more than one-third of the total value of the output for the state. The manufacture of sewing-machine cases in the state was practically confined to this city.

Fort Wayne ranked third as a manufacturing city in 1909. The number of its wage earners and the value of its manufactured products increased 33.2 per cent and 69.1 per cent, respectively, from 1904 to 1909, as compared with increases of 18.6 per cent and 24.4 per cent, respectively, from 1899 to 1904. The most important industries were foundries and machine shops and the manufacture of electrical machinery, apparatus, and supplies. Statistics for the latter industry are included under the head of "All other industries" in Table I, to avoid disclosure of individual operations.

Evansville fell back from second to fourth place in manufacturing among the cities of the state between 1904 and 1909, although the value of its manufactured products increased 26.7 per cent during this period. The industries of chief importance were the flour mills and gristmills, the furniture factories, and the breweries. The latter industry and also the slaughtering and meat-packing industry, which is important in Evansville, are included under the head of "All other industries" in Table I, to avoid disclosure of individual operations.

Terre Haute, the only other city having a population of over 50,000, ranked fifth among the cities of the state in value of manufactured products in 1909. The city owes its importance in this respect principally to a large distillery which is located there. Three other industries, however, had products exceeding \$1,000,000 in value—the flour mills and gristmills, the steam-railroad repair shops, and the breweries. With the exception of the flour mills and gristmills, however, statistics for these industries can not be shown in Table I without disclosing individual operations.

The great decrease in the value of products for Hammond between 1899 and 1904 was due to the removal of the large slaughtering and meat-packing establishments located there in 1899. The distilleries

of the city formed in 1909 its principal industry, but its steam-railroad repair shops, its foundries and machine shops, and its canning and preserving establishments were also important.

Anderson, East Chicago, and Elwood are important because of their large steel works and rolling mills. There was only one establishment manufacturing rubber boots and shoes in Indiana in 1909. This establishment was located at Mishawaka and was the city's most important branch of manufacture. The manufacture of agricultural implements was the chief industry in Richmond and Laporte, and the manufacture of glass and of automobiles were the chief industries in Muncie. The repair shops of steam railroads formed the principal branch of manufacturing in Elkhart, Logansport, and Huntington. The manufacture of steam-railroad cars continued to be the leading industry of Jeffersonville and Michigan City. Kokomo has large automobile interests. In Marion, foundries and machine shops and glass factories led in importance; in Vincennes, flour mills and grist-mills; in New Albany, the tanning and currying of leather and steel works and rolling mills; in Lafayette, slaughtering and meat packing; and in Peru, the furniture and refrigerator industry. Mention may be made also of the factory at Jeffersonville operated by the Quartermaster's branch of the War Department, engaged in the manufacture of clothing, etc. The reports of governmental establishments are not included in the general statistics for manufactures, but this factory gave employment to an average of 590 wage earners in 1909, and products amounting in value to \$401,801 were reported.

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 indus-

tries 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. In all manufacturing industries combined 29.7 per cent of the total number of establishments were in 1909 under corporate ownership, as against 70.3 per cent under all other forms. The corresponding figures for 1904 were 27.2 and 72.8 per cent, respectively. Of the total value of products, however, the establishments operated by corporations in 1909 reported 85.6 per cent as against 14.4 per cent for those under all other forms of ownership, while in 1904 the corresponding figures were 80.6 and 19.4 per cent, respectively. In seven of the eleven industries for which statistics are presented separately in the table, establishments operated by corporations reported more than seven-eighths of the wage earners, the value of products, and the value added by manufacture. In two of the remaining industries, printing and publishing and the flour-mill and gristmill products, such establishments reported more than half of the total for each of these items; in the lumber industry they reported about one-half, and in the bakery industry less than two-fifths. In only five of the eleven industries, however, were more than half the total number of establishments under corporate control, these five being the manufacture of agricultural implements, of automobiles, and of furniture, the foundry and machine-shop industry, and the canning and preserving industry.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number wage of earners.	Value of products.	Value added by manufacture.	INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number wage of earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>									
1909.....	7,969	186,984	\$579,075,046	\$244,700,293	<b>Agricultural implements, 1909.</b>	39	4,749	\$13,669,824	\$8,808,009
1904.....	7,044	154,174	393,954,405	173,447,398	Individual.....	9	70	193,814	105,580
<b>Individual:</b>					Firm.....	4	9	26,895	12,105
1909.....	3,904	15,607	40,929,084	18,959,428	Corporation.....	26	4,670	13,449,115	8,688,324
1904.....	3,481	16,426	38,193,241	17,748,564	Per cent of total.....	100.0	100.0	100.0	100.0
<b>Firm:</b>					Individual.....	23.1	1.5	1.4	1.2
1909.....	1,604	12,490	41,189,693	18,574,194	Firm.....	10.3	0.2	0.2	0.1
1904.....	1,594	12,976	37,223,913	14,124,713	Corporation.....	66.7	98.3	98.4	98.7
<b>Corporation:</b>					<b>Automobiles, including bodies and parts, 1909.....</b>	67	6,797	\$23,764,070	\$8,769,201
1909.....	2,363	68,631	495,570,090	206,623,327	Individual.....	9	74	106,876	75,507
1904.....	1,915	124,317	317,481,228	140,972,550	Firm.....	10	410	510,698	238,594
<b>Other:</b>					Corporation.....	48	6,313	23,146,496	8,405,100
1909.....	98	256	1,386,179	543,344	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	54	455	1,056,023	601,571	Individual.....	13.4	1.1	0.4	0.9
Per cent of total:					Firm.....	14.9	6.0	2.1	3.3
1909.....	100.0	100.0	100.0	100.0	Corporation.....	71.6	92.9	97.4	95.8
1904.....	100.0	100.0	100.0	100.0	<b>Bread and other bakery products, 1909.....</b>	754	2,505	\$10,209,066	\$3,982,843
<b>Individual:</b>					Individual.....	620	1,332	5,205,178	2,049,496
1909.....	49.0	8.3	7.1	7.7	Firm.....	112	271	1,111,170	447,830
1904.....	49.4	10.7	9.7	10.2	Corporation.....	22	902	3,892,718	1,485,617
<b>Firm:</b>					Per cent of total.....	100.0	100.0	100.0	100.0
1909.....	20.1	6.7	7.1	7.6	Individual.....	82.2	53.2	51.0	51.5
1904.....	22.6	8.4	9.4	8.1	Firm.....	14.9	10.8	10.9	11.2
<b>Corporation:</b>					Corporation.....	2.9	36.0	38.1	37.8
1909.....	29.7	84.3	85.6	84.4					
1904.....	27.2	80.6	80.6	81.3					
<b>Other:</b>									
1909.....	1.2	0.1	0.2	0.2					
1904.....	0.8	0.3	0.3	0.3					



INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.	INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>Canning and preserving, 1909.</b>	134	3,408	\$8,758,343	\$2,813,882	<b>Furniture and refrigerators, 1909.</b>	201	11,284	\$18,456,399	\$9,996,272
Individual.....	22	245	589,486	202,098	Individual.....	37	565	1,002,898	567,264
Firm.....	17	160	380,051	88,895	Firm.....	19	492	783,904	372,084
Corporation.....	95	3,001	7,788,796	2,522,749	Corporation.....	145	10,227	16,669,597	9,056,924
Per cent of total.....	100.0	100.0	100.0	100.0	Per cent of total.....	100.0	100.0	100.0	100.0
Individual.....	16.4	7.2	6.7	7.2	Individual.....	18.4	5.0	5.4	5.7
Firm.....	12.7	4.7	4.3	3.2	Firm.....	9.5	4.4	4.2	3.7
Corporation.....	70.9	88.1	88.9	89.7	Corporation.....	72.1	90.6	90.3	90.6
<b>Carriages and wagons and materials, 1909.</b>	221	8,867	\$21,055,440	\$9,197,717	<b>Lumber and timber products, 1909.</b>	1,277	10,317	\$23,135,324	\$10,752,998
Individual.....	94	487	843,535	504,928	Individual.....	704	3,130	5,542,239	2,951,340
Firm.....	47	361	874,212	404,414	Firm.....	361	2,590	5,879,410	2,678,309
Corporation.....	80	8,019	19,937,693	8,288,375	Corporation.....	212	4,597	11,713,675	5,123,341
Per cent of total.....	100.0	100.0	100.0	100.0	Per cent of total.....	100.0	100.0	100.0	100.0
Individual.....	42.5	5.5	3.9	5.5	Individual.....	55.1	30.3	24.0	27.4
Firm.....	21.3	4.1	4.0	4.4	Firm.....	28.3	25.1	25.4	24.0
Corporation.....	36.2	90.4	92.1	90.1	Corporation.....	16.6	44.6	50.6	47.6
<b>Flour - mill and gristmill products, 1909.</b>	563	2,298	\$40,541,422	\$5,539,615	<b>Printing and publishing, 1909.</b>	892	6,756	\$14,356,376	\$10,331,836
Individual.....	249	523	6,850,135	1,185,924	Individual.....	546	1,973	3,593,194	2,626,057
Firm.....	189	516	7,721,694	1,274,456	Firm.....	160	803	2,084,753	1,511,269
Corporation.....	125	1,259	25,969,293	3,079,235	Corporation.....	165	3,815	8,182,617	5,826,496
Per cent of total.....	100.0	100.0	100.0	100.0	Other.....	31	162	495,812	387,414
Individual.....	44.2	22.8	16.9	21.4	Per cent of total.....	100.0	100.0	100.0	100.0
Firm.....	33.6	22.5	19.0	23.0	Individual.....	61.2	29.2	25.0	25.4
Corporation.....	22.2	64.8	64.1	55.6	Firm.....	16.8	11.9	14.5	14.6
<b>Foundry and machine-shop products, 1909.</b>	415	15,809	\$39,883,774	\$21,265,086	Corporation.....	18.5	56.5	57.0	56.2
Individual.....	193	1,100	2,364,349	1,234,108	Other.....	3.5	2.4	3.5	3.7
Firm.....	70	747	1,839,623	1,002,750	<b>Slaughtering and meat packing, 1909.</b>	61	4,423	\$47,289,469	\$5,303,495
Corporation.....	212	13,959	35,680,802	19,028,108	Individual.....	22	142	1,647,241	257,753
Per cent of total.....	100.0	100.0	100.0	100.0	Firm.....	18	123	2,085,694	295,120
Individual.....	32.0	7.0	5.9	5.8	Corporation.....	21	4,158	43,556,544	4,750,622
Firm.....	16.9	4.7	4.6	4.7	Per cent of total.....	100.0	100.0	100.0	100.0
Corporation.....	51.1	88.3	89.5	89.5	Individual.....	36.1	3.2	3.5	4.9
					Firm.....	29.5	2.8	4.4	5.6
					Corporation.....	34.4	94.0	92.1	89.6

<sup>1</sup> Includes the group "Other," to avoid disclosure of individual operations.

**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.

**Size measured by value of products.**—The table shows that, in 1909, of the 7,969 manufacturing establishments in the state only 92, or 1.2 per cent, had a value of products exceeding \$1,000,000. These establishments, however, employed an average of 56,553 wage earners, or 30.2 per cent of the total number of wage earners in all establishments, and reported 47.1 per cent of the total value of products, and 41.3 per cent of the total value added by manufacture.

On the other hand, the very small establishments—that is, those having a value of product of less than \$5,000—constituted a considerable proportion (38.7 per cent) of the total number of establishments, but the value of their products amounted to only 1.3 per cent of the total. The great bulk of the manufacturing was reported by establishments having products valued at not less than \$100,000.

During the five years from 1904 to 1909 there was a considerable increase in the relative importance,

whether measured by average number of wage earners, value of products, or value added by manufacture, of the largest establishments—those reporting products valued at not less than \$1,000,000—and a decrease in that of all other classes.

The fact that the average value of products per establishment increased from \$55,928 in 1904 to \$72,666 in 1909, and the average value added by manufacture from \$24,623 to \$30,707, 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 increased from 22 to 23 during the five-year period.

**Size measured by number of wage earners.**—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 table on page 315 shows, for 1909, such a classification for all industries combined and for 315 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 7,969 establishments reported for all industries, 8.7 per cent employed no wage earners; 55.5 per cent, from 1 to 5; 19.4 per cent, from 6 to 20; 7.8 per cent, from 21 to 50; and 8.6 per cent, 51 or more. The most numerous single group consists of the 4,421

MANUFACTURES—INDIANA.

establishments employing from 1 to 5 wage earners each, and the next of the 1,545 establishments employing from 6 to 20 wage earners. There were 124

establishments that reported the employment of over 250 wage earners each; 16 of these employed over 1,000 each.

INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.	INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>					<b>Carriages and wagons and materials, 1909.....</b>				
1909.....	7,869	186,984	\$578,075,046	\$244,700,293	221	8,867	\$21,655,440	\$9,197,717	
1904.....	7,044	154,174	393,954,405	173,447,398	65	104	202,187	129,216	
Less than \$5,000:					68	465	696,905	426,558	
1909.....	3,086	4,335	7,339,368	4,513,557	46	927	2,008,965	876,584	
1904.....	2,681	4,076	6,477,789	4,108,476	39	3,672	9,616,655	3,993,537	
\$5,000 and less than \$20,000:					3	3,609	9,131,728	3,801,822	
1909.....	2,400	11,806	24,495,478	13,033,825	Per cent of total.....				
1904.....	2,162	12,081	21,935,754	12,190,662	100.0	100.0	100.0	100.0	
\$20,000 and less than \$100,000:					29.4	1.2	0.9	1.4	
1909.....	1,627	30,944	73,582,108	33,797,243	30.8	5.2	3.2	4.6	
1904.....	1,575	32,971	70,354,847	32,958,855	20.8	10.5	0.3	9.5	
\$100,000 and less than \$1,000,000:					17.6	41.4	44.4	43.1	
1909.....	764	83,346	200,978,938	92,184,974	1.4	41.7	42.2	41.3	
1904.....	631	73,000	160,211,644	72,691,498	Average per establishment.....				
\$1,000,000 and over:						40	\$97,988	\$41,619	
1909.....	92	56,553	272,679,094	101,170,604	<b>Flour - mill and gristmill products, 1909.....</b>				
1904.....	45	32,046	134,974,371	51,497,907	563	2,298	\$40,541,422	\$5,539,615	
Per cent of total:					67	31	201,843	43,001	
1909.....	100.0	100.0	100.0	100.0	162	214	1,946,466	390,671	
1904.....	100.0	100.0	100.0	100.0	279	944	11,994,293	2,160,086	
Less than \$5,000:					47	607	13,504,248	1,543,938	
1909.....	88.7	2.3	1.3	1.8	8	502	12,894,582	1,401,419	
1904.....	37.4	2.6	1.6	2.4	Per cent of total.....				
\$5,000 and less than \$20,000:					100.0	100.0	100.0	100.0	
1909.....	30.1	6.3	4.2	5.3	11.9	1.3	0.5	0.5	
1904.....	30.7	7.8	5.6	7.0	28.8	9.3	4.8	0.8	
\$20,000 and less than \$100,000:					49.6	41.1	20.6	7.0	
1909.....	20.4	16.5	12.7	13.8	8.3	26.4	33.3	39.0	
1904.....	22.4	21.4	17.9	19.0	1.4	21.8	31.8	27.9	
\$100,000 and less than \$1,000,000:					Average per establishment.....				
1909.....	9.6	44.6	34.7	37.7		4	\$72,010	\$9,889	
1904.....	9.0	47.3	40.7	41.9	<b>Foundry and machine-shop products, 1909.....</b>				
\$1,000,000 and over:					415	15,809	\$39,883,774	\$21,265,086	
1909.....	1.2	30.2	47.1	41.3	86	116	214,888	145,000	
1904.....	0.6	20.8	34.3	29.7	128	692	1,378,069	893,184	
Average per establishment:					115	2,796	5,338,927	3,009,995	
1909.....		23	\$72,666	\$30,707	79	8,802	20,979,455	11,091,790	
1904.....		22	55,928	24,623	7	3,403	11,979,435	6,095,147	
<b>Agricultural implements, 1909.....</b>					<b>Furniture and refrigerators, 1909.....</b>				
Less than \$5,000.....	39	4,749	\$13,669,824	\$8,806,009	201	11,284	\$18,456,399	\$9,998,272	
\$5,000 and less than \$20,000.....	9	13	21,320	14,020	25	38	62,878	41,524	
\$20,000 and less than \$100,000.....	7	33	76,375	37,070	27	256	308,180	176,866	
\$100,000 and less than \$1,000,000.....	11	195	551,532	286,861	87	3,447	4,831,465	2,679,182	
\$1,000,000 and over.....	5	878	1,713,902	1,026,123	62	7,543	13,253,876	7,098,730	
Per cent of total.....	100.0	100.0	100.0	100.0	Per cent of total.....				
Less than \$5,000.....	23.1	0.3	0.2	0.2	100.0	100.0	100.0	100.0	
\$5,000 and less than \$20,000.....	17.9	0.7	0.6	0.4	12.4	0.3	0.3	0.4	
\$20,000 and less than \$100,000.....	28.2	4.1	4.0	3.3	13.4	2.3	1.7	1.8	
\$100,000 and less than \$1,000,000.....	17.9	14.3	12.5	11.7	43.3	30.5	26.2	26.8	
\$1,000,000 and over.....	12.8	80.6	82.7	84.5	30.8	66.8	71.8	71.0	
Average per establishment.....		122	\$350,508	\$225,795	Average per establishment.....				
						56	\$91,823	\$40,733	
<b>Automobiles, including bodies and parts, 1909.....</b>					<b>Lumber and timber products, 1909.....</b>				
Less than \$5,000.....	67	6,797	\$23,764,070	\$8,789,201	1,277	10,317	\$23,135,324	\$10,752,996	
\$5,000 and less than \$20,000.....	11	17	24,175	13,604	648	1,179	1,347,016	831,088	
\$20,000 and less than \$100,000.....	15	90	158,449	78,154	351	2,165	3,623,655	1,894,074	
\$100,000 and less than \$1,000,000.....	12	259	586,874	307,119	225	4,112	9,345,725	4,243,833	
\$1,000,000 and over.....	22	3,000	8,122,893	3,490,491	53	2,861	8,818,928	3,784,001	
Per cent of total.....	100.0	100.0	100.0	100.0	Per cent of total.....				
Less than \$5,000.....	16.4	0.2	0.1	0.2	100.0	100.0	100.0	100.0	
\$5,000 and less than \$20,000.....	22.4	1.3	0.7	0.9	50.7	11.4	5.8	7.7	
\$20,000 and less than \$100,000.....	17.9	3.8	2.5	3.5	27.5	21.0	15.7	17.6	
\$100,000 and less than \$1,000,000.....	32.8	44.1	34.2	39.8	17.6	39.9	40.4	30.5	
\$1,000,000 and over.....	10.4	50.5	62.6	55.6	Average per establishment.....				
Average per establishment.....		101	\$354,688	\$130,884		8	\$18,117	\$8,421	
<b>Bread and other bakery products, 1909.....</b>					<b>Printing and publishing, 1909.....</b>				
Less than \$5,000.....	754	2,505	\$10,209,006	\$3,982,843	892	6,756	\$14,356,876	\$10,331,836	
\$5,000 and less than \$20,000.....	340	259	1,053,081	447,315	480	715	1,119,553	876,237	
\$20,000 and less than \$100,000.....	331	775	3,017,625	1,242,870	282	1,579	2,705,332	2,059,337	
\$100,000 and less than \$1,000,000.....	68	597	2,173,942	759,021	100	2,034	4,549,973	3,283,792	
\$1,000,000 and over.....	15	874	3,964,418	1,533,637	21	2,428	5,981,518	4,102,470	
Per cent of total.....	100.0	100.0	100.0	100.0	Per cent of total.....				
Less than \$5,000.....	45.1	10.3	10.3	11.2	100.0	100.0	100.0	100.0	
\$5,000 and less than \$20,000.....	43.9	30.9	29.6	31.2	53.8	10.6	7.8	8.5	
\$20,000 and less than \$100,000.....	9.0	23.8	21.3	22.0	31.6	23.4	18.8	19.9	
\$100,000 and less than \$1,000,000.....	2.0	34.9	33.8	38.5	12.2	30.1	31.7	31.9	
Average per establishment.....		3	\$13,540	\$5,282	Average per establishment.....				
						8	\$10,095	\$11,533	
<b>Canning and preserving, 1909.....</b>					<b>Slaughtering and meat packing, 1909.....</b>				
Less than \$5,000.....	134	3,406	\$8,758,343	\$2,812,682	61	4,423	\$47,289,469	\$5,308,495	
\$5,000 and less than \$20,000.....	23	95	67,768	28,760	7	10	78,903	21,884	
\$20,000 and less than \$100,000.....	60	639	669,181	236,920	23	118	1,248,617	217,166	
\$100,000 and less than \$1,000,000.....	34	1,012	1,573,165	617,760	26	549	6,924,818	990,717	
\$1,000,000 and over.....	17	1,660	6,448,229	1,980,242	5	3,746	39,037,131	4,073,728	
Per cent of total.....	100.0	100.0	100.0	100.0	Per cent of total.....				
Less than \$5,000.....	17.2	2.8	0.8	1.0	100.0	100.0	100.0	100.0	
\$5,000 and less than \$20,000.....	44.8	18.8	7.5	8.4	11.5	0.2	0.2	0.4	
\$20,000 and less than \$100,000.....	25.4	29.7	18.0	22.0	37.7	2.7	2.6	18.7	
\$100,000 and less than \$1,000,000.....	12.7	48.7	73.6	68.6	42.6	12.4	14.0	18.7	
Average per establishment.....		25	\$65,361	\$20,908	Average per establishment.....				
						8.2	\$4.7	\$6.8	

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

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

Of the total number of wage earners, 42.4 per cent were in establishments employing over 250 wage earners each. The single group having the largest number of wage earners was the one comprising the establishments employing from 101 to 250 wage earners each. These establishments employed an aggregate of 36,520 wage earners, or 19.5 per cent of the total. The individual industries listed in this table but not in the preceding one, namely, the

repair shops of the steam-railroad companies, the construction of steam-railroad cars, the cement and the men's clothing industries, the manufacture of electrical machinery, apparatus, and supplies, and of glass, the steel works and rolling mills, and the manufacture of distilled and of malt liquors are 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.....	7,969	692	4,421	1,545	624	332	231	68	40	16
Agricultural implements.....	39	2	12	9	6	3	2	3	1	1
Automobiles, including bodies and parts.....	67	22	13	11	4	10	4	2	1	1
Bread and other bakery products.....	754	130	553	50	9	4	2	1	1	1
Canning and preserving.....	134	29	53	33	11	2	1	1	1	1
Carriages and wagons and materials.....	221	11	86	65	27	15	11	4	1	1
Cars and general shop construction and repairs by steam-railroad companies.....	34	1	2	3	1	12	4	8	3	2
Cars, steam-railroad, not including operations of railroad companies.....	7	2	1	1	1	1	3	1	2	1
Cement.....	11	2	1	1	2	3	1	2	1	1
Clothing, men's, including shirts.....	42	1	8	13	6	8	1	2	1	1
Electrical machinery, apparatus, and supplies.....	42	13	9	7	7	3	2	1	1	1
Flour-mill and gristmill products.....	563	42	436	70	10	3	2	5	4	1
Foundry and machine-shop products.....	415	15	156	111	62	35	27	4	1	1
Furniture and refrigerators.....	201	32	34	54	53	23	4	1	1	1
Glass.....	44	5	1	6	6	20	10	1	1	1
Iron and steel, steel works and rolling mills.....	17	2	2	2	2	3	1	8	3	3
Liquors, distilled.....	14	3	2	2	4	3	1	1	1	1
Liquors, malt.....	37	8	10	13	2	3	1	1	1	1
Lumber and timber products.....	1,277	20	814	307	99	25	3	1	1	1
Printing and publishing.....	692	140	312	137	33	13	0	1	1	1
Slaughtering and meat packing.....	61	29	18	6	4	2	1	1	1	1
All other industries.....	3,097	322	1,707	580	235	131	88	23	8	3
AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	186,984	9,840	16,841	20,588	23,846	36,520	23,972	27,242	28,135	
Agricultural implements.....	4,749	25	119	147	276	352	1,397	523	1,010	
Automobiles, including bodies and parts.....	6,797	57	173	401	300	1,846	1,424	1,219	1,377	
Bread and other bakery products.....	2,505	1,059	541	346	314	245	1,185	682	2,612	
Canning and preserving.....	3,403	99	643	1,039	756	375	494	1,185	2,612	
Carriages and wagons and materials.....	8,807	230	711	877	1,013	1,552	1,185	682	2,612	
Cars and general shop construction and repairs by steam-railroad companies.....	12,884	3	28	122	69	1,927	1,613	5,182	3,940	
Cars, steam-railroad, not including operations of railroad companies.....	4,084	3	15	156	98	199	1,062	1,271	2,725	
Cement.....	2,318	9	79	459	437	1,303	413	1,373	860	
Clothing, men's, including shirts.....	4,073	24	87	225	534	480	864	860	860	
Electrical machinery, apparatus, and supplies.....	3,073	970	597	310	187	228	1,505	3,112	605	
Flour-mill and gristmill products.....	15,809	415	1,342	2,128	2,479	4,828	1,235	612	1,112	
Foundry and machine-shop products.....	11,284	62	406	1,903	3,697	3,316	3,016	612	1,112	
Furniture and refrigerators.....	9,544	90	25	428	189	3,361	400	5,213	5,987	
Glass.....	12,255	6	32	58	332	466	400	5,213	5,987	
Iron and steel, steel works and rolling mills.....	428	27	133	408	127	612	287	846	3,053	
Liquors, distilled.....	1,594	1,814	3,324	3,055	1,097	427	846	3,053	5,419	
Liquors, malt.....	10,317	1,236	1,880	1,109	822	863	273	335	5,419	
Lumber and timber products.....	6,756	80	215	191	276	273	335	335	5,419	
Printing and publishing.....	4,423	80	215	191	276	273	335	335	5,419	
Slaughtering and meat packing.....	59,520	3,715	6,426	7,785	9,654	13,367	7,479	5,675	5,419	
All other industries.....	59,520	3,715	6,426	7,785	9,654	13,367	7,479	5,675	5,419	
PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	100.0	5.3	9.0	11.0	12.8	19.5	12.6	14.8	15.0	
Agricultural implements.....	100.0	0.5	2.5	3.1	5.8	7.4	29.4	11.0	40.2	
Automobiles, including bodies and parts.....	100.0	0.8	2.5	5.9	4.4	27.2	21.0	17.9	20.3	
Bread and other bakery products.....	100.0	42.3	21.0	13.8	12.5	9.8	13.4	7.7	29.5	
Canning and preserving.....	100.0	2.9	18.9	30.5	22.2	11.0	14.5	13.4	29.5	
Carriages and wagons and materials.....	100.0	2.6	8.0	9.9	11.5	17.5	13.4	7.7	29.5	
Cars and general shop construction and repairs by steam-railroad companies.....	100.0	(?)	0.2	0.9	0.5	15.0	12.5	40.2	30.6	
Cars, steam-railroad, not including operations of railroad companies.....	100.0	0.1	0.6	1.3	6.7	21.6	16.1	64.8	66.7	
Cement.....	100.0	0.2	1.9	11.3	10.7	32.0	10.1	33.7	28.3	
Clothing, men's, including shirts.....	100.0	0.3	2.8	7.3	17.4	15.6	27.8	28.3	28.3	
Electrical machinery, apparatus, and supplies.....	100.0	42.5	26.0	13.5	8.1	9.9	9.5	19.7	6.0	
Flour-mill and gristmill products.....	100.0	2.6	8.5	13.5	15.7	30.5	10.9	6.4	11.7	
Foundry and machine-shop products.....	100.0	0.5	3.0	16.9	32.8	29.4	10.9	5.0	48.9	
Furniture and refrigerators.....	100.0	0.9	0.9	0.3	4.5	35.2	41.0	42.5	48.9	
Glass.....	100.0	1.4	7.5	13.6	77.6	3.8	3.3	42.5	48.9	
Iron and steel, steel works and rolling mills.....	100.0	1.7	8.3	25.6	8.0	38.4	13.0	12.5	69.0	
Liquors, distilled.....	100.0	17.6	32.2	29.6	16.4	4.1	12.5	12.5	69.0	
Liquors, malt.....	100.0	18.3	27.8	10.4	12.2	12.8	7.6	12.5	69.0	
Lumber and timber products.....	100.0	1.8	4.9	4.3	6.2	6.2	7.6	9.5	9.1	
Printing and publishing.....	100.0	6.2	10.8	13.1	16.2	22.5	12.6	9.5	9.1	
Slaughtering and meat packing.....	100.0	6.2	10.8	13.1	16.2	22.5	12.6	9.5	9.1	
All other industries.....	100.0	6.2	10.8	13.1	16.2	22.5	12.6	9.5	9.1	

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

**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. The following table shows, for 1909, in percentages, the distribution of expenses indicated for all industries combined and for certain important industries separately. The figures on which the percentages are based appear in Table II, page 328.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
<b>All industries</b> .....	5.0	18.2	63.7	13.1
Agricultural implements.....	10.8	23.2	44.0	22.1
Automobiles, including bodies and parts.....	4.0	18.8	68.1	9.2
Bread and other bakery products.....	3.9	15.2	72.1	8.8
Canning and preserving.....	6.5	11.1	74.9	7.5
Carriages and wagons and materials.....	6.7	22.4	64.1	6.8
Cars and general shop construction and repairs by steam-railroad companies.....	4.6	47.2	46.0	2.2
Cars, steam-railroad, not including operations of railroad companies.....	5.4	21.2	67.3	6.1
Cement.....	4.9	19.8	64.4	10.8
Clothing, men's, including shirts.....	6.3	18.0	64.0	11.7
Electrical machinery, apparatus, and supplies.....	9.6	21.1	57.4	11.9
Flour-mill and gristmill products.....	1.3	2.2	92.9	2.6
Foundry and machine-shop products.....	8.2	25.1	52.9	13.8
Furniture and refrigerators.....	6.6	31.1	51.2	11.1
Glass.....	4.7	44.6	42.7	8.0
Iron and steel, steel works and rolling mills.....	3.0	22.7	70.7	3.6
Liquors, distilled.....	0.6	0.9	15.3	83.3
Liquors, malt.....	7.8	14.4	28.1	49.8
Lumber and timber products.....	5.0	23.2	64.0	7.8
Printing and publishing.....	14.2	30.3	34.6	21.0
Slaughtering and meat packing.....	1.5	4.7	91.4	2.4
All other industries.....	5.9	18.0	67.0	9.1

As would be expected, the proportions for the different classes of expenses vary greatly in the different industries. The slaughtering and meat-packing and flour-mill and gristmill industries show high percentages for materials, 91.4 and 92.9, respectively. The large proportion for miscellaneous expenses shown for the brewery and distillery industries is due to the fact that under this head are included the internal-revenue taxes on the products of these industries.

**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.

The table indicates that from 1899 to 1909 there was an increase of 307,458 horsepower, or 94.3 per cent, in the total primary power reported. Nearly one-half of this increase was in power generated by steam engines, though the proportion of the total primary power reported which was generated by steam engines has decreased steadily. This proportion was 91.1 per cent in 1899, 88.5 per cent in 1904, and 70.8 per cent in 1909. Of the total increase in primary power for the decade 31.5 per cent was in power generated by gas engines. The horsepower of the gas engines reported in 1899 was 12,295 and in 1909 it had increased to 109,105, or nearly nine times as much. The number and horsepower of water wheels show decreases for both five-year periods. The figures show that the practice of renting power is on the increase, 10.6 per cent of the total power being rented in 1909, as

against 2.9 per cent in 1904 and but 1.4 per cent in 1899. The use of electric motors for the purpose of applying the power generated within the establishments is shown to be increasing rapidly—the horsepower of such motors having increased from 5,139 in 1899 to 24,500 in 1904 and 167,645 in 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899 <sup>1</sup>	1909	1904	1899 <sup>1</sup>	1909	1904	1899
<b>Primary power, total</b> .....	12,399	6,141	6,784	633,377	380,758	325,919	100.0	100.0	100.0
Owned.....	6,630	6,141	6,784	566,125	369,709	321,475	89.4	97.1	98.6
Steam.....	5,197	4,760	5,657	448,628	336,932	296,926	70.8	88.5	91.1
Gas.....	1,195	1,134	804	109,105	21,171	12,295	17.2	5.6	3.8
Water wheels.....	212	217	323	7,446	9,541	11,904	1.2	2.5	3.7
Water motors.....	26	30	( <sup>2</sup> )	447	144	( <sup>2</sup> )	0.1	( <sup>2</sup> )	( <sup>2</sup> )
Other.....				599	1,921	290	0.1	0.5	0.1
Rented.....	5,769	( <sup>2</sup> )	( <sup>2</sup> )	67,252	11,049	4,444	10.6	2.9	1.4
Electric.....	5,769	( <sup>2</sup> )	( <sup>2</sup> )	65,548	9,082	2,704	10.3	2.4	0.8
Other.....				1,704	1,967	1,680	0.3	0.5	0.6
<b>Electric motors</b> .....	11,916	1,779	378	233,193	33,582	7,903	100.0	100.0	100.0
Run by current generated by establishment.....	6,147	1,779	378	167,645	24,500	5,139	71.9	73.0	65.0
Run by rented power.....	5,769	( <sup>2</sup> )	( <sup>2</sup> )	65,548	9,082	2,764	28.1	27.0	35.0

<sup>1</sup> Includes neighborhood industries and hand trades, omitted in 1904 and 1909.  
<sup>2</sup> Not reported. <sup>3</sup> Less than one-tenth of 1 per cent.

**Fuel.**—Closely related to the question of kind of power is that of the fuel consumed in generating this power, or otherwise used as material in the manufacturing processes. The greater part of the coke reported for "All other industries" was used by two blast-furnace plants which are not shown separately in any of the tables for this state. The following table shows the quantity of each kind of fuel used in 1909, for all industries and for certain selected industries:

INDUSTRY.	Anthracite coal (tons).	Bituminous coal (tons).	Coke (tons).	Wood (cords).	Oil, including gasoline (barrels).	Gas (1,000 feet).
<b>All industries</b> .....	16,800	6,356,825	930,397	65,780	748,195	1,247,053
Agricultural implements.....	195	44,643	14,588	225	3,555	3,611
Automobiles, including bodies and parts.....	44	34,783	1,182	20	7,085	19,276
Bread and other bakery products.....	2,288	10,769	10,065	22,972	401	35,569
Canning and preserving.....		37,085	70	274	489	895
Carriages and wagons and materials.....	78	92,691	1,421	907	17,458	5,730
Cars and general shop construction and repairs by steam-railroad companies.....	2,371	274,918	2,390	3,634	12,005	12
Cars, steam-railroad, not including operations of railroad companies.....	2	122,422	11,756		29,429	
Cement.....		558,777				
Clothing, men's, including shirts.....		4,646		25	188	3,337
Electrical machinery, apparatus, and supplies.....	702	21,296	32		4,086	61,160
Flour-mill and gristmill products.....	181	189,970	1,344	6,844	915	105,193
Foundry and machine-shop products.....	1,157	278,399	43,757	2,332	27,221	20,514
Furniture and refrigerators.....	714	108,666	576	185	332	1,038
Gas, illuminating and heating.....	2,478	180,994	26,750		140,915	13,645
Glass.....	443	457,900	736	176	66,957	146,069
Iron and steel, steel works and rolling mills.....	5	1,028,754	14,083	300	351,932	502,360
Liquors, distilled.....		155,966		60		
Liquors, malt.....		148,147		4		
Lumber and timber products.....	5	98,193	120	687	1,133	14,612
Printing and publishing.....	1,035	19,520	159	524	1,552	36,513
Slaughtering and meat packing.....		151,800		1,852	3	3,602
All other industries.....	5,102	2,371,486	801,364	24,750	77,489	273,317

NOTE.—In addition, there were 1,730 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 cost of materials and 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 10 important industries in Indiana are here presented.

**Slaughtering and meat packing.**—This industry, which is the most important in the state when measured by value of products, has developed rapidly during the past five years. Because of the general advance in prices during the decade the growth of the industry is best measured by the increase in the quantity rather than in the value of its products. The following table gives the number and cost of the various kinds of animals slaughtered and the quantity and value of the various products of the slaughtering and meat-packing establishments of the state in 1909, 1904, and 1899:

MATERIAL OR PRODUCT.	1909	1904	1899
Materials used, total cost.....	\$41,985,974	\$26,249,430	\$38,628,557
Beeves slaughtered:			
Number.....	252,697	178,678	358,585
Cost.....	\$10,702,274	\$7,334,344	\$10,305,705
Calves slaughtered:			
Number.....	60,578	37,566	12,043
Cost.....	\$615,067	\$321,000	\$107,327
Sheep slaughtered:			
Number.....	58,435	33,126	303,837
Cost.....	\$270,043	\$136,035	\$1,623,135
Hogs slaughtered:			
Number.....	1,761,454	1,498,707	1,050,370
Cost.....	\$25,277,218	\$15,761,203	\$13,705,362
Fuel and rent of power.....	\$205,108	\$159,001	\$85,525
All other materials.....	\$4,000,064	\$2,640,737	\$3,801,603
Products, total value.....	\$47,289,469	\$29,434,559	\$43,880,953
Beef, fresh:			
Pounds.....	110,065,578	93,224,422	219,106,574
Value.....	\$9,530,214	\$6,743,908	\$16,476,761
Beef, salted or cured:			
Pounds.....	1,361,800	2,572,500	1,538,088
Value.....	\$134,696	\$359,280	\$172,930
Veal, fresh:			
Pounds.....	5,505,181	3,178,656	1,155,508
Value.....	\$603,540	\$292,102	\$107,383
Mutton, fresh:			
Pounds.....	2,310,824	1,477,056	15,911,670
Value.....	\$230,509	\$130,806	\$1,413,522
Pork, fresh:			
Pounds.....	70,377,563	27,391,374	29,262,285
Value.....	\$8,974,150	\$1,093,047	\$1,085,000
Pork, salted or cured:			
Pounds.....	148,474,672	105,587,061	191,150,284
Value.....	\$17,242,240	\$13,232,030	\$13,595,083
Sausage, fresh or cured.....	\$1,062,140	\$1,254,304	\$607,440
All other fresh meat:			
Pounds.....	207,516	811,200	5,732,510
Value.....	\$13,848	\$62,484	\$373,351
Lard:			
Pounds.....	46,001,204	43,809,750	48,074,440
Value.....	\$4,043,363	\$3,108,225	\$3,038,202
Tallow, oleo stook, and stearin:			
Pounds.....	5,320,977	(1)	(1)
Value.....	\$472,624	(1)	(1)
Fertilizers and fertilizer materials:			
Tons.....	7,389	11,874	8,900
Value.....	\$160,310	\$193,022	\$143,011
Hides:			
Number.....	302,076	198,413	371,538
Pounds.....	14,209,481	11,428,871	23,550,014
Value.....	\$1,847,702	\$1,060,279	\$2,045,005
Pelts:			
Number.....	58,367	31,402	(1)
Value.....	\$71,092	\$27,844	(1)
Amount received for custom or contract work.....	\$5,331	\$12,701	\$250
All other products.....	\$1,397,704	\$902,907	\$3,331,409

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

From 1899 to 1904 there was an increase of nearly 200 per cent in the number of calves slaughtered, but

there was a decrease of 451,603, or 23.2 per cent, in the number of hogs killed. The number of beeves killed in 1904 was about one-half and that of sheep less than one-tenth of that reported for 1899. The large decreases during this five-year period were due in great measure to the removal of a large packing house from the state. From 1904, to 1909 there were increases in the total number of each of the four kinds of animals slaughtered. In this five-year period the number of hogs killed increased from 1,498,767 to 1,751,454, or 16.9 per cent, and the number of beeves from 178,678 to 252,697, or 41.4 per cent.

The total value of products decreased 32.9 per cent from 1899 to 1904, but increased 60.7 per cent from 1904 to 1909, the increase for the decade being from \$43,889,953 in 1899 to \$47,289,469 in 1909, a gain of \$3,399,516, or 7.7 per cent. The products generally show similar fluctuations, except fresh veal, which shows large increases for both five-year periods. Of the total value of products, the value of pork, fresh and cured, formed 55.4 per cent in 1909 and 35.5 per cent in 1899. It is interesting to note that while there was but little change in the total quantity or value of pork sold fresh in 1904, as compared with 1899, there was an increase from 1904 to 1909 of 51,986,189 pounds, or nearly 190 per cent, in quantity and an increase of \$6,890,203, or 350 per cent, in value. Salted or cured pork, on the other hand, decreased 17,112,389 pounds, or 10.3 per cent, in quantity from 1904 to 1909, but increased \$4,009,610, or 30.3 per cent, in value. Fresh beef decreased both in quantity and in value from 1899 to 1904, but increased in both respects from 1904 to 1909. With salted or cured beef the conditions were reversed, increases being shown for the earlier five-year period and decreases for the later.

**Flour-mill and gristmill products.**—The following table gives the quantity and value of the principal kinds of products manufactured during 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value.....	\$40,541,422	\$36,473,543	\$39,037,843
Wheat flour:			
White—			
Barrels.....	4,784,808	5,173,360	5,733,308
Value.....	\$25,274,216	\$25,243,700	\$20,009,146
Graham—			
Barrels.....	10,039	8,546	.....
Value.....	\$41,455	\$39,120	.....
Corn meal and corn flour:			
Barrels.....	655,409	909,622	1,987,719
Value.....	\$2,483,265	\$2,070,266	\$2,601,562
Rye flour:			
Barrels.....	1,770	8,410	23,478
Value.....	\$7,027	\$30,799	\$68,382
Buckwheat flour:			
Pounds.....	1,446,534	1,985,725	3,320,063
Value.....	\$30,480	\$50,039	\$89,264
Hominy and grits:			
Pounds.....	250,678,796	132,106,165	96,714,589
Value.....	\$3,758,367	\$2,147,012	\$715,640
Feed:			
Tons.....	184,604	145,367	100,703
Value.....	\$4,593,176	\$2,659,062	\$2,576,061
Offal:			
Tons.....	203,358	228,947	185,451
Value.....	\$4,247,471	\$4,044,428	\$2,188,722
All other products.....	\$99,965	\$177,057	\$730,056



Between 1899 and 1909 there was a decrease in the quantity of all products except offal and hominy and grits. The output of white flour, the most important product, decreased from 5,733,308 barrels in 1899 to 4,784,808 barrels in 1909, a decrease during the decade of 948,500 barrels, or 16.5 per cent. In this same period the output of corn meal and corn flour decreased 1,132,310 barrels, or 57 per cent, and that of buckwheat flour 1,873,529 pounds, or 56.4 per cent. The value of white flour, however, shows an increase of \$5,205,070, or 20.6 per cent, from 1899 to 1909. Feed, which consists largely of corn and oats ground together, shows a slight decrease in quantity during the decade, but an increase of \$2,018,115, or 78.4 per cent, in value. Hominy and grits increased nearly 200 per cent in quantity and over 400 per cent in value, and offal, which is mainly a by-product in the manufacture of wheat flour, shows an increase of only 17,908 tons, or 9.1 per cent, in quantity, but an increase of \$2,058,749, or 94 per cent, in value.

Of the total value of products reported in 1909, the value of white flour formed 62.3 per cent; that of offal, 10.5 per cent; that of feed, 11.3 per cent; and that of corn meal and corn flour, 6.1 per cent.

The 563 mills reported for Indiana in 1909 were equipped with 4,399 pairs of rolls and 380 runs of stone and steel burrs. Eighteen mills made their own barrels and one manufactured sacks.

Iron and steel, steel works and rolling mills.—Steel works and rolling mills constitute the most important branch of the iron and steel industry in Indiana. The table which follows shows the quantity and value of the products of such establishments for 1909, 1904, and 1899. Only the total tonnage of the rolled, forged, and other classified products can be presented without disclosing individual operations.

PRODUCT.	1909	1904	1899
<b>Total value.....</b>	<b>\$38,651,848</b>	<b>\$16,920,326</b>	<b>\$19,338,491</b>
Rolled, forged, and other classified products of steel and iron:			
Tons.....	1,110,498	446,458	425,946
Value.....	\$35,525,349	\$15,430,164	\$17,391,548
All other products, including value added to iron and steel rolling-mill products by further manufacture.....	\$3,126,499	\$1,490,162	\$1,946,933

There was an increase in the output of rolled, forged, and other classified products from 1899 to 1904, but their value decreased during this period. From 1904 to 1909 the tonnage increased 664,040, or 148.7 per cent, and the value \$20,095,185, or 130.2 per cent.

Automobiles, including bodies and parts.—The number and value of the different classes of automobiles manufactured, as reported at the censuses of 1909 and 1904, are shown in the next table.

The total number of automobiles of all kinds turned out in 1909 was 17,253, valued at \$17,604,936, as compared with 1,020, valued at \$1,428,463, in 1904. The value of "All other products, including bodies and parts and repairs," shows an even more rapid increase than

that of the complete machines, and the manufacture of bodies and parts constitutes an important branch of the industry. Of the 17,253 machines reported for 1909, 762 were of less than 10 horsepower; 6,597, of 10 but less than 20 horsepower; 6,240, of 20 but less than 30 horsepower; 3,573, of 30 but less than 50 horsepower; and 81, of 50 but less than 90 horsepower.

There were 546 electric cars reported in 1909 and 424 in 1904. Of the total number of automobiles reported for 1909, 17,087 were passenger vehicles and 150 were delivery wagons and trucks. In 1904 only 18 business vehicles were reported. Of the passenger cars, 47.6 per cent were runabouts, 40 per cent touring cars, and 9.6 per cent buggies.

PRODUCT.	1909		1904	
	Number.	Value.	Number.	Value.
<b>Total value.....</b>		<b>\$23,764,070</b>		<b>\$1,638,602</b>
Automobiles.....	17,253	17,604,936	1,020	1,428,463
Gasoline.....	16,707	16,734,648	595	1,034,519
Electric.....	546	870,288	1,425	393,944
Passenger vehicles (pleasure, family, and public conveyances).....	17,087	17,224,231	1,002	1,408,303
Gasoline.....	16,644	16,553,237	595	1,034,519
Electric.....	443	670,994	407	373,784
Buggies.....	1,639	852,956	( <sup>2</sup> )	( <sup>2</sup> )
Gasoline.....	1,576	( <sup>3</sup> )		
Electric.....	63	( <sup>3</sup> )		
Runabouts.....	8,139	5,055,208	578	620,334
Gasoline.....	8,100	( <sup>3</sup> )	208	298,850
Electric.....	39	( <sup>3</sup> )	370	321,484
Touring cars.....	6,838	10,710,289	424	787,969
Gasoline.....	6,838		387	735,669
Electric.....	( <sup>2</sup> )		137	52,300
Closed (limousine, cabs, etc.).....	439	772,401	( <sup>2</sup> )	
Gasoline.....	100	( <sup>2</sup> )		
Electric.....	339	( <sup>3</sup> )		
All other (omnibuses, sight-seeing, patrol and fire department wagons, ambulances, etc.).....	32	147,232	( <sup>4</sup> )	
Gasoline.....	30	( <sup>3</sup> )		
Electric.....	2	( <sup>3</sup> )		
Business vehicles (merchandise).....	166	380,705	18	20,160
Gasoline.....	63	( <sup>3</sup> )		
Electric.....	103	( <sup>3</sup> )	18	20,160
Delivery wagons.....	107	157,358	18	20,160
Gasoline.....	31	( <sup>3</sup> )		
Electric.....	76	( <sup>3</sup> )	18	20,160
Trucks and all other.....	59	223,347	( <sup>2</sup> )	
Gasoline.....	32	( <sup>3</sup> )		
Electric.....	27	( <sup>3</sup> )		
All other products, including bodies and parts and repairs.....		0,159,134		210,139

<sup>1</sup> Includes one steam touring car.

<sup>2</sup> Not reported.

<sup>3</sup> Can not be shown separately without disclosing individual operations.

<sup>4</sup> Included with gasoline touring cars.

Lumber and timber products.—The following is a statement of the production of rough lumber, lath, and shingles as reported at the censuses of 1909 and 1899:

PRODUCT.	QUANTITY.	
	1909	1899
Rough lumber.....	556,418	1,036,999
Lath.....	3,000	10,133
Shingles.....	7,340	34,198

The production of rough lumber decreased nearly one-half during the decade covered by the table, and that of lath and shingles in a greater proportion. Practically the entire output in 1909 was hardwood.



Of the hardwood lumber reported, 41.1 per cent was oak, the remainder being made up of numerous varieties, of which beech, maple, and elm were the most important.

**Carriages and wagons and materials.**—The following statement shows the number and value of the different kinds of carriages and wagons manufactured in 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
<b>Total value</b> .....	<b>\$21,655,440</b>	<b>\$19,258,861</b>	<b>\$15,810,805</b>
Carriages (family and pleasure):			
Number.....	177,194	178,962	141,734
Value.....	\$10,150,893	\$9,094,829	\$6,959,897
Wagons:			
Number.....	87,844	92,893	94,224
Value.....	\$5,444,456	\$4,288,064	\$4,359,603
Business—			
Number.....	15,617	12,554	(1)
Value.....	\$1,408,543	(1)	(1)
Farm—			
Number.....	71,530	78,340	(1)
Value.....	\$3,952,786	(1)	(1)
Government, municipal, etc.—			
Number.....	697	1,099	(1)
Value.....	\$83,127	(1)	(1)
Public conveyances (cabs, hacks, limousins, hotel coaches, omnibuses, etc.):			
Number.....	52	63	64
Value.....	\$9,635	\$11,180	\$13,605
Sleighs and sleds:			
Number.....	1,101	1,378	3,834
Value.....	\$20,483	\$27,149	\$52,554
Automobiles: <sup>2</sup>			
Number.....	225	92	.....
Value.....	\$119,525	\$117,516	.....
All other products, including parts and repair work.....	\$5,910,448	\$5,119,523	\$4,425,146

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

<sup>2</sup> Automobiles manufactured in establishments devoted primarily to the manufacture of carriages and wagons.

Every class of carriages and wagons reported, with the exception of business wagons, shows a decrease in number from 1904 to 1909. From 1904 to 1909 the number of family and pleasure carriages decreased, but their value increased. Wagons, which constituted the second largest class both in 1909 and in 1904, decreased 5.4 per cent in number but increased 26.9 per cent in value during the five-year period. The industry has been largely affected by the development of the automobile industry, many of the factories formerly manufacturing carriages and wagons now being engaged entirely in the manufacture of automobiles or automobile bodies and parts.

**Printing and publishing.**—The following table gives the number and the aggregate circulation per issue of the various classes of publications for 1909, 1904, and 1899:

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1909	1904	1899	1909	1904	1899
<b>Total</b> .....	<b>799</b>	<b>858</b>	<b>864</b>	<b>2,856,173</b>	<b>3,405,804</b>	<b>3,108,805</b>
Daily.....	172	161	156	625,591	538,121	345,404
Sunday.....	20	21	23	206,176	305,180	(1)
Semiweekly.....	230	32	41	51,978	55,965	77,185
Weekly.....	517	560	591	781,866	891,634	858,424
Monthly.....	52	68	64	976,962	1,288,923	715,292
All other classes.....	8	16	19	213,600	265,976	112,600

<sup>1</sup> Included in circulation of dailies.

<sup>2</sup> Includes one triweekly.

During the decade the number of publications decreased 7.5 per cent, while their aggregate circulation

increased 35.4 per cent. The monthly publications form the most important class, reporting 34.2 per cent of the aggregate circulation in 1909.

Every class of publication except the daily shows a falling off for the five-year period 1904–1909, both in number and in aggregate circulation. During this period the circulation of the dailies increased 16.3 per cent and their number 6.8 per cent. Most of the publications were in English, but there were five dailies, two Sunday papers, eight weeklies, one semiweekly, and three monthlies printed in German; one weekly in Hungarian; one semiweekly in Polish; one monthly in German and English; and one monthly printed in English, French, German, and Italian.

**Agricultural implements.**—The following tabular statement shows the value of the different classes of agricultural implements reported at the censuses of 1909 and 1904:

PRODUCT.	1909	1904
<b>Total value</b> .....	<b>\$13,669,824</b>	<b>\$8,060,575</b>
Implements of cultivation.....	4,606,748	3,340,695
Seeders and planters.....	1,499,639	694,047
Harvesting implements.....	154,878	138,533
Seed separators.....	2,748,913	718,575
All other products.....	4,659,646	3,162,725

Every class of product shows an increase in value. Implements of cultivation are the most important class shown separately, representing about one-third of the total value in 1909. Implements of cultivation and seed separators together contributed more than one-half of the total value of products returned for the industry.

**Glass.**—The following statement gives the quantity of the principal materials used in the manufacture of glass, and the value of the different classes of products, for 1909, 1904, and 1899:

MATERIAL OR PRODUCT.	1909	1904	1899
<b>Principal materials:</b>			
Glass sand..... tons..	153,248	193,600	179,367
Soda ash (carbonate of soda)..... tons..	52,176	55,249	48,629
Salt cake (sulphate of soda)..... tons..	7,647	9,963	14,371
Nitrate of soda..... tons..	2,572	2,156	2,329
Limestone..... tons..	18,769	27,120	27,993
Lime..... bushels..	235,574	213,041	237,085
Litharge and red lead..... pounds..	517,129	790,509	1,482,887
Potash or pearlash..... pounds..	378,730	435,109	453,481
Manganese..... pounds..	717,533	735,802	521,980
Arsenic..... pounds..	373,473	548,711	837,487
<b>Products, total value</b> .....	<b>\$11,593,094</b>	<b>\$14,706,929</b>	<b>\$14,757,868</b>
Building glass.....	1,616,092	3,790,618	5,711,948
Pressed and blown glass.....	2,774,128	2,859,087	2,601,787
Bottles and jars.....	6,982,378	7,213,450	6,327,408
All other products.....	220,496	843,768	26,680

From 1904 to 1909 the total value of products of the establishments engaged in the manufacture of glass in Indiana decreased 21.2 per cent. The value of bottles and jars formed 60.2 per cent of the total value of all products in 1909; that of pressed and blown glass formed 23.9 per cent of the total, and that of building glass 13.9 per cent.

**Canning and preserving.**—The quantity and value of the various products of this industry in 1909, 1904, and 1899 are given in the following table:

PRODUCT.	1909	1904	1899
Total value.....	\$8,768,343	\$5,893,665	\$3,145,380
Canned vegetables.....	\$6,190,194	\$4,422,958	\$2,169,003
Beans—			
Cases.....	822,508	202,601	136,110
Value.....	\$2,116,048	\$491,233	\$270,670
Corn—			
Cases.....	520,401	678,950	207,155
Value.....	\$679,446	\$958,455	\$270,265
Peas—			
Cases.....	521,704	425,314	209,154
Value.....	\$753,527	\$644,439	\$310,172
Pumpkin—			
Cases.....	119,065	35,278	24,265
Value.....	\$139,738	\$57,417	\$31,439
Tomatoes—			
Cases.....	916,755	1,156,143	878,791
Value.....	\$1,469,219	\$1,820,876	\$1,286,027
All other—			
Cases.....	869,109	320,617	430
Value.....	\$1,040,610	\$450,538	\$430
All other products, including pickles, preserves, and sauces.....	\$2,550,149	\$1,470,707	\$976,377

<sup>1</sup> Does not include pickles, preserves, and sauces to the value of \$75,755, reported by establishments classified as engaged in other industries.

The case, which is used as a unit in measuring the quantities of canned goods produced, consists of 24 standard-size cans—No. 2 cans (also called 2-pound cans) in the case of beans, corn, and peas, and No. 3 cans (also called 3-pound cans) for all other vegetables.

Between 1904 and 1909 there was an increase of 40.2 per cent in the total value of all canned vegetables. Beans were the most important vegetable canned. The increase both in quantity and in value from 1904 to 1909 was approximately 300 per cent. Canned peas and canned pumpkin also show substantial increases. Canned tomatoes and canned corn show decreases in quantity and value. In 1909 the value of canned beans formed 24.2 per cent, and that of canned tomatoes 16.8 per cent of the total value of all canned and preserved products. The proportion represented by canned fruits was unimportant, this product being included under the heading "All other products."

**Laundries.**—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. In 1909 there were 163 such establishments in the state of Indiana, 23 of which were in Indianapolis, 7 in Evansville, 6 in South Bend, 5 in Terre Haute, 4 in Richmond, and 3 each in Fort Wayne, Muncie, Hammond, Lafayette, Marion, Logansport, Michigan City, Kokomo, and Vincennes.

The following statement summarizes the statistics:

Number of establishments.....	163
Persons engaged in the industry.....	3,308
Proprietors and firm members.....	184
Salaried employees.....	223
Wage earners (average number).....	2,901
Primary horsepower.....	3,746
Capital.....	\$1,236,060
Expenses.....	1,937,297
Services.....	1,212,558
Materials.....	371,178
Miscellaneous.....	353,561
Amount received for work done.....	2,448,355

The most common form of ownership was the individual, with 90 establishments. The firm and corporate forms of ownership were represented by 41 and 32 establishments, respectively. Forty-two establishments had receipts for the year's business of less than \$5,000; 80, receipts of \$5,000 but less than \$20,000; and 41, receipts 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.	Percent of maximum.		Number.	Percent of maximum.
January.....	2,769	92.8	July.....	2,059	99.1
February.....	2,777	93.0	August.....	2,085	100.0
March.....	2,786	93.3	September.....	2,060	99.5
April.....	2,807	94.0	October.....	2,040	98.8
May.....	2,872	96.2	November.....	2,082	99.9
June.....	2,984	99.9	December.....	2,073	99.6

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.....		3,746
Owned:		
Steam.....	123	3,240
Gas.....	13	58
Water motor.....	1	5
Rented:		
Electric.....	59	318
Other.....		125

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

KIND.	Unit.	Quantity.
Anthracite coal.....	Tons.....	201
Bituminous coal.....	Tons.....	44,364
Coke.....	Tons.....	183
Wood.....	Cords.....	108
Oil.....	Barrels.....	248
Gas.....	1,000 feet.....	22,073

**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.....	204	175
Persons engaged in the industry.....	594	274
Proprietors and firm members.....	269	210
Salaried employees.....		5
Wage earners (average number).....	325	53
Primary horsepower.....	4,298	4,556
Capital.....	\$237,931	\$428,879
Expenses.....	98,505	718,016
Services.....	77,538	22,852
Materials.....	1,838	1,679,818
Miscellaneous.....	19,079	15,346
Value of products.....	220,437	1,836,847

<sup>1</sup> Includes estimate of all grain ground. A similar estimate for value of lumber sawed by custom sawmills is impracticable.

MANUFACTURES—INDIANA.

321

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employes.	Wage earners (average number).							
			Expressed in thousands.										
<b>STATE—All industries.....</b>	1909 1904 1899	7,989 7,044 7,128	218,263 176,227	7,674 7,191	23,605 14,862 10,447	186,984 154,174 139,017	633,377 380,758 325,919	\$508,717 312,071 219,321	\$28,305 15,029 9,971	\$95,511 72,068 59,280	\$334,375 220,507 195,183	\$579,075 393,954 337,072	\$244,700 173,447 141,909
Agricultural implements.....	1909 1904 1899	39 41 45	8,061 3,947 3,967	30 15 20	1,282 3,889 518	4,749 3,643 3,410	9,254 14,523 4,091	23,008 14,523 8,325	1,196 466 490	2,565 1,841 1,694	4,804 2,975 2,620	13,670 8,061 6,415	8,806 5,086 3,795
Artificial stone.....	1909 1904 1899	219 55	807 243	284 65	55 20	468 168	495 210	652 174	32 11	227 72	300 98	851 215	551 147
Automobiles, including bodies and parts.	1909 1904 1899	67 11	7,753 921	36 6	920 99	6,797 816	5,813 790	16,722 1,194	870 80	4,131 496	14,995 824	23,764 1,639	8,769 815
Boots and shoes, including outstock and findings.	1909 1904 1899	8 4 10	524 250	4 1	84 23 48	436 226 639	393 133	738 306 563	82 20 46	159 71 164	664 300 678	678 460 937	314 160 250
Boxes, fancy and paper.....	1909 1904 1899	13 11 11	609 460 343	9 6 8	50 32 12	550 412 323	351 309	624 401 158	48 20 14	179 110 77	422 215 95	732 407 233	300 192 138
Brass and bronze products.....	1909 1904 1899	21 9 10	534 118 72	18 7 12	48 10 4	468 101 50	503 143	878 119 82	99 8	292 55 31	774 85 75	1,379 175 155	605 90 80
Bread and other bakery products.....	1909 1904 1899	754 581 391	3,780 3,082 1,961	854 667 425	421 300 202	2,505 2,115 1,334	2,124 1,586	6,044 3,859 2,192	338 221 138	1,315 994 528	6,226 4,131 2,399	10,209 6,935 4,166	3,683 2,804 1,827
Brick and tile.....	1909 1904 1899	311 292 558	4,361 4,069 4,448	336 498 691	237 176 148	3,788 3,335 3,609	19,881 15,890 12,721	7,455 5,449 4,505	251 172 104	1,835 1,403 1,196	1,306 982 652	4,719 3,818 2,931	3,413 2,836 2,379
Butter, cheese, and condensed milk.....	1909 1904 1899	132 87 112	807 324 233	116 72 92	203 65 23	488 187 118	1,858 1,025 1,000	1,042 362 287	85 19 7	262 98 57	3,199 1,011 711	3,959 1,291 930	763 280 219
Canning and preserving.....	1909 1904 1899	134 110 69	3,952 3,750	60 55	486 299	3,400 3,426 2,162	6,398 4,738	5,572 3,982 1,528	515 220 143	879 862 436	5,945 3,374 1,921	8,758 5,894 3,145	2,813 2,320 1,224
Carriages and wagons and materials....	1909 1904 1899	221 252 323	10,100 10,601	211 257	1,022 938	8,867 9,400 8,714	13,790 13,352	29,110 25,879 19,798	1,295 952 683	4,355 4,184 3,525	12,458 10,869 8,553	21,655 19,259 15,311	9,197 8,390 7,258
Cars and general shop construction and repairs by steam-railroad companies.	1909 1904 1899	34 44 54	13,745 12,020 3,429	.....	861 672 345	12,884 11,348 8,081	13,550 9,126 5,516	9,942 5,147 4,730	787 580 200	787 6,664 4,325	7,876 7,009 5,455	17,128 14,516 10,242	9,252 7,500 4,787
Cars, steam-railroad, not including operations of railroad companies.	1909 1904 1899	7 6 4	4,449 3,341 3,433	.....	365 89 96	4,084 3,262 3,337	10,699 4,760 3,740	14,884 5,304 6,062	505 108 112	1,001 1,928 1,551	6,309 6,844 6,287	9,498 10,036 9,007	3,189 3,192 2,720
Cement.....	1909 1904 1899	11 6	2,616 817	.....	298 29	2,318 788	28,191 6,556	7,271 2,144	318 42	1,280 361	4,159 422	7,022 1,283	2,893 861
Clothing, men's, including shirts.....	1909 1904 1899	42 41 42	4,444 4,081	23 20	348 291 154	4,073 3,761 3,725	784 587	4,617 2,335 2,015	456 245 171	1,305 994 904	4,652 3,262 2,481	8,029 5,420 4,267	3,377 2,158 1,788
Clothing, women's.....	1909 1904 1899	18 27 14	1,403 1,781 1,339	15 22 11	97 153 64	1,291 1,606 1,264	196 455 1,392	851 909 521	141 150 63	449 454 260	1,057 988 650	2,058 2,109 1,257	1,001 1,131 607
Coffins, burial cases, and undertakers' goods.	1909 1904 1899	19 17 15	824 575 507	7 9 2	148 72 68	669 494 437	1,249 937	1,494 1,194 768	163 87 65	313 217 189	701 472 373	1,448 1,107 799	747 635 426
Confectionery.....	1909 1904 1899	64 43 28	1,134 884	62 36	187 193 95	885 685 559	624 499	949 870 451	179 121 71	298 223 169	1,523 831 691	2,558 1,530 1,249	1,035 699 559
Cooperage and wooden goods, not elsewhere specified.	1909 1904 1899	57 59 98	1,016 1,139 1,504	49 64 102	76 53 48	891 1,022 1,354	2,441 2,541	1,476 1,397 866	74 84 41	382 433 503	1,499 1,784 1,111	2,398 2,777 2,060	899 993 949
Copper, tin, and sheet-iron products....	1909 1904 1899	146 91 34	2,485 1,286	147 103	217 195 160	2,121 988 605	1,637 496	6,814 4,504 728	262 260 56	1,065 440 224	3,431 1,498 835	5,763 2,885 1,520	2,332 1,387 685
Cotton goods, including cotton small wares.	1909 1904 1899	7 5 4	1,621 1,208 1,442	.....	39 34 18	1,582 1,174 1,421	5,315 5,250 3,994	2,473 2,277 1,678	105 51 34	478 302 324	1,070 1,140 701	2,502 1,484 1,335	832 344 634
Cutlery and tools, not elsewhere specified.	1909 1904 1899	24 19 22	639 701	16 11	51 51 82	572 639 1,244	1,733 1,654	1,297 1,037 1,070	62 57 71	305 289 433	403 371 543	933 843 1,496	530 472 953
Electrical machinery, apparatus, and supplies.	1909 1904 1899	42 34 24	3,723 1,813 1,028	25 13 13	625 384 134	3,073 1,416 881	5,285 3,042 1,475	6,857 3,176 1,453	616 383 134	1,361 664 340	3,693 1,067 784	7,718 2,857 1,586	4,025 1,790 802

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

<sup>2</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

<sup>3</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

## MANUFACTURES—INDIANA.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employes.	Wage earners (average number).							
<b>STATE—Continued.</b>													
Flour-mill and gristmill products.....	1909	563	3,508	703	507	2,298	38,502	\$15,857	\$474	\$1,216	\$35,002	\$40,541	\$5,639
	1904	566	3,464	830	345	2,289	42,100	11,907	308	1,091	31,342	36,474	5,132
	1899	541	.....	.....	286	2,071	42,318	10,023	277	992	24,804	29,038	4,234
Foundry and machine-shop products...	1909	415	18,439	301	2,329	15,809	29,108	30,711	2,886	8,857	18,619	39,884	21,265
	1904	346	14,090	271	1,553	12,806	19,485	25,858	1,718	6,356	11,661	25,695	13,934
	1899	381	.....	.....	955	12,080	.....	17,013	981	5,392	9,948	20,488	10,540
Furniture and refrigerators.....	1909	201	12,352	83	985	11,284	20,449	16,537	1,095	5,137	8,460	18,456	9,996
	1904	186	10,760	88	717	9,955	15,858	12,063	763	4,044	5,716	13,959	8,243
	1899	123	7,727	82	496	7,149	.....	7,666	431	2,540	4,032	8,770	4,738
Gas and electric fixtures and lamps and reflectors.	1909	12	401	3	5	342	558	714	63	152	285	620	335
	1904	15	81	6	9	66	93	93	9	38	73	172	99
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gas, illuminating and heating.....	1909	53	1,390	9	453	928	5,845	23,550	356	508	1,102	3,147	2,045
	1904	43	826	3	202	621	1,855	11,972	172	289	571	1,839	1,268
	1899	39	486	.....	146	340	654	7,746	89	172	256	1,034	778
Glass.....	1909	44	9,936	3	389	9,544	21,031	13,149	526	4,942	4,728	11,593	6,885
	1904	96	12,470	18	432	12,020	14,656	13,884	549	6,638	5,559	14,707	9,148
	1899	110	13,548	24	509	13,015	10,918	12,775	649	7,226	4,582	14,768	10,170
Glucose and starch.....	1909	4	944	6	72	866	3,070	4,265	131	480	4,682	5,760	1,068
	1904	4	510	6	42	462	1,370	1,187	60	249	1,499	2,048	549
	1899	4	219	2	7	210	941	2,873	8	89	550	990	440
Hosiery and knit goods.....	1909	5	2,032	.....	99	1,933	1,393	2,406	178	687	915	2,381	1,466
	1904	5	1,804	.....	84	1,720	1,415	2,215	85	510	1,105	2,105	1,000
	1899	7	2,119	.....	103	2,018	1,360	2,728	201	703	1,200	2,424	1,224
Ice, manufactured.....	1909	85	765	62	140	563	7,726	3,318	109	304	326	1,311	985
	1904	66	547	52	104	391	5,611	2,204	73	199	161	748	567
	1899	47	439	35	61	343	3,512	1,531	44	162	121	544	423
Iron and steel, steel works and rolling mills.	1909	17	13,206	.....	951	12,255	111,806	47,781	1,104	8,390	26,099	38,652	12,553
	1904	21	7,538	.....	323	7,215	48,504	22,986	370	4,072	10,906	16,920	6,014
	1899	27	7,784	.....	205	7,579	39,950	14,994	267	4,244	12,439	19,338	6,899
Leather goods.....	1909	118	1,552	140	202	1,240	3,542	3,108	182	527	2,002	3,406	1,494
	1904	90	1,107	110	86	911	716	1,457	82	388	1,008	1,998	900
	1899	55	.....	.....	78	631	.....	823	67	264	829	1,429	600
Leather, tanned, curried, and finished..	1909	10	440	5	37	398	1,028	2,213	55	205	1,713	2,311	598
	1904	13	301	18	18	265	624	1,248	20	134	764	1,051	287
	1899	23	454	27	27	400	628	1,321	27	162	1,187	1,590	403
Liquors, distilled.....	1909	14	527	20	79	428	2,820	5,556	173	269	4,712	31,610	26,898
	1904	18	394	18	39	337	2,228	1,820	90	190	2,098	20,620	17,522
	1899	24	300	26	38	236	2,782	1,326	63	112	1,930	16,061	15,031
Liquors, malt.....	1909	37	1,923	16	313	1,594	11,882	10,571	550	1,019	1,989	8,313	6,324
	1904	41	1,633	25	295	1,313	8,373	9,073	440	794	1,762	6,196	4,434
	1899	42	1,276	26	205	1,045	5,009	6,348	318	602	1,127	5,777	4,650
Lumber and timber products.....	1909	1,277	12,840	1,540	983	10,317	57,243	19,177	965	4,492	12,382	23,135	10,753
	1904	994	11,739	1,254	781	9,704	49,505	13,816	695	4,226	11,752	21,476	9,724
	1899	1,504	.....	.....	638	14,549	61,805	12,799	513	5,529	12,908	25,666	12,758
Marble and stone work.....	1909	200	3,811	200	319	3,283	17,143	7,441	417	1,943	1,760	5,756	3,996
	1904	128	2,466	145	164	2,157	8,316	3,193	174	1,129	1,177	3,399	2,222
	1899	104	.....	.....	88	1,003	.....	1,331	74	463	500	1,646	1,056
Mattresses and spring beds.....	1909	27	644	18	73	553	701	1,456	81	257	691	1,287	596
	1904	26	523	25	40	458	604	743	30	170	437	854	417
	1899	16	.....	.....	41	299	.....	298	25	108	288	512	224
Millinery and lace goods.....	1909	7	198	5	27	166	23	182	35	59	331	538	207
	1904	9	276	6	19	251	11	29	21	68	138	274	136
	1899	3	94	.....	8	86	.....	29	8	29	44	104	60
Musical instruments and materials, not specified.	1909	9	429	6	38	390	216	604	123	208	108	610	502
	1904	5	325	3	39	283	125	445	43	125	88	352	264
	1899	6	254	8	19	227	113	175	9	116	39	206	167
Musical instruments, pianos and organs and materials.	1909	15	1,985	4	314	1,667	2,650	4,270	462	994	1,703	3,686	1,983
	1904	12	1,420	3	180	1,237	2,346	2,617	187	630	884	2,270	1,386
	1899	5	495	4	63	429	.....	857	51	235	363	814	451
Paint and varnish.....	1909	18	297	4	93	200	521	841	112	74	683	1,108	425
	1904	14	140	7	52	81	420	580	67	42	437	748	311
	1899	8	90	1	38	51	309	340	44	23	255	403	148
Paper and wood pulp.....	1909	27	1,627	7	119	1,501	18,382	7,132	173	754	3,497	5,202	1,705
	1904	36	1,737	5	112	1,620	19,775	6,511	132	664	2,517	3,917	1,400
	1899	39	1,962	12	134	1,816	23,797	5,379	186	724	2,471	4,170	1,699
Paper goods, not elsewhere specified....	1909	8	816	5	92	719	835	3,403	122	256	1,224	1,887	663
	1904	3	392	1	32	359	575	465	20	132	545	779	234
	1899	5	262	.....	14	248	.....	173	15	74	206	386	180
Patent medicines and compounds and druggists' preparations.	1909	113	1,481	95	584	801	809	2,858	585	354	1,460	4,344	2,884
	1904	100	1,211	78	320	813	468	2,274	357	292	1,454	4,410	2,956
	1899	69	.....	.....	326	603	.....	927	257	220	701	2,403	1,702

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 Figures can not be shown without disclosing individual operations.

MANUFACTURES—INDIANA.

323

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employ-ees.	Wage earners (average number).							
Expressed in thousands.													
<b>STATE—Continued.</b>													
Pottery, terra-cotta, and fire-clay products.	1909	31	2,373	16	171	2,186	5,080	\$4,806	\$213	\$1,190	\$859	\$2,966	\$2,107
	1904	38	2,200	35	140	2,019	5,387	8,387	183	981	646	2,643	1,997
	1899	40	1,350	40	60	1,250	2,621	1,620	60	581	312	1,291	970
Printing and publishing.....	1909	802	9,600	865	1,979	6,756	17,868	11,844	1,650	3,522	4,025	14,356	10,331
	1904	865	8,295	893	1,583	5,819	3,996	9,440	1,275	2,941	3,175	11,473	8,298
	1899	809	.....	.....	932	5,033	.....	6,555	815	2,445	2,422	8,960	6,538
Scales and balances.....	1909	8	357	1	90	266	200	985	118	266	163	208	877
	1904	5	96	3	18	75	107	189	16	39	41	208	167
	1899	3	57	1	14	42	.....	130	9	21	32	130	98
Slaughtering and meat packing.....	1909	61	4,862	64	375	4,423	5,973	8,058	690	2,161	41,986	47,289	5,303
	1904	50	3,400	46	109	3,155	4,388	7,424	249	1,371	26,249	29,435	3,186
	1899	39	.....	.....	303	3,604	.....	8,876	315	1,570	38,629	43,890	5,261
Stoves and furnaces, including gas and oil stoves.	1909	24	1,609	11	236	1,362	1,704	2,853	277	723	1,021	2,751	1,730
	1904	23	1,210	9	131	1,070	1,395	1,704	104	589	807	2,030	1,223
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tobacco manufactures.....	1909	470	3,416	507	115	2,794	123	1,408	140	1,126	1,500	4,155	2,665
	1904	552	3,414	622	124	2,668	145	1,486	96	1,040	1,581	3,905	2,824
	1899	485	2,542	531	73	1,938	60	826	55	703	934	2,695	1,661
Wirework, including wire rope and cable.	1909	31	834	18	127	689	1,182	1,192	141	314	2,342	3,161	819
	1904	25	589	22	95	472	784	1,059	84	209	1,136	1,696	560
	1899	27	413	25	68	320	.....	639	47	122	547	1,100	553
Woolen, worsted, and felt goods, and wool hats.	1909	11	825	12	37	776	1,678	1,555	71	293	* 1,056	1,570	514
	1904	* 13	1,038	10	35	993	1,945	1,645	49	306	997	1,597	600
	1899	* 20	1,118	12	58	1,048	1,945	1,849	68	307	877	1,491	614
All other industries.....	1909	772	25,427	633	3,106	21,688	109,623	89,146	3,509	10,428	58,002	38,643	20,951
	1904	701	22,290	643	2,036	19,611	40,572	50,100	2,072	8,905	40,512	33,156	22,644
	1899	650	.....	.....	1,334	15,484	.....	31,605	1,261	6,564	33,085	48,623	15,538

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

<b>EVANSVILLE—All industries..</b>	1909	299	10,182	231	934	8,997	18,849	\$20,093	\$1,039	\$3,965	\$12,794	\$22,929	\$10,135
	1904	288	8,771	251	762	7,758	.....	14,337	818	3,430	10,122	18,091	7,989
	1899	273	.....	.....	561	6,284	.....	9,428	596	2,451	6,545	12,168	5,623
Agricultural implements.....	1909	5	282	.....	48	234	755	739	71	128	218	650	432
	1904	4	208	2	27	179	.....	456	29	92	173	403	230
	1899	4	193	2	27	164	.....	470	20	73	106	313	207
Bread and other bakery products.....	1909	19	161	22	20	119	103	605	16	57	319	487	168
	1904	13	147	12	32	103	.....	227	20	48	229	355	126
	1899	23	127	22	24	81	.....	170	15	28	141	257	116
Carriages and wagons and materials.....	1909	13	669	9	42	648	1,019	877	46	308	1,213	1,835	622
	1904	9	358	9	19	330	.....	407	18	143	523	806	278
	1899	7	82	9	4	60	.....	130	3	29	73	124	51
Confectionery.....	1909	6	109	9	12	88	2	65	6	23	81	142	61
	1904	4	42	6	14	22	.....	21	2	12	27	53	26
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cooperage and wooden goods, not elsewhere specified.	1909	5	78	7	3	68	108	48	3	37	119	192	73
	1904	* 4	82	5	5	72	.....	94	6	45	110	213	103
	1899	* 11	126	15	3	108	.....	32	3	40	91	109	78
Flour-mill and gristmill products.....	1909	9	154	7	42	105	1,645	941	39	67	2,929	3,304	375
	1904	9	141	14	25	102	.....	486	25	65	2,384	2,639	255
	1899	10	.....	.....	22	111	.....	506	25	45	1,502	1,701	190
Foundry and machine-shop products...	1909	13	495	12	63	420	809	999	49	227	395	826	431
	1904	12	374	10	52	312	.....	727	50	155	201	666	375
	1899	* 12	.....	.....	57	477	.....	830	72	253	274	745	471
Furniture and refrigerators.....	1909	26	1,569	3	108	1,458	2,997	2,312	124	633	1,205	2,520	1,315
	1904	* 21	1,273	4	71	1,198	.....	1,326	76	494	696	1,655	959
	1899	18	1,011	9	75	927	.....	760	69	285	453	978	525
Ice, manufactured.....	1909	3	93	1	18	74	348	439	14	39	17	156	139
	1904	3	47	1	12	34	.....	374	11	18	15	84	69
	1899	3	68	1	9	58	.....	292	8	27	13	76	63
Leather goods.....	1909	12	229	16	15	198	284	383	10	63	198	357	159
	1904	* 6	168	9	9	150	.....	197	7	71	186	297	111
	1899	* 5	.....	.....	15	168	.....	152	11	61	141	244	103
Lumber and timber products.....	1909	16	621	9	63	549	2,660	1,891	77	284	318	1,443	625
	1904	* 16	736	18	76	642	.....	1,586	83	257	935	1,603	728
	1899	* 20	776	23	37	716	.....	1,090	43	362	869	1,620	751
Patent medicines and compounds and druggists' preparations.	1909	6	33	5	12	16	22	65	11	8	47	90	43
	1904	* 3	28	13	4	11	.....	50	3	3	18	55	37
	1899	* 3	.....	.....	10	30	.....	10	8	7	28	70	42

1 Not reported separately.  
 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.  
 4 Figures can not be shown without disclosing individual operations.  
 5 Excluding statistics for two establishments, to avoid disclosure of individual operations.

## MANUFACTURES—INDIANA.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employ-ees.	Wage earners (average number).							
Expressed in thousands.													
<b>EVANSVILLE—Continued.</b>													
Printing and publishing.....	1909	27	364	18	92	254	296	\$424	\$93	\$165	\$152	\$600	\$448
	1904	20	289	19	56	214	.....	268	57	114	114	406	292
	1899	17	285	15	40	230	.....	238	53	117	90	395	245
Stoves and furnaces, including gas and oil stoves.	1909	5	429	.....	53	376	492	816	81	208	217	771	554
	1904	4	353	.....	41	317	.....	529	63	183	137	527	390
Tobacco manufactures.....	1909	35	1,141	38	25	1,078	85	280	35	355	551	1,331	780
	1904	37	750	40	28	682	.....	371	22	208	453	845	395
	1899	42	615	47	19	549	.....	97	15	138	167	442	275
All other industries.....	1909	99	3,705	75	318	3,312	7,224	9,209	364	1,363	4,315	8,225	3,910
	1904	98	3,770	89	291	3,390	.....	7,218	346	1,522	3,826	7,421	3,595
	1899	98	.....	.....	219	2,596	.....	4,642	242	1,006	2,597	5,094	2,497
<b>FORT WAYNE—All industries.</b>													
	1909	230	12,184	205	1,681	10,298	15,063	\$20,346	\$1,795	\$5,023	\$11,415	\$23,687	\$12,272
	1904	193	8,845	183	938	7,729	.....	12,363	978	3,595	7,019	14,011	6,992
	1899	178	.....	.....	601	6,519	.....	8,674	528	2,627	6,032	11,268	5,231
Bread and other bakery products.....	1909	15	343	16	63	269	247	408	52	145	631	1,021	390
	1904	17	270	22	52	196	.....	479	40	83	404	649	245
	1899	15	.....	.....	34	169	.....	322	35	55	269	503	234
Carriages and wagons and materials.....	1909	10	87	15	11	61	145	205	9	31	83	140	57
	1904	13	227	17	14	196	.....	367	15	82	111	262	151
	1899	13	.....	.....	20	278	.....	456	21	117	205	514	249
Confectionery.....	1909	6	93	5	17	71	77	118	23	23	80	210	130
	1904	3	70	2	18	50	.....	69	13	14	90	139	43
Flour-mill and gristmill products.....	1909	5	50	9	10	31	430	166	10	21	425	503	73
	1904	5	55	10	11	34	.....	172	9	17	436	498	57
	1899	6	.....	.....	5	33	.....	172	4	16	314	378	64
Foundry and machine-shop products...	1909	20	2,386	8	498	1,880	3,661	5,666	502	889	1,813	4,378	3,065
	1904	15	1,456	8	143	1,305	.....	3,426	153	627	1,255	2,436	1,181
	1899	12	.....	.....	54	872	.....	2,120	90	389	1,389	1,695	806
Leather goods.....	1909	4	36	7	12	17	28	61	6	11	46	85	39
	1904	4	31	7	4	20	.....	22	2	10	24	50	25
	1899	5	.....	.....	2	31	.....	25	1	12	29	57	23
Lumber and timber products.....	1909	13	431	17	60	354	1,500	869	56	175	769	1,263	494
	1904	12	325	13	25	287	.....	512	31	139	357	653	295
	1899	14	245	17	23	200	.....	437	29	83	308	551	266
Marble and stone work.....	1909	6	63	8	4	51	90	84	4	33	36	91	55
	1904	3	43	4	1	38	.....	56	(3)	25	20	70	50
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Patent medicines and compounds and druggists' preparations.	1909	10	48	13	15	20	20	177	21	7	79	244	165
	1904	5	13	4	1	8	.....	5	(3)	4	6	33	27
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Printing and publishing.....	1909	20	444	13	118	313	314	588	95	181	255	728	473
	1904	19	267	18	47	202	.....	356	53	116	169	443	274
	1899	9	171	6	36	129	.....	181	33	73	87	247	160
Tobacco manufactures.....	1909	32	255	31	26	198	.....	126	22	100	144	355	211
	1904	33	230	37	5	188	.....	76	3	109	134	355	221
	1899	22	.....	.....	6	120	.....	46	4	58	63	187	124
All other industries.....	1909	89	7,943	63	847	7,033	8,551	11,878	995	3,407	7,054	14,169	7,115
	1904	64	5,353	41	612	5,205	.....	6,333	653	2,369	4,007	8,428	4,421
	1899	64	.....	.....	416	4,687	.....	4,915	341	1,825	3,808	7,131	3,300
<b>INDIANAPOLIS—All industries.</b>													
	1909	855	37,929	631	5,483	31,815	50,872	\$76,497	\$6,494	\$16,557	\$84,151	\$126,522	\$42,371
	1904	810	31,431	591	4,115	26,725	.....	53,420	4,096	12,620	51,763	82,225	30,465
	1899	697	.....	.....	2,325	20,985	.....	34,736	2,248	8,844	38,287	59,322	21,035
Agricultural implements.....	1909	6	71	1	16	54	98	162	15	28	81	171	90
	1904	6	116	2	23	36	.....	325	26	40	81	242	161
	1899	6	74	3	20	51	.....	257	17	24	73	270	197
Artificial stone.....	1909	17	97	11	29	57	39	98	16	32	39	167	128
	1904	4	18	.....	4	14	.....	19	4	8	6	34	28
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Automobiles, including bodies and parts.	1909	17	2,782	9	379	2,394	2,296	5,066	329	1,466	5,994	8,840	2,846
	1904	4	509	.....	62	447	.....	810	56	278	554	798	244
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boxes, fancy and paper.....	1909	3	169	.....	14	155	127	170	15	56	135	230	104
	1904	3	117	2	8	107	.....	108	8	29	59	114	55
	1899	4	97	4	3	90	.....	59	3	18	31	73	42
Bread and other bakery products.....	1909	73	859	76	187	596	587	3,172	187	288	1,705	2,809	1,104
	1904	64	785	65	124	596	.....	1,007	88	278	1,083	1,870	787
	1899	64	434	63	60	311	.....	886	36	141	730	1,200	470

1 Not reported separately.

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.

3 Less than \$500.

4 Figures can not be shown without disclosing individual operations.

5 Excluding statistics for one establishment, to avoid disclosure of individual operations.

6 Excluding statistics for two establishments, to avoid disclosure of individual operations.



MANUFACTURES—INDIANA.

325

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employeess.	Wage earners (average number).							
Expressed in thousands.													
<b>INDIANAPOLIS—Continued.</b>													
Canning and preserving.....	1909	7	935	12	234	680	785	\$1,595	\$314	\$100	\$2,468	\$3,461	\$993
	1904	10	1,102	10	90	1,002	.....	1,447	112	341	1,245	2,255	1,010
	1899	8	.....	.....	88	382	.....	385	85	90	748	1,107	359
Carpets, rag.....	1909	6	69	6	11	52	54	21	8	13	12	48	36
	1904	4	35	0	4	25	.....	6	2	7	3	17	14
Carriages and wagons and materials.....	1909	14	1,044	11	113	920	904	1,700	120	487	1,315	2,172	857
	1904	18	1,444	12	120	1,303	.....	2,031	130	506	1,468	2,026	1,158
	1899	24	1,575	24	120	1,431	.....	1,644	100	543	1,757	2,812	1,055
Cars and general shop construction and repairs by steam-railroad companies.	1909	5	2,260	.....	162	2,108	1,123	772	120	1,323	1,123	2,062	1,539
	1904	6	2,387	.....	166	2,221	.....	870	138	1,272	1,070	2,503	1,433
	1899	5	1,173	.....	49	1,124	.....	774	43	604	892	1,508	676
Clothing, men's, including shirts.....	1909	10	1,670	3	128	1,530	330	1,203	205	583	1,350	2,700	1,350
	1904	9	1,222	3	111	1,108	.....	673	101	316	769	1,614	845
	1899	12	.....	.....	33	739	.....	811	41	153	370	744	374
Clothing, women's.....	1909	8	505	9	35	462	78	203	52	172	401	725	324
	1904	11	506	8	67	491	.....	387	73	156	304	720	422
	1899	5	486	4	22	460	.....	122	23	102	229	387	158
Confectionery.....	1909	14	585	9	102	474	380	571	104	100	915	1,472	557
	1904	15	461	8	94	350	.....	528	76	123	411	806	395
	1899	11	.....	.....	50	285	.....	216	41	78	396	703	307
Cooperage and wooden goods, not elsewhere specified.	1909	4	56	3	13	40	87	58	4	17	62	115	58
	1904	6	86	6	4	76	.....	77	4	35	80	140	60
	1899	15	117	5	2	110	.....	44	2	40	76	131	55
Electrical machinery, apparatus, and supplies.	1909	7	442	4	74	304	598	708	66	184	407	864	457
	1904	6	235	.....	42	193	.....	410	41	97	115	366	251
	1899	5	145	3	23	110	.....	101	18	46	101	212	111
Flour-mill and gristmill products.....	1909	9	391	4	63	324	4,735	2,223	61	179	5,800	6,448	648
	1904	9	311	5	38	298	.....	1,309	47	151	9,961	4,429	468
	1899	8	.....	.....	46	313	.....	1,040	76	150	3,340	3,817	477
Foundry and machine-shop products.....	1909	78	5,221	61	679	4,481	7,318	11,221	811	2,525	5,401	11,442	6,041
	1904	66	5,104	40	590	4,408	.....	8,948	660	2,204	3,566	8,685	5,119
	1899	71	.....	.....	303	4,364	.....	5,570	387	1,078	3,253	6,088	3,735
Fur goods.....	1909	5	25	4	5	16	1	16	6	9	28	56	28
	1904	4	15	4	1	10	.....	8	1	3	24	42	18
Furniture and refrigerators.....	1909	32	1,807	10	158	1,633	2,180	2,251	193	852	1,322	2,942	1,620
	1904	34	1,790	18	149	1,629	.....	1,812	160	764	1,062	2,528	1,476
	1899	22	1,323	22	119	1,182	.....	1,367	106	457	807	1,086	879
Ice, manufactured.....	1909	6	110	4	10	87	859	411	20	41	54	180	126
	1904	10	104	6	23	75	.....	375	13	44	39	152	113
	1899	7	83	5	11	67	.....	235	7	31	28	100	81
Leather goods.....	1909	8	403	3	87	313	199	878	89	137	602	961	359
	1904	8	237	2	32	203	.....	525	38	93	354	606	252
	1899	6	193	4	35	154	.....	251	35	78	229	389	160
Liquors, malt.....	1909	4	474	.....	87	387	3,485	2,037	137	277	436	2,204	1,768
	1904	4	392	.....	74	318	.....	1,600	91	218	383	1,301	913
	1899	5	320	.....	64	250	.....	1,077	90	154	254	1,771	1,517
Lumber and timber products.....	1909	44	1,165	26	161	978	3,925	2,754	215	544	1,944	3,233	1,289
	1904	38	1,129	22	124	983	.....	1,642	125	495	1,832	2,848	1,016
	1899	27	1,005	31	68	908	.....	1,101	75	374	945	1,817	872
Mattresses and spring beds.....	1909	5	320	2	45	273	546	1,000	57	127	307	636	329
	1904	8	396	3	83	360	.....	616	26	128	330	646	316
	1899	5	256	.....	35	221	.....	250	22	84	223	386	163
Millinery and lace goods.....	1909	4	135	3	6	126	18	52	12	45	124	247	123
	1904	5	242	3	14	225	.....	20	17	62	133	244	111
	1899	3	94	.....	8	86	.....	29	8	29	44	104	60
Models and patterns, not including paper patterns.	1909	6	32	0	2	21	25	11	1	18	5	40	35
	1904	7	32	10	1	21	.....	10	1	14	4	35	31
	1899	4	22	6	.....	16	.....	10	.....	9	3	20	17
Paint and varnish.....	1909	9	198	.....	50	148	338	391	97	45	376	592	216
	1904	7	82	.....	37	45	.....	346	48	23	232	418	186
	1899	3	41	.....	11	30	.....	65	11	12	107	147	40
Patent medicines and compounds and druggists' preparations.	1909	34	851	21	281	549	497	1,836	366	244	959	2,301	1,342
	1904	127	516	19	173	324	.....	1,140	222	115	563	1,364	801
	1899	114	.....	.....	123	298	.....	341	130	93	300	741	441
Printing and publishing.....	1909	126	2,695	98	841	1,756	1,971	3,866	700	1,080	1,488	5,022	4,134
	1904	122	2,360	90	854	1,416	.....	3,200	678	863	1,044	4,359	3,315
	1899	108	1,895	80	391	1,415	.....	1,675	354	740	681	2,971	2,290
Slaughtering and meat packing.....	1909	16	4,001	16	248	3,737	3,681	5,353	539	1,804	35,013	39,134	4,121
	1904	13	2,814	8	130	2,676	.....	6,137	186	1,127	22,254	24,487	2,233
	1899	17	2,085	6	136	1,943	.....	3,807	120	783	17,400	18,781	1,381

<sup>1</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.  
<sup>2</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

## MANUFACTURES—INDIANA.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employes.	Wage earners (average number).							
Expressed in thousands.													
<b>INDIANAPOLIS—Continued.</b>													
Stoves and furnaces, including gas and oil stoves.	1909	7	362	3	47	312	334	\$425	\$76	\$161	\$242	\$598	\$356
	1904	6	315	5	33	277		350	45	163	180	513	333
	1899												
Tobacco manufactures.....	1909	44	546	41	30	475	2	258	52	206	223	681	468
	1904	<sup>2</sup> 74	339	77	12	250		190	10	130	142	420	278
	1899	<sup>2</sup> 76	270	76	8	186		120	0	87	119	348	229
All other industries.....	1909	227	7,648	166	1,187	6,295	13,503	25,335	1,459	3,264	13,811	22,751	8,940
	1904	202	6,164	157	858	5,149		16,496	860	2,447	8,422	15,040	6,618
	1899	182			493	4,554		12,949	453	1,946	5,211	10,100	4,889
<b>SOUTH BEND—All industries.</b>													
	1909	218	13,609	156	1,664	11,789	16,280	\$41,467	\$1,612	\$5,886	\$15,253	\$27,855	\$12,602
	1904	186	9,905	128	780	8,997		26,137	848	3,978	8,170	15,179	7,009
	1899	131			521	7,678		17,826	566	3,138	6,841	12,960	6,119
Bread and other bakery products.....	1909	23	149	23	19	107	104	142	10	55	259	334	75
	1904	14	54	14		40		53		23	107	161	55
	1899	12				39		45		15	64	105	41
Carriages and wagons and materials.....	1909	7	3,370	2	302	2,976	3,447	17,442	571	1,542	3,829	7,225	3,396
	1904	7	2,957	2	254	2,701		15,176	272	1,236	2,997	4,934	1,937
	1899	<sup>2</sup> 10			166	2,251		11,914	201	973	1,627	3,494	1,867
Confectionery.....	1909	7	67	6	15	46	20	17	9	19	67	140	73
	1904	5	40	6	1	33		9	1	13	36	71	35
	1899												
Flour-mill and gristmill products.....	1909	4	21	5	6	10	200	60	3	6	86	109	23
	1904	4	23	6	6	11		43	1	6	117	129	12
	1899	3	20	3	3	14		136	2	7	239	271	32
Foundry and machine-shop products...	1909	20	564	10	81	473	672	930	92	255	331	832	551
	1904	12	243	8	30	205		316	24	100	90	290	200
	1899	<sup>2</sup> 10			27	302		455	19	133	1,193	1,532	339
Leather goods.....	1909	6	156	6	22	128	25	702	28	70	375	572	197
	1904	3	14	4		10		21		5	16	29	13
	1899												
Lumber and timber products.....	1909	8	189		22	167	418	539	22	110	381	588	207
	1904	<sup>2</sup> 6	110	6	18	96		304	20	45	153	268	115
	1899	<sup>2</sup> 7			14	89		143	12	37	141	242	101
Patent medicines and compounds and druggists' preparations.	1909	13	117	11	69	37	20	122	41	12	42	228	186
	1904	10	114	4	14	96		87	17	42	46	241	195
	1899	<sup>2</sup> 8			41	61		73	21	25	23	183	160
Printing and publishing.....	1909	21	336	20	53	263	237	379	61	157	155	468	313
	1904	<sup>2</sup> 16	180	17	28	144		257	20	82	58	245	187
	1899	<sup>2</sup> 12	143	15	19	109		131	18	51	53	159	156
Tobacco manufactures.....	1909	25	301	25	17	259	19	240	19	106	164	423	259
	1904	22	466	25	24	417		185	24	111	203	457	253
	1899	12			7	262		94	11	74	117	293	176
All other industries.....	1909	84	8,339	48	968	7,323	11,118	20,894	756	3,554	9,564	16,886	7,322
	1904	57	5,695	36	405	5,254		9,681	460	2,315	4,347	8,354	4,007
	1899	57			244	4,551		4,835	282	1,821	3,384	6,681	3,247
<b>TERRE HAUTE—All industries.</b>													
	1909	170	5,159	142	658	4,369	10,460	\$10,371	\$701	\$2,518	\$8,657	\$21,793	\$13,136
	1904	178	4,594	177	373	4,044		7,391	383	2,134	7,647	18,008	10,361
	1899	143			328	4,679		8,454	335	1,953	7,369	26,296	18,927
Bread and other bakery products.....	1909	20	248	18	27	203	112	255	21	98	431	741	310
	1904	17	137	16	7	114		329	8	52	268	457	189
	1899	8	91	7	20	64		158	12	26	114	226	112
Clothing, men's, including shirts.....	1909	3	490	4	68	418	85	615	80	136	640	941	301
	1904	4	424	8	64	352		398	40	113	673	899	226
	1899	<sup>2</sup> 4	830	6	34	790		357	35	187	536	826	290
Copper, tin, and sheet-iron products....	1909	5	94		18	76	85	135	25	45	318	444	126
	1904	4	32	1	5	28		35	4	14	35	64	29
Flour-mill and gristmill products.....	1909	6	142	4	17	121	1,377	731	24	65	1,819	2,015	196
	1904	9	99	9	11	79		339	13	39	1,068	1,162	94
	1899	6			11	125		1,015	11	61	1,172	1,358	186
Foundry and machine-shop products...	1909	11	233	7	35	191	464	361	38	113	221	428	207
	1904	<sup>2</sup> 13	236	12	23	201		352	26	111	187	426	239
	1899	12	239	10	22	207		299	24	97	182	404	222
Lumber and timber products.....	1909	6	124	4	14	106	372	125	14	57	66	200	134
	1904	<sup>2</sup> 7	153	8	6	139		127	5	69	78	197	119
	1899												

<sup>1</sup> Not reported separately.<sup>2</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.<sup>3</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.<sup>4</sup> 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.<sup>5</sup> Figures can not be shown without disclosing individual operations.

MANUFACTURES—INDIANA.

327

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employes.	Wage earners (average number).							
Expressed in thousands.													
TERRE HAUTE—Continued.													
Printing and publishing.....	1909	19	350	15	199	206	340	\$432	\$95	\$169	\$162	\$592	\$430
	1904	20	278	18	78	182	.....	370	70	112	109	474	365
	1899	15	210	14	45	157	.....	159	30	73	64	304	240
Tobacco manufactures.....	1909	22	40	22	.....	18	2	14	.....	9	20	54	84
	1904	17	66	20	2	44	.....	18	1	24	30	82	62
	1899	20	57	22	1	34	.....	20	1	14	27	71	44
All other industries.....	1909	78	3,438	68	350	3,020	7,623	7,703	404	1,826	4,980	16,378	11,398
	1904	87	3,160	85	177	2,907	.....	5,423	216	1,600	5,199	14,247	9,048
	1899	78	.....	.....	103	3,302	.....	6,437	222	1,496	5,274	23,107	17,833

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

Anderson.....	1909	116	5,109	89	627	4,393	12,981	\$10,728	\$597	\$2,104	\$8,127	\$13,765	\$5,638
	1904	102	3,491	80	332	3,079	.....	6,649	312	1,531	4,800	8,181	3,321
	1899	96	.....	.....	244	3,537	.....	5,080	245	1,844	4,440	8,296	3,856
East Chicago.....	1909	10	2,568	6	102	2,370	7,017	4,614	247	1,285	3,060	5,483	2,423
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elkhart.....	1909	69	3,508	51	447	3,010	4,023	5,478	612	1,534	3,021	6,932	3,911
	1904	53	2,602	30	301	2,265	.....	3,201	281	1,037	2,016	4,345	2,329
	1899	57	.....	.....	219	2,123	.....	2,790	107	1,012	1,632	3,933	2,051
Elwood.....	1909	37	2,361	30	168	2,073	6,122	4,572	227	1,369	6,246	8,408	2,169
	1904	32	1,895	27	89	1,779	.....	3,303	79	1,011	4,396	6,111	1,715
	1899	46	.....	.....	102	2,745	.....	4,362	112	1,665	6,755	9,434	2,079
Hammond.....	1909	49	4,370	33	505	3,841	7,348	16,271	614	1,861	6,651	15,580	8,929
	1904	38	1,702	26	128	1,548	.....	5,075	213	879	2,545	7,671	5,126
	1899	21	.....	.....	290	2,683	.....	6,301	331	1,237	20,202	25,071	4,869
Huntington.....	1909	33	1,575	24	175	1,370	1,400	1,302	175	623	1,130	2,223	1,098
	1904	36	1,475	34	130	1,311	.....	1,077	97	605	1,096	2,081	985
	1899	30	.....	.....	69	1,240	.....	902	48	524	907	1,725	763
Jeffersonville.....	1909	35	610	29	124	766	3,422	2,682	152	437	1,083	1,916	833
	1904	33	1,598	34	72	1,492	.....	2,487	74	816	2,827	4,526	1,099
	1899	34	.....	.....	68	1,516	.....	2,451	110	778	2,436	3,772	1,336
Kokomo.....	1909	72	2,366	52	263	2,051	3,955	3,921	294	1,075	2,082	5,451	2,469
	1904	61	2,131	52	162	1,617	.....	3,384	157	906	1,594	3,651	2,067
	1899	62	.....	.....	90	1,355	.....	2,206	83	528	1,010	2,062	1,062
Lafayette.....	1909	69	1,683	32	261	1,600	3,528	3,914	281	919	3,440	5,542	2,096
	1904	80	2,097	49	202	1,786	.....	3,617	204	834	2,703	4,631	1,923
	1899	55	.....	.....	266	1,343	.....	2,880	240	573	1,990	3,514	1,524
Laporte.....	1909	41	1,900	26	260	1,674	3,373	5,872	323	765	1,813	3,972	2,159
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Logansport.....	1909	68	2,412	75	168	2,100	2,338	2,004	162	1,237	1,982	4,201	2,219
	1904	61	1,676	72	184	1,720	.....	1,920	149	569	1,691	2,956	1,306
	1899	68	.....	.....	70	1,316	.....	1,646	51	588	1,026	2,100	1,074
Marion.....	1909	80	2,610	64	277	2,209	6,200	3,934	271	1,182	2,324	4,442	2,118
	1904	96	2,507	61	107	2,219	.....	3,466	203	1,120	1,738	4,034	2,296
	1899	81	.....	.....	173	2,843	.....	3,316	154	1,337	2,200	4,593	2,393
Michigan City.....	1909	48	3,123	40	196	2,887	5,900	8,890	312	1,263	5,304	8,290	2,926
	1904	52	3,314	44	130	3,140	.....	4,293	149	1,453	3,980	6,314	2,334
	1899	41	.....	.....	91	2,012	.....	4,215	104	1,033	3,961	6,032	2,071
Mishawaka.....	1909	42	3,034	22	467	3,445	7,610	14,224	810	1,748	5,270	10,833	5,613
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Muncie.....	1909	102	4,444	83	328	4,033	7,504	6,627	350	2,126	5,474	9,684	4,210
	1904	97	3,106	93	158	2,855	.....	4,400	170	1,400	3,320	5,891	2,571
	1899	90	.....	.....	173	3,848	.....	3,613	210	1,958	3,848	7,042	3,164
New Albany.....	1909	95	2,135	80	145	1,610	3,954	3,566	166	724	1,886	3,493	1,607
	1904	93	2,444	83	121	2,240	.....	2,491	125	996	2,041	3,835	1,704
	1899	95	.....	.....	104	2,137	.....	2,798	104	732	2,116	3,638	1,522
Peru.....	1909	31	692	40	33	619	2,013	1,654	39	276	482	1,097	615
	1904	43	1,019	54	53	912	.....	1,344	43	333	625	1,343	718
	1899	39	.....	.....	40	1,136	.....	1,050	45	422	671	1,338	667
Richmond.....	1909	107	4,433	80	732	3,621	5,087	13,139	676	1,834	5,118	10,374	5,256
	1904	98	3,483	65	448	2,970	.....	9,508	478	1,381	3,001	6,732	3,731
	1899	88	.....	.....	345	2,688	.....	5,044	322	1,183	2,281	4,754	2,523
Vincennes.....	1909	84	1,461	72	156	1,233	5,044	3,560	166	669	2,416	4,284	1,818
	1904	92	1,523	56	118	1,354	.....	2,102	101	600	1,741	3,029	1,288
	1899	48	.....	.....	69	906	.....	1,455	55	344	941	1,979	1,038

<sup>1</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

<sup>2</sup> Statistics for Gary can not be shown without disclosing individual operations.

<sup>3</sup> 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.

<sup>4</sup> Figures not available.

MANUFACTURES—INDIANA.

TABLE II.—DETAIL STATEMENT FOR

INDUSTRY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, supts. and managers.	Clerks.		Average number.	Wage earners.		Total.	16 and over.		Under 16.				
					Male.	Female.		Maximum month.	Minimum month.		Male.	Female.	Male.	Female.			
															Number.		
1 All industries.....	7,969	218,263	7,674	6,846	12,801	3,958	186,984	Oc 201,481	Ja 172,475	(1)	(1)	(1)	(1)	(1)	639,377		
2 Agricultural implements.....	39	6,061	30	208	948	126	4,749	De 5,310	Ja 4,330	5,503	5,333	142	28	.....	9,254		
3 Artificial stone.....	219	807	284	30	19	6	468	Au 638	Ja 173	644	640	.....	4	.....	495		
4 Automobiles, including bodies and parts.....	67	7,753	36	182	552	186	6,797	De 8,825	Ja 5,488	8,949	8,873	40	36	.....	5,813		
5 Baking powders and yeast.....	8	111	6	8	14	6	77	Ap 82	Au 74	78	37	39	2	.....	177		
6 Baskets, and rattan and willow ware.....	9	379	5	14	6	4	350	Se 426	Ja 287	342	222	109	6	5	524		
7 Belting and hose, leather.....	3	45	2	3	21	4	15	Je 20	Ja 12	16	14	.....	2	.....	40		
8 Bleaching and cleansing and polishing preparations.....	10	97	11	10	20	5	51	Se 2	Fe 45	55	29	26	.....	.....	84		
9 Boots and shoes, including cut stock and findings.....	8	524	4	22	49	13	436	No 505	Mh 360	496	344	128	13	11	393		
10 Boxes, cigar.....	6	76	6	5	.....	1	64	Oc 70	Mh 61	69	24	45	.....	.....	83		
11 Boxes, fancy and paper.....	13	609	9	25	9	16	550	No 596	Jy 523	592	233	323	6	30	351		
12 Brass and bronze products.....	21	534	18	26	10	12	468	De 664	Ja 350	668	663	.....	5	.....	503		
13 Bread and other bakery products.....	754	3,780	854	60	254	107	2,505	Se 2,601	Ja 2,368	2,595	2,059	455	41	40	2,124		
14 Brick and tile.....	311	4,361	336	165	55	17	3,788	Je 4,703	Ja 2,173	4,753	4,649	.....	103	1	19,881		
15 Brooms.....	44	480	47	17	14	5	397	De 424	Au 376	427	299	71	46	11	350		
16 Butter, cheese, and condensed milk.....	132	807	116	130	37	36	488	Jy 527	Ja 441	507	477	20	1	.....	1,858		
17 Buttons.....	5	181	7	2	1	1	170	No 186	Ap 144	184	148	36	.....	.....	88		
18 Canning and preserving.....	134	3,952	60	103	262	61	3,406	Se 11,600	Ja 759	7,490	3,197	4,060	126	107	6,998		
19 Carpets, rag.....	17	112	20	4	6	2	80	Je 95	Fe 57	72	40	20	1	2	124		
20 Carriages and wagons and materials.....	221	10,100	211	276	516	230	8,807	Mh 9,429	Oc 8,283	8,974	8,597	272	105	.....	13,790		
21 Cars and general shop construction and repairs by steam-railroad companies.....	34	13,745	.....	194	651	16	12,884	De 13,935	My 12,223	14,241	14,215	18	8	.....	13,550		
22 Cars and general shop construction and repairs by street-railroad companies.....	30	784	.....	40	28	3	713	Oc 745	Ja 668	747	744	3	.....	.....	713		
23 Cars, steam-railroad, not including operations of railroad companies.....	7	4,449	.....	98	260	7	4,084	No 5,932	Je 2,018	5,607	5,582	3	22	.....	10,699		
24 Cement.....	11	2,616	.....	35	220	43	2,318	Ap 2,464	Mh 2,151	2,312	2,303	3	6	.....	28,191		
25 Clothing, men's, including shirts.....	42	4,444	23	66	193	39	4,073	Oc 4,373	Ja 3,801	4,347	589	3,619	17	122	784		
26 Clothing, women's.....	18	1,403	15	28	44	25	1,291	Mh 1,424	Au 1,172	1,366	118	1,217	.....	31	196		
27 Coffins, burial cases, and undertakers' goods.....	19	824	7	39	87	22	669	Ap 1,690	Au 626	684	504	180	.....	.....	1,249		
28 Confectionery.....	64	1,184	62	33	112	42	885	No 1,180	Jy 701	1,058	375	653	2	28	624		
29 Cooperage and wooden goods, not elsewhere specified.....	57	1,016	49	40	29	7	891	Fe 975	Jy 749	951	938	3	10	.....	2,441		
30 Copper, tin, and sheet-iron products.....	146	2,485	147	83	67	67	2,121	Se 2,373	Ja 1,759	2,076	1,633	390	14	34	1,637		
31 Cotton goods, including cotton small wares.....	7	1,621	.....	24	12	3	1,582	Fe 1,636	De 1,518	1,522	438	957	43	84	5,315		
32 Cutlery and tools, not elsewhere specified.....	24	639	16	29	14	8	572	De 620	Ja 540	636	624	7	4	1	1,763		
33 Dairymen's, pouterers', and apiarists' supplies.....	15	195	7	21	6	11	150	Ap 198	Au 101	210	195	5	10	.....	300		
34 Electrical machinery, apparatus, and supplies.....	42	3,723	25	135	347	143	3,073	Oc 3,598	Ja 2,691	3,490	2,413	1,045	20	12	5,285		
35 Electroplating.....	12	59	15	3	.....	1	40	No 47	Ap 84	43	41	.....	2	.....	99		
36 Fancy articles, not elsewhere specified.....	4	59	8	3	2	4	42	De 58	Ja 33	43	20	17	.....	.....	38		
37 Flour-mill and gristmill products.....	503	3,503	703	225	192	90	2,293	Se 2,516	My 2,057	2,565	2,537	10	12	.....	38,608		
38 Foundry and machine-shop products.....	415	18,439	301	774	1,195	360	15,809	De 18,110	Ja 14,579	18,297	17,795	374	123	5	29,102		
39 Fur goods.....	8	45	5	1	2	29	De 49	Ap 16	48	18	30	.....	.....	.....	13		
40 Furnishing goods, men's.....	30	1,441	35	35	48	21	1,302	De 1,385	Ja 1,124	1,475	98	1,340	9	23	520		
41 Furniture and refrigerators.....	201	12,352	83	438	348	199	11,284	No 11,837	Jy 10,592	12,033	11,450	329	253	1	20,449		
42 Gas and electric fixtures and lamps and reflectors.....	12	401	3	25	13	13	342	De 423	Mj 269	422	376	53	11	2	558		
43 Gas, illuminating and heating.....	53	1,390	9	101	274	78	928	Je 1,012	Ja 799	974	973	1	.....	.....	5,845		
44 Glass.....	44	9,936	3	167	147	75	9,544	De 11,731	Jy 5,867	12,031	10,766	650	573	42	21,031		
45 Gloves and mittens, leather.....	3	163	3	3	3	1	153	Ja 175	Oc 123	140	51	95	.....	.....	44		
46 Glucose and starch.....	4	944	6	22	39	11	806	Fe 966	Au 749	837	779	105	.....	3	3,070		
47 Hand stamps and stencils and brands.....	9	43	10	3	1	1	28	Se 34	Mh 25	29	29	.....	.....	.....	20		
48 Hones and whetstones.....	4	13	4	.....	.....	.....	9	Jy 13	Mh 6	15	15	.....	.....	.....	68		
49 Hosiery and knit goods.....	5	2,032	.....	16	59	24	1,933	No 2,100	Ja 1,782	2,094	550	1,140	186	218	1,393		
50 Ice, manufactured.....	85	765	62	86	33	21	593	Au 812	Ja 315	495	492	2	1	.....	7,726		
51 Iron and steel, steel works and rolling mills.....	17	13,206	.....	129	763	59	12,255	De 14,806	Ja 10,268	14,832	14,804	.....	28	.....	111,806		
52 Jewelry.....	9	51	10	2	.....	4	35	Ja 38	No 33	36	36	.....	.....	.....	33		
53 Leather goods.....	118	1,582	140	64	100	38	1,240	Mh 1,263	No 1,217	1,271	1,093	161	12	5	3,542		
54 Leather, tanned, curried, and finished.....	10	440	5	17	14	6	398	Au 439	Mh 373	393	382	1	.....	.....	1,028		
55 Lime.....	10	473	4	14	9	6	440	Au 494	Ja 371	415	415	.....	.....	.....	890		
56 Liquors, distilled.....	14	527	20	30	45	4	423	De 541	Mj 370	538	537	1	.....	.....	2,820		
57 Liquors, malt.....	37	1,923	16	117	188	8	1,594	Jy 1,872	Mh 1,424	1,493	1,427	13	42	11	11,882		
58 Lumber and timber products.....	1,277	12,840	1,540	519	346	118	10,317	Oc 10,835	Ja 9,462	12,132	11,809	148	165	10	57,243		
59 Marble and stone work.....	200	3,811	209	167	135	17	3,283	Au 3,905	Ja 2,310	3,077	3,067	2	8	.....	17,143		
60 Mattresses and spring beds.....	27	644	18	22	30	21	553	Oc 607	Jy 498	606	446	133	24	3	791		
61 Millinery and lace goods.....	7	198	5	6	15	6	166	Mh 256	Je 59	190	25	165	.....	.....	23		
62 Mirrors.....	7	118	7	5	.....	2	104	De 111	Ja 97	113	113	.....	.....	.....	223		
63 Models and patterns, not including paper patterns.....	14	80	20	3	1	2	54	De 69	Je 37	56	52	2	2	.....	70		

1 No figures given for reasons explained in the Introduction.

MANUFACTURES—INDIANA.

329

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 \$508,717,197	\$525,060,079	\$12,429,228	\$13,875,447	\$95,510,618	\$17,376,845	\$316,997,908	\$1,286,365	\$28,893,427	\$2,145,858	\$36,544,385	\$679,075,046	\$244,700,283
2 23,008,107	11,064,993	380,563	815,541	2,504,517	215,382	4,648,433	4,122	95,162	50	2,341,223	13,669,824	8,806,009
3 652,102	605,011	23,447	9,046	229,625	6,656	293,783	0,466	3,933	7,163	27,892	850,511	550,072
4 16,721,693	22,012,580	339,562	480,130	4,130,674	114,003	14,880,806	41,582	34,022	32,382	1,009,359	23,764,070	8,769,201
5 181,265	245,925	13,275	24,233	33,300	8,089	143,278	4,607	183	41	17,893	276,659	124,692
6 202,972	249,430	16,810	5,352	102,781	2,431	80,041	36	1,596	.....	40,383	272,946	190,474
7 93,175	145,406	2,533	7,740	10,473	863	112,932	600	495	.....	0,704	156,287	42,472
8 86,535	241,663	8,900	17,802	22,067	1,771	101,486	3,311	590	.....	85,736	294,732	191,475
9 738,226	974,658	20,075	52,540	158,907	12,046	652,297	2,178	4,068	45	63,412	977,934	313,591
10 69,195	72,556	4,388	304	23,583	1,526	39,011	1,288	469	1,111	816	88,726	48,189
11 623,775	701,664	34,768	12,907	178,709	14,426	408,015	4,530	3,707	.....	41,813	781,558	359,117
12 878,056	1,220,542	82,189	17,206	292,237	20,758	753,478	3,179	2,836	.....	48,659	1,378,855	604,019
13 6,043,864	8,639,731	95,104	243,141	1,314,755	187,248	6,038,976	111,507	33,877	2,574	612,490	10,209,069	3,982,843
14 7,455,305	3,871,916	198,486	52,280	1,834,927	832,182	473,405	25,405	43,053	85,888	328,290	4,718,923	3,413,335
15 606,461	683,300	25,230	9,442	150,953	6,343	401,519	1,346	3,116	.....	25,351	778,070	311,108
16 1,042,271	3,677,566	52,381	33,001	261,879	38,756	3,157,375	4,238	6,920	6,402	116,614	3,958,600	762,460
17 85,139	93,261	1,986	552	60,584	1,713	26,220	300	192	.....	1,714	110,796	88,863
18 5,571,578	7,934,999	184,710	330,489	878,619	73,833	5,870,523	9,212	31,117	2,211	553,974	8,758,343	2,813,682
19 43,066	55,707	3,124	5,931	24,109	3,301	14,603	1,872	424	70	2,193	73,868	55,054
20 29,110,185	19,437,036	695,411	599,827	4,354,654	207,322	12,250,401	23,548	103,075	10,607	1,193,061	21,655,440	9,197,717
21 9,941,674	17,127,247	258,788	528,207	8,080,810	367,755	7,507,918	212	39,123	69,978	274,390	17,127,546	9,251,873
22 1,085,158	1,085,905	37,715	18,156	440,492	16,560	544,348	150	7,048	379	12,057	1,099,809	538,901
23 14,883,890	9,375,344	280,205	224,710	1,091,361	374,442	5,935,029	.....	45,083	.....	524,514	9,497,564	3,188,093
24 7,270,855	6,454,003	98,839	218,981	1,280,305	1,428,074	2,729,804	130,680	30,919	7,835	518,776	7,021,848	2,863,180
25 4,616,831	7,204,851	103,451	292,524	1,805,260	35,300	4,013,975	36,778	10,555	244,805	553,233	8,028,798	3,376,523
26 851,363	1,772,240	61,585	79,812	449,369	10,394	1,040,476	20,440	3,445	.....	100,515	2,057,635	1,000,555
27 1,494,143	1,320,395	72,022	90,777	313,378	17,690	683,039	910	9,790	776	132,004	1,447,930	747,192
28 949,300	2,218,267	49,030	130,309	298,215	20,135	1,496,528	54,594	5,149	7,721	150,580	2,558,238	1,035,575
29 1,476,406	2,070,162	55,139	18,670	381,579	18,352	1,480,363	2,825	8,122	3,900	101,506	2,397,558	898,843
30 6,813,572	5,201,705	141,835	121,013	1,004,920	75,010	3,355,711	27,089	10,155	5,028	394,844	5,768,453	2,832,782
31 2,478,185	2,424,187	91,670	18,156	478,443	51,361	1,618,636	1,200	14,249	.....	155,472	2,501,598	851,601
32 1,296,591	832,452	47,954	13,757	305,278	28,224	374,701	1,831	6,400	944	53,363	932,950	530,025
33 359,200	251,702	18,767	7,448	74,240	5,760	107,846	1,025	2,463	3,370	30,765	286,904	173,289
34 6,856,728	6,439,218	220,050	386,537	1,360,940	80,799	3,003,615	10,947	25,044	40,805	691,311	7,717,642	4,024,258
35 26,308	48,089	3,000	312	25,568	2,002	10,796	2,652	146	.....	3,613	64,349	51,551
36 83,098	44,301	3,000	2,761	23,838	514	5,731	1,900	150	.....	5,559	45,024	41,779
37 15,857,454	37,076,027	272,541	201,292	1,210,405	367,893	34,638,914	15,623	103,612	31,171	839,576	40,541,422	5,539,615
38 89,711,498	86,221,238	1,530,404	1,365,227	8,859,769	740,048	17,378,040	63,700	104,635	213,329	4,418,480	39,833,774	21,255,086
39 42,803	82,327	8,420	948	15,023	510	40,133	3,704	227	.....	3,753	97,756	48,104
40 744,503	1,741,085	39,465	53,897	330,430	14,324	1,219,530	10,340	2,266	5,713	65,120	1,807,172	573,313
41 16,536,856	16,525,853	712,907	382,238	5,137,301	210,569	8,248,558	32,312	102,917	20,196	1,077,855	18,456,309	9,996,272
42 713,885	571,243	41,336	21,442	151,590	9,007	274,972	2,550	3,921	.....	65,755	620,426	335,787
43 23,550,122	2,313,572	162,488	193,987	508,318	840,317	261,003	1	88,584	12,654	245,620	3,147,305	2,045,335
44 13,148,780	11,083,028	326,510	199,626	4,941,599	608,149	3,729,354	10,000	44,530	6,595	826,665	11,593,094	6,865,591
45 199,607	220,724	2,629	2,171	47,788	1,317	159,238	600	750	.....	15,231	225,287	73,732
46 4,264,995	5,552,414	67,797	63,088	479,621	192,361	4,489,259	.....	20,172	.....	250,116	5,749,976	1,068,356
47 18,220	37,969	2,820	400	12,958	508	17,278	1,872	132	.....	2,001	53,586	35,800
48 5,900	7,143	.....	4,089	390	2,550	2,550	.....	74	.....	240	11,100	8,360
49 2,405,786	1,006,913	73,562	104,400	686,755	20,420	894,204	881	0,743	.....	116,930	2,381,219	1,466,586
50 3,318,406	961,914	84,105	24,469	304,197	213,131	112,675	5,810	24,098	19,771	173,658	1,310,555	984,750
51 47,781,258	38,910,092	392,133	712,154	8,389,707	2,339,004	23,759,155	.....	84,213	.....	1,233,096	38,651,848	12,553,089
52 35,423	57,559	4,680	1,342	21,995	616	32,973	3,316	174	.....	1,463	75,804	51,215
53 3,107,508	3,018,357	89,749	92,609	526,087	25,770	1,076,062	31,760	15,497	1,500	257,814	3,405,671	1,403,230
54 2,212,874	2,097,171	35,835	18,867	204,540	21,842	1,601,218	14,338	6,211	.....	104,814	2,311,299	598,739
55 770,148	419,864	25,540	10,200	174,610	91,181	90,517	201	3,004	1,567	25,044	446,548	264,834
56 5,556,432	30,780,128	113,105	60,261	269,103	181,077	4,530,490	.....	25,134,774	.....	491,300	31,610,468	26,898,892
57 10,571,400	7,087,699	334,470	215,158	1,018,854	230,331	1,758,939	4,110	1,315,608	.....	2,210,229	8,313,224	6,323,954
58 19,177,421	19,351,788	650,505	314,552	4,492,047	166,011	12,215,417	42,830	120,599	242,244	1,106,983	23,135,924	10,752,996
59 7,441,079	4,541,753	275,675	141,448	1,042,820	201,871	1,558,036	9,379	28,141	107,705	276,588	5,756,247	3,996,340
60 1,455,869	1,153,435	40,820	40,444	257,103	13,536	977,115	4,820	9,444	493	109,651	1,266,785	596,134
61 182,261	453,660	17,000	18,221	50,173	2,117	329,043	6,755	1,023	.....	20,228	533,116	206,966
62 118,081	303,161	10,400	1,300	52,352	3,207	214,665	1,344	865	.....	19,128	324,233	108,461
63 43,753	74,765	4,050	1,362	41,837	1,265	19,978	1,817	219	1,253	2,984	96,988	74,745

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

MANUFACTURES—INDIANA.

TABLE II.—DETAIL STATEMENT FOR THE

INDUSTRY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Average number.	Wage earners.			Total.	16 and over.		Under 16.			
					Male.	Female.		Maximum month.	Minimum month.	Male.		Female.	Male.	Female.			
															Number.		
1 Musical instruments and materials, not specified.	9	429	0	11	10	12	390	My	402	Ja	369	398	344	51	3	216	
2 Musical instruments, pianos and organs and materials.	15	1,985	4	44	231	39	1,067	My	1,738	Jy	1,613	1,753	1,639	64		2,650	
3 Oil, essential.	8	25	10				15	My	43	Ja <sup>1</sup>	0	20	20			60	
4 Optical goods.	7	32	7	2			21	No <sup>2</sup>	22	Je	18	22	20	2		24	
5 Paint and varnish.	18	297	4	31	52	10	200	Jy	235	Ja	174	203	197	6		521	
6 Paper and wood pulp.	27	1,627	7	56	44	19	1,501	De	1,661	My	1,402	1,668	1,577	85	4	2	
7 Paper goods, not elsewhere specified.	8	816	5	14	62	16	719	De	773	Jy	660	777	488	238		835	
8 Patent medicines and compounds and druggists' preparations.	113	1,481	96	85	305	194	801	Ja	842	Jy	756	829	387	434	7	1	
9 Photo-engraving.	4	97	1	7	15	9	65	De	77	Mh	58	77	71		6	36	
10 Pottery, terra-cotta, and fire-clay products.	31	2,373	16	71	75	25	2,186	De	2,353	Fe	2,045	2,422	2,030	353	25	14	
11 Printing and publishing.	892	9,600	865	447	1,021	511	6,756	Oc.	6,889	Jy	6,610	6,930	4,858	1,919	141	12	
12 Rubber goods, not elsewhere specified.	11	921	4	24	79	27	787	De	1,023	Mh	575	1,037	976	61		5,276	
13 Scales and balances.	8	357	1	16	35	39	266	De	312	Ja	195	301	293	8		200	
14 Shipbuilding, wooden, including boat building.	15	283	13	10	5	2	253	Au	308	Ja	174	259	259			785	
15 Show cases.	5	56	4	3	1	1	47	Ap <sup>2</sup>	49	Au <sup>2</sup>	45	40	45	1		69	
16 Signs and advertising novelties.	5	105		9	4	8	84	Mh	88	Oc <sup>2</sup>	82	85	54	31		8	
17 Slaughtering and meat packing.	61	4,862	64	72	280	23	4,423	De	4,884	My	3,938	4,888	4,513	290	30	5	
18 Steam packing.	6	202		11	17	13	161	Je	201	Mh	119	202	187	15		900	
19 Stereotyping and electrotyping.	7	115	7	8	13	6	81	Oc	89	Au <sup>2</sup>	77	86	85	1		145	
20 Stoves and furnaces, including gas and oil stoves.	24	1,609	11	67	131	38	1,362	No	1,556	Jy	1,105	1,463	1,465		8	1,704	
21 Surgical appliances and artificial limbs.	7	23	6		5		12	Fe	13	Ja	11	12	12			12	
22 Tobacco manufactures.	470	3,416	507	50	51	14	2,794	De	3,013	Ja	2,668	3,040	1,434	1,459	35	121	
23 Wall plaster.	6	34		7	4	3	20	Je	27	No	14	20	20			180	
24 Wirework, including wire rope and cable.	31	834	18	37	45	45	689	Mh	841	Ag	516	680	655	10	15	1,182	
25 Woolen, worsted, and felt goods, and wool hats.	11	825	12	23	12	2	776	Jy	830	Ja	727	810	344	431	12	23	
26 All other industries <sup>3</sup> .	428	18,529	346	525	1,435	384	15,839									97,531	

<sup>1</sup> None reported for one or more other months.  
<sup>2</sup> Same number reported for one or more other months.  
<sup>3</sup> All other industries embrace—

Awnings, tents, and sails.	9	Cordage and twine and jute and linen goods.	2	Foundry supplies.	2
Bags, other than paper.	1	Cordials and syrups.	1	Galvanizing.	1
Bags, paper.	2	Corsets.	1	Glass, cutting, staining, and ornamenting.	9
Bicycles, motorcycles, and parts.	2	Dentists' materials.	1	Glue.	2
Bluing.	1	Dyeing and finishing textiles.	2	Grease and tallow.	10
Boots and shoes, rubber.	1	Dyestuffs and extracts.	1	Hair work.	2
Brushes.	3	Emery and other abrasive wheels.	2	Hats and caps, other than felt, straw, and wool.	2
Calcium lights.	2	Engraving and diesinking.	2	Hats, fur-felt.	1
Card cutting and designing.	2	Engraving, wood.	1	House-furnishing goods, not elsewhere specified.	6
Carpets and rugs, other than rag.	1	Explosives.	3	Ink, printing.	1
Carriages and sleds, children's.	8	Fertilizers.	15	Ink, writing.	1
Charcoal.	1	Files.	1	Instruments, professional and scientific.	2
Chemicals.	4	Fire extinguishers, chemical.	1	Iron and steel, blast furnaces.	2
Clocks and watches, including cases and materials.	2	Fireworks.	1	Iron and steel, bolts, nuts, washers, and rivets, not made in steel works or rolling mills.	3
Coffee and spice, roasting and grinding.	9	Flavoring extracts.	2	Iron and steel forgings.	8
Coke.	1	Food preparations.	17		



MANUFACTURES—INDIANA.

STATE, BY INDUSTRIES: 1909—Continued.

	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	\$603,040	\$562,454	\$110,394	\$12,756	\$208,479	\$7,084	\$100,046	\$1,725	\$2,481	.....	\$118,889	\$510,081	\$502,361
2	4,269,782	3,522,884	121,600	340,265	993,609	44,158	1,658,881	5,391	12,170	\$300	346,504	3,085,962	1,982,923
3	85,570	11,032	.....	.....	4,750	532	1,320	1,370	298	20	2,742	20,570	18,718
4	20,488	55,195	5,000	610	16,918	373	23,226	1,925	182	.....	6,955	78,850	55,251
5	840,783	991,465	52,822	58,703	74,229	10,184	672,801	8,404	5,783	267	108,152	1,107,805	424,760
6	7,131,771	4,372,964	118,046	55,161	753,755	408,737	3,088,408	13,153	22,015	24,925	388,164	5,202,330	1,705,185
7	3,402,575	1,703,630	28,551	93,704	258,101	26,611	1,106,055	4,197	5,214	16	92,221	1,886,834	663,208
8	2,857,563	3,589,553	166,651	418,151	354,318	17,575	1,442,044	16,532	16,149	10,966	1,147,107	4,344,358	2,884,739
9	139,265	150,040	11,502	12,727	62,020	2,742	35,872	2,892	512	7,535	14,232	154,920	116,306
10	4,805,630	2,566,674	125,695	87,115	1,189,598	339,413	519,611	145	19,101	2,513	283,483	2,965,768	2,106,744
11	11,843,923	11,640,247	609,048	680,380	3,522,450	198,531	3,826,009	234,990	69,866	552,921	1,585,162	14,356,376	10,381,836
12	3,965,318	4,008,229	68,101	98,704	410,455	52,580	2,855,250	686	13,603	.....	508,700	4,312,650	1,404,820
13	985,040	696,379	30,998	87,187	163,131	6,038	202,265	2,340	1,779	677	201,004	877,258	668,895
14	484,169	387,997	15,016	5,210	106,205	4,780	235,376	192	2,686	.....	15,492	374,511	181,355
15	42,727	70,392	4,600	988	20,234	1,409	31,214	2,435	213	.....	3,299	79,189	46,566
16	119,129	184,704	11,020	7,809	56,760	1,391	59,616	1,650	583	13,841	31,434	196,455	135,448
17	8,057,732	45,929,846	185,508	504,626	2,160,644	205,108	41,780,866	26,149	84,963	6,469	975,513	47,289,469	5,303,496
18	535,573	420,533	19,900	32,387	80,198	44,346	189,748	720	1,181	1,660	50,403	470,884	236,790
19	92,847	163,982	11,000	11,637	67,152	5,634	61,131	3,690	601	.....	13,437	175,082	118,017
20	2,853,475	2,403,630	138,080	139,067	722,737	36,909	983,896	9,721	17,391	11,413	434,416	2,751,688	1,730,233
21	16,409	32,021	.....	8,335	7,106	611	7,637	1,850	121	.....	6,861	51,474	43,226
22	1,407,716	3,675,820	68,557	71,639	1,126,422	12,001	1,577,247	44,194	430,620	405	343,775	4,155,348	2,565,140
23	55,056	117,590	5,980	3,195	10,660	2,321	81,910	1,405	341	.....	11,770	130,523	46,283
24	1,191,929	2,873,400	79,175	61,972	314,353	22,384	2,319,905	1,900	9,208	.....	64,503	3,161,083	818,794
25	1,555,245	1,541,216	59,660	11,531	293,317	30,040	1,625,643	450	10,027	12,317	98,241	1,569,965	514,282
26	78,738,404	66,779,312	1,148,791	1,675,717	7,876,844	4,607,655	46,705,085	79,177	281,080	209,458	4,015,205	75,901,362	24,493,322

\* All other industries embrace—Continued.

Iron and steel, nails and spikes, cut and wrought, including wire nails, not made in steel works or rolling mills.....	2	Photographic apparatus and materials.....	2	Toys and games.....	10
Kaolin and ground earths.....	1	Pulp goods.....	1	Type founding and printing materials.....	1
Lasts.....	1	Pumps, not including steam pumps.....	2	Umbrellas and canes.....	1
Liquors, vinous.....	1	Roofing materials.....	4	Upholstering materials.....	4
Looking-glass and picture frames.....	6	Safes and vaults.....	2	Vinegar and cider.....	6
Malt.....	2	Saws.....	4	Washing machines and clothes wringers.....	8
Matches.....	1	Sewing machines, cases, and attachments.....	3	Waste.....	1
Mineral and soda waters.....	107	Silverware and plated ware.....	2	Whips.....	3
Mucilage and paste.....	4	Smelting and refining, lead.....	1	Windmills.....	4
Oil, not elsewhere specified.....	4	Soap.....	11	Window shades and fixtures.....	2
Oilcloth and linoleum.....	1	Soda-water apparatus.....	3	Wire.....	2
Paving materials.....	3	Sporting and athletic goods.....	2	Wood preserving.....	5
Pens, fountain, stylographic, and gold.....	1	Springs, steel, car and carriage.....	1	Wood, turned and carved.....	47
Petroleum, refining.....	1	Stationery goods, not elsewhere specified.....	4	Wool pulling.....	1
		Statuary and art goods.....	2		
		Tin plate and terneplate.....	1		

MANUFACTURES—INDIANA.

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

INDUSTRY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		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.....	299	10,162	231	359	442	133	8,997	6,493	2,071	433	9,467	6,768	2,210	279	210	18,849	
2 Agricultural implements.....	5	282		18	26	4	234	24		10	268	250		12		755	
3 Bread and other bakery products.....	19	161	22	1	17	2	119	89	28	2	121	91	28			103	
4 Carriages and wagons and materials.....	13	699	9	13	17	12	648	576	62	20	641	570	51	20		1,019	
5 Confectionery.....	6	109	9	1	3	8	88	28	60		112	36	76			2	
6 Cooperage and wooden goods, not elsewhere specified.....	5	78	7	2	1		68	68			66	66				108	
7 Flour-mill and gristmill products.....	9	154	7	13	13	16	105	105			116	116				1,645	
8 Foundry and machine-shop products.....	13	495	12	20	35	8	420	411		9	434	425		9		809	
9 Furniture and refrigerators.....	26	1,569	3	64	20	15	1,468	1,382	3	73	1,566	1,485	3	78		2,997	
10 Ice, manufactured.....	3	93	1	7	11		74	74			57	57				348	
11 Leather goods.....	12	229	16	4	9	2	198	157	31	10	198	157	31	5		284	
12 Lumber and timber products.....	16	621	9	37	22	4	549	521	28		554	526		28		2,600	
13 Patent medicines and compounds and druggists' preparations.....	6	33	5	3	7	2	10	8			17	8	9			22	
14 Printing and publishing.....	27	304	18	24	53	15	254	216	32	6	264	225	33	6		286	
15 Stoves and furnaces, including gas and oil stoves.....	5	429		18	31	4	376	370		6	385	379		6		492	
16 Tobacco manufactures.....	35	1,141	38	10	12	3	1,078	124	856	98	1,216	140	965	3	108	85	
17 All other industries <sup>1</sup> .....	99	3,705	75	124	156	38	3,312	2,140	973	199	3,452	2,231	1,014	112	95	7,224	

<sup>1</sup> All other industries embrace: Artificial stone, 3; automobiles, including bodies and parts, 1; awnings, tents, and sails, 1; baking powders and yeast, 1; belting and hose, leather, 1; boxes, cigar, 1; boxes, fancy and paper, 1; brick and tile, 4; brooms, 2; brushes, 1; canning and preserving, 1; carpets, rag, 1; cars and general shop construction and repairs by street-railroad companies, 2; clothing, men's, including shirts, 4; coffins, burial cases, and undertakers' goods, 1; copper, tin, and sheet-iron products, 26; cotton goods, including cotton small wares, 2; cutlery and tools, not elsewhere specified, 2; electrical machinery, apparatus, and supplies, 1; electroplating, 2; food preparations, 1;

FORT WAYNE.

1 All industries.....	230	12,184	205	389	1,020	272	10,298	7,494	2,363	451	11,160	8,090	2,576	233	261	16,063
2 Bread and other bakery products.....	15	348	16	10	38	15	269	187	47	35	282	196	49	14	23	247
3 Carriages and wagons and materials.....	10	87	15	7	3	1	61	59	2		64	62	2			145
4 Confectionery.....	6	93	5	4	11	2	71	32	38	1	65	29	35		1	77
5 Flour-mill and gristmill products.....	5	50	9	4	8	3	31	31			33	33				430
6 Foundry and machine-shop products.....	20	2,386	8	88	336	74	1,880	1,870	1	9	1,997	1,986	1	10		3,661
7 Leather goods.....	4	26	7	3	6	3	17	16		1	20	19		1		28
8 Lumber and timber products.....	13	431	17	29	29	2	354	354			372	372				1,500
9 Marble and stone work.....	6	63	8	3	1		51	51			39	39				90
10 Patent medicines and compounds and druggists' preparations.....	10	48	13	7	2	6	20	7	13		29	10	19			20
11 Printing and publishing.....	20	444	13	23	72	23	313	255	58		320	261	59			314
12 Tobacco manufactures.....	32	255	31	13	6	7	198	172	25	1	207	180	26	1		
13 All other industries <sup>1</sup> .....	89	7,943	63	198	513	130	7,033	4,460	2,169	404	7,732	4,903	2,385	207	237	8,551

<sup>1</sup> All other industries embrace: Artificial stone, 7; automobiles, including bodies and parts, 2; awnings, tents, and sails, 1; baking powders and yeast, 1; blacking and cleansing and polishing preparations, 1; boots and shoes, including out stock and findings, 1; boxes, cigar, 1; boxes, fancy and paper, 1; brass and bronze products, 1; brooms, 3; butter, cheese, and condensed milk, 1; carpets, rag, 2; 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; clothing, women's, 3; coffee and spice, roasting and grinding, 1; cooperage and wooden goods, not elsewhere specified, 1; copper, tin, and sheet-iron products, 6; cutlery and tools, not elsewhere specified, 1; dairymen's, poultryers', and apiarists' supplies, 1; electrical machinery, apparatus, and supplies, 3; electroplating, 2; fur goods, 1; furnishing goods, men's, 3; furniture and refrigerators, 2; gas, illuminating and heating, 1; glass, cutting,

INDIANAPOLIS.

1 All industries.....	855	37,929	631	1,231	3,323	929	31,815	25,993	5,245	577	35,303	29,067	5,607	485	144	50,872
2 Agricultural implements.....	6	71	1	6	7	3	54	54			55	55				98
3 Artificial stone.....	17	97	11	10	15	4	57	57			51	51				39
4 Automobiles, including bodies and parts.....	17	2,782	9	72	231	76	2,394	2,354	22	18	3,344	3,288	31	25		2,296
5 Boxes, fancy and paper.....	3	169		9	1	4	155	88	67		170	97	73			127
6 Bread and other bakery products.....	73	859	76	22	134	31	596	430	151	15	613	442	155	5	11	587
7 Canning and preserving.....	7	935	12	14	193	27	689	472	186	31	747	512	202	25	8	785
8 Carpets, rag.....	6	69	6	3	6	2	52	25	23	4	40	19	18	1	2	54
9 Carriages and wagons and materials.....	14	1,044	11	19	75	19	920	870	50		845	799	46			964
10 Cars and general shop construction and repairs by steam-railroad companies.....	5	2,260		9	141	2	2,108	2,092	16		2,331	2,313	18			1,123
11 Clothing, men's, including shirts.....	10	1,070	3	24	94	10	1,539	316	1,222	1	1,583	325	1,257		1	330
12 Clothing, women's.....	8	503	9	11	13	11	462	30	427	5	524	34	484		6	78
13 Confectionery.....	14	535	9	15	73	14	474	161	292	21	580	107	357	1	25	380
14 Cooperage and wooden goods, not elsewhere specified.....	4	56	3	6	7		40	40			39	39				87
15 Electrical machinery, apparatus, and supplies.....	7	442	4	22	39	13	364	323	33	8	443	393	40	9	1	508
16 Flour-mill and gristmill products.....	9	391	4	19	34	10	324	321	3		384	381	3			4,735
17 Foundry and machine-shop products.....	78	5,221	61	292	364	113	4,481	4,223	209	49	5,375	5,065	251	58		7,318
18 Fur goods.....	5	25	4	4	1		16	7	9		29	12	17			1
19 Furniture and refrigerators.....	32	1,807	16	64	53	41	1,633	1,557	42	34	1,771	1,689	45	37		2,180
20 Ice, manufactured.....	6	110	4	9	6		87	83	3	1	100	86	2	1		350
21 Leather goods.....	8	403	3	23	55	9	313	254	55	4	328	262	57	4		199

MANUFACTURES—INDIANA.

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.

EVANSVILLE.

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 \$20,092,572	\$20,445,723	\$616,281	\$422,241	\$3,965,078	\$292,579	\$12,501,205	\$60,905	\$571,259	\$88,489	\$1,927,628	\$22,929,024	\$10,135,180
2 738,772	478,749	41,538	29,102	127,903	6,823	211,036	1,400	7,144	.....	53,708	650,289	432,425
3 604,603	430,502	2,400	13,585	57,331	7,011	311,918	540	2,082	.....	34,735	487,428	168,490
4 876,541	1,093,129	20,180	20,008	305,209	7,650	1,205,007	2,365	5,998	20	117,002	1,834,685	621,338
5 64,502	1,040	5,043	23,400	2,407	78,902	2,860	2,860	372	3,500	4,943	142,173	60,864
6 48,275	169,593	2,240	1,040	37,300	838	118,360	60	675	3,000	6,089	191,810	72,622
7 941,022	3,152,705	18,545	20,383	66,710	15,824	2,013,207	90	6,840	23,000	88,097	3,303,969	374,378
8 998,639	723,819	28,790	20,343	220,537	8,851	380,216	1,350	7,450	.....	44,271	825,880	430,813
9 2,312,386	2,202,483	90,219	27,907	633,240	15,402	1,189,788	2,710	21,141	6,450	209,476	2,520,372	1,815,092
10 439,342	114,228	10,200	4,156	39,205	12,315	4,900	.....	3,220	10,483	23,083	156,075	138,794
11 383,465	298,978	2,716	7,670	62,739	2,477	195,950	1,524	3,544	1,500	20,355	356,614	158,187
12 1,890,824	1,256,194	55,303	21,469	284,422	9,479	808,009	7,225	10,098	.....	59,499	1,442,802	624,054
13 64,793	70,348	5,040	6,100	7,580	375	40,286	1,980	479	.....	8,442	90,496	43,835
14 424,144	529,275	43,593	40,198	164,514	9,141	142,982	8,988	3,206	14,395	93,258	599,507	447,384
15 816,078	673,404	42,400	35,792	203,216	7,631	209,039	2,400	7,116	.....	157,870	770,614	553,944
16 279,539	1,262,030	21,780	13,061	354,930	2,643	548,866	7,078	140,874	137	172,602	1,331,369	779,870
17 9,269,587	7,291,069	218,297	144,169	1,302,705	183,617	4,129,343	19,735	350,104	20,004	833,035	8,224,941	3,011,981

foundry supplies, 1; furnishing goods, men's, 1; gas, illuminating and heating, 1; hand stamps and stencils and brands, 1; house-furnishing goods, not elsewhere specified, 1; liquors, malt, 2; marble and stone work, 7; mattresses and spring beds, 4; mineral and soda waters, 5; mirrors, 1; models and patterns, not including paper patterns, 1; musical instruments, pianos and organs and materials, 1; optical goods, 1; paint and varnish, 1; paper and wood pulp, 1; pottery, terra-cotta, and fire-clay products, 3; slaughtering and meat packing, 3; upholstering materials, 1; wood preserving, 1; wood, turned and carved, 2; woolen, worsted, and felt goods, and wool hats, 1.

FORT WAYNE.

1 \$20,346,176	\$21,186,438	\$750,402	\$1,044,924	\$5,022,544	\$409,614	\$11,005,577	\$63,793	\$233,967	\$4,101	\$2,651,516	\$23,686,809	\$12,271,618
2 407,568	936,044	14,740	37,189	145,098	10,585	614,348	6,510	2,119	.....	90,455	1,021,072	390,139
3 205,323	128,049	6,270	2,800	31,107	1,492	81,020	265	1,921	.....	3,124	139,788	57,276
4 118,349	156,300	8,580	14,461	22,739	2,644	77,628	4,411	343	.....	25,589	210,237	130,005
5 168,807	462,928	6,102	3,848	20,608	5,316	410,655	920	1,266	638	4,655	503,304	78,333
6 5,666,243	4,535,241	198,162	303,859	889,246	112,434	1,700,576	1,022	15,330	.....	1,314,612	4,878,188	3,035,178
7 61,287	85,241	3,000	3,440	10,053	549	45,265	695	534	.....	1,205	84,592	38,778
8 888,968	1,077,596	41,756	14,211	174,877	7,332	761,191	1,920	3,374	.....	73,835	1,263,490	494,967
9 84,018	78,947	3,770	948	33,105	1,307	34,635	360	420	368	3,378	81,279	55,287
10 177,180	188,318	17,016	3,931	6,725	361	78,639	1,450	260	.....	79,927	244,084	165,084
11 588,346	643,700	34,494	60,030	181,286	15,444	230,900	10,831	2,411	1,105	98,193	728,159	472,809
12 128,455	319,743	15,900	6,243	100,295	1,153	143,174	5,224	32,898	258	14,688	354,802	210,475
13 11,876,632	12,595,231	400,612	594,204	3,400,905	245,097	6,800,490	31,195	173,051	1,732	632,855	14,167,814	7,113,227

staining and ornamenting, 2; gloves and mittens, leather, 1; hand stamps and stencils and brands, 1; hosiery and knit goods, 1; ice, manufactured, 2; liquors, malt, 2; mattresses and spring beds, 2; millinery and lace goods, 1; mineral and soda waters, 5; models and patterns, not including paper patterns, 1; musical instruments, pianos and organs and materials, 1; optical goods, 2; paint and varnish, 1; paper goods, not elsewhere specified, 1; photo-engraving, 1; pumps, not including steam pumps, 1; shipbuilding, including boat building, 1; slaughtering and meat packing, 3; soap, 1; statuary and art goods, 1; wall plaster, 1; washing machines and clothes wringers, 3; wood, turned and carved, 2.

INDIANAPOLIS.

1 \$76,497,083	\$118,047,560	\$2,608,070	\$3,885,442	\$16,556,588	\$1,429,100	\$82,721,836	\$459,834	\$787,793	\$656,407	\$8,942,490	\$126,522,113	\$42,371,177
2 161,602	145,855	8,620	6,240	28,242	1,490	79,699	2,141	951	.....	17,903	171,165	80,967
3 98,109	108,025	9,562	6,670	32,035	878	38,166	2,181	883	7,100	10,550	166,620	127,676
4 5,968,387	8,547,552	149,984	178,823	1,465,517	39,470	5,654,558	25,422	14,003	2,808	716,207	8,840,075	2,845,747
5 169,927	220,321	11,740	3,540	55,813	6,546	128,801	4,380	1,267	.....	8,234	238,824	103,477
6 3,172,309	2,455,798	49,676	137,085	237,765	39,150	1,665,767	19,107	10,308	41	240,834	2,808,506	1,103,560
7 1,595,870	3,250,527	49,250	264,417	190,433	17,092	2,450,859	5,040	9,452	.....	263,384	3,460,817	992,866
8 21,144	35,937	2,404	5,951	13,040	2,089	10,207	1,269	151	70	756	48,186	35,890
9 1,700,302	2,080,829	36,440	92,265	487,201	15,909	1,295,713	9,260	13,535	43	127,463	2,171,764	857,142
10 771,678	2,661,681	18,830	115,637	1,322,924	60,550	1,062,900	212	3,782	.....	81,837	2,661,681	1,538,222
11 1,292,634	2,543,243	68,080	136,595	533,108	10,750	1,348,729	22,933	5,540	45,544	321,955	2,709,420	1,349,932
12 293,380	677,466	23,155	28,471	172,404	4,339	396,453	13,818	1,811	.....	37,015	725,335	324,543
13 870,849	1,263,845	22,280	81,920	160,417	12,890	902,394	27,832	2,639	.....	83,423	1,471,542	565,258
14 55,499	93,777	2,305	1,532	17,430	1,551	60,620	305	350	.....	6,934	115,111	52,940
15 707,995	748,355	39,086	27,263	184,363	8,834	398,353	3,278	3,382	.....	83,796	864,417	457,230
16 2,223,021	6,178,756	30,655	30,745	178,867	60,736	5,739,097	240	10,674	.....	127,742	6,447,790	647,963
17 11,221,350	10,110,535	472,140	338,842	2,525,277	175,270	5,226,173	29,445	54,037	101,678	1,187,673	11,442,213	6,040,770
18 18,514	48,053	6,020	418	8,590	237	27,545	2,870	52	.....	2,231	55,977	28,135
19 2,251,534	2,664,184	107,560	85,522	862,253	37,784	1,283,757	16,095	18,162	200	263,861	2,941,073	1,620,432
20 410,531	142,768	13,050	6,594	40,802	39,284	14,976	400	3,136	.....	179,833	125,573	
21 877,522	911,847	45,180	44,342	139,798	8,022	593,959	14,168	3,577	.....	65,831	960,563	358,672

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.  
INDIANAPOLIS—Continued.

INDUSTRY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners (average number).			Total.	16 and over.		Under 16.				
					Male.	Female.	Total.	Male.	Female.		Under 16.	Male.	Female.	Male.	Female.		
																16 and over.	
22 Liquors, malt.....	4	474	21	61	5	387	369	13	5	351	335	12	4	3,485			
23 Lumber and timber products.....	44	1,165	20	83	61	17	978	928	50	1,025	973	52	52	3,925			
24 Mattresses and spring beds.....	5	320	2	13	20	12	273	210	50	310	238	57	12	546			
25 Millinery and lace goods.....	4	135	3	4	1	1	126	16	110	130	17	113	3	18			
26 Models and patterns, not including paper patterns.....	6	32	9	1	1	1	21	20	1	29	28	1	1	25			
27 Paint and varnish.....	9	198	20	25	5	148	143	5	151	146	5	5	338				
28 Patent medicines and compounds and druggists' preparations.....	34	851	21	44	191	46	540	236	313	551	237	314	497				
29 Printing and publishing.....	126	2,605	98	145	499	107	1,756	1,288	433	35	1,807	1,325	446	34	2	1,071	
30 Slaughtering and meat packing.....	16	4,001	16	35	206	7	3,737	3,408	253	76	4,198	3,829	284	80	5	3,681	
31 Stoves and furnaces, including gas and oil stoves.....	7	362	3	16	24	7	312	312	331	331	331	331	331	334			
32 Tobacco manufactures.....	44	546	41	11	18	1	475	358	108	9	497	375	113	8	1	2	
33 All other industries <sup>1</sup> .....	227	7,648	166	275	675	237	6,295	4,948	1,150	197	6,607	5,193	1,207	128	79	13,503	

<sup>1</sup> All other industries embrace: Awnings, tents, and sails, 4; bags, other than paper, 1; bags, paper, 1; baking powders and yeast, 1; baskets, and rattan and willow ware, 1; belting and hose, leather, 2; blacking and cleansing and polishing preparations, 5; boxes, cigar, 2; brass and bronze products, 6; brick and tile, 3; brooms, 6; brushes, 2; butter, cheese, and condensed milk, 1; calcium lights, 1; carriages and sleds, children's, 3; cars and general shop construction and repairs by street-railroad companies, 1; cars, steam-railroad, not including operations of railroad companies, 2; coffee and spice, roasting and grinding, 4; coffins, burial cases, and undertakers' goods, 2; copper, tin, and sheet-iron products, 28; cotton goods, including cotton small wares, 1; cutlery and tools, not elsewhere specified, 3; dairymen's, poultryers', and apiarists' supplies, 2; dentists' materials, 1; dyeing and finishing textiles, 1; dyestuffs and extracts, 1; electroplating, 5; emery and other abrasive wheels, 1; engraving and diesinking, 1; engraving, wood, 1; fancy articles, not elsewhere specified, 1; fertilizers, 1; food preparations, 6; furnishing goods, men's, 6; gas and electric fixtures and lamps and reflectors, 2; gas, illuminating and heating, 1; glass, 1; glass, cutting, staining, and ornamenting, 2; glucose and starch, 2; glue, 1; grease and tallow, 3; hair work, 2; hand stamps and stencils and brands, 2; hats and caps, other than felt, straw, and wool, 2; hosiery and knit goods, 1; house-furnishing goods, not elsewhere

SOUTH BEND.

1 All industries.....	218	13,609	156	348	993	323	11,789	9,893	1,510	386	13,225	11,053	1,730	308	134	16,280
2 Bread and other bakery products.....	23	149	23	2	10	7	107	68	39	124	79	45	24	104		
3 Carriages and wagons and materials.....	7	3,370	2	75	222	95	2,976	2,925	23	23	3,132	3,078	30	24	3,447	
4 Confectionery.....	7	67	6	2	9	4	46	16	30	55	19	36	200			
5 Flour-mill and gristmill products.....	4	21	5	2	3	1	10	10	11	11	11	200				
6 Foundry and machine-shop products.....	20	564	10	30	29	22	473	465	8	497	489	8	672			
7 Leather goods.....	6	156	6	5	15	2	128	128	5	129	129	4	25			
8 Lumber and timber products.....	8	189	17	3	2	107	162	5	145	141	4	418				
9 Patent medicines and compounds and druggists' preparations.....	13	117	11	5	4	60	37	10	27	37	10	27	20			
10 Printing and publishing.....	21	336	20	17	23	13	263	197	37	20	266	199	38	20	237	
11 Tobacco manufactures.....	25	301	25	7	9	1	259	116	132	11	261	117	133	1	10	19
12 All other industries <sup>1</sup> .....	84	8,330	48	186	666	116	7,323	5,786	1,204	323	8,568	6,781	1,400	254	124	11,118

<sup>1</sup> All other industries embrace: Agricultural implements, 2; artificial stone, 2; automobiles, including bodies and parts, 3; awnings, tents, and sails, 1; bicycles, motorcycles, and parts, 1; bluing, 1; boxes, cigar, 1; boxes, fancy and paper, 1; brass and bronze products, 2; brick and tile, 1; brooms, 1; carpets, rag, 2; cars and general shop construction and repairs by street-railroad companies, 2; clocks and watches, including cases and materials, 1; clothing, men's, including shirts, 4; cooperage and wooden goods, not elsewhere specified, 1; copper, tin, and sheet-iron products, 6; cutlery and tools, not elsewhere specified, 1; electrical machinery, apparatus, and supplies, 3; fancy articles, not elsewhere specified, 1; food preparations, 1; fur goods, 1; furniture and refrigerators, 1; gas and electric fixtures and lamps and reflectors, 1; gas, illuminating and heating, 1; hand stamps and stencils and brands, 1; hosiery and knit goods, 1; ice, manufactured, 1; ink, printing, 1; liquors, malt, 1; looking-glass and picture

TERRE HAUTE.

1 All industries.....	170	5,159	142	215	327	116	4,359	3,743	588	31	4,510	3,834	643	28	5	10,460
2 Bread and other bakery products.....	20	243	18	3	15	9	203	142	60	1	210	147	62	1	112	
3 Clothing, men's, including shirts.....	3	400	4	4	43	21	418	51	362	5	478	58	414	1	5	85
4 Copper, tin, and sheet-iron products.....	5	94	1	10	1	7	76	76	1	73	73	1	85			
5 Flour-mill and gristmill products.....	6	142	4	6	7	4	121	118	3	107	104	3	1,377			
6 Foundry and machine-shop products.....	11	233	7	19	8	8	191	190	1	203	202	1	464			
7 Lumber and timber products.....	6	124	4	8	4	2	106	105	1	96	95	1	372			
8 Printing and publishing.....	19	350	15	20	86	23	296	132	22	2	210	186	22	2	340	
9 Tobacco manufactures.....	22	40	22	18	17	1	18	17	1	19	18	1	2			
10 All other industries <sup>1</sup> .....	78	3,438	68	145	163	42	3,020	2,862	136	22	3,114	2,951	140	23	7,623	

<sup>1</sup> All other industries embrace: Artificial stone, 3; automobiles, including bodies and parts, 1; awnings, tents, and sails, 1; baking powders and yeast, 1; baskets, and rattan and willow ware, 1; boxes, cigar, 1; brass and bronze products, 1; brick and tile, 3; brooms, 1; canning and preserving, 1; carpets, rag, 1; carriages and wagons and materials, 8; cars and general shop construction and repairs by street-railroad companies, 2; cars and general shop construction and repairs by street-railroad companies, 1; cars, steam-railroad, not including operations of railroad companies, 1; coffee and spice, roasting and grinding, 2; coffins, burial cases, and undertakers' goods, 1; confectionery, 3; cooperage and wooden goods, not elsewhere specified, 4; cordials and sirups, 1; electrical machinery, apparatus, and supplies, 1; engraving and diesinking, 1;

MANUFACTURES—INDIANA.

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.

INDIANAPOLIS—Continued.

	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.
22	\$2,036,877	\$1,841,825	\$58,900	\$78,240	\$277,301	\$76,000	\$358,596	.....	\$322,828	.....	\$669,054	\$2,204,044	\$1,768,642
23	2,763,520	2,915,283	151,163	63,771	544,224	42,278	1,901,953	\$12,571	10,262	\$622	179,439	3,233,092	1,288,861
24	1,000,278	560,652	27,620	20,009	127,357	7,174	290,687	1,720	6,037	.....	67,448	635,818	328,957
25	52,111	104,152	10,400	1,621	44,849	1,170	123,222	4,550	366	.....	8,074	247,235	122,843
26	11,438	26,885	810	270	18,125	581	4,824	1,217	42	800	216	39,750	34,345
27	390,953	534,632	35,962	30,821	45,250	4,058	372,242	7,900	3,756	.....	34,523	591,755	215,425
28	1,835,824	2,022,421	101,551	264,300	243,857	11,642	947,407	5,185	11,110	10,586	428,711	2,301,005	1,341,950
29	3,865,560	4,684,767	259,193	500,648	1,070,950	41,930	1,446,338	93,398	23,723	432,574	807,004	5,622,185	4,133,908
30	5,852,892	38,206,413	101,780	437,023	1,804,213	144,110	34,868,532	21,070	75,894	0,469	747,313	30,133,737	4,121,086
31	425,304	560,303	39,103	36,783	161,140	3,530	238,711	7,151	4,680	158	60,087	597,705	355,494
32	258,200	616,670	12,885	38,731	205,594	1,165	222,076	10,452	64,318	.....	61,440	681,360	458,119
33	25,333,749	20,958,388	647,606	811,387	3,261,449	548,559	13,259,213	94,534	96,209	48,214	2,191,157	22,752,619	8,944,847

specified, 3; instruments, professional and scientific, 1; iron and steel forgings, 3; jewelry, 9; leather, tanned, curried, and finished, 1; liquors, vinous, 1; looking-glass and picture frames, 3; marble and stone work, 7; mineral and soda waters, 5; mirrors, 2; mucilage and paste, 1; musical instruments and materials, not specified, 3; musical instruments, pianos and organs and materials, 1; oil, not elsewhere specified, 2; optical goods, 2; paper and wood pulp, 1; paper goods, not elsewhere specified, 2; pens, fountain, stylographic, and gold, 1; photo-engraving, 3; pottery, terra-cotta, and fire-clay products, 2; rubber goods, not elsewhere specified, 2; saws, 2; scales and balances, 1; show cases, 2; signs and advertising novelties, 1; soap, 7; soda-water apparatus, 2; stationery goods, not elsewhere specified, 1; statuary and art goods, 1; steam packing, 1; stereotyping and electrotyping, 4; surgical appliances and artificial limbs, 5; toys and games, 3; type founding and printing materials, 1; umbrellas and canes, 1; upholstering materials, 1; vinegar and cider, 1; wall plaster, 2; wirework, including wire rope and cable, 5; wood preserving, 1; wood, turned and carved, 3; woolen, worsted, and felt goods, and wool hats, 1.

SOUTH BEND.

1	\$41,466,682	\$25,268,746	\$779,539	\$632,130	\$5,885,772	\$468,517	\$14,784,651	\$56,580	\$189,620	\$8,304	\$2,263,627	\$27,854,527	\$12,601,359
2	142,213	342,834	1,860	7,845	54,918	9,385	240,422	5,089	740	.....	12,979	334,300	75,553
3	17,441,902	6,369,420	320,560	250,380	1,541,917	74,004	3,754,515	1,712	31,547	.....	804,191	7,224,585	3,395,466
4	16,998	106,026	1,900	7,048	19,250	1,260	66,100	5,080	214	.....	4,208	140,190	72,824
5	59,911	99,036	1,720	1,475	6,394	774	85,409	500	577	.....	2,167	108,617	22,434
6	930,872	801,056	51,330	40,419	255,226	10,909	310,819	8,221	4,701	2,400	107,941	881,920	551,102
7	701,501	511,542	0,168	19,311	69,849	644	374,571	4,587	1,097	.....	32,315	571,782	196,567
8	538,944	544,785	18,870	3,317	109,739	6,482	374,209	.....	2,796	.....	29,372	587,801	207,110
9	122,254	198,767	8,300	32,250	11,845	775	41,229	1,824	477	.....	102,067	227,850	185,840
10	378,821	427,476	27,585	33,448	156,937	7,332	147,411	7,036	2,804	5,904	39,459	407,981	313,238
11	240,104	386,642	0,900	8,534	106,137	1,300	103,042	668	51,118	.....	45,883	422,842	258,600
12	20,893,802	15,481,156	328,296	428,103	3,553,590	345,092	9,217,918	20,393	93,989	.....	1,492,965	16,886,599	7,322,719

frames, 2; marble and stone work, 4; mattresses and spring beds, 4; mineral and soda waters, 4; models and patterns, not including paper patterns, 1; mucilage and paste, 1; musical instruments, pianos and organs and materials, 1; oil, not elsewhere specified, 1; paint and varnish, 1; paper and wood pulp, 1; photographic apparatus and materials, 2; roofing materials, 1; sewing machines, cases, and attachments, 1; sporting and athletic goods, 1; stationery goods, not elsewhere specified, 1; stereotyping and electrotyping, 2; stoves and furnaces, including gas and oil stoves, 1; toys and games, 1; wall plaster, 1; window shades and fixtures, 1; wirework, including wire rope and cables, 2; wood, turned and carved, 2; woolen, worsted, and felt goods, and wool hats, 1.

TERRE HAUTE.

1	\$10,371,261	\$21,193,329	\$371,975	\$329,483	\$2,517,707	\$270,517	\$8,386,915	\$45,689	\$7,852,969	\$102,732	\$1,315,282	\$21,793,446	\$13,136,014
2	254,018	644,083	7,480	13,306	97,923	11,680	419,251	0,453	3,574	.....	84,356	740,922	300,991
3	615,142	880,184	22,800	50,920	136,485	6,181	933,722	5,425	2,924	.....	15,721	941,296	301,393
4	135,087	403,299	19,845	4,971	44,997	958	319,619	1,380	792	.....	14,157	443,635	129,088
5	730,918	1,955,103	14,975	8,989	61,501	10,398	1,808,498	422	1,400	.....	45,892	2,014,838	195,074
6	361,489	395,778	25,497	12,084	113,255	9,180	212,015	498	3,861	.....	19,392	428,273	207,072
7	125,032	165,778	0,114	4,678	57,077	2,985	63,155	1,810	945	22,740	3,274	190,700	133,560
8	431,981	537,544	30,760	64,108	163,081	9,736	152,290	10,776	1,333	0,497	93,357	591,774	429,742
9	13,604	38,440	.....	.....	9,012	65	20,289	879	5,105	.....	3,093	63,600	33,255
10	7,708,090	16,173,120	241,504	104,361	1,820,226	219,360	4,761,073	18,046	7,833,015	73,495	1,036,040	10,870,372	11,308,939

gas and electric fixtures and lamps and reflectors, 2; gas, illuminating and heating, 1; ice, manufactured, 2; leather goods, 1; liquors, distilled, 1; liquors, malt, 2; marble and stone work, 3; mattresses and spring beds, 1; millinery and lace goods, 1; mineral and soda waters, 4; musical instruments and materials, not specified, 1; optical goods, 1; paper and wood pulp, 1; patent medicines and compounds and druggists' preparations, 4; scales and balances, 2; shipbuilding, including boat building, 1; slaughtering and meat packing, 5; surgical appliances and artificial limbs, 1; toys and games, 1; wirework, including wire rope and cable, 1; wood preserving, 1; wood, turned and carved, 1.

MANUFACTURES—INDIANA.

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 horse-power.
		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 ANDERSON .....	116	5,109	89	180	307	140	4,393	3,710	581	102	4,787	4,043	633	99	12	12,981
2 EAST CHICAGO .....	16	2,568	6	41	130	21	2,370	2,361	2	7	2,590	2,580	2	8	.....	7,017
3 ELKHART .....	69	3,508	51	132	204	111	3,010	2,553	407	50	3,151	2,673	426	31	21	4,623
4 ELWOOD .....	37	2,301	30	35	132	31	2,073	1,830	209	34	2,166	1,912	219	35	.....	6,122
5 HAMMOND .....	49	4,370	33	96	291	118	3,841	3,306	496	39	4,499	3,872	581	36	10	7,348
6 HUNTINGTON .....	33	1,575	24	63	90	22	1,376	1,180	177	19	1,448	1,242	186	10	10	1,400
7 JEFFERSONVILLE .....	35	919	29	48	58	18	766	753	12	1	1,390	1,366	22	2	.....	3,422
8 KOKOMO .....	72	2,366	52	93	91	79	2,051	1,704	326	21	2,721	2,261	432	26	2	3,955
9 LAFAYETTE .....	69	1,983	32	80	144	67	1,660	1,459	183	18	1,672	1,470	184	18	.....	3,528
10 LAPORTE .....	41	1,960	26	66	154	40	1,674	1,232	411	31	1,739	1,280	427	13	19	3,373
11 LOGANSPORT .....	68	2,412	75	47	104	17	2,169	1,913	238	18	2,278	2,009	250	16	3	2,338
12 MARION .....	89	2,610	64	100	104	73	2,269	1,911	300	58	3,179	2,677	420	67	15	6,206
13 MICHIGAN CITY .....	48	3,123	40	48	97	51	2,887	2,682	199	6	3,282	3,049	226	1	6	5,000
14 MISHAWAKA .....	42	3,934	22	61	359	47	3,445	2,901	458	86	3,601	2,948	465	51	37	7,610
15 MUNCIE .....	102	4,444	83	101	158	69	4,033	3,612	349	72	5,264	4,715	455	75	19	7,504
16 NEW ALBANY .....	95	2,135	80	79	47	19	1,910	1,544	328	38	1,980	1,601	340	26	13	3,954
17 PERU .....	31	692	40	17	12	4	619	552	42	25	664	592	45	27	.....	2,013
18 RICHMOND .....	107	4,433	80	129	500	103	3,621	3,253	329	39	3,688	3,313	335	25	15	5,087
19 VINCENNES .....	84	1,461	72	69	58	29	1,233	1,163	62	8	1,390	1,311	70	6	3	5,044

<sup>1</sup> Statistics for Gary can not be shown without disclosing individual operations.



MANUFACTURES—INDIANA.

337

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	\$10,727,952	\$11,850,454	\$266,432	\$330,096	\$2,103,649	\$268,693	\$7,858,571	\$11,200	\$56,125	\$31,965	\$928,733	\$13,764,933	\$5,637,669
2	4,614,380	4,873,173	113,705	133,572	1,285,088	298,928	2,760,987	2,090	10,980	60,000	207,823	5,493,500	2,429,585
3	5,478,046	6,184,621	322,388	289,468	1,533,725	146,072	2,874,501	13,474	20,501	21,120	954,282	6,932,065	3,911,492
4	4,572,330	8,080,955	84,453	142,376	1,398,740	213,900	6,035,307	2,518	32,018	1,500	170,143	8,407,550	2,153,343
5	16,270,855	14,894,019	279,589	334,596	1,800,033	233,863	6,417,492	10,427	5,025,921	225,140	506,358	15,580,250	3,923,895
6	1,301,621	2,036,627	84,406	91,050	623,418	54,887	1,075,310	2,491	14,445	45	90,566	2,227,558	1,097,361
7	2,681,753	1,839,822	92,260	59,012	437,100	49,941	1,032,784	1,033	16,065	14,193	186,514	1,915,682	832,957
8	3,921,141	4,874,232	189,425	113,293	1,075,301	102,538	2,879,377	11,045	20,329	13,255	478,669	5,451,441	2,469,526
9	3,913,788	5,046,551	153,533	127,257	918,571	141,377	3,394,357	20,064	67,761	21,274	292,307	5,541,966	2,069,232
10	5,871,936	3,500,726	131,841	190,750	795,203	64,122	1,740,363	6,388	84,906	12,317	575,836	3,971,624	2,153,139
11	2,003,965	3,591,517	66,012	95,858	1,237,119	64,703	1,016,850	6,830	37,416	100	163,629	4,201,369	2,219,816
12	3,933,723	4,095,815	153,391	117,552	1,181,773	292,533	2,121,070	12,505	35,396	2,965	268,630	4,442,116	2,118,513
13	8,890,017	7,633,861	187,840	123,817	1,292,656	327,462	5,037,017	3,344	60,895	201,492	454,518	8,289,570	2,925,100
14	14,223,645	8,834,630	214,620	594,980	1,747,780	111,006	5,158,956	5,607	68,883	.....	982,798	10,882,846	5,612,884
15	6,626,626	8,552,432	181,908	168,200	2,125,586	326,510	5,147,261	13,173	28,758	7,914	553,122	9,684,238	4,210,467
16	3,565,998	3,003,920	114,536	51,335	724,334	91,195	1,795,278	21,716	42,823	3,774	158,929	3,492,530	1,606,057
17	1,654,050	897,656	25,769	13,309	276,271	33,376	449,073	6,507	10,686	450	82,215	1,097,156	614,707
18	13,139,159	8,790,881	280,320	396,000	1,834,932	193,435	5,015,001	14,708	71,684	11,192	974,694	10,373,837	5,255,401
19	3,560,444	3,330,963	102,946	63,151	660,371	117,498	2,298,763	18,107	442,906	3,705	164,526	4,233,574	1,817,323

# IOWA.

## INDUSTRIES IN GENERAL.

**General character of the state.**—Iowa, with a gross area of 56,147 square miles, of which 561 represent water surface, ranks twenty-fourth in size among the 49 states and territories of continental United States. Its population in 1910 was 2,224,771, as compared with 2,231,853 in 1900 and 1,912,297 in 1890. In 1910 the density of population was 40 per square mile, the corresponding figure for 1900 being 40.2. As regards population, it ranked fifteenth among the 49 states and territories of continental United States in 1910 and tenth in 1900. Thirty and six-tenths per cent of the entire population of the state resided in incorporated cities and towns having a population of 2,500 or over, as against 25.6 per cent in 1900.

Des Moines, with a population of 86,368, is the only city in the state having a population of over 50,000. Sixteen other cities, however, each have a population exceeding 10,000. They are Boone, Burlington, Cedar Rapids, Clinton, Council Bluffs, Davenport, Dubuque, Fort Dodge, Iowa City, Keokuk, Marshalltown, Mason City, Muscatine, Ottumwa, Sioux City, and Waterloo. These 17 cities contained 21 per cent of the total population of the state and were credited with 73 per cent of the total value of its manufactures. Apart from the cities named, only 9.6 per cent of the population of the state resided in cities and towns of 2,500 inhabitants or over.

The railway facilities, consisting of trunk lines and various branch lines serving as feeders, are excellent, Iowa ranking fourth among the states in 1909 in the length of trackage.<sup>1</sup> The Mississippi River on

<sup>1</sup> Interstate Commerce Commission, Statistics of Railways in the United States, 1909.

the eastern boundary of the state and the Missouri River on the western boundary afford water transportation.

**Importance and growth of manufactures.**—In 1899 the value of the agricultural products of Iowa was greater than that for any other state, while in the value of its manufactures the state ranked only seventeenth in 1899 and eighteenth in 1909.

In 1849, when Iowa ranked twenty-seventh in the value of its manufactures, the total value of the manufactures of the state, including the products of the neighborhood and hand industries, amounted to only \$3,552,000, while in 1909, exclusive of the value of the products of the neighborhood and hand industries, it reached \$259,238,000. In 1849 an average of 1,707 wage earners, representing nine-tenths of 1 per cent of the total population, were engaged in manufactures, while in 1909 an average of 61,635 wage earners, or 2.8 per cent of the total population, were so engaged. During this period the gross value of manufactured products per capita for the total population of the state increased from \$18 to \$117. From 1849 to 1909 the proportion which the value of the manufactures of the state represented of the total value of products of manufacturing industries in the United States increased from three-tenths of 1 per cent to 1.3 per cent.

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. <sup>1</sup>	
	1909	1904	1899	1904-1909	1899-1904
Number of establishments.....	5,528	4,785	4,828	15.5	-0.9
Persons engaged in manufactures.....	78,360	61,361	( <sup>2</sup> )	27.7	.....
Proprietors and firm members.....	5,323	4,758	( <sup>2</sup> )	11.9	.....
Salaried employees.....	11,402	7,122	5,159	60.1	38.0
Wage earners (average number).....	61,635	49,481	44,420	24.6	11.4
Primary horsepower.....	155,384	118,065	106,664	31.6	10.7
Capital.....	\$171,219,000	\$111,427,000	\$85,667,000	53.7	30.1
Expenses.....	233,364,000	143,692,000	114,659,000	62.4	25.3
Services.....	43,514,000	28,945,000	22,254,000	50.3	30.1
Salaries.....	10,972,000	5,948,000	4,233,000	84.5	40.5
Wages.....	32,542,000	22,997,000	18,021,000	41.5	27.6
Materials.....	170,707,000	102,844,000	85,779,000	66.0	19.9
Miscellaneous.....	19,143,000	11,903,000	6,626,000	60.8	79.6
Value of products.....	259,238,000	160,572,000	132,871,000	61.4	20.8
Value added by manufacture (value of products less cost of materials).....	88,531,000	57,728,000	47,092,000	53.4	22.6

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

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

In 1909 the state of Iowa had 5,528 manufacturing establishments, which gave employment to an average of 78,360 persons during the year and paid out \$43,514,000 in salaries and wages. Of the persons

employed, 61,635 were wage earners. These establishments turned out products to the value of \$259,238,000, to produce which materials costing \$170,707,000 were used. The value added by manufacture was thus \$88,531,000, 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 Iowa as a whole showed a steady growth during the two five-year periods. For the earlier period, 1899-1904, although the number of establishments decreased nine-tenths of 1 per cent, the number of wage earners increased 11.4 per cent, the value of products 20.8 per cent, and the value added by manufacture 22.6 per cent. Much greater

increases, however, are shown for the more recent period, 1904-1909. During this period the number of establishments increased 15.5 per cent, the average number of wage earners 24.6 per cent, the value of products 61.4 per cent, and the value added by manufacture 53.4 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 price of commodities. The only decrease shown in the table is that in the number of establishments during the period 1899-1904.

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. <sup>1</sup>			
		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.....	5,528	61,635	100.0	\$259,238,000	100.0	\$88,531,000	100.0	61.4	20.8	53.4	22.6
Slaughtering and meat packing.....	33	4,144	6.7	59,045,000	22.8	5,918,000	6.7	95.8	17.0	103.5	-30.1
Butter, cheese, and condensed milk.....	512	1,231	2.0	25,850,000	10.0	3,008,000	3.4	72.0	-5.2	41.1	-9.0
Foundry and machine-shop products.....	274	5,108	8.3	14,064,000	5.4	7,692,000	8.7	122.1	14.9	109.1	31.3
Flour-mill and gristmill products.....	277	647	1.0	12,871,000	5.0	1,937,000	2.2	6.4	9.9	8.7	-12.8
Lumber and timber products.....	229	4,658	7.6	12,659,000	4.9	5,518,000	6.2	4.2	-17.0	1.9	6.2
Printing and publishing.....	1,110	4,853	7.9	12,129,000	4.7	8,842,000	10.0	41.9	37.2	36.0	33.1
Cars and general shop construction and repairs by steam-railroad companies.....	33	6,909	11.3	10,269,000	4.0	5,120,000	5.8	34.8	22.5	18.6	29.8
Bread and other bakery products.....	495	1,647	2.7	6,818,000	2.6	2,671,000	3.0	88.8	85.0	72.5	24.2
Carriages and wagons and materials.....	119	1,441	2.3	4,786,000	1.8	2,038,000	2.3	42.0	-15.5	20.8	-17.3
Agricultural implements.....	42	1,318	2.1	4,757,000	1.8	2,586,000	2.9	76.7	78.4	93.7	59.1
Brick and tile.....	235	3,158	5.1	4,483,000	1.7	3,279,000	3.7	33.3	70.1	29.9	66.5
Buttons.....	70	3,172	5.1	4,035,000	1.6	2,621,000	3.0	168.8	73.1	171.0	44.3
Tobacco manufactures.....	372	1,943	3.2	3,423,000	1.3	2,037,000	2.3	1.9		-2.0	
Patent medicines and compounds and druggists' preparations.....	100	353	0.6	3,401,000	1.3	2,336,000	2.6				
Liquors, malt.....	19	495	0.8	3,325,000	1.3	2,424,000	2.7	39.4	39.2	43.0	27.5
Confectionery.....	40	1,032	1.7	2,914,000	1.1	1,211,000	1.4	103.1	37.6	88.9	51.2
Gas, illuminating and heating.....	117	806	1.3	2,893,000	1.1	1,782,000	2.0	57.9	126.7	47.5	100.0
Leather goods.....	67	600	1.0	2,855,000	1.1	1,043,000	1.2	117.9	27.3	92.4	-16.6
Furniture and refrigerators.....	44	1,074	1.7	2,650,000	1.0	1,314,000	1.5				
Canning and preserving.....	71	1,247	2.0	2,549,000	1.0	981,000	1.1	-30.6	73.3	-37.0	65.6
Clothing, men's, including shirts.....	21	1,480	2.4	2,496,000	1.0	1,084,000	1.2	30.0	25.1	39.3	24.5
Copper, tin, and sheet-iron products.....	78	585	0.9	2,414,000	0.9	909,000	1.0	5.6	263.6	19.9	174.6
Dairymen's, poultrymen's, and apiarists' supplies.....	17	730	1.2	1,964,000	0.8	993,000	1.1	596.5		460.7	
Boots and shoes, including cut stock and findings.....	10	716	1.2	1,633,000	0.6	574,000	0.6				
Artificial stone.....	308	730	1.2	1,569,000	0.6	937,000	1.1	1,207.6		1,149.3	
Clothing, women's.....	19	876	1.4	1,535,000	0.6	650,000	0.7	101.4	1,521.3	97.0	1,400.0
Marble and stone work.....	87	915	0.5	1,333,000	0.5	722,000	0.8	110.4	0.5	93.3	13.1
Stoves and furnaces, including gas and oil stoves.....	14	352	0.6	890,000	0.3	528,000	0.6	187.1		187.0	
Cooperage and wooden goods, not elsewhere specified.....	34	249	0.4	876,000	0.3	316,000	0.4	-13.6	40.8	-2.5	23.2
Coffins, burial cases, and undertakers' goods.....	8	242	0.4	753,000	0.3	365,000	0.4	24.1	52.1	19.7	76.3
Wall plaster.....	6	539	0.9	739,000	0.3	546,000	0.6	17.9			7.9
Mattresses and spring beds.....	17	242	0.4	726,000	0.3	271,000	0.3	259.4	37.4	208.0	46.7
Gloves and mittens, leather.....	10	234	0.4	693,000	0.3	320,000	0.4	-0.7	145.8	-5.9	113.3
Cutlery and tools, not elsewhere specified.....	16	160	0.3	489,000	0.2	246,000	0.3	33.2	91.1	15.0	120.6
Pottery, terra-cotta, and fire-clay products.....	10	286	0.5	464,000	0.2	284,000	0.3	494.9	-63.7	479.6	-74.5
Paper and wood pulp.....	4	205	0.3	437,000	0.2	156,000	0.2	72.7	3.7	27.9	-10.9
Woolen, worsted, and felt goods, and wool hats.....	8	134	0.2	350,000	0.1	122,000	0.1	-33.9	92.9	-41.3	70.5
Ice, manufactured.....	18	151	0.2	290,000	0.1	226,000	0.3	468.6	34.2	545.7	29.6
Fur goods.....	11	73	0.1	287,000	0.1	182,000	0.2	56.0	223.6	111.6	160.6
Cars and general shop construction and repairs by street-railroad companies.....	13	133	0.3	231,000	0.1	135,000	0.2	54.0	54.6	80.0	25.0
Carpets, rag.....	32	158	0.3	206,000	0.1	162,000	0.2	34.6	628.6	32.8	577.8
Shipbuilding, including boat building.....	17	76	0.1	182,000	0.1	97,000	0.1	6.4		10.2	
Gas and electric fixtures and lamps and reflectors.....	7	56	0.1	170,000	0.1	75,000	0.1	750.0	-25.9	476.9	-13.8
Boxes, fancy and paper.....	6	128	0.2	128,000	(2)	71,000	0.1	70.7	25.0	51.1	42.4
Boxes, cigar.....	7	79	0.1	112,000	(2)	53,000	0.1	-23.3	60.4	-29.3	100.0
All other industries.....	491	6,765	11.0	42,490,000	16.4	14,139,000	16.0				

<sup>1</sup> Percentages are based on figures in Table I; a minus sign (-) denotes decrease. Where the percentages are omitted, comparable figures can not be given.

<sup>2</sup> 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 use of the product of one establishment in the industry as material for another establishment.

In addition to the 45 industries presented separately, there are 14 important industries each of which had a value of products in 1909 in excess of \$500,000. They are included under the 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, 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 industries of similar character; while for others, comparable statistics for the different census years can not be presented on account of changes in classification. These industries are: Automobiles, including bodies and parts; brooms; butter, reworking; cars, steam-railroad, not including operations of railroad companies; cement; coffee and spice, roasting and grinding; explosives; food preparations; glucose and starch; mineral and soda waters; oil, linseed; soap; stationery goods, not elsewhere specified; and washing machines and clothes wringers. Statistics for 1909 for the manufacture of automobiles, including bodies and parts, and of brooms are presented in Table II.

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, in which they are arranged in the order of the value of products, call for brief consideration.

*Slaughtering and meat packing.*—This industry is by far the most important in the state when measured by value of products, although 4 other industries employed a greater average number of wage earners. It embraces not only establishments doing wholesale slaughtering and meat packing, but also those engaged in the manufacture of sausage. Twenty-seven of the 33 plants reported in 1909 were engaged primarily in the first-named branch of the industry. The industry is to a large extent confined to the four cities of Cedar Rapids, Des Moines, Ottumwa, and Sioux City. In 1849 there were 8 establishments reported, with a product valued at \$273,600, or 7.7 per cent of the total for all manufacturing industries in the state, whereas the value of output in 1909 constituted 22.8 per cent of the total. The value of products increased from \$25,763,000 in 1899 to \$59,045,000 in 1909, a gain of \$33,282,000, or 129.2 per cent. In 1909 the state held sixth place among the states and territories in this industry, as compared with the eighth place in 1904 and 1899.

*Butter, cheese, and condensed milk.*—The factory manufacture of butter, cheese, and condensed milk, common to many agricultural districts, is the second industry of the state when measured by value of products. Iowa has occupied a prominent place in the creamery industry ever since its establishment on a factory basis. In 1904 it ranked third among the states, the value of its products being \$15,028,000, or 8.9 per cent of the total for all the states. From 1904 to 1909 the industry showed marked development, the value of products having increased \$10,822,000, or 72 per cent. It continued to rank third in respect to its manufactured dairy products in 1909.

*Foundry and machine-shop products.*—This industry includes not only foundries and machine-shops, but also establishments engaged in the manufacture of gas machines and meters; hardware; plumbers' supplies; steam fittings and heating apparatus; and structural ironwork. The industry was really of greater importance in the state than is indicated by the statistics, as some machine shops manufacturing a distinctive product were assigned to other classifications. A number of the most important establishments are engaged in the manufacture of pumps, windmills, and parts for agricultural machinery. With the exception of steam-railroad repair shops a larger number of wage earners were employed in the foundry and machine-shop industry than in any other industry, constituting 8.3 per cent of the total wage earners in all industries. The growth in the value of products during the 10-year period 1899-1909 amounted to \$8,568,000, or 155.9 per cent.

*Flour-mill and gristmill products.*—As a rule, the mills are small and are located in the rural districts. Owing to the comparatively simple processes involved and the extent to which these processes are carried on by machinery, the value added by manufacture and the number of wage earners employed are not commensurate with the gross value of products. The development during the last 10 years was slight when compared with all manufactures combined and other important industries individually. Iowa was nineteenth among the states in the value of flour-mill and gristmill products in 1909, eighteenth in 1904, and fifteenth in 1899.

*Lumber and timber products.*—This industry includes the logging operations, as well as the mills which saw rough lumber, shingles, and cooperage materials, the mills which produce finished lumber, sash, doors, blinds, interior finish, and other millwork, and wooden packing-box factories. The output of the planing mills in 1909 represented much the greater proportion of the total value of products for the entire industry. The state contains very little timber land. For a number of years the sawmills of Iowa have been largely depend-

ent upon the forests of Minnesota and Wisconsin for logs, and the depletion of those forests, together with the establishment of many mills in those states, has caused a decline in the lumber industry of Iowa. In 1909 the value of products was \$12,659,000, as compared with \$14,635,000 in 1899, a decrease of \$1,976,000, or 13.5 per cent, during the decade.

*Printing and publishing.*—The printing and publishing of newspapers, books, music, and periodicals; job printing; bookbinding and blank-book making; and lithographing are included under this classification in Iowa. Almost one-fifth of all the manufacturing establishments of the state were reported by this industry in 1909, although it employed only 7.9 per cent of the total wage earners and reported only 4.7 per cent of the total value of products. More than twice as many establishments were engaged in this industry than in any other in the state.

*Cars and general shop construction and repairs by steam-railroad companies.*—The activity in this industry is confined practically to repairs to the rolling stock and equipment of the steam railroads, although to a limited extent there may be some construction of new rolling stock. The statistics are exclusive of minor repairs made in roundhouses. More wage earners are employed in this industry than in any other manufacturing industry in the state, the number being 6,969 in 1909, or 11.3 per cent of the total for all manufacturing industries combined.

*Buttons.*—The output of buttons in Iowa consists of the fresh-water pearl variety, made from the shells of the Mississippi River mussel. Muscatine is the center of the industry in the state, having within its corporate limits 43 of the 70 establishments reported for the entire state in 1909.

None of the six leading industries presented in the preceding table hold the same rank when measured by value added by manufacture as when measured by value of products. When measured by value added by manufacture, printing and publishing displaces slaughtering and meat packing from first place, the latter industry falling to third place. The foundries and machine shops displace the butter, cheese, and condensed-milk industry from second place, the latter industry dropping to seventh place. The lumber and timber industry advances from fifth to fourth place, and flour mills and gristmills change from fourth to fifteenth place. The brick and tile industry ranks only eleventh in value of products, but sixth in value added by manufacture.

This table shows also the percentages of increase for the leading industries in respect to value of products and value added by manufacture, where these statistics are comparable. Five industries—artificial stone,

gas and electric fixtures and lamps and reflectors, dairymen's, poulterers', and apiarists' supplies, pottery, terra-cotta, and fire-clay products, and manufactured ice—show extraordinary rates of increase from 1904 to 1909 in both value of products and 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.....	78,360	66,202	12,158
Proprietors and officials.....	8,814	8,578	236
Proprietors and firm members.....	5,323	5,137	186
Salaried officers of corporations.....	1,424	1,399	25
Superintendents and managers.....	2,067	2,042	25
Clerks.....	7,911	5,854	2,057
Wage earners (average number).....	61,635	51,770	9,865
16 years of age and over.....	60,588	51,128	9,460
Under 16 years of age.....	1,047	642	405

The average number of persons engaged in manufactures during 1909 was 78,360, of whom 61,635 were wage earners. Of the remainder, 8,814 were proprietors and officials and 7,911 were clerks. Corresponding figures for individual industries will be found in Table II.

The next 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.

Of the total number of persons engaged in all manufacturing industries, 11.2 per cent were proprietors and officials, 10.1 per cent clerks, and 78.7 per cent wage earners. In the bakeries, creameries, flour mills and gristmills, and printing and publishing establishments, the proportion of proprietors and officials was 20 per cent or more. Many of the establishments reported in the industries named are small and the work is to a large extent done 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 very much higher than for most of the other industries or for all industries combined. The smallest

proportion for this class is shown for 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 this particular branch of work.

bakery, button, printing and publishing, slaughtering and meat-packing, and tobacco industries combined. The last-named industry shows the highest proportion of wage earners under 16 years of age, 4 per cent, while slaughtering and meat packing shows the next highest proportion, 3 per cent.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries.....	78,360	11.2	10.1	78.7
Agricultural implements.....	1,020	7.5	11.1	81.4
Bread and other bakery products.....	2,650	24.4	11.0	64.6
Brick and tile.....	3,654	11.8	1.8	86.4
Butter, cheese, and condensed milk.....	2,199	26.9	17.1	56.0
Buttons.....	3,378	4.1	2.0	94.0
Carrriages and wagons and materials.....	1,828	12.2	9.0	78.8
Cars and general shop construction and repairs by steam-railroad companies.....	7,460	2.0	4.6	93.4
Flour-mill and gristmill products.....	1,180	37.1	8.3	54.6
Foundry and machine-shop products.....	0,289	8.8	10.0	81.2
Liquors, malt.....	636	10.4	11.8	77.8
Lumber and timber products.....	5,403	7.4	6.4	86.2
Patent medicines and compounds and druggists' preparations.....	887	17.4	42.3	40.4
Printing and publishing.....	3,066	20.0	19.9	60.2
Slaughtering and meat packing.....	4,849	3.4	11.2	85.5
Tobacco manufactures.....	2,523	18.8	4.2	77.0
All other industries.....	25,335	10.4	10.3	79.3

INDUSTRY.	Average number. <sup>1</sup>	WAGE EARNERS.		
		Per cent of total.		
		16 years of age and over.		Under 16 years of age.
		Male.	Female.	
All industries.....	61,635	83.0	15.3	1.7
Agricultural implements.....	1,318	93.3	6.5	0.2
Bread and other bakery products.....	1,647	70.8	26.5	2.7
Brick and tile.....	3,158	99.2	.....	0.8
Butter, cheese, and condensed milk.....	1,231	96.0	3.7	0.3
Buttons.....	3,172	70.6	27.1	2.3
Carrriages and wagons and materials.....	1,441	98.3	1.6	0.1
Cars and general shop construction and repairs by steam-railroad companies.....	6,969	90.9	( <sup>1</sup> )	( <sup>2</sup> )
Flour-mill and gristmill products.....	647	97.8	1.7	0.5
Foundry and machine-shop products.....	5,108	96.9	2.5	0.6
Liquors, malt.....	495	92.5	6.8	1.2
Lumber and timber products.....	4,658	97.7	0.4	1.9
Patent medicines and compounds and druggists' preparations.....	358	47.5	52.0	0.6
Printing and publishing.....	4,853	70.7	28.5	2.9
Slaughtering and meat packing.....	4,144	92.7	4.3	3.0
Tobacco manufactures.....	1,043	56.4	39.6	4.0
All other industries.....	20,493	71.6	26.3	2.1

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

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.

For all industries combined, 83 per cent of the average number of wage earners were males 16 years of age and over; 15.3 per cent, females 16 years of age and over; and 1.7 per cent, persons under the age of 16 years. The largest proportions of female wage earners for the industries shown separately are in the printing and publishing, bakery, button, patent medicine, and tobacco industries. In the first three of these industries over one-fourth of the employees were females 16 years of age and over, and in the tobacco industry about two-fifths are of this class. Although the total number of wage earners is comparatively small in the patent-medicine industry, more than one-half of the employees were females 16 years of age and over.

Of the total number of wage earners who are under 16 years of age, 43.8 per cent were employed in the

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.				Per cent of increase, 1904-1909.
	1909		1904		
	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total.....	78,360	100.0	61,361	100.0	27.7
Proprietors and firm members.....	5,323	6.8	4,758	7.8	11.9
Salariated employees.....	11,402	14.5	7,122	11.6	60.1
Wage earners (average number)....	61,635	78.7	49,481	80.0	24.6

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

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 has been practically no change in the proportion of male wage earners 16 years of age and over. In 1909 and 1904 they formed 83 per cent of all wage earners, as compared with 83.1 per cent in 1899. The proportion of female wage earners 16 years of age and over has shown greater variation, being 15.3 per cent of all wage earners in 1909, as compared with 14.8 per cent in 1904 and 12.9 per cent in 1899. There has been a decided decrease during the decade in the employment of children under 16 years of age.

CLASS.	AVERAGE NUMBER OF WAGE EARNERS.					
	1909		1904		1899	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	61,685	100.0	49,481	100.0	44,420	100.0
16 years of age and over.....	60,588	98.3	45,396	97.8	42,625	98.0
Male.....	51,128	83.0	41,082	83.0	36,896	83.1
Female.....	9,460	15.3	7,314	14.8	5,729	12.9
Under 16 years of age.....	1,047	1.7	1,085	2.2	1,795	4.0

**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 brick and tile and can-

ning and preserving 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. In Table II, page 360, 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.

Decidedly the greatest variation during the year is shown for the canning and preserving industry, the numbers employed varying from 217, or only 3.8 per cent of the maximum, in February, the month of least activity, to 5,642 in September, the month of greatest activity occasioned by the time of ripening of the raw material. Employment in the brick and tile industry fluctuates from 1,594 in January to 4,093 in June.

The number of wage earners employed in all industries combined was the smallest in January and increased steadily month by month, with the exception of a small decrease in July, until September, when the largest number was reported. There was a difference of 12,357 wage earners, or 18.2 per cent, between the numbers employed in the months of greatest and least activity.

MONTH.	WAGE EARNERS.							
	All industries.		Brick and tile.		Canning and preserving.		All other industries.	
	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Number.	Per cent of maximum.
January.....	55,649	81.8	1,594	38.9	221	3.9	53,834	90.7
February.....	56,081	82.5	1,618	39.5	217	3.8	54,246	91.4
March.....	57,912	85.2	2,356	57.6	253	4.5	55,303	93.2
April.....	60,328	88.7	3,375	82.5	310	5.5	56,643	95.5
May.....	61,440	90.3	3,924	95.9	296	5.2	57,220	96.4
June.....	62,581	92.0	4,093	100.0	389	6.9	58,099	97.9
July.....	62,215	91.5	4,022	98.3	581	10.3	57,612	97.1
August.....	66,408	97.6	3,993	97.6	4,601	81.5	57,814	97.4
September.....	68,006	100.0	3,971	97.0	5,642	100.0	58,393	98.4
October.....	64,097	94.3	3,634	88.8	1,482	26.3	58,981	99.4
November.....	62,895	92.5	3,020	73.8	576	10.2	59,299	99.9
December.....	62,018	91.2	2,294	58.0	393	7.0	59,331	100.0

**Prevailing hours of labor.**—In the next table wage earners have been classified according to 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.

It is evident from the figures that for slightly more than three-fourths of the wage earners employed in the manufacturing industries of Iowa the prevailing

hours of labor range from 54 to 60 a week, 14 per cent of the total being employed in establishments operating less than 54 hours per week, and only 9.5 per cent being employed in establishments operating more than 60 hours per week.

It will be noted that in most of the larger industries the greater part of the wage earners work 60 hours per week. The majority of the wage earners in the gas industry, however, work more than 60 hours per week, while the prevailing hours of labor in the tobacco manufacturing industry are for the most part less than 54 per week.

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.....	61,685	6,594	2,034	8,972	11,125	27,049	3,946	504	1,411
Agricultural implements.....	1,318	12	20	86	493	739			
Artificial stone.....	730			46	56	506			
Boots and shoes, including cut stock and findings.....	716			9	645	62			
Boxes, cigar.....	79			24	40	15			
Boxes, fancy and paper.....	128		18		56	54			
Bread and other bakery products.....	1,647	87	6	182	184	1,028	89	31	40
Brick and tile.....	3,168	95	22	300	116	2,326	262	34	
Butter, cheese, and condensed milk.....	1,231	173	12	123	60	567	170	43	44
Buttons.....	3,172	19	9	432	1,804	634			274
Canning and preserving.....	1,247	69		11	4	1,061		91	11
Carpets, rag.....	158	6		60	31	61			
Carriages and wagons and materials.....	1,441	49	157	287	63	765	120		
Cars and general shop construction and repairs by steam-railroad companies.....	6,909	1,085		1,487	103	1,999	1,078		14
Cars and general shop construction and repairs by street-railroad companies.....	183	55		46		65	14		4
Clothing, men's, including shirts.....	1,480	170	267	422	529	102			
Clothing, women's.....	876	36	6	76	586	172			
Coffins, burial cases, and undertakers' goods.....	242		20	6		210			
Confectionery.....	1,032	7		147	165	701	6		6
Cooperage and wooden goods, not elsewhere specified.....	240	7	50	11	19	162			
Copper, tin, and sheet-iron products.....	585	92	19	116	20	338			
Cutlery and tools, not elsewhere specified.....	160	1		107	7	45			
Dairymen's, poulterers', and apalarists' supplies.....	730	1			35	694			
Flour-mill and gristmill products.....	647	80	6	22	1	403	99	30	50
Foundry and machine-shop products.....	5,108	34	23	673	1,771	2,595	3		9
Fur goods.....	73	8		32		32			
Furniture and refrigerators.....	1,074		28	67	375	604			
Gas and electric fixtures and lamps and reflectors.....	56	18	17	20		1			
Gas, illuminating and heating.....	806	43	5	67	143	46	101	24	377
Gloves and mittens, leather.....	234		78	4	101	61			
Ice, manufactured.....	161					26	7	74	44
Leather goods.....	600	4	6	16	406	168			
Liquors, malt.....	495	108		178	7	202			
Lumber and timber products.....	4,658	12	11	525	682	3,312	216		
Marble and stone work.....	315	154	5	58	15	83			
Mattresses and spring beds.....	242		3		61	178			
Paper and wood pulp.....	205						31	174	
Patent medicines and compounds and druggists' preparations.....	368	220	31	36	13	62			
Pottery, terra-cotta, and fire-clay products.....	280	7		22		171	80		
Printing and publishing.....	4,863	1,720	560	1,282	568	719	3	1	
Shipbuilding, including boat building.....	70			2		74			
Slaughtering and meat packing.....	4,144	324		922	60	2,836		2	
Stoves and furnaces, including gas and oil stoves.....	352	0		91		252			
Tobacco manufactures.....	1,043	1,023	505	129	184	102			
Wall plaster.....	539	13		27		499			
Woolen, worsted, and felt goods, and wool hats.....	134	22			4	108			
All other industries.....	6,765	269	154	822	1,814	2,106	1,052		538

Location of establishments.—The following table shows the extent to which the manufactures of Iowa 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 to be included in the group having over 10,000 inhabitants.

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 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.		
Population.....	1910	2,224,771	467,198	21.0	137,107	6.2	330,091	14.8	1,757,573	79.0
	1900	2,231,853	347,355	15.6	129,096	5.7	218,259	9.8	1,884,498	84.4
Number of establishments.....	1909	5,528	1,987	35.9	645	11.7	1,342	24.3	3,541	64.1
	1899	4,828	1,417	29.3	589	12.2	328	17.1	3,411	70.6
Average number of wage earners.....	1909	61,635	44,845	72.8	15,776	25.6	29,069	47.2	16,790	27.2
	1899	44,420	29,798	67.1	12,633	28.4	17,165	38.6	14,622	32.9
Value of products.....	1909	\$269,237,637	\$189,270,682	73.0	\$49,011,676	18.9	\$140,259,000	54.1	\$69,966,955	27.0
	1899	132,870,865	89,630,645	67.5	34,655,737	26.1	54,974,008	41.4	43,240,220	32.5
Value added by manufacture.....	1909	88,530,539	63,114,904	71.3	17,309,160	19.6	45,745,738	51.7	25,415,685	28.7
	1899	47,091,998	31,784,431	67.5	11,480,013	24.4	20,304,418	43.1	15,307,507	32.5

In 1909, 73 per cent of the total value of products was reported from cities having over 10,000 inhabitants, and 72.8 per cent of the average number of wage earners was employed in such cities. The figures indicate that while very little relative change has taken place during the last 10 years, yet on the whole the industries of the cities of over 10,000 have gained slightly on those of the districts outside during the last decade. The increase in the population of different cities has affected the grouping in the table. In 1900 Clinton and Waterloo were in the first group, but during the following decade the population of each increased so that both now fall in the second group. Prior to 1910 Boone, Iowa City, and Mason City each had less than 10,000 inhabitants, hence were included with the districts outside the cities in 1899.

The population for 1910 and 1900 of the 17 cities which had 10,000 inhabitants or over in 1910 is given in the following statement:

CITY.	1910	1900	CITY.	1910	1900
Des Moines.....	85,388	62,139	Ottumwa.....	22,012	18,197
Sioux City.....	47,828	33,111	Muscatine.....	16,173	14,073
Davenport.....	43,028	35,284	Fort Dodge.....	15,543	12,162
Dubuque.....	38,494	36,287	Keokuk.....	14,008	14,041
Cedar Rapids.....	32,811	25,656	Marshalltown.....	13,374	11,544
Council Bluffs.....	28,292	25,892	Mason City.....	11,230	16,748
Waterloo.....	26,688	12,590	Boone.....	10,347	8,880
Clinton.....	25,577	22,698	Iowa City.....	10,091	7,987
Burlington.....	24,324	23,201			

<sup>1</sup> Population less than 10,000 in 1900, therefore, in the preceding table the statistics for 1899 are included with those for the districts outside of cities.

The addition of Boone, Iowa City, and Mason City to the group of cities having 10,000 inhabitants or over in 1909 caused little proportionate change in the totals for such cities and for the remainder of the state. By deducting from the total for cities the total value of products, \$4,368,202, reported in 1909 for these three places, the remainder would represent 71.3 per cent instead of 73 per cent of the total for the state. The group comprising the cities having from 10,000 to 25,000 inhabitants shows a decline in its proportions of the various totals, as compared with 1899, while the group made up of cities having more than 25,000 inhabitants shows pronounced increases in these proportions, due in part to changes in the composition of the respective groups. A marked absolute increase was, however, returned in all items for the group of smaller cities. In 1909, of the total value of products reported for the state, 18.9 per cent was reported from the nine cities having from 10,000 to 25,000 inhabitants, and 54.1 per cent from the eight cities having more than 25,000 inhabitants.

The relative importance of each of the 17 cities having a population of 10,000 or over in 1910 is shown in the next 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
Sioux City.....	3,750	2,299	2,403	\$37,424,450	\$14,760,751	\$14,227,068
Cedar Rapids.....	3,565	3,259	2,374	24,824,276	16,279,700	11,135,435
Des Moines.....	5,383	4,155	3,479	23,584,607	15,084,058	8,396,495
Davenport.....	4,231	3,840	3,403	18,801,842	13,695,978	9,872,247
Dubuque.....	5,168	4,274	4,658	15,376,328	9,279,414	8,651,247
Ottumwa.....	2,650	2,304	1,820	14,838,315	10,374,158	8,683,006
Waterloo.....	3,124	1,674	804	8,999,420	4,693,883	2,038,222
Burlington.....	4,190	2,915	2,054	8,443,296	5,779,337	4,450,330
Clinton.....	2,414	2,152	2,502	7,479,515	4,000,355	6,203,316
Keokuk.....	1,541	1,533	1,362	7,398,733	4,225,915	3,048,460
Muscatine.....	3,496	2,763	2,589	6,165,866	5,039,640	5,219,787
Marshalltown.....	1,365	888	1,112	4,821,805	3,090,312	3,956,732
Council Bluffs.....	1,494	1,001	788	3,768,508	1,924,100	1,632,336
Fort Dodge.....	1,115	961	390	2,976,459	3,025,659	1,035,864
Mason City.....	807	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Iowa City.....	282	( <sup>1</sup> )	( <sup>1</sup> )	805,046	( <sup>1</sup> )	( <sup>1</sup> )
Boone.....	330	367	485	682,424	714,288	629,336

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

With the exception of Fort Dodge and Boone, every city for which separate statistics are presented for both 1904 and 1909 shows an increase in value of products for the five-year period, and all excepting Dubuque, Clinton, Muscatine, and Marshalltown show increases from 1899 to 1904. The percentages of increase, however, are generally greater for the period 1904-1909. The greatest absolute and relative gains from 1904 to 1909 were made by Sioux City, which is the most important manufacturing center of the state. During the period named the value of products increased \$22,663,699, or 153.5 per cent. This increase was due largely to the development of slaughtering and meat packing, which is the leading industry of the city. The next largest absolute increase, \$8,544,570, is shown for Cedar Rapids, and was due principally to an increased production of meat and other food products. Council Bluffs ranks next to Sioux City in the percentage of increase, with 95.9. This large increase was not due to unusual gains in any particular industry. Des Moines, which ranks first in population, ranks only third as a manufacturing center. The most important industries are foundry and machine-shop products, patent medicines and compounds, printing and publishing, and slaughtering and meat packing. A number of new industries have been established since 1904. This city shows an increase from 1904 to 1909 of \$8,499,709, or 56.3 per cent, in value of products, and an increase of 1,228, or 29.6 per cent, in number of wage earners.

The manufacture of glucose and starch, foundry and machine-shop, and flour-mill and gristmill products are the leading industries in Davenport. Steam-railroad repair shops, the men's clothing, and the lumber and timber industries are the most important in Dubuque. Ottumwa is the second city of the state in slaughtering and meat packing. Waterloo leads in the production of agricultural implements and dairymen's, poultryers', and apiarists' supplies, while Muscatine leads in the production of buttons. The principal industries in the remaining cities shown in the above table were as

follows: Burlington, the steam-railroad repair shops, and foundries and machine shops; Clinton, the manufacture of glucose and starch and of lumber and timber products; Keokuk, reworking butter and the manufacture of glucose and starch and of patent medicines; Marshalltown and Mason City, slaughtering and meat packing; Fort Dodge, the manufacture of boots and shoes, food preparations, and wall plaster; Iowa City, printing and publishing, breweries, and leather gloves and mittens; and Boone, railroad repair shops.

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.	INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>									
1899.....	5,528	61,635	\$259,237,637	\$88,530,589	<b>Buttons, 1909.....</b>	70	3,172	\$4,035,428	\$2,021,757
1904.....	4,785	49,481	160,572,313	57,728,421	Individual.....	20	274	318,749	218,001
<b>Individual:</b>					Firm.....	22	921	1,317,781	948,173
1909.....	2,735	7,600	24,053,314	11,140,151	Corporation <sup>1</sup> .....	22	1,977	2,395,898	1,459,028
1904.....	2,308	6,850	18,177,098	8,320,139	<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0
<b>Firm:</b>					Individual.....	37.1	8.6	7.9	8.3
1909.....	1,105	7,909	32,861,391	11,107,494	Firm.....	31.4	29.0	32.7	36.0
1904.....	1,088	7,073	18,986,724	8,591,840	Corporation <sup>1</sup> .....	31.4	62.3	59.4	55.7
<b>Corporation:</b>					<b>Carriages and wagons and materials, 1909.....</b>	119	1,441	\$4,786,321	\$2,038,810
1909.....	1,317	45,475	189,182,389	64,002,003	Individual.....	64	253	522,717	304,702
1904.....	1,041	34,042	116,240,585	30,788,462	Firm.....	35	393	1,641,050	712,184
<b>Other:</b>					Corporation.....	20	795	2,722,554	1,021,924
1909.....	371	651	13,140,543	1,320,041	<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0
1904.....	348	616	7,161,030	1,018,984	Individual.....	53.3	17.6	10.9	14.9
<b>Per cent of total:</b>					Firm.....	29.4	27.3	32.2	34.0
1909.....	100.0	100.0	100.0	100.0	Corporation.....	16.8	55.2	56.9	50.1
1904.....	100.0	100.0	100.0	100.0	<b>Flour-mill and gristmill products, 1909.....</b>	277	647	\$12,870,603	\$1,936,825
<b>Individual:</b>					Individual.....	146	171	2,412,391	441,067
1909.....	49.5	12.3	9.3	12.0	Firm.....	80	125	2,647,268	446,067
1904.....	48.2	13.8	11.3	14.4	Corporation <sup>1</sup> .....	42	351	7,910,914	1,049,101
<b>Firm:</b>					<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0
1909.....	20.0	12.8	12.7	12.5	Individual.....	52.7	26.4	18.7	22.8
1904.....	22.7	14.3	11.8	14.9	Firm.....	32.1	19.3	19.8	23.0
<b>Corporation:</b>					Corporation <sup>1</sup> .....	15.2	54.2	61.5	54.2
1909.....	23.8	73.8	73.0	73.4	<b>Foundry and machine-shop products, 1909.....</b>	274	5,108	\$14,064,382	\$7,692,806
1904.....	21.8	70.0	72.4	68.0	Individual.....	91	593	1,510,795	863,135
<b>Other:</b>					Firm.....	61	823	2,778,450	1,333,702
1909.....	6.7	1.1	5.1	1.5	Corporation.....	122	3,717	9,775,137	5,495,969
1904.....	7.3	1.2	4.5	1.8	<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0
<b>Agricultural implements, 1909.....</b>	42	1,318	\$4,757,089	\$2,585,973	Individual.....	33.2	11.0	10.7	11.2
Individual.....	8	38	102,783	41,019	Firm.....	22.3	16.2	19.8	17.3
Firm.....	8	26	32,166	37,005	Corporation.....	44.5	72.8	69.5	71.4
Corporation.....	26	1,254	4,572,161	2,504,949	<b>Lumber and timber products, 1909.....</b>	229	4,658	\$13,659,259	\$5,518,730
<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0	Individual.....	118	259	552,940	295,559
Individual.....	19.0	2.9	2.2	1.7	Firm.....	50	413	935,924	412,496
Firm.....	19.0	2.0	1.7	1.4	Corporation.....	65	3,986	11,160,395	4,810,675
Corporation.....	61.9	95.1	96.1	96.9	<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0
<b>Bread and other bakery products, 1909.....</b>	495	1,647	\$6,817,673	\$3,670,799	Individual.....	51.5	5.8	4.4	5.4
Individual.....	392	638	2,801,269	1,164,990	Firm.....	24.5	8.9	7.4	7.5
Firm.....	78	240	1,011,017	356,500	Corporation.....	24.0	85.6	88.2	87.2
Corporation <sup>1</sup> .....	25	769	2,945,396	1,149,303	<b>Printing and publishing, 1909.....</b>	1,110	4,853	\$12,138,657	\$8,841,560
<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0	Individual.....	702	1,635	3,399,193	2,616,071
Individual.....	79.2	38.7	42.0	43.6	Firm.....	203	729	1,429,501	1,039,301
Firm.....	15.8	14.0	14.8	13.3	Corporation.....	170	2,367	7,066,490	4,945,244
Corporation <sup>1</sup> .....	5.0	46.7	43.2	43.0	Other.....	30	72	233,473	192,344
<b>Brick and tile, 1909.....</b>	235	3,153	\$4,432,707	\$3,278,327	<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0
Individual.....	96	492	631,546	464,805	Individual.....	63.2	34.7	23.0	29.0
Firm.....	70	691	982,025	736,845	Firm.....	18.7	15.0	11.8	12.3
Corporation.....	69	1,975	2,809,196	2,076,677	Corporation.....	15.3	48.8	58.3	55.9
<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0	Other.....	2.7	1.5	1.9	2.2
Individual.....	40.9	15.6	14.1	14.2	<b>Slaughtering and meat packing, 1909.....</b>	33	4,144	\$59,045,232	\$5,917,856
Firm.....	20.8	21.9	21.9	22.5	Individual.....	12	94	931,307	133,513
Corporation.....	20.4	62.5	64.0	63.3	Firm.....	7	1,107	11,135,090	855,977
<b>Butter, cheese, and condensed milk, 1909.....</b>	512	1,231	\$25,849,866	\$3,008,236	Corporation.....	14	2,943	46,978,835	4,918,366
Individual.....	105	202	3,371,872	429,710	<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0
Firm.....	51	134	2,230,508	288,277	Individual.....	36.4	2.3	1.6	2.3
Corporation.....	68	407	7,737,188	1,274,499	Firm.....	21.2	20.7	18.9	14.6
Other.....	298	488	12,500,988	1,015,750	Corporation.....	42.4	71.0	79.6	83.1
<b>Per cent of total.....</b>	100.0	100.0	100.0	100.0					
Individual.....	20.5	16.4	13.0	14.3					
Firm.....	10.0	10.9	8.7	8.6					
Corporation.....	11.3	33.1	29.0	42.4					
Other.....	58.2	39.6	48.4	33.8					

<sup>1</sup> Includes the group "Other," to avoid disclosure of individual operations.

Little change is shown from 1904 to 1909 in the proportions of the total number of establishments under the several forms of ownership. Individual and corporate ownership each show a slight increase in their percentages of the total number of establishments, 1.3 and 2, respectively, while firm ownership and "Other" forms show decreases of 2.7 and six-tenths of 1 per cent, respectively.

For all industries combined, as measured by value of products and value added by manufacture, all forms of ownership show substantial absolute increases. The most noticeable feature of the table is the variation in the relative proportions of the different items reported for the respective forms of ownership. In 1909 establishments operated by corporations, although constituting only 23.8 per cent of the establishments engaged in all manufacturing industries, contributed 73 per cent of the total value of products, while individual ownership was credited with 49.5 per cent of the establishments and only 9.3 per cent of the total value of products.

The form of ownership prevailing in the different industries varied considerably. In all but four of the industries shown separately the most common form of ownership was the individual. The largest percentages of corporations are found in the agricultural implement, foundry and machine-shop, and slaughtering and meat-packing industries. In the butter, cheese, and condensed-milk industry the most common form of ownership was the cooperative, classed under "Other" form of ownership in the table. These are establishments operated largely by associations which organize for the purpose of securing a steadier and better market for their milk and cream.

**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 table on page 349 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 5,528 establishments only 29, or five-tenths of 1 per cent, had a value of products exceeding \$1,000,000. These establishments, however, employed a combined average of 10,394 wage earners, or 16.9 per cent of the total number in all establishments, and reported 36.9 per cent of the total value of products and 20.9 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 (41.3 per cent) of the total number of establishments, but the value of their products amounted to only 2.1 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. In 1909 these establishments reported 61.4 per cent of the total wage earners and 72 per cent of the total value of products.

It will be seen from the table that during the five years from 1904 to 1909 there was a considerable increase when 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 \$33,557 to \$46,895 and the value added by manufacture from \$12,064 to \$16,015 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 price of commodities. The average number of wage earners per establishment shows an increase of only one.

INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.	INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>					<b>Buttons, 1909.....</b>				
1909.....	5,528	61,635	\$259,237,637	\$88,530,589	Less than \$5,000.....	70	3,172	\$,4085,428	\$2,621,757
1904.....	4,785	49,481	160,572,313	57,728,421	\$5,000 and less than \$20,000.....	19	42	38,202	28,886
Less than \$5,000:	2,281	2,630	5,437,054	3,474,403	\$20,000 and less than \$100,000.....	23	1,021	1,035,230	716,089
1909.....	2,023	2,800	4,839,841	3,174,225	\$100,000 and less than \$1,000,000.....	9	1,887	2,704,369	1,741,069
1904.....	1,698	0,836	10,905,804	9,175,900	Percent of total.....	100.0	100.0	100.0	100.0
\$5,000 and less than \$20,000:	1,539	0,071	16,089,197	7,574,371	Less than \$5,000.....	27.1	1.3	0.9	1.0
1909.....	1,156	14,344	50,150,907	18,709,204	\$5,000 and less than \$20,000.....	27.1	7.0	5.1	5.2
1904.....	913	13,658	38,000,333	16,103,200	\$20,000 and less than \$100,000.....	32.9	32.2	26.0	27.3
\$20,000 and less than \$100,000:	360	27,422	91,007,657	38,737,503	\$100,000 and less than \$1,000,000.....	12.9	59.5	67.0	66.4
1909.....	249	21,424	60,553,653	25,530,650	Average per establishment.....	45	\$57,649	\$37,454	
1904.....	20	10,394	95,585,315	18,403,340	<b>Carriages and wagons and materials, 1909.....</b>				
\$100,000 and over:	11	4,898	41,089,284	5,255,936	Less than \$5,000.....	119	1,441	\$4,788,321	\$2,038,810
1909.....					\$5,000 and less than \$20,000.....	47	63	139,285	87,821
1904.....					\$20,000 and less than \$100,000.....	40	218	410,706	256,607
Percent of total:	100.0	100.0	100.0	100.0	\$100,000 and less than \$1,000,000.....	22	370	1,085,272	435,024
1909.....	100.0	100.0	100.0	100.0	\$100,000 and less than \$1,000,000.....	10	800	3,150,998	1,209,368
1904.....					Percent of total.....	100.0	100.0	100.0	100.0
Less than \$5,000:	41.3	4.3	2.1	3.9	Less than \$5,000.....	39.5	4.4	2.9	4.3
1909.....	42.3	5.8	3.0	5.5	\$5,000 and less than \$20,000.....	33.6	15.1	8.6	12.0
1904.....	30.7	11.1	6.5	10.4	\$20,000 and less than \$100,000.....	18.5	25.0	22.7	23.8
\$5,000 and less than \$20,000:	33.2	13.5	10.0	13.1	\$100,000 and less than \$1,000,000.....	8.4	55.5	65.8	59.3
1909.....	20.9	23.3	19.3	21.1	Average per establishment.....	12	\$40,221	\$17,133	
1904.....	19.1	27.6	23.7	23.0	<b>Flour-mill and gristmill products, 1909.....</b>				
\$20,000 and less than \$100,000:	6.0	44.5	35.1	43.8	Less than \$5,000.....	277	647	\$12,870,603	\$1,936,825
1909.....	5.2	43.3	37.7	44.2	\$5,000 and less than \$20,000.....	52	17	150,839	30,344
1904.....	0.5	10.9	36.9	20.9	\$20,000 and less than \$100,000.....	97	93	1,010,020	224,685
\$100,000 and over:	0.2	9.8	25.0	9.1	\$100,000 and less than \$1,000,000.....	105	228	3,959,401	678,032
1909.....					\$100,000 and less than \$1,000,000.....	23	309	7,744,343	997,704
1904.....					Percent of total.....	100.0	100.0	100.0	100.0
Average per establishment:	11	\$46,895	\$10,015	\$10,015	Less than \$5,000.....	18.8	2.0	1.2	1.9
1909.....	10	33,557	12,064	12,064	\$5,000 and less than \$20,000.....	35.0	14.4	7.9	11.6
1904.....					\$20,000 and less than \$100,000.....	37.9	35.2	30.8	35.0
<b>Agricultural implements, 1909.</b>					\$100,000 and less than \$1,000,000.....	8.3	47.8	60.2	61.5
Less than \$5,000.....	42	1,318	\$4,757,089	\$3,585,973	Average per establishment.....	2	\$40,404	\$6,992	\$6,992
\$5,000 and less than \$20,000.....	8	10	22,241	13,078	<b>Foundry and machine-shop products, 1909.....</b>				
\$20,000 and less than \$100,000.....	14	54	132,567	75,310	Less than \$5,000.....	274	5,108	\$14,004,382	\$7,692,806
\$100,000 and less than \$1,000,000.....	8	140	407,602	104,050	\$5,000 and less than \$20,000.....	64	64	150,271	104,777
Percent of total.....	100.0	100.0	100.0	100.0	\$20,000 and less than \$100,000.....	90	419	602,055	559,180
Less than \$5,000.....	19.0	0.8	0.5	0.5	\$100,000 and less than \$1,000,000.....	84	1,307	3,623,019	2,041,263
\$5,000 and less than \$20,000.....	33.3	4.1	2.8	2.9	\$100,000 and less than \$1,000,000.....	30	3,325	9,380,039	4,057,577
\$20,000 and less than \$100,000.....	10.0	11.1	8.6	7.5	Percent of total.....	100.0	100.0	100.0	100.0
\$100,000 and less than \$1,000,000.....	28.6	84.1	88.2	89.0	Less than \$5,000.....	23.4	1.3	1.0	1.4
Average per establishment.....	31	\$113,204	\$61,571	\$61,571	\$5,000 and less than \$20,000.....	32.8	8.2	0.4	7.3
<b>Bread and other bakery products, 1909.....</b>					\$20,000 and less than \$100,000.....	30.7	25.4	25.8	26.5
Less than \$5,000.....	495	1,647	\$6,817,672	\$2,670,799	\$100,000 and less than \$1,000,000.....	13.1	65.1	67.7	64.8
\$5,000 and less than \$20,000.....	211	128	570,471	250,858	Average per establishment.....	19	\$51,830	\$28,076	\$28,076
\$20,000 and less than \$100,000.....	234	490	2,157,922	884,251	<b>Lumber and timber products, 1909.....</b>				
\$100,000 and less than \$1,000,000.....	40	369	1,469,180	570,767	Less than \$5,000.....	229	4,653	\$12,659,259	\$5,518,730
Percent of total.....	100.0	100.0	100.0	100.0	\$5,000 and less than \$20,000.....	124	112	254,845	149,342
Less than \$5,000.....	42.0	7.8	8.5	9.0	\$20,000 and less than \$100,000.....	47	177	385,294	212,362
\$5,000 and less than \$20,000.....	47.3	29.8	31.0	33.1	\$100,000 and less than \$1,000,000.....	30	621	1,384,243	610,479
\$20,000 and less than \$100,000.....	8.1	22.4	21.4	21.4	\$100,000 and less than \$1,000,000.....	25	2,732	7,230,278	2,990,757
\$100,000 and less than \$1,000,000.....	2.0	40.1	38.5	35.9	Average per establishment.....	8	1,016	3,404,600	1,649,790
Average per establishment.....	3	\$13,773	\$5,390	\$5,390	Percent of total.....	100.0	100.0	100.0	100.0
<b>Brick and tile, 1909.....</b>					Less than \$5,000.....	54.1	2.4	2.0	2.7
Less than \$5,000.....	235	3,158	\$4,432,767	\$3,278,327	\$5,000 and less than \$20,000.....	20.5	3.8	3.0	3.5
\$5,000 and less than \$20,000.....	81	209	221,549	171,445	\$20,000 and less than \$100,000.....	13.1	13.3	10.9	11.1
\$20,000 and less than \$100,000.....	91	693	902,033	695,150	\$100,000 and less than \$1,000,000.....	10.0	58.7	57.1	54.3
\$100,000 and less than \$1,000,000.....	40	1,362	1,035,799	1,379,125	Average per establishment.....	1.3	21.8	26.9	23.1
Percent of total.....	100.0	100.0	100.0	100.0	Average per establishment.....	20	\$55,281	\$24,090	\$24,090
Less than \$5,000.....	35.7	6.6	4.9	5.3	<b>Printing and publishing, 1909.....</b>				
\$5,000 and less than \$20,000.....	33.7	21.6	20.1	20.9	Less than \$5,000.....	1,110	4,853	\$12,128,657	\$8,841,560
\$20,000 and less than \$100,000.....	20.9	43.1	43.2	43.1	\$5,000 and less than \$20,000.....	674	937	1,654,559	1,324,495
\$100,000 and less than \$1,000,000.....	4.7	28.6	31.8	31.7	\$20,000 and less than \$100,000.....	341	1,521	2,978,787	2,313,021
Average per establishment.....	13	\$19,076	\$13,950	\$13,950	\$100,000 and less than \$1,000,000.....	71	1,232	3,148,732	2,210,854
<b>Butter, cheese, and condensed milk, 1909.....</b>					\$100,000 and less than \$1,000,000.....	24	1,163	4,346,629	2,984,250
Less than \$5,000.....	512	1,231	\$25,849,868	\$3,008,236	Percent of total.....	100.0	100.0	100.0	100.0
\$5,000 and less than \$20,000.....	10	9	52,931	10,353	Less than \$5,000.....	60.7	19.3	13.6	15.0
\$20,000 and less than \$100,000.....	109	115	1,414,023	190,942	\$5,000 and less than \$20,000.....	30.7	31.3	24.6	26.2
\$100,000 and less than \$1,000,000.....	343	650	14,921,039	1,322,643	\$20,000 and less than \$100,000.....	6.4	25.4	26.0	25.1
Percent of total.....	100.0	100.0	100.0	100.0	\$100,000 and less than \$1,000,000.....	2.2	24.0	35.8	33.8
Less than \$5,000.....	3.1	0.7	0.2	0.3	Average per establishment.....	4	\$10,927	\$7,965	\$7,965
\$5,000 and less than \$20,000.....	21.3	9.3	6.5	6.3	<b>Slaughtering and meat packing, 1909.....</b>				
\$20,000 and less than \$100,000.....	63.0	52.8	57.7	44.0	Less than \$5,000.....	88	4,144	\$59,045,232	\$5,917,856
\$100,000 and less than \$1,000,000.....	7.6	37.1	36.6	49.3	\$5,000 and less than \$20,000.....	6	6	84,893	17,662
Average per establishment.....	2	\$50,488	\$5,875	\$5,875	\$20,000 and less than \$100,000.....	11	54	532,289	100,179
<b>Buttons, 1909.....</b>					\$100,000 and less than \$1,000,000.....	8	290	3,230,188	395,910
Less than \$5,000.....	70	3,172	\$,4085,428	\$2,621,757	\$1,000,000 and over.....	8	3,792	55,227,862	5,404,105
\$5,000 and less than \$20,000.....	19	42	38,202	28,886	Percent of total.....	100.0	100.0	100.0	100.0
\$20,000 and less than \$100,000.....	23	1,021	1,035,230	716,089	Less than \$5,000.....	18.2	0.2	0.1	0.3
\$100,000 and less than \$1,000,000.....	9	1,887	2,704,369	1,741,069	\$5,000 and less than \$20,000.....	33.3	1.3	0.9	1.7
Percent of total.....	100.0	100.0	100.0	100.0	\$20,000 and less than \$100,000.....	24.2	7.0	5.5	6.3
Less than \$5,000.....	27.1	1.3	0.9	1.0	\$100,000 and less than \$1,000,000.....	24.2	91.5	93.5	91.3
\$5,000 and less than \$20,000.....	27.1	7.0	5.1	5.2	Average per establishment.....	126	\$1,789,249	\$179,329	\$179,329
\$20,000 and less than \$100,000.....	32.9	32.2	26.0	27.3	<b>Buttons, 1909.....</b>				
\$100,000 and less than \$1,000,000.....	12.9	59.5	67.0	66.4	Less than \$5,000.....	70	3,172	\$,4085,428	\$2,621,757
Average per establishment.....	45	\$57,649	\$37,454		\$5,000 and less than \$20,000.....	19	42	38,202	28,886
<b>Carriages and wagons and materials, 1909.....</b>					\$20,000 and less than \$100,000.....	23	1,021	1,035,230	716,089
Less than \$5,000.....	119	1,441	\$4,788,321	\$2,038,810	\$100,000 and less than \$1,000,000.....	9	1,887	2,704,369	1,741,069
\$5,000 and less than \$20,000.....	47	63	139,285	87,821	Percent of total.....	100.0	100.0	100.0	100.0
\$20,000 and less than \$100,000.....	40	218	410,706	256,607	Less than \$5,000.....	39.5	4.4	2.9	4.3
\$100,000 and less than \$1,000,000.....	22	370	1,085,272	435,024	\$5,000 and less than \$20,000.....	33.6	15.1	8.6	12.0
Percent of total.....	100.0	100.0	100.0	100.0	\$20,000 and less than \$100,000.....	18.5	25.0	22.7	23.8
Less than \$5,000.....	39.5	4.4	2.9	4.3	\$100,000 and less than \$1,000,000.....	8.4	55.5	65.8	59.3
\$5,000 and less than \$20,000.....	33.6	15.1	8.6	12.0	Average per establishment.....	12	\$40,221	\$17,133	
\$20,000 and less than \$100,000.....	18.5	25.0	22.7	23.8	<b>Flour-mill and gristmill products, 1909.....</b>				
\$100,000 and less than \$1,000,000.....	8.4	55.5	65.8	59.3	Less than \$5,000.....	277	647	\$12,870,603	\$1,936,825
Average per establishment.....	12	\$40,221	\$17,133		\$5,000 and less than \$20,000.....	52	17	150,839	30,344



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.....	5,528	648	3,525	815	318	130	68	24	9	1
Agricultural implements.....	42	1	19	7	9	3	2	1		
Bread and other bakery products.....	495	93	258	34	5	1	4			
Brick and tile.....	235	3	120	73	23	14	2			
Butter, cheese, and condensed milk.....	512	29	444	31	8					
Buttons.....	70		22	18	13	8	6	3		
Carriages and wagons and materials.....	119	13	59	34	7	3	3			
Cars and general shop construction and repairs by steam-railroad companies.....	33		1	5	5	4	7	7	4	
Flour-mill and gristmill products.....	277	55	199	19	4					
Foundry and machine-shop products.....	274	16	131	78	28	12	6	3		
Liquors, malt.....	19		2	8	7	1	1			
Lumber and timber products.....	229	8	156	28	14	11	7	5		
Patent medicines and compounds and druggists' preparations.....	100	30	58	9	2		1			
Printing and publishing.....	1,110	158	777	135	34	3	3			
Slaughtering and meat packing.....	33		12	9	1	5	2		3	1
Tobacco manufactures.....	372	93	217	49	4	7	2			
All other industries.....	1,608	144	950	278	149	58	22	5	2	
AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	61,635		7,169	8,903	10,224	9,188	10,238	8,617	6,231	1,075
Agricultural implements.....	1,318		45	75	277	224	403	294		
Bread and other bakery products.....	1,647		625	330	152	64	476			
Brick and tile.....	3,158		398	345	634	965	258			
Butter, cheese, and condensed milk.....	1,231		707	285	230					
Buttons.....	3,172		52	234	440	559	969	918		
Carriages and wagons and materials.....	1,441		156	367	280	193	445			
Cars and general shop construction and repairs by steam-railroad companies.....	6,969		2	89	145	310	989	2,540	2,894	
Flour-mill and gristmill products.....	647		330	173	144					
Foundry and machine-shop products.....	5,108		333	900	951	860	943	1,121		
Liquors, malt.....	495		7	86	205	67	129			
Lumber and timber products.....	4,658		217	320	520	760	1,016	1,825		
Patent medicines and compounds and druggists' preparations.....	358		99	88	43		128			
Printing and publishing.....	4,853		1,778	1,378	1,060	217	420			
Slaughtering and meat packing.....	4,144		21	101	36	359	318		2,234	1,075
Tobacco manufactures.....	1,943		453	625	121	547	292		1,919	1,103
All other industries.....	20,493		1,943	3,107	4,916	4,063	3,442	1,919	1,103	
PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	100.0		11.6	14.4	16.6	14.9	16.6	14.0	10.1	1.7
Agricultural implements.....	100.0		3.4	5.7	21.0	17.0	30.0	22.3		
Bread and other bakery products.....	100.0		37.9	20.0	9.2	3.9	28.9			
Brick and tile.....	100.0		12.5	26.8	22.0	30.6	8.2			
Butter, cheese, and condensed milk.....	100.0		57.4	23.2	18.4					
Buttons.....	100.0		1.6	7.4	13.9	17.6	30.5	28.9		
Carriages and wagons and materials.....	100.0		10.8	25.5	19.4	13.4	30.9			
Cars and general shop construction and repairs by steam-railroad companies.....	100.0		(1)	1.3	2.1	4.4	14.2	36.4	41.5	
Flour-mill and gristmill products.....	100.0		51.0	26.7	22.3					
Foundry and machine-shop products.....	100.0		6.5	17.6	18.6	15.8	18.5	21.9		
Liquors, malt.....	100.0		1.4	17.4	41.6	13.5	26.1			
Lumber and timber products.....	100.0		4.7	6.9	11.2	16.3	21.8	39.2		
Patent medicines and compounds and druggists' preparations.....	100.0		27.7	24.6	12.0		35.8			
Printing and publishing.....	100.0		36.6	28.4	21.8	4.5	8.7			
Slaughtering and meat packing.....	100.0		0.5	2.4	0.9	8.7	7.7		53.9	25.9
Tobacco manufactures.....	100.0		23.6	27.0	6.2	28.2	15.0			
All other industries.....	100.0		9.5	15.2	24.0	19.8	16.8	9.4	5.4	

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

Of the 5,528 establishments reported for all industries, 11.6 per cent employed no wage earners; 63.8 per cent, from 1 to 5; 14.7 per cent, 6 to 20; 5.7 per cent, 21 to 50; and 4.2 per cent, more than 50. The most numerous single group consists of the 3,525 establishments employing from 1 to 5 wage earners,

and the next of the 815 establishments employing from 6 to 20 wage earners. There were 102 establishments that employed over 100 wage earners; 34 employed over 250; 9 employed over 500; and only 1, which was a slaughtering and meat-packing establishment, employed over 1,000.

Of the total number of wage earners, 42.4 per cent were in establishments employing over 100 wage earners. The two groups having the largest number of employees were those comprising the establishments employing from 21 to 50 wage earners and from 101 to 250, each of which employed 10,228 wage earners, or 16.6 per cent of the total. The individual industries listed in this table, but not in the preceding one, namely, the steam-railroad repair shops, breweries, the patent medicine industry, and tobacco manufactures 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.

**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 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.

This table shows that, for all industries combined, 73.2 per cent of the total expenses were incurred for materials, 18.6 per cent for services—that is, salaries and wages—and but 8.2 per cent for other purposes. As would be expected, these proportions vary greatly in the different industries. The high percentage for materials shown for all industries combined is caused mainly by three important industries, namely, slaughtering and meat packing; the butter, cheese, and condensed-milk industry; and the flour-mill and gristmill industry, for which the proportions were 92.3 per cent, 91.9 per cent, and 91.7 per cent, respectively. The expenses for services, however, were but 4.9 per cent of the total for the slaughtering and meat-packing and the butter, cheese, and condensed-milk industries, and 4.7 per cent for the flour-mill and gristmill industry.

The large proportion shown for miscellaneous expenses for the malt-liquor industry is due to the inclusion of internal-revenue tax, and that for the patent-medicine industry is because of the large expenses for advertising.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries.....	4.7	13.9	73.2	8.2
Agricultural implements.....	9.4	17.8	56.6	16.2
Bread and other bakery products.....	5.0	14.5	70.8	9.8
Brick and tile.....	8.5	47.3	34.1	10.2
Butter, cheese, and condensed milk.....	1.5	3.4	91.9	3.2
Buttons.....	3.9	42.2	42.3	11.6
Cars and wagons and materials.....	5.6	20.1	66.6	7.7
Cars and general shop construction and repairs by steam-railroad companies.....	4.7	44.2	50.2	1.0
Flour-mill and gristmill products.....	1.5	3.2	91.7	3.6
Foundry and machine-shop products.....	8.2	26.2	54.1	11.6
Liquors, malt.....	8.9	13.3	38.2	41.5
Lumber and timber products.....	4.6	20.8	63.0	11.5
Patent medicines and compounds and druggists' preparations.....	15.6	5.0	39.6	39.8
Printing and publishing.....	16.9	27.4	34.8	20.9
Slaughtering and meat packing.....	1.1	3.8	92.3	2.7
Tobacco manufactures.....	5.8	28.4	46.0	19.8
All other industries.....	6.0	14.5	69.5	9.9

**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 <sup>1</sup>	1909	1904	1899 <sup>1</sup>	1909	1904	1899
<b>Primary power, total.....</b>	<b>6,585</b>	<b>3,375</b>	<b>4,216</b>	<b>155,384</b>	<b>118,065</b>	<b>103,664</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Owned.....	3,574	3,375	4,216	136,465	112,435	103,409	87.8	95.2	96.9
Steam.....	2,054	2,215	3,017	121,832	100,418	91,132	78.4	85.1	85.5
Gas.....	1,330	922	921	3,025	4,480	4,524	5.2	3.8	4.2
Water wheels.....	161	208	278	6,323	6,448	7,315	4.1	5.5	6.9
Water motors.....	23	30	( <sup>2</sup> )	85	83	( <sup>2</sup> )	0.1	0.1	( <sup>2</sup> )
Other.....				147	1,000	388	0.1	0.8	0.4
Rented.....	3,011	( <sup>2</sup> )	( <sup>2</sup> )	18,919	5,630	3,255	12.2	4.8	3.1
Electric.....	3,011	( <sup>2</sup> )	( <sup>2</sup> )	18,463	5,107	2,613	11.9	4.3	2.4
Other.....				456	523	642	0.3	0.4	0.6
<b>Electric motors</b>	<b>4,459</b>	<b>271</b>	<b>211</b>	<b>40,736</b>	<b>8,663</b>	<b>6,222</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Run by current generated by establishment.....	1,448	271	211	22,273	3,553	3,609	54.7	41.0	58.0
Run by rented power.....	3,011	( <sup>2</sup> )	( <sup>2</sup> )	18,463	5,107	2,613	45.3	59.0	42.0

<sup>1</sup> Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.  
<sup>2</sup> Not reported.

The table indicates that from 1904 to 1909 there was an increase of 37,319 horsepower, or 31.6 per cent, in the total primary power used in manufactures, while from 1899 to 1904 the increase was only 11,401 horsepower, or 10.7 per cent. Of the total increase from 1904 to 1909 in power used, 21,464 horsepower, or 57.5 per cent, was in power generated by steam engines, and 13,356 horsepower, or 35.8 per cent, in rented electric power. Water power decreased from 7,315 horsepower in 1899 to 6,531 in 1904 and 6,411 in 1909. The classes of power, both owned and rented, included under the head of "Other" show a decrease from 1904 to 1909. Steam is still the predominant power, although it furnished but 78.4 per cent of the total horsepower in 1909, as compared with 85.1 per cent in 1904 and 85.5 per cent in 1899. The more general use of gas engines is shown, there being 1,336 such engines, with a total of 8,025 horsepower, reported in 1909, as against 922 engines, with 4,486 horsepower, in 1904. The figures also show that the practice of renting electric power is on the increase, 11.9 per cent of the total primary power being of this character in 1909, compared with but 4.3 per cent in 1904 and only 2.4 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, the horsepower of such motors having increased from 3,556 in 1904 to 22,273 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 following table shows the quantity of each kind of fuel used in 1909, by totals for all industries, and for certain selected industries:

INDUSTRY.	An-thra-cite coal (tons).	Bitumi-nous coal (tons).	Coke (tons).	Wood (cords).	Oil, in-cluding gasolins (bar-rels).	Gas (1,000 feet).
All industries .....	8,726	1,835,448	49,584	26,195	186,885	66,505
Agricultural implements .....	28	16,139	1,154	24	1,026	166
Bread and other bakery prod-ucts .....	1,391	9,383	4,875	9,431	406	7,395
Brick and tile .....	1,500	407,742	560	1,608	201	.....
Butter, cheese, and condensed milk .....	192	66,615	168	2,312	292	.....
Buttons .....	134	18,821	12	210	669	.....
Carriages and wagons and mate-rials .....	65	12,979	587	105	1,951	545
Cars and general shop construc-tion and repairs by steam-rail-road companies .....	213	225,117	273	1,286	2,594	.....
Flour-mill and gristmill prod-ucts .....	356	56,061	2	196	1,038	3,603
Foundry and machine-shop products .....	1,225	53,402	11,043	1,693	14,743	4,752
Gas, illuminating and heating .....	216	94,175	24,234	.....	138,484	2
Ice, manufactured .....	.....	22,026	.....	.....	20	.....
Liquors, malt .....	134	38,486	.....	31	7	.....
Lumber and timber products .....	180	14,797	42	4	290	2
Patent medicines and com-pounds and druggists' propa-gations .....	162	3,353	.....	11	31	704
Printing and publishing .....	460	13,048	114	242	2,766	23,165
Slaughtering and meat packing .....	21	167,003	.....	1,198	205	812
Tobacco manufactures .....	386	2,008	40	47	1	17
Wall plaster .....	.....	35,650	787	.....	.....	.....
All other industries .....	2,063	510,543	5,693	7,797	22,171	25,052

NOTE.—In addition, there were 754 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 value of materials and products which do not appear on the general schedule. Certain data of this character for five important industries in Iowa are here presented.

Slaughtering and meat packing.—The number and cost of animals slaughtered, by kind, together with the cost of fuel and rent of power and the cost of all other materials, and the kinds, quantities, and values of products, as reported at the censuses of 1909, 1904, and 1899, are shown in the following table:

MATERIAL OR PRODUCT.	1909	1904	1899
<b>Materials used, total cost</b> .....	<b>\$53,127,376</b>	<b>\$27,243,795</b>	<b>\$21,604,479</b>
<b>Beeves slaughtered:</b>			
Number.....	252,821	91,504	77,846
Cost.....	\$11,256,445	\$3,127,120	\$2,512,385
<b>Calves slaughtered:</b>			
Number.....	20,437	8,546	4,291
Cost.....	\$202,852	\$55,512	\$30,093
<b>Sheep slaughtered:</b>			
Number.....	49,577	13,071	13,686
Cost.....	\$223,750	\$50,249	\$80,106
<b>Hogs slaughtered:</b>			
Number.....	2,487,251	2,070,473	1,922,608
Cost.....	\$38,499,010	\$22,489,800	\$17,521,205
Fuel and rent of power.....	\$355,878	\$100,849	\$142,271
All other materials.....	\$2,589,423	\$1,330,205	\$1,338,320
<b>Products, total value</b> .....	<b>\$59,045,233</b>	<b>\$30,152,170</b>	<b>\$25,762,844</b>
<b>Beef, fresh:</b>			
Pounds.....	123,780,302	41,675,822	30,578,342
Value.....	\$8,854,488	\$2,844,547	\$2,125,028
<b>Beef, salted or cured:</b>			
Pounds.....	5,635,184	1,280,572	1,305,205
Value.....	\$441,075	\$97,054	\$84,538
<b>Veal, fresh:</b>			
Pounds.....	2,429,140	704,679	457,581
Value.....	\$226,921	\$82,808	\$39,972
<b>Mutton, fresh:</b>			
Pounds.....	1,848,011	532,745	1,159,736
Value.....	\$170,834	\$47,005	\$98,094
<b>Pork, fresh:</b>			
Pounds.....	100,113,209	41,260,001	31,774,211
Value.....	\$9,750,724	\$2,973,294	\$2,337,221
<b>Pork, salted or cured:</b>			
Pounds.....	219,106,133	215,425,256	206,086,098
Value.....	\$24,852,404	\$16,067,746	\$15,369,109
<b>Sausage, fresh or cured</b> .....	\$1,432,508	\$743,347	\$630,306
<b>All other fresh meat:</b>			
Pounds.....	3,820,807	13,599,742	6,800
Value.....	\$209,302	\$894,121	\$300
<b>Lard:</b>			
Pounds.....	71,084,771	65,322,473	70,441,702
Value.....	\$8,050,149	\$4,091,941	\$4,081,555
<b>Tallow, oleo stock, and stearin:</b>			
Pounds.....	5,722,226	(1)	(1)
Value.....	\$465,545		
<b>Fertilizers and fertilizer materials:</b>			
Tons.....	12,810	8,248	6,928
Value.....	\$294,072	\$168,064	\$84,279
<b>Hides:</b>			
Number.....	265,063	94,080	81,820
Pounds.....	14,727,015	6,562,413	4,278,088
Value.....	\$1,873,592	\$631,001	\$420,183
<b>Pelts:</b>			
Number.....	49,534	13,070	(1)
Value.....	\$61,386	\$10,829	
Amount received for custom or contract work.....	\$3,148	\$500	\$1,325
All other products.....	\$2,345,084	\$928,653	\$490,304

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

The number of all animals slaughtered increased from 2,018,521 in 1899 to 2,183,654 in 1904 and 2,810,086 in 1909, representing a gain of 165,133, or 8.2 per cent, from 1899 to 1904, and a gain of 626,432, or 28.7 per cent, from 1904 to 1909. The table indicates that the total number and total cost of each of

the four classes of animals increased from 1904 to 1909, and, with the exception of sheep, this is true of the period from 1899 to 1904. Hogs represented 88.5 per cent of the total number and 76.7 per cent of the total cost of the animals slaughtered in 1909, and beeves only 9 per cent of the total number and 22.4 per cent of the total cost.

Each of the products in the above table shows an increase in quantity and value from 1904 to 1909, with the single exception of the products included in the total for all other fresh meat. From 1899 to 1904, however, the quantities of salted and cured beef and of lard, and the quantity and value of fresh mutton, and the amount received for contract work decreased. In 1909 all meats, both fresh and cured, were valued at \$45,938,256, which constituted 77.8 per cent of the total value of products for the industry. The value of this group of products was \$23,720,582 in 1904 and \$20,685,108 in 1899, representing 78.7 per cent and 80.3 per cent, respectively, of the totals for the industry at the two censuses. It is noteworthy that the output of lard from 1904 to 1909 increased 8.8 per cent, whereas its value increased 71.8 per cent.

Butter, cheese, and condensed milk.—The quantity of milk used in this industry decreased from 1,586,044,620 pounds in 1899 to 994,925,394 pounds in 1904 and 474,821,988 pounds in 1909, whereas the quantity of cream increased as regularly from 45,621,241 pounds in 1899 to 110,850,356 pounds in 1904 and 243,619,568 pounds in 1909. This condition is due to the radical change which has taken place in the industry during the last decade. Formerly whole milk was brought to the creamery, while at present the cream is usually separated before leaving the farm.

The quantity and value of products for 1909, 1904, and 1899 are presented in the following table:

PRODUCT.	1909	1904 <sup>1</sup>	1899
<b>Total value</b> .....	<b>\$25,349,866</b>	<b>\$15,028,328</b>	<b>\$15,846,077</b>
<b>Butter:</b>			
Packed solid—			
Pounds.....	75,581,191	65,995,782	74,795,240
Value.....	\$20,800,762	\$13,229,840	\$14,434,210
Prints or rolls—			
Pounds.....	13,000,996	5,185,984	2,438,024
Value.....	\$3,639,963	\$1,100,914	\$477,323
<b>Cream sold:</b>			
Pounds.....	1,169,943	1,741,469	735,000
Value.....	\$134,156	\$142,381	\$44,776
<b>Cheese, full cream:</b>			
Pounds.....	999,559	2,829,745	3,767,490
Value.....	\$148,876	\$282,073	\$369,622
All other products <sup>2</sup> .....	\$1,126,119	\$273,113	\$520,140

<sup>1</sup> Does not include statistics for one condensed-milk establishment.  
<sup>2</sup> Includes skimmed milk sold, casein, whey, and condensed milk.

No manufacture of condensed milk was reported in the state in 1899, and only one establishment was reported as engaged in this branch of the industry in

1904 and three in 1909. The combined output of the three factories in 1909 was important, but can not be presented separately in the above table without disclosing the operations of individual establishments, and the value therefore is included in the total for all other products.

The value of solid packed butter represented 80.5 per cent of the total value of products in 1909, 88 per cent in 1904, and 91.1 per cent in 1899. The quantity and value of cheese manufactured show a decrease from census to census, while cream showed a decrease in both respects from 1904 to 1909.

**Flour-mill and gristmill products.**—The following tabular statement gives the quantity and value of the principal kinds of products manufactured during the last three census years:

PRODUCT.	1909	1904	1899
Total value.....	\$12,870,603	\$12,099,493	\$11,012,608
Wheat flour:			
White—			
Barrels.....	1,493,263	1,689,716	2,273,924
Value.....	\$7,814,168	\$8,246,299	\$7,032,378
Graham—			
Barrels.....	30,001	27,972	(1)
Value.....	\$144,807	\$125,317	(1)
Corn meal and corn flour:			
Barrels.....	184,301	210,926	523,524
Value.....	\$552,328	\$453,045	\$755,132
Rye flour:			
Barrels.....	20,906	27,207	41,601
Value.....	\$95,019	\$110,790	\$114,430
Buckwheat flour:			
Pounds.....	2,870,980	3,537,309	5,075,833
Value.....	\$97,510	\$105,255	\$143,824
Hominy and grits:			
Pounds.....	16,416,130	2,399,265	1,640,000
Value.....	\$232,936	\$28,944	\$10,200
Feed:			
Tons.....	98,945	69,317	174,582
Value.....	\$2,593,029	\$1,416,725	\$1,671,214
Offal:			
Tons.....	40,014	80,547	60,728
Value.....	\$1,002,552	\$1,409,111	\$637,675
All other products.....	\$308,254	\$204,001	\$147,755

<sup>1</sup> Included in figures for white wheat flour.

The main part of the product of this industry was white wheat flour, the value of which constituted 60.7 per cent of the total value of products for the industry in 1909, as against 68.2 per cent in 1904 and 69.3 per cent in 1899. The quantity of this class of products has decreased constantly since 1899, whereas the value increased \$613,921 from 1899 to 1904, but decreased \$432,131 from 1904 to 1909. With the exception of Graham flour and feed, each of the different varieties of products decreased in quantity from 1904 to 1909, while the only decreases in value of products were shown for white flour, rye flour, buckwheat flour, and offal.

**Printing and publishing.**—The progress of the newspaper and periodical branch of the printing and publishing industry during the last decade is indicated in the next statement, which shows the number and aggregate circulation per issue of the different classes of publications for the years 1909, 1904, and 1899.

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1909	1904	1899	1909	1904	1899
Total.....	1,004	1,080	1,084	3,806,253	2,747,112	1,884,875
Daily.....	68	66	65	450,019	327,211	217,589
Sunday.....	14	13	39	169,678	133,745	(1)
Semiweekly and tri-weekly.....	54	60	65	155,926	188,630	187,896
Weekly.....	784	864	831	1,419,709	1,107,294	1,105,000
Monthly.....	66	60	64	1,490,861	846,256	301,205
All other classes.....	18	17	20	118,160	83,975	72,519

<sup>1</sup> Included in circulation of dailies.

From 1899 to 1909 the aggregate circulation per issue for all publications combined more than doubled, while there was a decrease of 80 in the number of publications. With the exception of the weeklies and semiweeklies and triweeklies, each of the several classes of publications increased in number and in circulation between 1904 and 1909. In 1909, 15 of the 68 daily papers, with an aggregate circulation of 110,794, were morning editions. All the publications were in the English language, except 2 dailies, which were in German; 8 semiweeklies, 5 of which were in German, 1 in Norwegian, 1 in Dutch, and 1 in Bohemian; 42 weeklies, 1 of which was in Bohemian, 3 in Danish, 2 in Dutch, 30 in German, 1 in German and English, 3 in Norwegian, and 2 in Swedish; 6 monthlies, 1 of which was in Dutch, 3 in German, 1 in Norwegian, and 1 in Swedish; and 1 included under the head of "All other classes," which was in German.

**Agricultural implements.**—Although tenth among the industries shown separately for this state, when measured by value of products, this class of manufacture is of considerable interest, owing to the importance of the state in agriculture. The next table gives in detail, by groups, the value of products manufactured during 1909 and 1904 and the total value of products for 1899.

The products included in the total for "All other products" represent more than half of the total value, including thousands of small implements, such as hoes and rakes.

PRODUCT.	1909	1904	1899
Total value.....	\$4,757,089	\$2,692,212	\$1,508,667
Implements of cultivation.....	438,837	497,435	(1)
Harvesting implements.....	1,157,701	858,104	(1)
Seed separators.....	55,018	277,189	(1)
All other products.....	2,785,870	1,027,025	(1)
Amount received for repair work.....	318,763	22,459	20,435

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

**Laundries.**—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. In 1909 there were 181 such establishments in Iowa, of which 15 were in Des Moines; 8 each in Cedar Rapids, Davenport, and Sioux City; 5 in Dubuque; 4 in Muscatine; 3 each in

Burlington, Council Bluffs, Iowa City, Keokuk, and Waterloo; and 2 each in Boone, Clinton, Fort Dodge, Marshalltown, Mason City, and Ottumwa.

The following statement summarizes the statistics:

Number of establishments.....	181
Persons engaged in the industry.....	2,468
Proprietors and firm members.....	206
Salaried employees.....	139
Wage earners (average number).....	2,123
Primary horsepower.....	2,941
Capital.....	\$1,261,954
Expenses.....	1,617,551
Services.....	913,989
Materials.....	428,771
Miscellaneous.....	274,791
Amount received for work done.....	2,063,451

The most common form of organization was the individual, with 122 establishments. The firm and corporate forms of ownership were represented by 39 and 20 establishments, respectively. Seventy establishments had receipts for the year's business of less than \$5,000; 82, receipts of \$5,000 but less than \$20,000; and 29, receipts 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.....	2,030	90.3	July.....	2,195	97.6
February.....	2,024	90.0	August.....	2,242	99.7
March.....	2,031	90.3	September.....	2,248	100.0
April.....	2,053	91.3	October.....	2,180	97.0
May.....	2,074	92.3	November.....	2,130	94.8
June.....	2,130	94.8	December.....	2,139	95.2

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.....		2,941
Owned.....	162	2,088
Steam.....	143	2,557
Gas.....	19	111
Rented—Electric.....	58	273

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

KIND.	Unit.	Quantity.
Anthracite coal.....	Tons.....	812
Bituminous coal.....	Tons.....	44,733
Coke.....	Tons.....	36
Wood.....	Cords.....	264
Oil.....	Barrels.....	710
Gas.....	1,000 feet.....	10,739

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.....	117	174
Persons engaged in the industry.....	284	260
Proprietors and firm members.....	148	216
Salaried employees.....	3	2
Wage earners (average number).....	133	42
Primary horsepower.....	2,232	6,043
Capital.....	\$150,765	\$546,774
Expenses.....	54,865	1,132,000
Services.....	41,349	18,214
Materials.....	2,999	1,094,889
Miscellaneous.....	10,518	18,986
Value of products.....	124,124	1,351,291

<sup>1</sup> Includes estimate of all grain ground. A similar estimate for value of lumber sawed by custom sawmills is impracticable.



## MANUFACTURES—IOWA.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaries and employees.	Wage earners (average number).							
Expressed in thousands.													
<b>STATE—All industries</b> .....	1909	5,528	78,860	5,333	11,402	61,635	155,384	\$171,219	\$10,972	\$32,542	\$170,707	\$259,238	\$88,531
	1904	4,785	61,361	4,768	7,122	49,481	118,065	111,427	5,948	22,397	102,844	160,572	57,728
	1899	4,828			5,159	44,420	106,604	85,687	4,833	18,021	85,779	132,871	47,092
<b>Agricultural implements</b> .....	1909	42	1,620	29	273	1,318	2,554	5,066	360	683	2,171	4,757	2,588
	1904	30	1,277	19	231	1,027	1,741	3,310	204	470	1,357	2,692	1,335
	1899	24	814	16	154	644	1,030	1,878	123	243	670	1,509	839
<b>Artificial stone</b> .....	1909	398	1,219	415	74	730	1,730	1,557	48	397	632	1,569	937
	1904	27	128	42	16	70	132	170	10	34	45	120	75
	1899												
<b>Boots and shoes, including cut stock and findings</b> .....	1909	10	770	2	52	716	345	790	54	318	1,050	1,633	574
	1904	5	499	1	20	478	263	419	18	186	522	854	332
	1899	7	613	7	40	568	233	507	36	192	507	786	279
<b>Boxes, cigar</b> .....	1909	7	92	3	10	79	59	87	14	26	54	112	58
	1904	10	127	10	3	114	127	85	2	34	64	146	82
	1899	9	87	7	4	76		57	4	20	50	91	41
<b>Boxes, fancy and paper</b> .....	1909	6	145	4	13	128	64	96	10	33	57	128	71
	1904	7	111	4	11	96	73	66	9	20	28	75	47
	1899	7	102	8		94		32		20	27	60	33
<b>Bread and other bakery products</b> .....	1909	495	2,550	501	342	1,647	1,172	3,359	291	846	4,147	6,818	2,671
	1904	395	1,677	421	195	1,061	433	1,532	135	500	2,063	3,611	1,548
	1899	194	1,234	217	171	846		1,302	112	331	1,428	2,674	1,246
<b>Brick and tile</b> .....	1909	235	3,654	272	224	3,158	20,782	7,327	300	1,073	1,204	4,483	3,279
	1904	302	3,154	306	155	2,633	14,045	4,801	146	1,242	838	3,362	2,524
	1899	339	2,521	441	94	1,986	3,076	3,076	65	769	460	1,976	1,516
<b>Butter, cheese, and condensed milk</b> .....	1909	512	2,199	212	756	1,231	8,911	4,472	377	855	22,842	25,850	3,008
	1904	655	2,323	361	802	1,160	9,944	2,919	137	687	12,896	15,028	2,132
	1899	907	2,111	565	413	1,133	11,853	3,469	81	589	13,502	15,846	2,344
<b>Buttons</b> .....	1909	70	3,376	32	122	3,172	2,809	2,567	130	1,412	1,414	4,035	2,621
	1904	51	2,121	69	116	1,936	1,453	1,174	75	654	534	1,501	967
	1899	53	1,505	61	42	1,402	668	324	26	458	197	867	670
<b>Canning and preserving</b> .....	1909	71	1,420	27	146	1,247	2,989	3,503	134	299	1,568	2,549	981
	1904	59	1,769	27	135	1,607	2,816	2,920	126	418	2,118	3,075	1,557
	1899	89		91	1,021			1,497	75	254	1,181	2,121	940
<b>Carpets, rag</b> .....	1909	32	215	34	23	158	220	105	24	78	44	206	162
	1904	29	214	37	19	158	171	90	8	58	31	153	122
	1899	5		1		33		13	1	10	3	21	18
<b>Carriages and wagons and materials</b> .....	1909	119	1,828	158	229	1,441	2,387	4,468	232	828	2,748	4,786	2,038
	1904	113	1,632	137	197	1,298	1,915	3,392	194	602	1,684	3,371	1,687
	1899	124		103	171	1,711		4,033	121	712	1,947	3,988	2,041
<b>Cars and general shop construction and repairs by steam-railroad companies</b> .....	1909	33	7,480		491	6,969	5,937	5,488	483	4,535	5,149	10,269	5,120
	1904	40	6,781		409	6,372	5,192	3,628	371	3,860	3,303	7,619	4,816
	1899	58	5,775		278	5,497		3,278	250	2,949	2,806	6,221	3,325
<b>Cars and general shop construction and repairs by street-railroad companies</b> .....	1909	13	202		19	183	1,273	328	14	112	96	231	135
	1904	3	125		5	120		193	5	64	75	150	75
	1899	3	91		6	85		63	8	51	37	97	60
<b>Clothing, men's, including shirts</b> .....	1909	28	1,072	10	182	1,480	479	1,554	153	425	1,412	2,406	1,084
	1904	18	1,375	11	188	1,176	240	1,325	118	335	1,142	1,920	773
	1899	18	1,486	8	138	1,340	200	661	102	303	910	1,535	625
<b>Clothing, women's</b> .....	1909	19	985	8	101	876	123	1,098	93	304	885	1,535	650
	1904	9	471	3	41	427	78	513	31	131	432	762	330
	1899	7	86	11	10	65		24	4	10	25	47	22
<b>Coffins, burial cases, and undertakers' goods</b> .....	1909	8	296		54	242	49	946	73	132	388	753	365
	1904	6	251		30	221	326	694	37	105	302	607	305
	1899	5	205	3	27	175		314	27	73	226	399	173
<b>Confectionery</b> .....	1909	40	1,302	36	234	1,032	646	1,272	239	360	1,703	2,914	1,211
	1904	24	819	25	108	688	456	752	84	187	794	1,435	641
	1899	18		95	481			495	88	119	619	1,043	424
<b>Cooperage and wooden goods, not elsewhere specified</b> .....	1909	34	304	36	19	249	467	344	20	121	500	876	316
	1904	25	490	38	24	428	778	520	19	108	690	1,014	324
	1899	71	532	80	12	440		326	8	166	457	720	263
<b>Copper, tin, and sheet-iron products</b> .....	1909	71	777	69	123	585	1,925	3,046	103	334	1,505	2,414	909
	1904	33	721	38	48	635	271	5,701	93	285	1,529	2,287	758
	1899	19		22	22	221		387	17	67	353	629	276
<b>Cutlery and tools, not elsewhere specified</b> .....	1909	16	210	17	33	169	452	428	36	96	243	489	246
	1904	13	168	15	28	125	221	216	20	68	153	387	214
	1899	4	84	4	15	65		154	11	27	95	192	97
<b>Dairymen's, poulterers', and aparlists' supplies</b> .....	1909	17	840	15	95	730	736	1,157	94	395	966	1,964	998
	1904	9	163	5	23	130	285	138	22	66	104	282	178
	1899												
<b>Flour-mill and gristmill products</b> .....	1909	277	1,186	354	185	647	16,832	6,123	176	382	10,934	12,871	1,937
	1904	276	1,320	377	173	770	20,049	5,216	135	399	10,317	12,099	1,782
	1899	309		172	172	942	21,247	4,847	136	424	8,969	11,013	2,044

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

<sup>2</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

<sup>3</sup> Excluding statistics for two establishments, to avoid disclosure of 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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaries employed.	Wage earners (average number).							
Expressed in thousands.													
STATE—Continued.													
Foundry and machine-shop products.....	1909	274	6,289	233	048	5,108	3,402	\$12,865	\$060	\$3,085	\$6,372	\$14,064	\$7,092
	1904	211	3,913	104	498	3,221	4,091	6,456	465	1,669	2,653	6,331	3,678
	1899	221	.....	.....	.....	294	2,900	.....	4,570	273	1,279	2,709	5,511
Fur goods.....	1909	11	116	8	35	73	91	162	29	38	105	287	182
	1904	8	89	7	14	59	60	114	11	23	98	184	86
	1899	4	.....	.....	2	24	.....	.....	21	1	8	23	56
Furniture and refrigerators.....	1909	44	1,257	32	161	1,074	2,458	2,232	172	606	1,330	2,650	1,314
	1904	35	1,034	23	153	858	1,595	1,343	132	370	803	1,677	874
	1899	26	906	11	105	850	.....	1,022	85	292	747	1,420	673
Gas and electric fixtures and lamps and reflectors.	1909	7	84	1	27	56	61	160	21	26	85	170	75
	1904	3	16	1	3	12	25	27	2	4	7	20	13
	1899	4	.....	.....	10	15	.....	.....	20	5	4	12	27
Gas, illuminating and heating.....	1909	117	1,151	40	305	806	2,043	15,784	228	380	1,111	2,893	1,782
	1904	60	635	4	164	468	970	8,315	189	254	624	1,832	1,208
	1899	26	310	.....	90	226	379	4,130	70	118	204	808	604
Gloves and mittens, leather.....	1909	10	305	11	60	234	230	661	71	94	373	663	320
	1904	8	320	10	47	263	295	479	41	101	358	698	340
	1899	9	234	17	43	174	275	277	31	57	125	284	159
Ice, manufactured.....	1909	18	190	9	30	151	2,045	620	26	101	64	290	226
	1904	4	26	.....	0	20	784	187	5	12	10	51	35
	1899	3	40	3	10	33	450	165	3	15	11	38	27
Leather goods.....	1909	67	845	69	170	600	380	2,038	102	353	1,812	2,855	1,043
	1904	35	533	25	95	413	168	963	81	196	708	1,310	542
	1899	31	.....	.....	99	440	.....	685	49	165	387	1,029	642
Liquors, malt.....	1909	19	636	4	137	495	3,034	5,603	222	332	901	3,325	2,424
	1904	19	580	7	96	427	2,815	3,085	151	270	601	2,386	1,695
	1899	21	397	18	58	321	2,262	2,421	84	190	385	1,714	1,329
Lumber and timber products.....	1909	229	5,403	243	502	4,658	16,564	12,809	526	2,356	7,141	12,659	5,518
	1904	139	5,348	140	398	4,810	17,881	13,523	457	2,297	6,739	12,153	5,414
	1899	190	.....	.....	347	5,092	16,474	10,761	368	2,194	9,536	14,635	5,099
Marble and stone work.....	1909	87	504	120	60	315	514	926	55	243	616	1,338	722
	1904	36	340	60	39	241	602	487	29	152	263	373	373
	1899	41	.....	.....	28	438	.....	544	22	213	204	633	429
Mattresses and spring beds.....	1909	17	284	8	34	242	311	432	29	128	465	726	271
	1904	12	123	9	18	96	174	93	11	34	114	202	88
	1899	6	.....	.....	17	48	.....	54	11	16	87	147	60
Paper and wood pulp.....	1909	4	225	.....	20	205	1,435	673	25	61	281	437	156
	1904	4	165	.....	13	152	1,005	308	12	66	131	253	122
	1899	4	193	2	11	180	1,210	182	12	64	107	244	137
Patent medicines and compounds and druggists' preparations.	1909	100	887	90	439	358	503	2,361	419	133	1,065	3,401	2,396
	1904	59	528	43	225	260	195	1,571	187	99	806	2,045	1,239
	1899	36	.....	.....	368	221	.....	609	431	73	340	1,458	1,118
Pottery, terra-cotta, and fire-clay products.....	1909	10	322	5	31	256	1,147	792	36	173	180	464	284
	1904	7	94	9	7	78	280	137	8	41	29	78	49
	1899	17	204	17	13	234	764	361	13	93	57	249	192
Printing and publishing.....	1909	1,110	8,065	1,163	2,049	4,853	5,527	10,623	1,601	2,591	3,237	12,129	8,842
	1904	1,113	6,665	1,263	1,085	4,317	3,861	7,329	913	2,038	2,048	8,549	6,501
	1899	1,041	6,202	1,223	681	4,298	.....	5,719	517	1,673	1,522	6,229	4,707
Shipbuilding, including boat building.....	1909	17	109	22	11	76	229	282	8	49	85	182	97
	1904	9	136	8	10	109	248	170	13	58	63	171	108
	1899	10	54	9	7	38	110	29	5	13	13	43	30
Slaughtering and meat packing.....	1909	33	4,349	33	672	4,144	8,309	12,362	654	2,190	53,127	59,045	5,918
	1904	25	3,409	21	284	3,104	4,273	7,326	299	1,332	27,244	30,152	2,908
	1899	31	3,118	25	193	2,900	.....	6,370	197	1,215	21,604	25,763	4,159
Stoves and furnaces, including gas and oil stoves.	1909	4	432	11	69	352	454	899	76	222	362	890	528
	1904	11	185	17	34	134	112	276	26	72	126	310	184
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tobacco manufactures.....	1909	372	2,523	423	157	1,943	55	1,821	174	856	1,386	3,423	2,037
	1904	444	2,734	506	150	2,072	50	1,590	127	847	1,280	3,359	2,079
	1899	1,408	2,440	458	120	1,856	9	1,264	117	701	949	2,576	1,627
Wall plaster.....	1909	0	577	.....	38	539	1,480	837	55	181	193	739	546
	1904	7	343	.....	25	318	2,328	1,401	20	163	121	627	506
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Woolen, worsted, and felt goods, and wool hats	1909	8	148	5	9	134	922	519	11	54	228	850	122
	1904	10	268	5	17	246	1,101	713	16	89	365	573	208
	1899	12	293	11	20	256	485	494	17	65	175	297	122
All other industries.....	1909	401	8,837	449	1,633	6,755	22,873	30,571	1,949	3,626	28,351	42,480	14,130
	1904	407	6,219	400	746	5,073	13,383	15,636	804	2,237	16,476	23,845	7,369
	1899	458	.....	.....	683	4,447	.....	19,142	627	1,786	12,023	17,875	5,852

<sup>1</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.  
<sup>2</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.  
<sup>3</sup> Not reported separately.

## MANUFACTURES—IOWA.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).							
<b>DES MOINES—All industries</b> .....	1909	387	7,637	276	1,978	5,383	10,106	\$17,880	\$2,020	\$2,945	\$13,565	\$23,585	\$10,020
	1904	291	5,328	241	932	4,155	.....	9,694	985	2,083	8,644	15,085	6,441
	1899	218	.....	.....	656	3,479	.....	7,417	558	1,474	4,139	8,398	4,257
Bread and other bakery products.....	1909	32	270	37	32	201	131	980	41	106	472	793	321
	1904	36	243	39	42	162	.....	351	35	84	404	675	271
	1899	17	136	20	26	90	.....	130	16	42	177	333	156
Brick and tile.....	1909	11	368	9	36	323	2,454	905	46	198	189	513	324
	1904	16	476	9	30	437	.....	704	32	238	164	527	363
	1899	14	287	10	21	256	.....	503	21	106	70	303	233
Carriages and wagons and materials.....	1909	6	144	4	24	116	206	368	28	75	281	513	232
	1904	15	148	4	21	123	.....	200	18	60	213	348	135
	1899	6	151	2	20	129	.....	208	19	58	147	280	142
Cars and general shop construction and repairs by steam-railroad companies.	1909	3	194	.....	14	180	63	62	13	116	52	182	130
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	3	104	.....	5	99	.....	71	5	51	50	106	56
Confectionery.....	1909	7	187	6	36	145	104	161	46	60	222	514	292
	1904	4	109	3	13	93	.....	97	12	29	152	255	103
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Copper, tin, and sheet-iron products.....	1909	10	68	7	10	51	43	108	12	40	82	173	91
	1904	5	44	4	5	35	.....	26	4	17	54	104	50
	1899	3	.....	.....	3	25	.....	22	2	9	27	89	62
Flour-mill and gristmill products.....	1909	6	63	6	15	42	271	177	21	23	653	767	104
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	3	.....	.....	11	25	.....	119	10	13	363	447	84
Foundry and machine-shop products.....	1909	25	515	21	159	335	798	1,453	193	218	828	1,613	785
	1904	16	254	14	35	205	.....	448	37	121	185	456	271
	1899	.....	.....	.....	49	253	.....	454	44	135	336	645	309
Leather goods.....	1909	10	152	7	41	104	47	251	35	74	349	583	234
	1904	6	111	3	16	92	.....	143	18	35	281	396	115
	1899	4	.....	.....	23	84	.....	100	8	28	114	168	54
Lumber and timber products.....	1909	10	207	4	34	169	415	235	30	100	421	653	232
	1904	6	158	3	17	138	.....	152	20	92	113	264	151
	1899	4	106	2	5	99	.....	122	5	50	65	144	79
Patent medicines and compounds and druggists' preparations.	1909	24	392	8	188	196	211	913	200	65	326	1,028	702
	1904	16	246	8	86	152	.....	949	88	61	386	1,066	680
	1899	7	.....	.....	89	110	.....	421	64	33	143	680	537
Printing and publishing.....	1909	85	1,635	50	722	863	981	2,016	619	498	979	3,207	2,288
	1904	62	929	54	295	577	.....	1,001	312	327	426	1,765	1,339
	1899	44	847	38	173	636	.....	734	142	201	329	1,154	825
Tobacco manufactures.....	1909	14	140	21	12	107	.....	83	13	49	73	178	105
	1904	14	150	12	9	129	.....	57	11	64	61	190	129
	1899	14	176	14	16	146	.....	115	13	67	58	190	132
All other industries.....	1909	144	3,302	96	655	2,551	4,442	10,198	723	1,323	8,638	12,818	4,180
	1904	105	2,463	88	363	2,012	.....	5,466	393	955	6,205	9,039	2,534
	1899	83	.....	.....	215	1,527	.....	4,418	209	591	2,260	3,848	1,588

<sup>1</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

<sup>2</sup> Figures can not be shown without disclosing individual operations.

<sup>3</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

MANUFACTURES—IOWA.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaries employed.	Wage earners (average number).							
Expressed in thousands.													
Boone.....	1909	34	429	38	61	330	456	\$018	\$42	\$232	\$283	\$682	\$399
	1904	34	468	38	63	367	456	659	39	235	299	714	415
	1899	35	.....	.....	.....	485	.....	305	.....	217	314	629	315
Burlington.....	1909	128	4,700	90	510	4,190	5,345	7,003	454	1,723	4,645	8,443	3,798
	1904	109	3,335	97	323	2,915	.....	5,081	312	1,418	2,706	5,779	3,073
	1899	125	.....	.....	286	2,054	.....	3,993	193	785	2,442	4,450	2,008
Cedar Rapids.....	1909	153	4,520	125	830	3,565	7,224	11,481	748	1,869	18,650	24,824	6,174
	1904	134	3,782	92	431	3,259	.....	8,697	409	1,465	12,280	16,280	4,000
	1899	89	.....	.....	295	2,374	.....	5,759	268	986	8,183	11,135	2,972
Clinton.....	1909	69	2,752	35	303	2,414	0,391	6,532	350	1,273	4,630	7,480	2,850
	1904	83	2,450	61	236	2,153	.....	4,381	257	1,044	2,646	4,003	2,200
	1899	81	.....	.....	185	2,502	.....	3,973	221	980	3,910	6,203	2,293
Council Bluffs.....	1909	101	1,825	90	301	1,434	1,756	2,893	248	845	1,957	3,760	1,812
	1904	71	1,167	63	163	1,001	.....	1,472	67	530	930	1,924	694
	1899	74	.....	.....	107	788	.....	960	99	387	824	1,692	568
Davenport.....	1909	232	5,302	204	867	4,231	9,166	15,306	926	2,178	11,571	18,802	7,221
	1904	173	4,517	144	533	3,840	.....	13,064	547	1,756	8,839	13,696	4,857
	1899	163	.....	.....	424	3,403	.....	10,219	430	1,457	6,057	9,872	3,815
Dubuque.....	1909	156	6,063	148	747	5,168	9,623	12,269	744	2,606	9,100	15,376	6,287
	1904	156	5,043	123	646	4,274	.....	9,437	538	1,913	4,706	9,279	4,573
	1899	161	.....	.....	561	4,058	.....	7,507	445	1,675	5,358	9,651	4,293
Fort Dodge.....	1909	44	1,306	30	161	1,115	2,204	3,093	196	421	1,813	2,975	1,183
	1904	42	1,111	31	119	961	.....	3,701	121	477	1,702	3,023	1,324
	1899	30	.....	.....	79	390	.....	700	59	171	679	1,006	327
Iowa City.....	1909	44	465	60	123	282	814	746	96	143	340	805	465
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Keokuk.....	1909	91	1,872	86	245	1,541	3,219	4,334	334	776	4,684	7,399	2,715
	1904	80	1,777	76	168	1,533	.....	3,148	152	674	2,234	4,226	1,992
	1899	88	.....	.....	328	1,362	.....	1,956	427	480	1,591	3,048	1,457
Marshalltown.....	1909	49	1,590	40	155	1,365	1,075	2,558	197	803	3,179	4,822	1,643
	1904	44	1,084	42	154	888	.....	1,441	135	447	2,140	3,000	950
	1899	44	.....	.....	90	1,112	.....	5,036	99	520	2,796	3,957	1,161
Mason City.....	1909	49	906	25	134	807	3,729	2,156	198	470	1,790	2,881	1,085
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Muscatine.....	1909	113	3,862	122	244	3,496	4,560	6,774	244	1,575	2,738	6,106	3,428
	1904	107	3,061	131	167	2,768	.....	4,860	165	1,114	3,615	5,040	2,025
	1899	105	.....	.....	136	2,589	.....	3,567	129	950	3,515	5,220	1,705
Ottumwa.....	1909	93	3,058	94	314	2,650	4,332	5,809	314	1,219	12,166	14,838	2,672
	1904	62	2,589	62	223	2,304	.....	4,093	228	390	8,533	10,374	1,841
	1899	61	.....	.....	182	1,820	.....	3,233	168	609	6,900	8,683	1,783
Sioux City.....	1909	136	4,755	110	895	3,750	8,807	13,003	939	2,131	30,388	37,424	7,036
	1904	106	2,793	91	373	2,299	.....	5,889	333	1,263	11,396	14,761	3,365
	1899	123	.....	.....	276	2,403	.....	5,258	271	1,169	10,130	14,227	4,067
Waterloo.....	1909	108	3,744	77	543	3,124	4,247	7,581	533	1,793	4,642	8,909	4,367
	1904	90	2,000	52	283	1,674	.....	3,352	244	835	2,749	4,694	1,945
	1899	55	.....	.....	105	804	.....	1,152	77	379	1,343	2,088	745

† Figures not available.

TABLE II.—DETAIL STATEMENT FOR

INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners.			Total.	16 and over.		Under 16.				
					Male.	Female.	Average number.	Number.			Male.	Female.	Male.	Female.			
								Maximum month.	Minimum month.								
1 All industries.....	5,528	78,360	5,323	3,491	5,854	2,057	61,635	Se 68,006	Ja 55,649	(1)	(1)	(1)	(1)	(1)	155,394		
2 Agricultural implements.....	42	1,620	29	93	123	57	1,318	Ap 1,509	Se 1,158	1,309	1,278	89	2	.....	2,554		
3 Artificial stone.....	308	1,210	415	58	12	4	730	Se <sup>2</sup> 1,020	Ja 241	1,113	1,106	.....	7	.....	1,730		
4 Automobiles, including bodies and parts.	11	282	6	10	13	5	248	Au 311	Fe 194	260	258	2	.....	.....	1,249		
5 Baking powders and yeast.....	4	8	5	.....	.....	.....	1	Ja <sup>2</sup> 1	Au <sup>2</sup> 1	1	1	.....	.....	.....	2		
6 Baskets and rattan and willow ware.....	4	146	4	5	3	1	133	Ap 179	Se 24	136	100	30	.....	.....	.....		
7 Blacking and cleansing and polishing preparations.	5	18	3	3	1	4	7	Au 11	Ja <sup>2</sup> 5	7	2	5	.....	.....	2		
8 Boots and shoes, including cut stock and findings.	10	770	2	20	26	6	716	Jy 776	Se 656	725	383	317	19	6	345		
9 Boxes, cigar.....	7	92	3	8	1	1	79	No 82	Jy 72	81	20	49	2	1	59		
10 Boxes, fancy and paper.....	6	145	4	6	2	5	123	No 148	Je 109	143	19	105	2	17	64		
11 Bread and other bakery products.....	495	2,550	561	61	157	124	1,647	Jy <sup>2</sup> 1,705	Ja 1,579	1,719	1,217	455	29	18	1,172		
12 Brick and tile.....	235	3,654	272	159	52	13	3,158	Je 4,093	Ja 1,594	3,707	3,678	.....	29	.....	20,782		
13 Brooms.....	51	336	61	18	12	7	240	Ja 252	My 231	233	176	39	12	6	127		
14 Butter, cheese, and condensed milk.....	512	2,199	212	379	295	82	1,231	Jy 1,453	Ja 1,006	1,187	1,140	43	4	.....	8,911		
15 Buttons.....	70	3,376	82	55	34	33	3,172	De 3,633	Au 2,967	3,699	2,611	1,002	16	70	2,399		
16 Canning and preserving.....	71	1,420	27	96	34	16	1,247	Se 6,642	Fe 217	5,583	3,105	2,159	157	102	2,989		
17 Carpets, rag.....	32	215	34	7	12	4	158	Je 185	Ja 114	143	123	25	.....	.....	220		
18 Carriages and wagons and materials.....	119	1,828	158	65	120	44	1,441	Ap 1,589	No 1,293	1,349	1,326	21	2	.....	2,387		
19 Cars and general shop construction and repairs by steam-railroad companies.	33	7,460	.....	149	331	11	6,969	De 7,686	My 6,491	7,686	7,682	3	1	.....	5,937		
20 Cars and general shop construction and repairs by street-railroad companies.	13	202	.....	12	7	.....	183	De 202	Fe 162	202	202	.....	.....	.....	1,273		
21 Clothing, men's, including shirts.....	28	1,672	10	54	111	17	1,480	De 1,584	Ja 1,440	1,586	155	1,394	6	31	479		
22 Clothing, women's.....	19	985	8	26	52	23	876	Au 837	No 812	915	737	3	.....	.....	123		
23 Coffins, burial cases, and undertakers' goods.	8	296	.....	22	30	2	242	Mh 254	No <sup>2</sup> 232	243	179	54	.....	.....	494		
24 Confectionery.....	40	1,302	36	40	165	29	1,032	De 1,315.	Je 900	1,296	387	837	8	64	646		
25 Cooperage and wooden goods, not elsewhere specified.	34	304	36	9	2	8	249	Au 278	Ja 217	254	253	.....	1	.....	467		
26 Copper, tin, and sheet-iron products.....	71	777	69	40	63	20	585	No 672	Au 487	732	635	87	7	3	1,925		
27 Cutlery and tools, not elsewhere specified.	16	210	17	13	15	5	160	Ja 181	My 148	162	127	34	1	.....	452		
28 Dairymen's, poultryers', and apiarists' supplies.	17	840	15	25	49	21	780	Mh 837	Jy 636	740	736	4	.....	.....	736		
29 Electrical machinery, apparatus, and supplies.	9	96	4	18	4	6	64	Ap 74	Ja 42	72	64	7	1	.....	84		
30 Electroplating.....	4	10	4	.....	.....	.....	6	Ja <sup>2</sup> 6	Au <sup>2</sup> 6	6	6	.....	.....	.....	8		
31 Fancy articles, not elsewhere specified.....	5	47	4	4	3	3	33	De 52	Je 22	52	24	28	.....	.....	48		
32 Flour-mill and gristmill products.....	277	1,186	354	86	77	22	647	No 736	Je 577	733	717	13	3	.....	18,832		
33 Foundry and machine-shop products.....	274	6,289	233	318	444	186	5,108	De 5,502	Ja 4,377	5,673	5,400	142	29	2	8,402		
34 Fur goods.....	11	116	8	11	10	14	73	Ja 88	Se 56	89	44	45	.....	.....	81		
35 Furnishing goods, men's.....	21	257	29	11	10	5	202	No 237	Ja 142	241	28	211	.....	2	102		
36 Furniture and refrigerators.....	44	1,257	32	64	68	19	1,074	De 1,139	Jy 975	1,147	1,128	14	5	.....	2,453		
37 Gas and electric fixtures and lamps and reflectors.	7	84	1	13	11	3	56	De 60	Mh 46	69	39	30	.....	.....	61		
38 Gas, illuminating and heating.....	117	1,151	40	111	156	38	806	Jy 970	Ja 652	799	796	1	1	1	2,043		
39 Gloves and mittens, leather.....	10	305	11	23	28	11	234	Jy <sup>2</sup> 260	Ja 192	220	103	116	1	.....	236		
40 Hand stamps and stencils and brands.....	6	11	7	.....	.....	.....	4	Ja <sup>2</sup> 4	Au <sup>2</sup> 4	4	4	.....	.....	.....	3		
41 Hosiery and knit goods.....	4	279	.....	13	9	6	251	Jy 293	Oc 189	248	48	159	10	31	229		
42 Ice, manufactured.....	18	190	9	19	6	5	151	Au 237	Fe 75	121	119	2	.....	.....	2,045		
43 Jewelry.....	16	123	8	9	7	4	95	De 112	Ja 76	113	90	23	.....	.....	127		
44 Leather goods.....	67	845	69	37	114	25	600	De 677	Je 553	673	637	31	9	1	380		
45 Leather, tanned, curried, and finished.....	3	20	4	3	.....	.....	11	No <sup>2</sup> 14	Au <sup>2</sup> 8	16	13	3	.....	.....	43		
46 Lims.....	4	88	2	11	2	.....	73	Je 101	Ja 26	62	62	.....	.....	.....	75		
47 Liquors, malt.....	19	636	4	62	67	8	495	Au 572	De 456	458	424	29	5	.....	3,934		
48 Lumber and timber products.....	229	5,403	243	156	253	93	4,658	Jy 5,117	Ja 3,808	4,749	4,639	21	87	2	16,564		
49 Marble and stone work.....	87	504	120	14	44	11	315	My 348	Ja <sup>2</sup> 273	320	320	.....	.....	.....	514		
50 Mattresses and spring beds.....	17	284	8	10	18	6	242	Oc 267	Ja 200	262	222	35	5	.....	311		
51 Models and patterns, not including paper patterns.	11	27	13	.....	.....	.....	14	Je 17	Ja 12	16	13	2	1	.....	52		
52 Musical instruments and materials, not specified.	4	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
53 Musical instruments, pianos and organs and materials.	4	68	3	4	5	.....	56	Mh 66	My 47	58	54	4	.....	.....	51		
54 Optical goods.....	7	33	7	4	4	1	17	Ja <sup>2</sup> 18	Jy <sup>2</sup> 16	18	14	4	.....	.....	14		
55 Paint and varnish.....	4	51	3	19	8	3	18	Jy <sup>2</sup> 19	Ap <sup>2</sup> 17	19	19	.....	.....	.....	170		
56 Paper and wood pulp.....	4	225	.....	12	4	4	205	Mh 243	Je 134	183	169	14	.....	.....	1,435		
57 Patent medicines and compounds and druggists' preparations.	100	837	90	64	259	116	358	No 381	Je 343	384	183	199	2	.....	503		
58 Pottery, terra-cotta, and fire-clay products.	10	322	5	14	15	2	286	Au 337	Ja 216	257	255	.....	2	.....	1,147		
59 Printing and publishing.....	1,110	8,065	1,163	448	1,010	591	4,853	De 5,052	Jy 4,702	5,084	3,592	1,346	136	10	5,527		
60 Shipbuilding, including boat building.....	17	109	22	4	5	2	70	No 113	Fe 44	114	114	.....	.....	.....	229		

<sup>1</sup>No figures given for reasons explained in the Introduction.

MANUFACTURES—IOWA.

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 \$171,218,804	\$233,363,623	\$5,065,568	\$5,909,082	\$32,541,931	\$5,244,142	\$165,462,906	\$905,212	\$1,577,755	\$988,827	\$16,791,200	\$259,237,637	\$88,530,589
2 5,066,300	3,536,487	100,241	103,601	682,604	44,735	2,126,381	3,085	10,705	30,676	562,469	4,767,089	2,585,973
3 1,556,547	1,142,108	41,533	6,153	396,772	28,133	603,425	0,147	4,949	1,375	55,571	1,509,296	937,738
4 678,060	540,924	15,976	13,124	145,323	5,703	319,984	4,677	475	.....	35,653	580,106	254,414
5 5,088	6,479	.....	.....	620	60	4,270	616	23	.....	1,100	9,215	4,895
6 73,714	88,203	3,900	1,705	40,370	618	25,062	480	130	.....	15,842	78,172	52,492
7 20,017	38,706	6,808	1,509	3,978	448	22,687	892	68	.....	2,270	51,136	28,051
8 790,203	1,509,946	20,366	27,419	318,158	9,419	1,049,694	3,515	1,404	.....	78,971	1,632,911	573,793
9 87,082	100,707	12,600	1,700	25,701	1,340	52,638	732	650	.....	5,340	112,242	58,264
10 95,811	112,636	7,474	2,168	33,402	1,554	55,774	2,285	745	.....	9,234	127,704	70,376
11 3,358,837	5,850,401	100,133	184,470	846,470	138,009	4,008,804	93,042	17,091	807	460,645	6,817,672	2,070,799
12 7,326,525	3,536,594	260,652	39,120	1,672,547	1,038,085	165,805	4,005	24,100	5,229	326,501	4,482,767	3,278,327
13 399,930	541,060	21,490	17,283	110,749	4,484	326,327	1,662	1,800	280	56,761	649,449	318,638
14 4,471,937	24,857,792	188,278	188,314	854,577	249,476	22,595,154	10,413	23,550	41,875	709,065	25,849,896	3,008,236
15 2,596,855	5,242,822	87,247	42,324	1,411,501	59,472	1,357,190	3,482	3,896	138,563	237,128	4,036,428	2,621,767
16 3,893,214	2,232,525	88,268	45,546	208,643	24,711	1,543,178	4,000	16,292	1,706	211,281	2,549,377	981,483
17 104,882	161,232	6,065	16,892	77,774	6,330	37,050	3,001	645	2,000	9,060	205,674	161,685
18 4,495,233	4,123,837	111,875	120,089	827,785	42,272	2,705,239	24,671	31,988	15,116	244,862	4,708,321	2,038,810
19 5,487,845	10,266,950	198,009	284,708	4,635,410	272,060	4,876,470	500	21,679	.....	77,220	10,268,938	5,110,509
20 323,493	231,038	9,114	4,666	112,168	2,073	94,027	.....	5,689	.....	3,311	231,040	134,940
21 1,553,521	2,180,556	60,439	89,377	424,733	18,168	1,804,129	18,717	13,442	2,000	156,551	2,495,529	1,082,292
22 1,097,091	1,423,955	38,508	54,887	303,079	9,809	874,965	9,196	2,700	24,830	105,581	1,535,382	650,668
23 945,531	671,610	33,681	38,880	131,688	8,217	370,687	5,454	4,633	.....	60,370	753,046	365,142
24 1,272,402	2,554,741	71,168	167,909	359,695	25,245	1,678,236	29,739	0,287	400	216,192	2,913,653	1,210,172
25 343,973	730,655	14,560	5,268	129,969	7,131	553,308	903	2,292	7,039	10,175	875,660	316,221
26 3,045,746	2,124,418	51,989	55,717	334,108	14,564	1,490,917	16,754	0,454	3,000	150,915	2,413,758	998,277
27 427,554	426,409	18,409	17,333	96,099	13,397	230,096	904	1,597	605	47,969	488,522	245,029
28 1,157,011	1,707,293	51,550	42,895	304,607	21,740	944,221	1,981	2,436	.....	247,833	1,904,008	998,107
29 225,561	163,855	18,538	5,301	31,181	2,376	72,122	3,040	733	.....	30,564	199,851	125,353
30 6,659	6,746	.....	.....	3,758	799	1,367	780	22	.....	20	9,209	7,040
31 30,038	35,114	3,750	2,438	14,846	1,532	9,984	900	19	521	1,124	42,298	30,692
32 6,122,716	11,920,922	105,375	70,038	381,623	145,096	10,787,782	14,424	33,228	723	381,233	12,870,603	1,939,825
33 12,864,545	11,781,733	490,668	400,847	3,084,669	255,915	6,115,611	31,568	45,125	30,601	1,251,939	14,064,382	7,692,806
34 162,165	166,955	17,909	11,627	35,297	2,624	102,117	6,075	1,056	.....	335	16,414	181,959
35 270,533	374,893	9,810	16,434	58,747	3,423	297,080	1,830	826	1,204	15,359	405,718	185,215
36 2,232,456	2,367,312	83,975	82,820	600,393	28,687	1,307,391	12,165	11,699	46,472	183,704	2,650,221	1,314,143
37 169,395	160,174	13,978	7,159	25,638	2,203	95,031	2,217	703	.....	169,673	15,607	74,439
38 15,783,512	2,040,000	114,660	113,462	379,738	838,656	272,625	324	105,696	80	215,498	2,892,646	1,781,364
39 681,163	627,378	34,506	36,045	68,563	4,935	398,380	5,360	1,814	.....	82,775	603,002	319,747
40 7,938	6,269	.....	.....	2,230	71	3,042	060	26	.....	240	13,072	9,959
41 420,270	304,848	18,120	6,426	78,500	6,394	149,241	668	787	.....	44,422	325,500	169,865
42 626,197	218,802	20,925	5,095	101,385	44,172	19,778	1,309	4,673	.....	21,914	289,642	226,602
43 272,289	133,195	10,223	5,090	53,046	3,476	45,832	4,825	680	687	9,330	155,284	105,976
44 2,037,845	2,510,896	51,315	110,557	352,902	12,833	1,799,519	22,770	9,956	12	159,982	2,854,572	1,042,170
45 10,829	19,325	2,160	988	6,966	625	4,361	40	71	.....	4,214	28,277	23,391
46 164,141	89,028	12,440	2,000	30,062	18,554	13,340	30	567	.....	6,035	104,553	72,659
47 5,603,493	2,485,225	141,513	80,401	331,729	89,624	811,017	240	491,700	.....	538,941	3,324,062	2,424,321
48 12,809,449	11,329,459	279,199	246,384	2,355,524	44,690	7,095,809	15,069	61,049	294,458	936,647	12,653,269	5,513,730
49 925,806	1,050,675	18,080	36,513	242,622	14,103	602,205	6,604	6,600	.....	1,513	1,337,680	721,282
50 432,059	667,143	15,387	13,798	127,801	6,980	448,243	9,488	2,767	.....	636	725,913	270,684
51 17,980	21,543	.....	.....	11,929	688	5,098	934	155	.....	2,739	31,748	25,962
52 3,925	1,211	.....	.....	.....	35	590	361	11	.....	214	6,234	5,609
53 126,166	111,394	7,145	5,700	34,200	2,304	49,480	2,705	32	597	9,171	93,225	41,441
54 56,583	43,535	4,058	2,323	7,666	782	25,147	4,130	285	.....	4,139	69,304	43,375
55 118,825	138,716	20,779	16,640	12,500	2,391	82,694	510	867	.....	2,336	153,782	68,697
56 673,226	425,661	21,670	2,909	81,234	48,175	232,639	.....	1,798	1,600	35,567	437,388	156,574
57 2,361,407	2,687,738	112,487	306,708	183,310	12,189	1,052,642	20,682	29,991	1,975	1,975	3,400,575	2,336,744
58 792,426	434,832	19,815	16,122	173,377	127,830	51,949	.....	1,772	.....	43,967	464,265	284,486
59 10,623,049	9,452,758	637,913	963,384	2,591,448	180,299	3,106,798	211,762	52,422	273,435	1,435,297	12,128,657	8,841,560
60 282,302	153,296	3,160	4,030	48,804	2,813	82,558	800	433	8,560	6,493	182,636	96,665

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

\* Same number reported throughout the year.



TABLE II.—DETAIL STATEMENT FOR THE

INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners.				Total.	16 and over.		Under 16.		
					Male.	Female.	Average number.	Number.		Male.		Female.	Male.	Female.		
								Maximum month.	Minimum month.							
1 Signs and advertising novelties .....	5	37	4	3	2	2	26	Se 28	Ja <sup>1</sup> 25	26	24	2	.....	.....	2	
2 Slaughtering and meat packing .....	33	4,849	33	130	498	44	4,144	Ja 5,125	Oc 3,763	4,247	3,936	185	126	.....	8,309	
3 Stereotyping and electrotyping .....	3	37	.....	3	7	2	25	Jy <sup>1</sup> 27	Fe <sup>1</sup> 21	26	26	.....	.....	.....	48	
4 Stoves and furnaces, including gas and oil stoves.	14	432	11	25	30	14	352	Oc 452	Ja 282	408	404	.....	4	.....	484	
5 Surgical appliances and artificial limbs..	3	11	5	2	1	1	2	Je <sup>1</sup> 2	De <sup>1</sup> 1	2	2	.....	.....	.....	5	
6 Tobacco manufactures .....	372	2,523	423	51	92	14	1,943	No 2,011	Fe 1,886	2,043	1,152	809	46	36	55	
7 Wall plaster .....	6	577	.....	12	22	4	539	Oc 592	Ja 490	540	540	.....	.....	.....	1,480	
8 Woolen, worsted, and felt goods, and wool hats.	8	148	5	3	4	2	134	No 169	Mh 109	156	96	59	.....	1	922	
9 All other industries <sup>2</sup> .....	303	6,850	269	209	837	246	5,229	.....	.....	.....	.....	.....	.....	.....	20,432	

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

<sup>2</sup> All other industries embrace—

Awnings, tents, and sails .....	16	Cordage and twine and jute and linen goods.....	1	Glass, cutting, staining, and ornamenting.....	3
Bags, paper .....	1	Dentists' materials.....	1	Glucose and starch.....	5
Beet sugar.....	1	Dyeing and finishing textiles.....	1	Glue.....	1
Bicycles, motorcycles, and parts.....	1	Engraving, wood.....	1	Gold and silver, reducing and refining, not from the ore.....	1
Brass and bronze products.....	3	Explosives.....	1	Grease and tallow.....	9
Brushes.....	3	Fertilizers.....	1	Hair work.....	1
Butter, reworking.....	4	Flags, banners, regalia, society badges, and emblems.....	2	Hats, fur-felt.....	1
Cars, steam-railroad, not including operations of railroad companies.....	2	Flavoring extracts.....	6	Horseshoes, not made in steel works or rolling mills.....	1
Cement.....	1	Food preparations.....	24	House-furnishing goods, not elsewhere specified.....	3
China decorating.....	2	Foundry supplies.....	1	Instruments, professional and scientific.....	1
Coffee and spice, roasting and grinding.....	11	Furs, dressed.....	1		

STATE, BY INDUSTRIES: 1909—Continued.

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	\$19,650	\$39,366	\$4,030	\$1,135	\$18,600	\$133	\$12,000	\$1,785	\$78		\$1,115	\$40,035	\$33,002
2	12,361,560	57,528,943	233,927	420,019	2,190,101	355,878	52,771,498	29,705	43,304		1,484,451	59,045,232	5,917,856
3	49,839	66,244	4,704	4,306	26,526	3,072	18,639	2,220	117		6,660	64,021	42,310
4	898,817	825,736	35,071	41,180	222,097	12,681	349,784	8,500	1,793		154,630	890,329	527,864
5	5,970	8,883	2,460	1,380	647	140	1,670	1,027	12		1,547	12,000	11,090
6	1,820,553	3,013,014	66,403	107,227	856,340	13,224	1,372,830	48,288	330,672	\$3,872	214,140	3,423,488	2,037,425
7	837,175	510,250	24,845	30,073	181,276	76,595	116,278	16,000	2,508		62,711	738,815	545,072
8	518,751	308,495	6,020	5,031	53,869	11,406	216,462		3,015		12,692	349,569	121,701
9	27,587,293	34,746,133	666,129	1,018,084	2,930,252	822,153	26,007,907	65,763	117,241	12,556	3,116,045	39,363,029	12,532,966

\* All other industries embrace—Continued.

Iron and steel forgings.....	1	Photographic apparatus and materials.....	1	Steam packing.....	1
Locomotives, not made by railroad companies.....	1	Photo-engraving.....	1	Toys and games.....	2
Malt.....	1	Pipes, tobacco.....	1	Umbrellas and canes.....	1
Millinery and lace goods.....	1	Pumps, not including steam pumps.....	3	Upholstering materials.....	7
Mineral and soda waters.....	00	Roofing materials.....	1	Vinegar and cider.....	6
Mirrors.....	1	Safes and vaults.....	2	Washing machines and clothes wringers.....	11
Mudclage and paste.....	3	Scales and balances.....	3	Windmills.....	2
Oil, lincseed.....	2	Soap.....	0	Window shades and fixtures.....	1
Oil, not elsewhere specified.....	1	Sporting and athletic goods.....	1	Wirework, including wire rope and cable.....	13
Paper goods, not elsewhere specified.....	1	Stationery goods, not elsewhere specified.....	3	Wood carpet.....	1
Pencils, lead.....	1	Statuary and art goods.....	3	Wood, turned and carved.....	7
Pens, fountain, stylographic, and gold.....	1				

MANUFACTURES—IOWA.

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

INDUSTRY AND CITY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.									WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		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.....	387	7,837	270	484	1,081	413	5,383	4,208	1,087	108	5,687	4,441	1,134	65	45	10,106
2 Bread and other bakery products.....	32	270	37	11	15	6	201	142	57	2	198	140	56	1	1	131
3 Brick and tile.....	11	368	9	23	12	1	323	323	.....	.....	341	341	.....	.....	.....	2,454
4 Carriages and wagons and materials.....	6	144	4	4	16	4	116	111	5	.....	94	90	4	.....	.....	206
5 Cars and general shop construction and repairs by steam-railroad companies.....	3	194	.....	3	11	.....	180	180	.....	.....	214	214	.....	.....	.....	53
6 Confectionery.....	7	187	6	5	28	3	145	28	117	.....	182	35	147	.....	.....	104
7 Copper, tin, and sheet-iron products.....	10	68	7	6	2	2	51	51	.....	.....	52	52	.....	.....	.....	43
8 Flour-mill and gristmill products.....	6	63	0	5	9	1	42	35	4	.....	52	47	5	.....	.....	271
9 Foundry and machine-shop products.....	25	515	21	35	111	13	335	332	3	.....	384	381	3	.....	.....	798
10 Leather goods.....	10	162	7	7	20	5	104	95	8	1	132	112	9	1	.....	47
11 Lumber and timber products.....	10	207	4	10	19	5	160	160	.....	.....	180	180	.....	.....	.....	415
12 Patent medicines and compounds and druggists' preparations.....	24	392	8	26	105	57	196	78	118	.....	208	83	125	.....	.....	211
13 Printing and publishing.....	85	1,635	50	131	359	232	863	704	142	17	904	738	148	17	1	931
14 Tobacco manufactures.....	14	140	21	7	5	.....	107	82	21	4	114	87	23	4	.....	.....
15 All other industries <sup>1</sup> .....	144	3,302	96	211	360	84	2,551	1,875	592	84	2,642	1,941	614	44	43	4,442

<sup>1</sup> All other industries embrace: Agricultural implements, 1; artificial stone, 4; automobiles, including bodies and parts, 4; awnings, tents, and sails, 2; baking powders and yeast, 1; bicycles, motorcycles, and parts, 1; 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, 1; brooms, 2; butter, cheese, and condensed milk, 3; canning and preserving, 2; carpets, rag, 4; cars and general shop construction and repairs by street-railroad companies, 1; clothing, men's, including shirts, 2; clothing, women's, 4; coffee and spice, roasting and grinding, 1; coffins, burial cases, and undertakers' goods, 2; cooperage and wooden goods, not elsewhere specified, 2; dairymen's, poulterers', and apiarists' supplies, 2; electrical machinery, apparatus, and supplies, 2; electroplating, 2; engraving, wood, 1; fertilizers, 1; flavoring extracts, 1; food preparations, 2; fur goods, 3; furnishing goods, men's, 2; furniture and refrigerators, 4; gas and electric fixtures and lamps and reflectors, 2; gas, illuminating and heating, 1; glass, cutting, staining, and ornamenting, 1; gloves and mittens,

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

1 BOONE.....	34	420	38	14	32	15	330	300	28	2	405	368	34	3	.....	458
2 BURLINGTON.....	128	4,790	90	130	301	79	4,190	3,490	641	59	3,215	2,680	491	17	27	5,346
3 CEDAR RAPIDS.....	153	4,520	125	175	509	146	3,505	2,795	674	96	3,732	2,926	706	86	14	7,224
4 CLINTON.....	69	2,752	35	101	160	42	2,414	2,156	217	41	2,679	2,392	242	24	21	6,391
5 COUNCIL BLUFFS.....	101	1,825	90	64	194	43	1,434	1,207	222	5	1,580	1,331	245	2	2	1,766
6 DAVENPORT.....	232	5,302	204	207	478	182	4,231	3,203	956	72	4,534	3,430	1,025	45	34	9,166
7 DUBUQUE.....	156	6,063	148	194	414	139	5,168	4,124	946	98	5,103	4,071	934	51	47	9,623
8 FORT DODGE.....	44	1,306	30	43	85	33	1,115	834	262	20	1,188	889	268	9	22	2,204
9 IOWA CITY.....	44	465	60	21	79	23	282	206	76	.....	1,279	204	75	.....	.....	814
10 KEOKUK.....	91	1,872	86	67	121	57	1,541	1,181	334	26	1,606	1,231	348	14	13	3,219
11 MARSHALLTOWN.....	49	1,590	40	75	78	32	1,365	1,207	132	26	1,383	1,223	134	21	5	1,975
12 MASON CITY.....	49	966	25	63	47	24	807	766	41	.....	865	821	44	.....	.....	3,729
13 MUSCATINE.....	113	3,802	122	86	90	68	3,496	2,618	759	119	4,031	3,019	875	62	75	4,580
14 OMAHA.....	93	3,058	94	66	205	43	2,650	2,025	546	79	2,702	2,066	555	67	14	4,332
15 STOWK CITY.....	136	4,755	110	226	547	122	3,750	3,263	412	45	3,803	3,340	416	24	23	8,807
16 WATERLOO.....	108	3,744	77	153	248	142	3,124	2,712	409	3	3,638	3,157	476	5	.....	4,247

MANUFACTURES—IOWA.

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.

DES MOINES.

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 \$17,879,619	\$21,223,939	\$803,092	\$1,216,500	\$2,944,946	\$500,477	\$13,064,121	\$165,848	\$151,795	\$156,987	\$2,220,173	\$23,584,667	\$10,020,069
2 980,132	683,878	24,715	16,407	105,892	16,839	455,008	11,535	2,809	.....	50,613	793,229	321,382
3 905,243	489,703	35,340	10,840	197,845	141,056	47,120	.....	4,385	.....	52,517	512,876	324,109
4 867,643	435,434	8,900	18,888	74,699	2,701	277,057	2,330	.....	.....	47,272	512,748	232,030
5 62,241	181,805	2,065	9,093	110,211	4,879	47,198	500	106	.....	243	181,805	129,788
6 161,250	394,001	6,150	29,884	60,138	3,435	218,372	12,372	1,154	.....	52,400	514,389	292,582
7 107,951	142,951	9,400	2,420	39,872	892	81,087	2,500	590	.....	6,381	172,716	90,737
8 177,359	740,504	9,000	11,004	23,174	10,846	642,755	930	1,229	.....	41,520	757,017	103,916
9 1,453,184	1,476,880	81,191	111,510	218,008	21,042	809,492	6,046	5,826	25,039	200,106	1,612,902	785,398
10 250,690	600,116	10,906	24,004	73,513	1,681	347,805	8,228	1,853	.....	32,226	582,911	233,525
11 235,083	594,289	15,215	14,307	99,921	4,699	416,699	8,328	1,070	390	32,960	653,100	231,002
12 912,892	929,839	67,590	141,908	65,164	4,255	321,304	7,579	3,798	800	327,381	1,027,547	701,088
13 2,015,059	2,800,463	216,790	402,144	497,048	22,558	956,599	40,154	10,426	103,500	550,635	3,267,269	2,288,112
14 83,200	163,078	8,990	3,989	48,667	667	72,421	5,421	14,135	.....	8,927	178,407	105,319
15 10,167,242	11,691,878	315,210	409,421	1,324,394	265,027	8,373,134	59,325	101,278	27,199	816,890	12,817,691	4,179,530

leather, 3; glue, 1; gold and silver, reducing and refining, not from the ore, 1; grease and tallow, 1; hair work, 1; hand stamps and stencils and brands, 1; hats, fur-felt, 1; hosiery and knit goods, 2; ice, manufactured, 3; jewelry, 7; leather, tanned, curried, and finished, 3; liquors, malt, 1; marble and stone work, 3; mattresses and spring beds, 1; millinery and lace goods, 1; mineral and soda waters, 5; mirrors, 1; models and patterns, not including paper patterns, 4; mucilage and paste, 3; musical instruments, pianos and organs and materials, 2; oil, lincseed, 1; oil, not elsewhere specified, 1; optical goods, 1; paint and varnish, 1; pottery, terra-cotta, and fire-clay products, 1; safes and vaults, 2; scales and balances, 1; signs and advertising novelties, 4; slaughtering and meat packing, 4; soap, 2; steam packing, 1; stereotyping and electrotyping, 3; stoves and furnaces, including gas and oil stoves, 5; surgical appliances and artificial limbs, 1; toys and games, 1; windmills, 1; wirework, including wire rope and cable, 2; wood, turned and carved, 1; woolen, worsted, and felt goods, and wool hats, 1.

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

1 \$918,237	\$809,406	\$15,564	\$29,334	\$232,131	\$33,888	\$248,781	\$4,644	\$3,075	\$500	\$43,589	\$682,424	\$399,755
2 7,903,126	7,448,647	178,491	275,491	1,722,087	99,483	4,545,273	31,268	85,338	103,290	407,046	3,443,296	2,798,640
3 11,480,763	23,209,659	307,904	440,130	1,800,318	305,094	18,345,152	45,790	71,793	93,371	1,791,101	21,824,270	6,174,080
4 6,532,317	6,931,652	174,521	184,884	1,273,409	205,554	4,424,841	11,550	45,832	648	610,487	7,479,515	2,849,120
5 2,893,431	3,323,429	103,262	145,031	845,168	120,199	1,836,948	17,276	19,458	9,018	232,179	3,708,608	1,811,361
6 15,305,410	16,473,143	378,806	547,071	2,178,394	309,166	11,261,063	99,087	259,619	8,749	1,460,078	18,801,842	7,231,073
7 12,288,839	14,037,254	310,626	433,163	2,000,321	220,084	8,889,309	47,227	204,149	183,966	1,082,319	16,376,328	6,289,875
8 3,092,679	2,675,118	76,243	120,068	421,268	100,174	1,705,007	7,155	13,292	.....	225,311	2,975,459	1,163,678
9 745,716	695,167	28,600	67,449	143,307	18,675	321,609	7,506	26,079	4,260	77,024	805,046	404,802
10 4,333,658	6,668,276	209,009	124,043	775,743	94,090	4,599,106	16,581	65,362	4,197	785,546	7,398,733	2,714,537
11 2,557,780	4,484,602	106,024	91,410	805,791	72,525	3,106,821	8,159	9,465	2,141	282,527	4,821,805	1,642,759
12 2,155,988	2,627,220	157,000	41,345	469,914	213,594	1,582,231	8,537	7,873	15,977	130,770	2,880,732	1,084,937
13 6,774,059	5,110,884	149,793	94,209	1,574,013	77,859	2,690,179	16,856	23,693	139,474	373,608	6,165,866	3,427,828
14 5,808,679	14,216,451	116,138	197,391	1,319,054	121,277	12,044,708	44,902	78,289	1,280	293,493	14,833,315	2,672,330
15 13,603,071	35,194,084	337,928	550,750	2,130,811	418,297	29,909,022	58,687	160,007	12,799	1,504,913	37,424,450	7,036,231
16 7,580,763	7,926,393	292,425	240,774	1,793,399	170,569	4,406,882	20,031	27,655	40,686	869,212	8,999,420	4,350,979

# KANSAS.

## INDUSTRIES IN GENERAL.

**General character of the state.**—Kansas, with a gross area of 82,158 square miles, of which 384 represent water surface, ranks thirteenth in size among the 49 states and territories of continental United States. Its population in 1910 was 1,690,949, as compared with 1,470,495 in 1900 and 1,428,108 in 1890. It ranked twenty-second among the states and territories as regards population both in 1910 and 1900. In 1910 the density of population for the entire state was 20.7 per square mile, the corresponding figure for 1900 being 18.

The state has two cities having a population of over 50,000—Kansas City and Wichita. There are also 10 cities having a population of over 10,000 but less than 50,000. (See table on page 373.) In 1910, 29.2 per cent of the entire population of the state resided in cities having a population of 2,500 inhabitants or over, as against 22.5 per cent in 1900.

The railway facilities of Kansas, especially in the eastern part, are exceptionally good. The state is so situated geographically that it is traversed by several important railways connecting the industrial centers of the Mississippi Valley with points in the West and Southwest. The Missouri River on the northeast boundary is the only navigable river, although the water from a number of smaller streams affords advantages for the development of power.

**Importance and growth of manufactures.**—Kansas is not preeminently a manufacturing state. Its manufactures have been largely the outgrowth of its extensive agricultural resources, while, in recent years, they have been further stimulated by the development of rich zinc and coal mines and by the discovery of oil and gas. Kansas was organized as a territory in 1854, and at the first census of the manufactures of the territory in 1859, the total value of all manufactured products was only \$4,357,000. Twenty years later it had increased to \$30,844,000. From that time a most rapid growth took place, and in 1899 the value of products, exclusive of those of neighborhood industries and hand trades, was \$154,009,000. In 1904 it was \$198,245,000, and in 1909, \$325,104,000.

Slaughtering and meat packing and the flour mills and gristmills are largely responsible for this rapid growth, these two industries together contributing in 1909 nearly three-fourths of the total value of prod-

ucts. Other manufacturing industries, however, also show considerable growth. In 1909 Kansas ranked fourteenth, and in 1904 and 1899, sixteenth, among the states and territories in respect to the value of its manufactures, having advanced from thirty-first place in 1859.

Only a small percentage of the total population is engaged in manufactures. During 1859 an average of 1,735 wage earners, representing 1.6 per cent of the total population, were employed in manufactures, while in 1909 an average of 44,215 wage earners, or 2.6 per cent of the total population, were so engaged. During this period of 50 years the gross value of products per capita of the total population of the state increased from \$41 to \$192. From 1859 to 1909, moreover, the proportion which the value of the manufactures of the state represented of the total value of the products of manufacturing industries in the United States increased considerably. This proportion was two-tenths of 1 per cent in 1859 and 1.6 per cent in 1909.

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

In 1909 the state of Kansas had 3,435 manufacturing establishments, which gave employment to an average of 54,649 persons during the year and paid out \$33,255,000 in salaries and wages. Of the persons employed, 44,215 were wage earners. These establishments turned out products to the value of \$325,104,000, in the manufacture of which materials costing \$258,884,000 were utilized. The value added by manufacture was thus \$66,220,000, 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 Kansas 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 more recent period the number of establishments increased 38.8 per cent and the average number of wage earners 24.3 per cent, while the value of products increased 64 per cent and the value added by manufacture 58.7 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 represent-

ing 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.....	3,435	2,475	2,299	38.8	7.7
Persons engaged in manufactures.....	54,649	42,057	( <sup>1</sup> )	29.9	.....
Proprietors and firm members.....	3,571	2,766	( <sup>1</sup> )	29.1	.....
Salaried employees.....	6,863	3,721	3,612	84.4	3.0
Wage earners (average number).....	44,215	35,570	27,119	24.3	31.2
Primary horsepower.....	213,141	99,441	63,242	114.3	45.7
Capital.....	\$156,090,000	\$88,680,000	\$59,458,000	76.0	49.1
Expenses.....	305,711,000	187,955,000	141,054,000	62.7	33.2
Services.....	33,255,000	22,575,000	15,925,000	47.3	41.8
Salaries.....	7,351,000	3,692,000	3,123,000	99.1	18.2
Wages.....	25,904,000	18,883,000	12,802,000	37.2	47.5
Materials.....	258,884,000	156,510,000	120,738,000	65.4	29.6
Miscellaneous.....	13,572,000	8,870,000	4,391,000	53.0	102.0
Value of products.....	325,104,000	198,245,000	154,009,000	64.0	28.7
Value added by manufacture (value of products less cost of materials).....	66,220,000	41,735,000	33,271,000	58.7	25.4

<sup>1</sup> 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. <sup>1</sup>			
		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.....	3,435	44,215	100.0	\$325,104,000	100.0	\$66,220,000	100.0	64.0	28.7	58.7	25.4
Slaughtering and meat packing.....	35	10,591	24.0	165,361,000	50.9	17,715,000	26.8	71.0	24.5	57.7	18.2
Flour-mill and gristmill products.....	501	2,360	5.3	68,470,000	21.1	8,037,000	12.1	62.9	97.1	56.4	60.7
Cars and general shop construction and repairs by steam-railroad companies.....	23	7,686	17.4	11,193,000	3.4	5,974,000	9.0	-2.8	69.0	39.6	14.3
Smelting and refining, zinc.....	12	1,821	4.1	10,857,000	3.3	1,980,000	3.0	-1.3	90.0	-22.4	129.5
Printing and publishing.....	798	3,282	7.3	7,009,000	2.2	4,719,000	7.1	.....	.....	.....	.....
Butter, cheese, and condensed milk.....	60	348	0.8	6,071,000	1.9	1,120,000	1.7	53.9	8.0	62.3	16.8
Foundry and machine-shop products.....	137	2,110	4.8	5,919,000	1.8	2,885,000	4.4	69.6	22.3	53.9	37.0
Cement.....	12	2,143	4.8	4,682,000	1.4	3,126,000	4.7	217.4	.....	196.0	.....
Bread and other bakery products.....	435	900	2.6	3,433,000	1.1	1,444,000	2.2	84.4	90.2	68.5	85.9
Lumber and timber products.....	73	982	2.2	3,244,000	1.0	1,172,000	1.8	77.5	62.6	51.2	74.2
Brick and tile.....	55	1,819	4.1	2,336,000	0.7	1,805,000	2.7	22.5	163.4	23.4	157.6
Glass.....	23	1,435	3.2	2,037,000	0.6	1,365,000	2.1	112.4	.....	126.0	.....
Ice, manufactured.....	86	593	1.3	1,460,000	0.4	1,118,000	1.7	149.6	198.5	151.8	217.1
Leather goods.....	74	339	0.8	1,387,000	0.4	566,000	0.9	.....	.....	.....	.....
Salt.....	10	451	1.0	1,106,000	0.3	587,000	0.9	-1.5	56.6	-0.3	51.4
Marble and stone work.....	82	288	0.7	954,000	0.3	569,000	0.9	93.1	252.9	68.3	102.0
Copper, tin, and sheet-iron products.....	76	222	0.5	749,000	0.2	337,000	0.5	184.8	310.9	146.0	356.7
Artificial stone.....	207	307	0.7	688,000	0.2	391,000	0.6	1,128.6	.....	1,161.3	.....
Tobacco manufactures.....	141	415	0.9	682,000	0.2	420,000	0.6	-25.1	15.2	-26.2	32.4
Clothing, men's, including shirts.....	16	408	0.9	629,000	0.2	297,000	0.4	57.2	185.7	85.6	158.1
Patent medicines and compounds and druggists' preparations.....	39	63	0.1	619,000	0.2	374,000	0.6	116.4	111.9	74.0	131.2
Furniture and refrigerators.....	17	337	0.8	616,000	0.2	380,000	0.6	.....	.....	.....	.....
Paint and varnish.....	6	104	0.2	580,000	0.2	165,000	0.2	866.7	.....	587.5	.....
Carriages and wagons and materials.....	46	246	0.6	530,000	0.2	285,000	0.4	65.1	32.1	39.7	41.7
Cooperage and wooden goods, not elsewhere specified.....	12	162	0.4	504,000	0.2	171,000	0.3	-6.0	34.3	4.9	-22.4
Mattresses and spring beds.....	14	158	0.4	462,000	0.1	244,000	0.4	71.1	83.7	63.8	161.4
Pottery, terra-cotta, and fire-clay products.....	4	228	0.5	378,000	0.1	304,000	0.5	108.8	524.1	111.1	526.1
Agricultural implements.....	18	126	0.3	369,000	0.1	207,000	0.3	-6.6	2,094.4	8.9	2,614.3
Confectionery.....	27	135	0.3	328,000	0.1	156,000	0.2	127.8	-22.2	119.7	9.2
Wall plaster.....	6	170	0.4	287,000	0.1	204,000	0.3	5.5	.....	5.7	.....
Paper and wood pulp.....	3	67	0.2	215,000	0.1	98,000	0.1	7.9	.....	-21.0	.....
Gas, illuminating and heating.....	12	36	0.1	208,000	0.1	151,000	0.2	-60.2	60.9	-50.0	38.5
All other industries.....	375	3,883	8.8	21,732,000	6.7	7,854,000	11.9	.....	.....	.....	.....

<sup>1</sup> 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 most important industries listed in the table, in which they are arranged in the order of 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, but not the numerous retail butcher shops, which slaughter a large number of animals. It includes the manufacture of many by-products, some of which are carried to a high degree of elaboration. The industry is by far the most important one in the state. Its rapid development is due chiefly to the fact that Kansas is one of the leading stock-raising states of the country. In 1909 the state reported 12.1 per cent of the total value of the slaughtering and meat-packing products of the United States, and at each of the last three censuses only one state, Illinois, ranked ahead of Kansas in this respect. The importance of the industry is indicated by the fact that in 1909 it gave employment to 24 per cent of the average number of wage earners and reported products valued at \$165,361,000, or 50.9 per cent of the total value of products for all manufacturing industries in the state.

*Flour-mill and gristmill products.*—This classification includes mills manufacturing wheat, rye, buckwheat, or corn flour, corn meal, hominy, grits, and feed. It does not include mills doing custom grinding exclusively, statistics for which are presented on page 382. The flour-mill and gristmill industry is second in importance among the manufacturing industries of the state, the value of its products (\$68,476,000) forming 21.1 per cent of the total. Kansas is one of the leading wheat-growing states, and ranks third among the states of the Union in the value of flour-mill and gristmill products.

*Cars and general shop construction and repairs by steam-railroad companies.*—This industry represents the work done in the repair shops operated by steam-railroad companies and consists almost exclusively of repairs to the rolling stock and equipment. It does not include minor repairs made in roundhouses. From 1899 to 1904 there was a large increase in the value of work performed, but for the last five years a slight decrease is shown. Employment was given in 1909 to an average of 7,686 wage earners, the largest number reported for any industry in the state except slaughtering and meat packing, while the value of the work done was reported as \$11,193,000.

*Smelting and refining, zinc.*—The remarkable growth shown for this industry since 1889 has been due largely to the discovery of gas and oil and also of coal in the same locality as the zinc ore. In 1889 Kansas reported only 4 establishments in this industry, with products valued at \$964,000, whereas in 1899 there were 11 establishments, the value of whose products was \$5,790,000. From 1899 to 1904 the products increased in value 90 per cent, but for the last five years a slight de-

crease is shown. An average of 1,821 wage earners were employed in 1909, and the value of products amounted to nearly one-third of the total value of products of this industry for the entire United States. Kansas ranked first in number of establishments and in value of products for this industry in 1909.

*Cement.*—Although the cement industry ranks only eighth in value of products among those shown in the preceding table, Kansas ranks fourth among the states in the manufacture of this valuable building material. The output in 1909 was practically all Portland cement, and over 90 per cent was reported from five counties located in the southeastern part of the state. The value of products increased from \$1,475,000 in 1904 to \$4,682,000 in 1909, or 217.4 per cent.

*Glass.*—The development of the glass industry in Kansas is due directly to the discovery of large quantities of natural gas, a cheap and desirable fuel. Starting less than a decade ago in Kansas, the industry has grown so that in 1909 the state ranked eighth in the value of its glass products.

*Salt.*—Kansas is one of the few states engaged in the production of salt and has ranked fourth at the last three censuses in the value of this product. While showing a large increase from 1899 to 1904, the value of products of this industry decreased slightly from 1904 to 1909. Nearly one-tenth of the value of the salt products of the United States in 1909 was reported from this state.

The first three industries in the preceding table hold the same rank when measured by value added by manufacture as when measured by value of products. Considerable change, however, is noted in the order of other industries when ranked according to value added by manufacture. Printing and publishing displaces from fourth place the smelting and refining of zinc, which falls to seventh place. The cement industry and the foundry and machine shops advance to fifth and sixth places, respectively, while the butter, cheese, and condensed-milk industry drops from sixth to twelfth place. In the slaughtering and meat-packing, the flour-mill and gristmill, and the butter, cheese, and condensed-milk industries, 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.

This table shows also the percentages of increase for these leading industries in respect to value of products and value added by manufacture where comparative statistics can be presented. Of all the industries shown separately in the table, the manufacture of artificial stone shows the greatest percentages of increase in both items from 1904 to 1909. The cement and confectionery industries, the manufacture of copper, tin, and sheet-iron products, and the glass, manufactured-ice, paint and varnish, and pottery, terra-cotta, and fire-clay products industries also show increases of over

100 per cent from 1904 to 1909 both in value of products and in value added by manufacture, while the manufacture of patent medicines and compounds shows such an increase in value of products only.

Seven of the industries given separately in the table show decreases in value of products from 1904 to 1909, while only one shows such a decrease from 1899 to 1904. Four of these industries also show decreases in value added by manufacture from 1904 to 1909, namely, the smelting and refining of zinc, the salt industry, and the tobacco products and illuminating-gas industries. The paper and wood-pulp industry also shows a decrease from 1904 to 1909 in value added by manufacture. Only one industry, the manufacture of cooperage and wooden goods, shows a decrease from 1899 to 1904 in value added by manufacture.

The manufacture of soap is the most important industry included under the head of "All other industries," but the statistics for this industry can not be shown without disclosing the operations of individual establishments. For a similar reason petroleum refining, another important industry, is not shown separately in the preceding table, as but one establishment was reported in 1899 and one in 1904. Table II, page 386, shows that there were 18 establishments refining petroleum in 1909, which gave employment to an average of 324 wage earners and reported products valued at \$4,077,225.

Two other industries included under the head of "All other industries" had a value of products in 1909 in excess of \$1,000,000, namely, the manufacture of food preparations and the construction of steam-railroad cars other than by railroad companies. The first-named industry is of some special interest for the reason that it includes the grinding of alfalfa, which has increased greatly in importance in some of the Western states during the past few years. Thirty-six of these mills, in which the chief output was alfalfa meal, reported products valued at \$919,000. These statistics do not indicate the true extent of the industry, because alfalfa is also ground in some flour mills and gristmills.

In addition to the 32 industries reported separately and the 4 industries discussed in the two paragraphs immediately preceding, there are 25 other industries which had a value of products in 1909 in excess of \$100,000 but less than \$1,000,000. They are included in the group of "All other industries," because, in some instances, if they were shown separately, the operations of individual establishments would be disclosed; 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; while for others, comparable statistics for the different census years can not be presented either because the data for prior censuses are not available or on account of changes of classification. These industries are as follows: Auto-

mobiles; awnings, tents, and sails; beet sugar; fancy and paper boxes; brass and bronze products; brooms; canning and preserving; coffins, burial cases, and undertakers' goods; coffee and spice, roasting and grinding; cotton goods; explosives; men's furnishing goods; gas and electric fixtures and lamps and reflectors; grease and tallow; mineral and soda waters; linseed oil; paper goods, not elsewhere specified; paving materials; smelting and refining, lead; stoves and furnaces, including gas and oil stoves; sulphuric, nitric, and mixed acids; surgical appliances; vinegar and cider; wirework, including wire rope and cable; and wood preserving. Statistics, however, for the manufacture of brooms and for the canning and preserving industry are presented for 1909 in Table II, page 386.

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.....	54,649	50,166	4,483
Proprietors and officials.....	5,506	5,348	158
Proprietors and firm members.....	3,571	3,440	131
Salaried officers of corporations.....	559	544	15
Superintendents and managers.....	1,376	1,364	12
Clerks.....	4,928	3,970	958
Wage earners (average number).....	44,215	40,838	3,377
16 years of age and over.....	43,980	40,643	3,337
Under 16 years of age.....	235	195	40

The average number of persons engaged in manufactures during 1909 was 54,649, of whom 44,215 were wage earners. Of the remainder, 5,506 were proprietors and officials and 4,928 were clerks. Corresponding figures for individual industries will be found in Table II, page 386.

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 13 important industries individually.

Of the total number of persons engaged in all manufacturing industries, 10.1 per cent were proprietors and officials, 9 per cent clerks, and 80.9 per cent wage earners. The highest percentage of proprietors and officials shown for any individual industry, 34.9, is for the bakeries. In this industry, and also in the butter, cheese, and condensed-milk, flour-mill and gristmill, and printing and publishing industries, the majority of the establishments are small and the work is to a large extent done by the proprietors or their immediate representatives, so that the propor-

tion of persons engaged in these industries falling into the class of proprietors and officials is very much higher than for the other industries shown in the table or for all industries combined. The smallest proportion for this class is shown for the slaughtering and meat-packing industry and is due to the large average number of wage earners to an individual establishment in this industry.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries.....	54,649	10.1	9.0	80.9
Bread and other bakery products.....	1,488	34.0	4.0	60.5
Brick and tile.....	1,978	5.3	2.8	92.0
Butter, cheese, and condensed milk.....	568	20.2	18.5	61.3
Cars and general shop construction and repairs by steam-railroad companies.....	8,819	3.0	4.0	92.4
Cement.....	2,365	1.9	7.4	90.6
Flour-mill and gristmill products.....	3,778	23.1	14.4	62.5
Foundry and machine-shop products.....	2,605	9.2	9.8	81.0
Glass.....	1,511	2.9	2.1	95.0
Lumber and timber products.....	1,160	10.4	4.9	84.7
Petroleum, refining.....	464	11.0	10.2	69.8
Printing and publishing.....	4,903	21.8	12.3	65.9
Slaughtering and meat packing.....	12,205	1.3	12.4	86.4
Smelting and refining, zinc.....	1,068	2.4	5.0	92.5
All other industries.....	11,277	16.5	8.4	75.1

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. <sup>1</sup>	Per cent of total.		
		16 years of age and over.		Under 16 years of age.
Male.	Female.			
All industries.....	44,215	91.9	7.5	0.5
Bread and other bakery products.....	900	81.8	17.2	1.0
Butter, cheese, and condensed milk.....	1,819	99.9		0.1
Cars and general shop construction and repairs by steam-railroad companies.....	348	87.4	12.4	0.3
Cement.....	7,686	100.0		( <sup>2</sup> )
Flour-mill and gristmill products.....	2,143	100.0		
Foundry and machine-shop products.....	2,300	98.2	0.9	0.8
Glass.....	2,110	100.0		
Lumber and timber products.....	1,435	96.1	3.3	0.6
Petroleum, refining.....	932	97.4	0.2	2.4
Printing and publishing.....	324	98.8	0.9	0.3
Slaughtering and meat packing.....	3,232	67.1	31.2	1.7
Smelting and refining, zinc.....	10,591	92.5	7.4	0.1
All other industries.....	1,821	100.0		
	8,404	83.8	15.0	1.2

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

For all industries combined, 91.8 per cent of the average number of wage earners were males 16 years of age and over; 7.6 per cent, females 16 years of age

and over; and five-tenths of 1 per cent, children under the age of 16. A large proportion of the total number of female wage earners was made up of those employed in the printing and publishing industry. In this industry nearly one-third of the total number of wage earners were women 16 years of age and over. A large number of women were employed in the slaughtering and meat-packing establishments, but on account of the large number of male wage earners employed in this industry, women formed only 7.4 per cent of the total number. No industry shows any considerable proportion of wage earners under 16 years of age, the lumber and timber products industry leading, with 2.4 per cent.

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.				Per cent of increase, 1904-1909.
	1900		1904		
	Number.	Per cent distribution.	Number.	Per cent distribution.	
Total.....	54,649	100.0	42,087	100.0	20.9
Proprietors and firm members.....	3,571	6.5	2,760	6.6	20.1
Salaries employees.....	6,803	12.0	3,721	8.8	84.4
Wage earners (average number).....	44,215	80.9	35,570	84.6	24.3

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.....	44,215	100.0	35,570	100.0	27,119	100.0
16 years of age and over..	43,080	99.5	34,841	98.0	26,323	97.1
Male.....	40,043	91.9	32,138	90.4	24,378	89.9
Female.....	3,337	7.6	2,703	7.6	1,945	7.2
Under 16 years of age....	235	0.5	729	2.0	796	2.9

This table indicates that for all industries combined there has been very little change during the 10 years in the proportions of adult male and female wage earners. In 1909 males 16 years of age and over formed 91.9 per cent of all wage earners, as compared with 90.4 per cent in 1904 and 89.9 per cent in 1899. The num-

ber and proportion of children employed show a continuous decrease.

**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 also gives the percentage which the number reported for each month is of the greatest number reported for any one month. In Table II, page 386, are shown, for practically all 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.

MONTH.	WAGE EARNERS.		MONTH.	WAGE EARNERS.	
	Number.	Per cent of maximum.		Number.	Per cent of maximum.
January.....	41,337	88.6	July.....	44,075	94.4
February.....	41,021	89.2	August.....	44,817	96.0
March.....	42,554	91.2	September.....	46,105	98.8
April.....	42,097	91.5	October.....	46,679	100.0
May.....	43,492	93.1	November.....	46,594	99.8
June.....	44,411	95.1	December.....	46,228	99.0

There are no important seasonal industries in Kansas all of the more important industries showing comparatively little fluctuation in the number of wage earners

employed. The slaughtering and meat-packing industry shows very little change in the number of wage earners, considering the large number employed. From Table II, page 386, it will be seen that the smallest number of wage earners, 9,788, was employed in March, and the greatest number, 11,471, was employed in November. Among the less important industries, the manufacture of brick and tile may be mentioned as a seasonal industry. In this industry over 2,000 wage earners were employed from May to September, the greatest number, 2,175, being employed in June, while for January only 1,143, or 52.6 per cent of the number employed in June, were reported. In the glass industry, on the other hand, the summer months are the slack months, only 433 wage earners being employed in July, as compared with 2,033 in December.

**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.
<b>All industries.....</b>	<b>44,215</b>	<b>4,218</b>	<b>3,520</b>	<b>6,679</b>	<b>3,148</b>	<b>20,124</b>	<b>4,056</b>	<b>975</b>	<b>1,495</b>
Agricultural implements.....	126	4		3	2	117			
Artificial stone.....	307	54		81	5	167			
Bread and other bakery products.....	900	85	9	153	22	477	58	73	23
Brick and tile.....	1,819	58	62	57		1,642			
Butter, cheese, and condensed milk.....	348	15		5	1	82	217	22	6
Carriages and wagons and materials.....	246	2		70	24	144			
Cars and general shop construction and repairs by steam-railroad companies.....	7,686	336		3,008		3,519	828		
Cement.....	2,143					308	1,366		469
Clothing, men's, including shirts.....	408	151	32	82	66	77			
Confectionery.....	135	12	3	12		107	1		
Cooperage and wooden goods, not elsewhere specified.....	162	48		20	54	40			
Copper, tin, and sheet-iron products.....	222	86	4	57	23	52			
Flour-mill and gristmill products.....	2,360	131	32	17	6	1,131	282	639	122
Foundry and machine-shop products.....	2,110	12	9	620	275	1,171	23		
Furniture and refrigerators.....	357	15		22	13	307			
Glass.....	1,435	831	126	166	39	273			
Ice, manufactured.....	593	10			1	65	140	75	302
Leather goods.....	339	2		6	180	151			
Lumber and timber products.....	982	42	3	134	321	482			
Marble and stone work.....	288	54	1	41	11	181			
Mattresses and spring beds.....	158	21	2		105	30			
Paint and varnish.....	104	1		5	17	1			80
Paper and wood pulp.....	97					51		21	25
Patent medicines and compounds and druggists' preparations.....	63	14	15	19	2	13			
Pottery, terra-cotta, and fire-clay products.....	228				34	194			
Printing and publishing.....	3,232	1,264	184	720	608	442	8	5	1
Salt.....	451	13				281	40	117	
Slaughtering and meat packing.....	10,591	371	2,941	834		6,442			3
Smelting and refining, zinc.....	1,821	216			295	184	879		247
Tobacco manufactures.....	415	259	10	52	6	88			
Wall plaster.....	170					170			
All other industries.....	3,919	111	87	494	1,038	1,735	214	23	217

It is evident from these figures that for nearly half of the wage earners employed in the manufacturing industries of Kansas the usual hours of labor were

60 a week, and that in the larger number of the industries employment was confined mainly to hours ranging from 54 to 60 a week, only 17.5 per cent of the total

being employed in establishments where the prevailing hours were less than 54 a week, and 14.8 per cent in establishments where they were more than 60 a week.

It will be noted that in the butter, cheese, and condensed-milk, manufactured-ice, and cement industries the employment was confined mainly to a week of 60 to 72 hours, inclusive, while in the glass and tobacco factories the largest number of wage earners were employed in establishments in which the prevailing hours of labor were 48 or less a week.

Location of establishments.—The next table shows the extent to which the manufactures of Kansas 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.	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	1,690,949	303,843	1,387,106	18.0	82.0
	1900	1,470,495	187,605	1,282,890	12.8	87.2
Number of establishments.	1909	3,435	1,043	2,392	30.4	69.6
	1899	2,290	613	1,676	26.7	73.3
Average number of wage earners.	1909	44,215	26,234	17,981	59.3	40.7
	1899	27,119	16,790	10,329	61.9	38.1
Value of products..	1909	\$325,104,002	\$228,974,052	\$96,129,950	70.4	29.6
	1899	154,008,544	100,881,326	53,147,218	65.5	34.5
Value added by manufacture.	1909	66,220,296	39,165,093	27,055,203	59.1	40.9
	1899	33,270,867	18,371,847	14,899,520	55.2	44.8

In 1909, 70.4 per cent of the total value of products was reported from cities having 10,000 inhabitants or over, and 59.3 per cent of the average number of wage earners were employed in such cities. In every item covered by the table, with the exception of average number of wage earners, this class of cities shows an increase in relative importance during the decade.

Kansas City, Wichita, Topeka, Leavenworth, Atchison, Pittsburg, Fort Scott, and Lawrence are included in the city group for each of the two censuses. Galena is included for 1899 only; Hutchinson, Coffeyville, Parsons, and Independence for 1909 only.

The population of the 13 cities which had 10,000 inhabitants or over in 1910 or 1900 is given in the following tabular statement:

CITY.	1910	1900	CITY.	1910	1900
Kansas City .....	82,331	51,418	Coffeyville .....	12,087	4,953
Wichita .....	52,450	24,671	Parsons .....	12,463	7,082
Topeka .....	43,684	33,608	Lawrence .....	12,374	10,862
Leavenworth .....	19,363	20,735	Independence .....	10,480	4,351
Atchison .....	16,420	15,722	Fort Scott .....	10,463	10,322
Hutchinson .....	16,364	9,370	Galena .....	6,096	10,155
Pittsburg .....	14,755	10,112			

The following statement shows general statistics for 1909 and 1899 for Galena, which had a population in 1900 in excess of 10,000, but which fell below this figure in 1910, and therefore is not included in the city group, but in the districts outside, for 1909 in the table showing location of establishments.

ITEM.	1900	1899
Population.....	10,096	210,155
Number of establishments.....	19	19
Wage earners (average number).....	153	114
Value of products.....	\$972,044	\$420,991
Value added by manufacture.....	217,530	104,687

<sup>1</sup> In 1910.

<sup>2</sup> In 1900.

While the population of Galena has decreased, the number of establishments was the same in 1909 as in 1899. The average number of wage earners, value of products, and value added by manufacture increased during the decade; the last two items more than doubled. The leading industries in 1909 were foundries and machine shops and the smelting and refining of lead.

The relative importance in manufactures of each of the 12 cities having a population of 10,000 or over in 1910 is shown in the following table, in which the value of products and the 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
Kansas City.....	12,204	10,520	9,433	\$104,080,007	\$95,473,050	\$80,023,107
Wichita.....	2,783	1,262	803	22,594,293	7,380,844	3,329,097
Topeka.....	4,244	3,953	2,874	17,820,761	14,448,869	8,356,774
Leavenworth.....	1,311	1,321	1,141	4,875,598	4,151,767	3,251,460
Coffeyville.....	1,060	( <sup>1</sup> )	( <sup>1</sup> )	4,761,595	( <sup>1</sup> )	( <sup>1</sup> )
Atchison <sup>2</sup> .....	824	708	533	4,404,813	3,829,272	2,033,469
Hutchinson.....	667	610	536	3,613,950	2,031,048	1,541,148
Pittsburg <sup>2</sup> .....	972	919	832	1,816,866	1,493,949	1,433,850
Lawrence.....	422	402	461	1,653,488	653,254	1,238,926
Parsons.....	1,130	( <sup>1</sup> )	( <sup>1</sup> )	1,626,272	( <sup>1</sup> )	( <sup>1</sup> )
Fort Scott <sup>2</sup> .....	266	244	389	1,010,033	785,672	713,652
Independence.....	252	( <sup>1</sup> )	( <sup>1</sup> )	756,706	( <sup>1</sup> )	( <sup>1</sup> )

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

<sup>2</sup> 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.

Each city for which comparative figures are given shows an increase in value of products from 1904 to 1909, and all but Lawrence an increase from 1899 to 1904. The percentages of increase for Kansas City and Wichita were much greater from 1904 to 1909 than for the earlier period. The greatest gain, over 200 per cent, is shown for Wichita, and was due largely to the increase in the slaughtering and meat-packing, and the flour-mill and gristmill industries, though there was a general growth in most of the other industries of the city. The next largest increase, 151.2 per cent, is shown for Lawrence. The abandonment of a large flour mill was largely responsible for the decrease of 46.9 per cent from 1899 to 1904 in the value of products for

this city, but during the last five years the flour-mill and gristmill industry shows a remarkable gain, and the city an increase of 33.5 per cent for the decade.

Kansas City was the leading manufacturing city of the state in 1909, with products valued at 50.5 per cent of the state total. The products of the slaughtering and meat-packing industry alone contributed 90.5 per cent of the total value of products for this city, and 89.8 per cent of the state total for this one industry. In addition to the foundries and machine shops, statistics for which are shown separately in Table I, page 384, two other industries, the flour-mill and gristmill products industry and the manufacture of soap, are important in the city, but the statistics for them can not be shown without disclosing the operations of individual establishments. Each of these three industries had products valued at more than \$1,000,000. Kansas City had 11 industries other than those mentioned above or shown in Table I, which reported products having a value in excess of \$100,000. They are the manufacture of agricultural implements, creamery products, illuminating and heating gas, grease and tallow, ice, lumber and timber products, the refining of petroleum, steam-railroad repair shops, the construction of steam-railroad cars, other than by railroad companies, and the manufacture of cotton goods and of sulphuric, nitric, and mixed acids.

Slaughtering and meat packing was by far the most important industry in Wichita, but the figures for the industry can not be shown separately, since to do so would lead to the disclosure of individual operations. Both the number of wage earners and the value of products were practically four times as great in 1909 as in 1904. Other important industries, for which comparative figures are presented in Table I, page 385, were the flour-mill and gristmill, lumber and timber products, printing and publishing, bakery, patent medicine and compound, and foundry and machine-shop industries, all of which, except the lumber and timber products industry, show increases of over 100 per cent from 1904 to 1909 in value of products. Some of the more important industries included under the head of "All other industries" for Wichita are the manufacture of men's clothing, copper, tin, and sheet-iron products, and food preparations.

Topeka is the only other important manufacturing city in the state, and nearly 80 per cent of its value of products in 1909 was contributed by five industries, each of which reported products valued at over \$1,000,000, namely, the creameries, the steam-railroad repair shops, the flour mills and gristmills, printing and publishing, and slaughtering and meat packing.

In most of the other cities shown in the table, the flour mills and gristmills constituted the predominating industry, contributing from one-fourth to one-half, approximately, of the total value of products in each city except Parsons and Pittsburg. The principal manufacturing industry in these two cities was the steam-railroad repair shops.

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 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, 21 per cent of the total number of establishments were in 1909 under corporate ownership, as against 79 per cent under all other forms. The corresponding figures for 1904 were 18.3 per cent and 81.7 per cent, respectively. In respect to value of products the conditions were reversed, as in 1909 the establishments operated by corporations reported 87.9 per cent of the total value, as against 12.1 per cent for those under all other forms of ownership. In 1904 the corresponding figures were 83 per cent and 17 per cent, respectively. The greatest decrease from 1904 to 1909 in proportion of the total number of establishments is shown for those operated by firms. They formed only 19.6 per cent of the total in 1909, as compared with 23.8 per cent in 1904.

The forms of ownership prevailing in the different industries varied considerably. In six of the eight industries shown separately the most common form of ownership was the individual. The largest percentages of establishments under corporate ownership are found in the brick and tile and the slaughtering and meat-packing industries. In the foundry and machine-shop industry 43.8 per cent of the establishments were under the individual form of ownership and 42.3 per cent under corporate ownership. Among the important industries not shown in the table, all of the establishments engaged in the manufacture of cement, in the smelting and refining of zinc, and in the refining of petroleum were under the corporate form of ownership, and all but 6 of the 23 glass factories reported were under this form of ownership.



INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.	INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>					<b>Flour-mill and gristmill products, 1909</b>				
1909.....	3,435	44,215	\$325,104,002	\$66,220,296	Individual.....	501	2,360	\$68,476,410	\$8,037,577
1904.....	2,476	35,570	198,244,992	41,735,043	Firm.....	226	392	8,252,272	1,152,047
Individual:					Other.....	138	300	10,002,932	1,355,501
1909.....	2,006	5,755	22,094,827	8,584,080	Corporation.....	134	1,570	50,174,354	5,522,140
1904.....	1,409	4,345	10,224,123	5,630,208	Other.....	3	2	46,852	7,880
Firm:					Per cent of total.....	100.0	100.0	100.0	100.0
1909.....	674	2,477	10,475,076	4,306,248	Individual.....	45.1	16.6	12.1	14.3
1904.....	588	2,819	17,218,989	4,443,561	Firm.....	27.5	16.5	14.6	16.9
Corporation:					Corporation.....	26.7	66.8	73.3	68.7
1909.....	723	35,038	285,037,061	53,119,809	Other.....	0.6	0.1	0.1	0.1
1904.....	454	23,348	164,565,570	31,598,380	<b>Foundry and machine-shop products, 1909</b>				
Other:					Individual.....	137	2,110	\$5,919,879	\$2,885,182
1909.....	32	45	297,038	119,493	Firm.....	60	279	690,862	355,536
1904.....	24	58	236,304	53,804	Other.....	19	93	361,880	185,675
Per cent of total:					Corporation.....	58	1,738	4,966,637	2,343,971
1909.....	100.0	100.0	100.0	100.0	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	100.0	100.0	100.0	100.0	Individual.....	43.8	13.2	10.0	12.3
Individual:					Firm.....	13.9	4.4	6.1	6.4
1909.....	58.4	13.0	7.0	13.0	Corporation.....	42.3	82.4	83.9	81.2
1904.....	56.0	12.2	8.2	13.5	<b>Lumber and timber products, 1909</b>				
Firm:					Individual.....	73	982	\$3,244,285	\$1,172,499
1909.....	19.6	5.6	5.1	6.6	Other.....	37	151	357,847	185,720
1904.....	23.8	7.0	8.7	10.6	Firm.....	24	231	566,481	281,728
Corporation:					Corporation.....	12	600	2,320,437	705,051
1909.....	21.0	81.3	87.9	80.2	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	18.3	79.7	83.0	75.7	Individual.....	50.7	15.4	11.0	15.8
Other:					Firm.....	32.9	23.5	17.5	24.0
1909.....	0.9	0.1	0.1	0.2	Corporation.....	16.4	61.1	71.5	60.1
1904.....	1.0	0.2	0.1	0.1	<b>Printing and publishing, 1909</b>				
Bread and other bakery products, 1909.....	435	900	\$3,432,564	\$1,443,491	Individual.....	798	3,232	\$7,008,865	\$4,172,059
Individual.....	350	571	2,318,010	1,001,746	Firm.....	590	1,908	4,077,396	2,058,120
Firm.....	73	144	682,332	245,565	Other.....	116	361	658,300	499,308
Corporation.....	6	185	531,013	193,180	Corporation.....	69	933	2,180,163	1,480,928
Per cent of total.....	100.0	100.0	100.0	100.0	Other.....	23	30	92,907	80,703
Individual.....	81.8	63.4	67.5	66.4	Per cent of total.....	100.0	100.0	100.0	100.0
Firm.....	16.8	16.0	17.0	17.2	Individual.....	73.9	59.0	53.2	55.4
Corporation.....	1.4	20.6	15.5	13.4	Firm.....	14.5	11.2	9.4	10.6
Brick and tile, 1909.....	55	1,819	\$2,336,438	\$1,805,633	Corporation.....	8.0	28.9	31.1	31.4
Individual.....	5	17	21,890	17,603	Other.....	2.9	0.9	1.3	1.7
Firm.....	8	59	63,040	57,529	<b>Slaughtering and meat packing, 1909</b>				
Corporation.....	42	1,743	2,248,418	1,730,505	Individual.....	35	10,591	\$165,360,516	\$17,714,526
Per cent of total.....	100.0	100.0	100.0	100.0	Other.....	12	04	608,127	104,837
Individual.....	0.1	0.9	1.0	1.0	Firm.....	5	15	811,802	60,652
Firm.....	14.5	3.2	2.7	3.2	Corporation.....	18	10,512	104,440,687	17,549,007
Corporation.....	76.4	95.8	96.2	95.8	Per cent of total.....	100.0	100.0	100.0	100.0
Butter, cheese, and condensed milk, 1909.....	60	348	\$8,070,634	\$1,120,121	Individual.....	34.3	0.6	0.4	0.6
Individual.....	22	39	545,853	88,760	Firm.....	14.3	0.1	0.2	0.3
Firm.....	14	22	501,260	70,421	Corporation.....	51.4	99.3	99.4	99.1
Corporation.....	19	274	4,860,902	930,258	<b>Other</b>				
Other.....	5	13	156,529	30,676	Individual.....	30.7	11.2	9.0	7.9
Per cent of total.....	100.0	100.0	100.0	100.0	Firm.....	23.3	6.3	8.3	6.3
Individual.....	30.7	11.2	9.0	7.9	Corporation.....	31.7	78.7	80.2	83.0
Firm.....	23.3	6.3	8.3	6.3	Other.....	8.3	3.7	2.6	2.7
Corporation.....	31.7	78.7	80.2	83.0					
Other.....	8.3	3.7	2.6	2.7					

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 3,435 manu-

facturing establishments in the state, only 34, or 1 per cent, had a value of products exceeding \$1,000,000. These establishments, however, employed an average of 16,220 wage earners, or 36.7 per cent of the total number in all establishments, and reported 62.9 per cent of the total value of products and 40 per cent of the total value added by manufacture. The comparatively low proportion of the total value added by manufacture reported is due to the fact that these establishments are largely slaughtering and meat-packing establishments and flour mills and grist-mills, whose value added by manufacture, as already stated, is not commensurate with their gross value of products.



INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.	INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>					<b>Flour-mill and gristmill products, 1909</b>				
1909.....	3,435	44,215	\$325,104,002	\$66,220,296	Less than \$5,000.....	501	2,360	\$68,478,410	\$8,037,877
1904.....	2,475	35,570	198,244,892	41,735,043	\$5,000 and less than \$20,000.....	110	37	287,371	65,994
Less than \$5,000:					\$20,000 and less than \$100,000.....	144	127	1,642,628	300,015
1909.....	1,045	1,684	3,867,954	2,386,459	\$100,000 and less than \$1,000,000.....	118	290	5,240,280	784,359
1904.....	1,211	1,569	2,741,307	1,795,911	\$1,000,000 and over.....	11	470	18,139,027	1,790,942
\$5,000 and less than \$20,000:					Per cent of total.....	100.0	100.0	100.0	100.0
1909.....	1,002	3,425	9,809,793	5,083,622	Less than \$5,000.....	22.0	1.6	0.4	0.8
1904.....	650	2,956	6,347,304	3,366,497	\$5,000 and less than \$20,000.....	28.7	5.4	2.3	3.7
\$20,000 and less than \$100,000:					\$20,000 and less than \$100,000.....	23.6	12.3	7.7	9.8
1909.....	491	7,411	21,493,918	9,596,074	\$100,000 and less than \$1,000,000.....	23.6	60.8	63.2	63.3
1904.....	403	6,240	17,441,913	7,259,125	\$1,000,000 and over.....	2.2	19.9	26.5	22.4
\$100,000 and less than \$1,000,000:					Average per establishment.....		5	\$136,679	\$16,043
1909.....	263	15,475	85,547,057	22,639,748	<b>Foundry and machine-shop products, 1909</b>				
1904.....	190	11,818	57,537,181	14,551,451	Less than \$5,000.....	137	2,110	\$5,919,379	\$2,885,182
\$1,000,000 and over:					Less than \$5,000.....	53	56	122,314	77,388
1909.....	34	16,220	204,385,280	26,514,393	\$5,000 and less than \$20,000.....	31	148	300,599	197,750
1904.....	21	12,987	114,177,287	14,763,029	\$20,000 and less than \$100,000.....	42	838	2,100,984	1,184,376
Per cent of total:					\$100,000 and less than \$1,000,000.....	11	1,068	3,396,382	1,425,668
1909.....	100.0	100.0	100.0	100.0	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	100.0	100.0	100.0	100.0	Less than \$5,000.....	33.7	2.7	2.1	2.7
Less than \$5,000:					\$5,000 and less than \$20,000.....	22.6	7.0	5.1	6.9
1909.....	47.0	3.8	1.2	3.6	\$20,000 and less than \$100,000.....	30.7	39.7	35.5	41.0
1904.....	48.9	4.4	1.4	4.3	\$100,000 and less than \$1,000,000.....	8.0	50.6	57.4	49.4
\$5,000 and less than \$20,000:					Average per establishment.....		15	\$43,207	\$21,060
1909.....	29.2	7.7	3.0	7.7	<b>Lumber and timber products, 1909</b>				
1904.....	26.3	8.3	3.2	8.1	Less than \$5,000.....	73	982	\$3,244,265	\$1,172,499
\$20,000 and less than \$100,000:					Less than \$5,000.....	26	26	66,552	30,455
1909.....	14.3	16.8	6.6	14.5	\$5,000 and less than \$20,000.....	26	117	280,595	140,794
1904.....	16.3	17.5	8.8	17.4	\$20,000 and less than \$100,000.....	14	235	606,058	295,941
\$100,000 and less than \$1,000,000:					\$100,000 and less than \$1,000,000.....	7	604	2,291,060	696,309
1909.....	7.7	35.0	28.3	34.2	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	7.7	33.2	29.0	34.9	Less than \$5,000.....	35.6	2.6	2.1	3.4
\$1,000,000 and over:					\$5,000 and less than \$20,000.....	35.6	11.9	8.6	12.0
1909.....	1.0	36.7	62.9	40.0	\$20,000 and less than \$100,000.....	19.2	23.9	18.7	25.2
1904.....	0.8	36.5	57.6	35.4	\$100,000 and less than \$1,000,000.....	9.6	61.5	70.6	59.4
Average per establishment:					Average per establishment.....		13	\$44,442	\$16,062
1909.....		13	\$94,645	\$19,278	<b>Printing and publishing, 1909</b>				
1904.....		14	80,099	16,863	Less than \$5,000.....	798	3,232	\$7,008,865	\$4,719,059
<b>Bread and other bakery products, 1909</b>					Less than \$5,000.....	580	765	1,326,532	1,060,250
Less than \$5,000.....	435	900	\$3,432,564	\$1,442,491	\$5,000 and less than \$20,000.....	167	353	1,470,956	1,167,273
\$5,000 and less than \$20,000.....	222	134	609,641	271,972	\$20,000 and less than \$100,000.....	42	741	1,556,717	1,055,809
\$20,000 and less than \$100,000.....	191	426	1,736,384	751,354	\$100,000 and less than \$1,000,000.....	9	873	2,656,610	1,435,727
\$5,000 and less than \$20,000.....	22	340	1,086,539	420,185	Per cent of total.....	100.0	100.0	100.0	100.0
Per cent of total.....	100.0	100.0	100.0	100.0	Less than \$5,000.....	72.7	23.7	18.9	22.5
Less than \$5,000.....	51.0	14.9	17.8	18.8	\$5,000 and less than \$20,000.....	20.9	26.4	21.0	24.7
\$5,000 and less than \$20,000.....	43.9	47.3	50.6	52.1	\$20,000 and less than \$100,000.....	5.3	22.9	22.2	22.4
\$20,000 and less than \$100,000.....	5.1	37.8	31.7	29.1	\$100,000 and less than \$1,000,000.....	1.1	27.0	37.9	30.4
Average per establishment.....		2	\$7,891	\$3,318	Average per establishment.....		4	\$8,783	\$5,914
<b>Brick and tile, 1909</b>					<b>Slaughtering and meat packing, 1909</b>				
Less than \$5,000.....	55	1,819	\$2,336,438	\$1,865,633	Less than \$5,000.....	35	10,591	\$165,360,516	\$17,714,528
\$5,000 and less than \$20,000.....	8	17	12,856	9,753	\$5,000 and less than \$20,000.....	5	3	40,817	6,490
\$20,000 and less than \$100,000.....	34	1,372	1,668,629	1,304,597	\$20,000 and less than \$100,000.....	14	47	677,531	117,706
\$100,000 and less than \$1,000,000.....	4	350	585,214	445,188	\$100,000 and less than \$1,000,000.....	6	207	2,434,032	560,803
Per cent of total.....	100.0	100.0	100.0	100.0	\$1,000,000 and over.....	10	10,334	162,208,136	17,029,527
Less than \$5,000.....	14.5	0.9	0.6	0.5	Per cent of total.....	100.0	100.0	100.0	100.0
\$5,000 and less than \$20,000.....	16.4	4.4	3.0	2.6	\$5,000 and less than \$20,000.....	14.3	(4)	(4)	(4)
\$20,000 and less than \$100,000.....	61.8	75.4	71.4	72.3	\$20,000 and less than \$100,000.....	40.0	2.0	0.4	0.7
\$100,000 and less than \$1,000,000.....	7.3	19.2	25.0	24.7	\$100,000 and less than \$1,000,000.....	17.1	1.5	1.5	3.2
Average per establishment.....		33	\$42,481	\$32,830	\$1,000,000 and over.....	28.6	97.6	98.1	96.1
<b>Butter, cheese, and condensed milk, 1909</b>					Average per establishment.....		303	\$4,724,586	\$506,129
Less than \$5,000.....	60	348	\$6,070,634	\$1,120,121					
\$5,000 and less than \$20,000.....	4	1	9,669	2,331					
\$20,000 and less than \$100,000.....	23	24	267,293	52,483					
\$100,000 and less than \$1,000,000.....	12	240	4,929,391	910,092					
Per cent of total.....	100.0	100.0	100.0	100.0					
Less than \$5,000.....	6.7	0.3	0.2	0.2					
\$5,000 and less than \$20,000.....	38.3	6.9	4.4	4.7					
\$20,000 and less than \$100,000.....	35.0	23.8	14.2	13.9					
\$100,000 and less than \$1,000,000.....	20.0	69.0	81.2	81.2					
Average per establishment.....		6	\$101,177	\$18,669					

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

<sup>3</sup> Includes the group "Less than \$5,000."  
<sup>4</sup> Less than one-tenth of 1 per cent.

On the other hand, the very small establishments—that is, those having a value of products of less than \$5,000—constituted a considerable portion (47.9 per cent) of the total number of establishments, but the value of their products amounted to only 1.2 per cent of the total. The great bulk of the manufacturing was carried on in 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 in the relative importance, as measured by value of products, of the

largest establishments—those reporting products of not less than \$1,000,000 in value—and a corresponding decrease in the relative importance of the other classes, the largest decrease being shown for the establishments reporting products valued at \$100,000 but less than \$1,000,000.

The fact that between 1904 and 1909 the average value of products per establishment increased from \$80,099 to \$94,645, and the average value added by manufacture from \$16,863 to \$19,278, can not be taken as the result of concentration alone. 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 14 to 13.

In all the industries shown separately in the table, with the exception of the bakeries, the brick and tile industry, and printing and publishing the bulk of the value of products was contributed by the establishments having a value of products in excess of \$100,000.

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 following 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 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.....	3,435	546	2,152	440	160	70	41	14	7	5
Bread and other bakery products.....	435	97	311	24	2	.....	1	.....	.....	.....
Brick and tile.....	55	10	41	8	25	12	.....	.....	.....	.....
Butter, cheese, and condensed milk.....	60	5	41	11	2	1	.....	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	23	.....	.....	2	2	2	7	6	3	1
Cement.....	12	.....	.....	1	1	3	.....	.....	.....	.....
Flour-mill and gristmill products.....	501	97	293	87	21	3	3	3	1	.....
Foundry and machine-shop products.....	137	18	55	39	15	4	.....	.....	.....	.....
Glass.....	23	.....	3	1	7	7	6	.....	.....	.....
Lumber and timber products.....	73	7	38	18	5	3	2	.....	.....	.....
Petroleum, refining.....	18	.....	7	4	6	1	.....	.....	.....	.....
Printing and publishing.....	708	154	544	70	14	6	.....	1	.....	.....
Slaughtering and meat packing.....	35	1	16	3	5	.....	2	1	3	.....
Smelting and refining, zinc.....	12	.....	.....	.....	2	2	7	1	.....	.....
All other industries.....	1,253	107	834	163	53	26	8	2	.....	.....
AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	44,215	4,275	4,731	5,033	4,798	6,374	4,820	5,072	6,112	.....
Bread and other bakery products.....	900	524	198	75	.....	103	.....	.....	.....	.....
Brick and tile.....	1,819	23	84	861	851	.....	.....	.....	.....	.....
Butter, cheese, and condensed milk.....	348	81	122	58	87	.....	.....	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	7,680	.....	24	73	130	1,090	2,393	2,116	1,845	.....
Cement.....	2,143	.....	15	20	222	511	819	550	.....	.....
Flour-mill and gristmill products.....	2,360	541	1,005	612	202	.....	.....	.....	.....	.....
Foundry and machine-shop products.....	2,110	108	443	459	244	856	.....	.....	.....	.....
Glass.....	1,435	5	6	240	532	652	.....	.....	.....	.....
Lumber and timber products.....	982	87	197	169	184	355	.....	.....	.....	.....
Petroleum, refining.....	324	21	48	161	94	.....	.....	.....	.....	.....
Printing and publishing.....	3,232	1,195	795	432	416	.....	393	.....	.....	.....
Slaughtering and meat packing.....	10,591	37	21	198	.....	297	365	2,406	7,267	.....
Smelting and refining, zinc.....	1,821	.....	.....	76	160	1,200	295	.....	.....	.....
All other industries.....	8,404	1,653	1,772	1,603	1,667	1,214	555	.....	.....	.....
PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	100.0	9.7	10.7	11.4	10.9	14.4	10.9	11.5	20.6	.....
Bread and other bakery products.....	100.0	58.2	22.0	8.3	.....	11.4	.....	.....	.....	.....
Brick and tile.....	100.0	1.3	4.6	47.3	46.8	.....	.....	.....	.....	.....
Butter, cheese, and condensed milk.....	100.0	23.3	35.1	16.7	25.0	.....	.....	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	100.0	.....	0.3	0.9	1.8	14.3	31.1	27.5	24.0	.....
Cement.....	100.0	.....	0.7	1.2	10.4	23.8	38.2	25.7	.....	.....
Flour-mill and gristmill products.....	100.0	22.9	42.6	25.9	8.6	.....	.....	.....	.....	.....
Foundry and machine-shop products.....	100.0	5.1	21.0	21.8	11.6	40.0	.....	.....	.....	.....
Glass.....	100.0	0.3	0.4	16.7	37.1	45.4	.....	.....	.....	.....
Lumber and timber products.....	100.0	8.9	20.1	16.2	18.7	36.2	.....	.....	.....	.....
Petroleum, refining.....	100.0	6.5	14.8	49.7	29.0	.....	.....	.....	.....	.....
Printing and publishing.....	100.0	37.0	24.6	13.4	12.9	.....	12.2	.....	.....	.....
Slaughtering and meat packing.....	100.0	0.3	0.2	1.9	.....	2.8	3.4	22.7	68.6	.....
Smelting and refining, zinc.....	100.0	.....	.....	4.2	8.8	70.8	16.2	.....	.....	.....
All other industries.....	100.0	19.5	20.9	18.9	19.7	14.3	6.6	.....	.....	.....

Of the 3,435 establishments reported for all industries, 15.9 per cent employed no wage earners; 62.6 per cent, from 1 to 5; 12.8 per cent, from 6 to 20; and 4.7 per cent, from 21 to 50. The most numerous single group consists of the 2,152 establishments employing from 1 to 5 wage earners, and the next of the 546 establishments employing no wage earners. There were 26 establishments that employed over 250

wage earners each; 12 of these employed over 500 each, and 5 of them, 4 of which were engaged in slaughtering and meat packing, employed over 1,000 each. Of the total number of wage earners, 43 per cent were in establishments employing over 250 wage earners each. The single group having the largest number of wage earners was the group comprising the establishments employing over 1,000 wage earners. This group

employed 9,112 wage earners, or 20.6 per cent of the total. Three of the industries listed in this table but not in the preceding one, namely, steam-railroad repair shops, the cement industry, and the smelting and refining of zinc, are industries in which comparatively large establishments did 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 386.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries.....	2.4	8.5	84.7	4.4
Bread and other bakery products.....	1.9	17.6	72.6	7.9
Brick and tile.....	7.5	48.7	28.4	15.5
Butter, cheese, and condensed milk.....	2.6	3.7	87.1	6.5
Cars and general shop construction and repairs by steam-railroad companies.....	5.5	46.2	46.7	1.7
Cement.....	8.3	35.1	40.2	16.5
Flour-mill and gristmill products.....	1.5	2.2	93.5	2.8
Foundry and machine-shop products.....	7.8	25.4	57.5	9.2
Glass.....	3.6	53.6	36.5	6.4
Lumber and timber products.....	4.3	18.3	70.2	7.2
Petroleum, refining.....	4.3	5.5	83.4	6.8
Printing and publishing.....	12.6	30.0	41.6	15.9
Slaughtering and meat packing.....	1.1	3.7	92.3	2.9
Smelting and refining, zinc.....	2.7	10.8	84.5	2.0
All other industries.....	6.1	17.6	63.9	12.4

The table shows that, for all industries combined, 84.7 per cent of the total expense was incurred for materials, 10.9 per cent for services—that is, salaries and wages—and but 4.4 per cent for other purposes. As would be expected, these proportions vary greatly in the different industries.

**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 total primary power increased 113,700 horsepower, or 114.3 per cent, from 1904 to 1909, as compared with an increase of 31,199 horsepower, or 45.7 per cent, from 1899 to 1904.

Of the total increase in primary power during the decade, 114,089 horsepower, or 78.7 per cent, was

in that generated by steam. The more general use of gas engines is shown, the number of such engines reported increasing from 347 in 1899 to 1,080 in 1909, and the horsepower from 2,530 to 22,580. The figures show that the practice of renting power is on the increase. Rented electric power increased from 1,420 horsepower in 1899 to 11,809 in 1909. The use of electric motors for the purpose of applying the power generated within the establishments is also shown to be rapidly increasing, the horsepower of such motors having increased from 2,006 in 1899 to 7,842 in 1904 and 35,112 in 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899	1909	1904	1899	1909	1904	1899
Primary power, total.....	4,036	1,745	1,838	213,141	99,441	68,242	100.0	100.0	100.0
Owned.....	2,433	1,745	1,838	200,579	99,601	66,659	94.1	97.1	97.7
Steam.....	1,244	1,098	1,301	169,007	83,039	55,518	79.6	83.5	81.4
Gas.....	1,080	510	347	22,580	6,923	2,530	10.6	7.0	3.7
Water wheels.....	89	110	190	7,484	6,290	7,521	3.5	6.3	11.0
Water motors.....	20	27	(?)	222	254	(?)	0.1	0.3	(?)
Other.....				686	95	1,090	0.3	0.1	1.6
Rented.....	1,603	(?)	(?)	12,562	2,840	1,583	5.9	2.9	2.3
Electric.....	1,603	(?)	(?)	11,809	2,484	1,420	5.5	2.5	2.1
Other.....				753	356	163	0.4	0.4	0.2
Electric motors.....	3,384	379	105	46,921	10,326	3,426	100.0	100.0	100.0
Run by current generated by establishment.....	1,781	379	105	35,112	7,842	2,006	74.8	75.9	58.6
Run by rented power.....	1,603	(?)	(?)	11,809	2,484	1,420	25.2	24.1	41.4

<sup>1</sup> Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.  
<sup>2</sup> Not reported.

**Fuel.**—Closely related to 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 for all industries combined and for certain selected industries:

INDUSTRY.	Anthracite coal (tons).	Bituminous coal (tons).	Coke (tons).	Oil, including gasoline (barrels).	Gas (1,000 feet).
All industries.....	38,472	959,771	22,737	1,240,959	35,789,687
Bread and other bakery products.....	348	2,923	22	220	147,342
Brick and tile.....		45,896	90	35,468	6,425,747
Butter, cheese, and condensed milk.....		9,335		1,883	118,433
Cars and general shop construction and repairs by steam-railroad companies.....		120	283,122	412	35,953
Cement.....	1,788	2,000		204,129	12,573,989
Flour-mill and gristmill products.....	5,655	121,324	9	101,532	918,260
Foundry and machine-shop products.....	304	9,631	12,477	6,391	143,341
Glass.....				1,020	2,289,789
Ice, manufactured.....	4,721	57,443	125	15,208	1,366,227
Lumber and timber products.....	98	3,809		103	21,575
Petroleum, refining.....				68,428	1,414,996
Printing and publishing.....	93	3,405	6	1,138	71,209
Salt.....		23,030		47,335	1,687,594
Slaughtering and meat packing.....		203,730		517,451	395,895
Smelting and refining, zinc.....	25,318	94,512	7,462	41,400	7,056,571
All other industries.....	29	99,611	2,134	162,392	685,268

NOTE.—In addition, there were 6,228 cords of wood reported, of which 3,710 cords were used in the bread and other bakery products industry. There were also 1,303 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 seven important industries in Kansas are here presented.

**Slaughtering and meat packing.**—The following tabular statement gives the quantity and cost of the different materials used and the quantity and value of the various products of the slaughtering and meat-packing establishments of the state at the censuses of 1909, 1904, and 1899:

MATERIAL OR PRODUCT.	1909	1904 <sup>1</sup>	1899
Materials used, total cost.....	\$147,645,990	\$85,145,905	\$67,908,900
<b>Beeves slaughtered:</b>			
Number.....	1,362,572	1,019,553	927,339
Cost.....	\$63,452,976	\$38,106,588	\$38,165,053
<b>Calves slaughtered:</b>			
Number.....	209,357	92,751	30,720
Cost.....	\$2,202,053	\$732,227	\$294,454
<b>Sheep slaughtered:</b>			
Number.....	1,130,027	771,818	630,832
Cost.....	\$5,186,825	\$2,820,354	\$2,297,740
<b>Hogs slaughtered:</b>			
Number.....	4,191,927	3,089,011	2,840,048
Cost.....	\$57,042,948	\$33,090,108	\$23,530,278
Dressed meat purchased.....	4,005,324	5,013,185	683,879
Fuel and rent of power.....	704,037	667,683	338,767
All other materials.....	14,301,177	4,103,700	2,598,783
<b>Products, total value.....</b>	<b>\$105,360,516</b>	<b>\$68,375,639</b>	<b>\$77,411,883</b>
<b>Beef, fresh:</b>			
Pounds.....	680,615,803	509,978,750	451,975,433
Value.....	\$52,129,824	\$30,531,026	\$31,020,096
<b>Beef, salted or cured:</b>			
Pounds.....	7,318,000	11,144,304	8,907,000
Value.....	\$491,880	\$473,961	\$540,900
<b>Veal, fresh:</b>			
Pounds.....	25,731,826	9,787,828	3,869,263
Value.....	\$2,343,974	\$647,788	\$282,051
<b>Mutton, fresh:</b>			
Pounds.....	43,884,755	30,240,003	24,300,545
Value.....	\$4,448,060	\$2,107,136	\$1,804,220
<b>Pork, fresh:</b>			
Pounds.....	150,199,802	81,010,571	86,242,483
Value.....	\$13,757,643	\$5,782,159	\$5,009,007
<b>Pork, salted or cured:</b>			
Pounds.....	304,998,556	303,954,794	275,300,897
Value.....	\$40,924,199	\$27,763,228	\$19,411,940
<b>Sausage, fresh or cured.....</b>	<b>\$2,803,401</b>	<b>\$1,814,777</b>	<b>\$1,469,400</b>
<b>All other fresh meat:</b>			
Pounds.....	8,465,481	5,343,167	6,489,044
Value.....	\$533,181	\$200,093	\$412,267
<b>Canned goods:</b>			
Pounds.....	17,891,713	( <sup>2</sup> )	14,034,995
Value.....	\$1,879,508	\$2,153,360	\$1,341,215
<b>Lard:</b>			
Pounds.....	148,408,252	132,557,007	116,003,884
Value.....	\$10,748,155	\$9,561,473	\$6,225,499
<b>Tallow and oleo stock:</b>			
Pounds.....	21,794,761	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$1,658,288	( <sup>2</sup> )	( <sup>2</sup> )
<b>Oleo oil:</b>			
Gallons.....	3,590,372	1,611,428	1,928,813
Value.....	\$2,995,219	\$809,945	\$1,204,905
<b>Oleomargarine:</b>			
Pounds.....	9,094,584	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$1,187,779	( <sup>2</sup> )	( <sup>2</sup> )
<b>Stearine:</b>			
Pounds.....	7,528,036	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$1,043,574	( <sup>2</sup> )	( <sup>2</sup> )
<b>Fertilizers and fertilizer materials:</b>			
Tons.....	02,515	22,721	26,118
Value.....	\$1,383,390	\$538,174	\$504,080
<b>Hides:</b>			
Number.....	1,449,584	1,003,512	900,732
Pounds.....	79,719,102	58,858,924	50,421,335
Value.....	\$10,904,415	\$5,828,092	\$5,556,195
<b>Pelts:</b>			
Number.....	1,117,653	751,595	( <sup>2</sup> )
Value.....	\$1,334,782	\$729,496	( <sup>2</sup> )
<b>All other products, including custom or contract work.....</b>	<b>\$3,684,512</b>	<b>\$7,313,192</b>	<b>\$2,469,112</b>

<sup>1</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

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

There were 343,019, or 33.6 per cent, more beeves slaughtered in 1909 than in 1904; 116,606, or 125.7

per cent, more calves; 364,209, or 47.2 per cent, more sheep; and 1,102,316, or 35.7 per cent, more hogs. The average cost per head for each was higher in 1909 than in 1904. The amount of beef sold fresh increased 176,637,053 pounds, or 34.6 per cent, from 1904 to 1909, as compared with 58,003,317 pounds, or 12.8 per cent, from 1899 to 1904. The amount of pork sold fresh increased 69,183,231 pounds, or 85.4 per cent, from 1904 to 1909, but decreased 5,225,912 pounds, or 6.1 per cent, from 1899 to 1904, while the amount of salt pork and cured pork increased 61,043,762 pounds, or 20.1 per cent, from 1904 to 1909, as compared with 28,587,897 pounds, or 10.4 per cent, from 1899 to 1904. Mutton and veal also show large increases both in quantity and value from 1904 to 1909.

**Flour-mill and gristmill products.**—In the value of the products of its flour mills and gristmills Kansas advanced from tenth place in 1899 to third place in 1904 and 1909. In both 1909 and 1904 the state ranked second in the quantity and value of wheat flour produced, Minnesota ranking first. The rapid development of the industry in the state is shown in the following tabular statement, which gives the quantity and value of the different products for 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
<b>Total value.....</b>	<b>\$68,476,410</b>	<b>\$42,034,019</b>	<b>\$21,328,747</b>
<b>Wheat flour:</b>			
White—			
Barrels.....	10,855,960	7,009,005	5,008,764
Value.....	\$52,457,409	\$32,532,016	\$15,015,798
Graham—			
Barrels.....	28,784	23,810	( <sup>1</sup> )
Value.....	\$132,504	\$95,340	( <sup>1</sup> )
<b>Corn meal and corn flour:</b>			
Barrels.....	576,941	605,413	1,131,395
Value.....	\$1,707,903	\$1,292,243	\$1,574,810
<b>Rye flour:</b>			
Barrels.....	5,745	14,604	17,041
Value.....	\$25,938	\$54,900	\$44,720
<b>Buckwheat flour:</b>			
Pounds.....	407,855	770,982	706,019
Value.....	\$11,768	\$21,478	\$26,245
<b>Barley meal:</b>			
Pounds.....	43,000	480,000	10,800
Value.....	\$626	\$3,840	\$134
<b>Hominy and grits:</b>			
Pounds.....	22,000,765	9,882,080	4,671,000
Value.....	\$382,836	\$118,146	\$87,964
<b>Feed:</b>			
Tons.....	239,392	179,451	251,809
Value.....	\$5,693,672	\$3,196,104	\$3,178,466
<b>Offal:</b>			
Tons.....	381,554	323,642	175,131
Value.....	\$7,753,222	\$4,682,886	\$1,440,861
<b>All other products.....</b>	<b>\$300,532</b>	<b>\$37,057</b>	<b>\$9,569</b>

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

Of the total value of products reported for this industry in 1909, the value of white flour, amounting to \$52,457,409, formed 76.6 per cent, and the value of offal, the principal part of which is the by-product in the manufacture of wheat flour, 11.3 per cent. The value of feed amounted to \$5,693,672, or 8.3 per cent of the total, and that of corn meal and corn flour to \$1,767,903, or 2.6 per cent of the total.

During the earlier period, 1899–1904, the output of white flour increased 2,600,841 barrels, or 51.9 per cent, and its value increased \$17,516,038, or 116.6

per cent. From 1904 to 1909 the output increased 3,249,355 barrels, or 42.7 per cent, while its value increased \$19,925,393, or 61.2 per cent. It may be seen, therefore, that the remarkable increases in value are due not altogether to the greater production of wheat flour in the state but partly to a general advance in prices. Offal has more than doubled in quantity during the decade, while its value in 1909 was more than five times that reported for 1899. Feed, ground largely from corn, shows a slight decrease in quantity during the decade as a whole, but a considerable increase in value. Corn meal and corn flour shows a decrease in quantity for each of the five-year periods and a decrease in value for the first five-year period. Hominy and grits show the greatest percentage of increase for the decade of any of the grain products shown separately, both in quantity and in value.

The principal equipment of the mills in 1909 consisted of 4,066 pairs of rolls, and 253 runs of stone. There were eight establishments which manufactured barrels, and four establishments which manufactured sacks.

**Printing and publishing.**—While the newspaper and periodical branch of the printing and publishing industry in Kansas does not show much growth during the last decade when measured by the number of publications, there was a very decided gain when the industry is measured by the aggregate circulation per issue, as shown by the following table:

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1909	1904	1899	1909	1904	1899
Total.....	736	727	692	2,703,594	1,613,758	1,144,320
Daily.....	78	65	53	250,050	155,368	105,348
Sunday.....	6	5	8	88,044	60,500	(1)
Semiweekly and triweekly	11	16	4	15,155	42,524	20,840
Weekly.....	605	600	563	1,403,032	1,015,146	653,507
Monthly.....	30	35	51	932,288	319,425	321,050
All other classes.....	6	6	13	15,025	20,795	43,575

<sup>1</sup> Included in circulation of dailies.

The daily, weekly, and Sunday publications show increases in number from 1904 to 1909, while the semiweeklies and triweeklies and the monthlies show decreases. Semiweekly and triweekly publications constitute the only class, other than those included under the head of "All other classes," which shows a decrease in the aggregate circulation per issue since 1904. The aggregate circulation per issue for all newspapers and periodicals published was 2,703,594 in 1909, as compared with 1,613,758 in 1904, an increase of 1,089,836, or 67.5 per cent. The circulation of the daily publications increased 94,682, or 60.9 per cent; that of the Sunday publications, 27,544, or 45.5 per cent; that of the weeklies, 387,886, or 38.2 per cent; and that of the monthlies, 612,863, or 191.9 per cent, while the circulation of the semiweeklies and triweeklies decreased 27,369, or 64.4 per cent. It will be noted

that the weeklies have over one-half of the aggregate circulation per issue for the state.

The 78 daily and 6 Sunday papers were all printed in English. Of the weeklies, 7 were printed in German, 2 in German and English, 1 in Italian, and 1 in Swedish. One monthly was published in Russian and 1 quarterly in German.

**Butter, cheese, and condensed milk.**—The number of establishments engaged in the manufacture of butter, cheese, and condensed milk decreased from 171 in 1899 to 60 in 1909. This decrease is due to the discontinuance of cheese factories and also to a change in the manner of conducting the butter industry. Many of the small local creameries which were in operation in 1899 have been abandoned and central plants established in the large places. This decrease in the number of establishments, however, has been accompanied by large increases in the quantity and value of creamery products. The following table presents the statistics for the products of the industry for 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value.....	\$6,070,634	\$3,946,349	\$3,652,530
Butter:			
Packed solid—			
Pounds.....	10,659,510	8,728,216	15,299,548
Value.....	\$2,799,381	\$1,731,584	\$2,650,731
Prints and rolls—			
Pounds.....	8,053,058	7,760,915	2,896,935
Value.....	\$2,198,522	\$1,624,180	\$574,587
Cream sold:			
Pounds.....	520,802	168,302	920,138
Value.....	\$83,233	\$13,374	\$53,395
All other products <sup>1</sup> .....	\$989,498	\$577,211	\$373,817

<sup>1</sup> Includes value of cheese and condensed milk, to avoid disclosure of individual operations.

The value of all creamery products increased \$2,124,285, or 53.8 per cent, from 1904 to 1909, as compared with \$293,819, or 8 per cent, from 1899 to 1904. As in many other industries, the increases in value were much greater than those in quantity. From 1904 to 1909 butter packed solid increased 22.1 per cent in quantity and 61.7 per cent in value; butter in prints and rolls increased 3.8 per cent in quantity and 35.4 per cent in value; and cream sold increased more than 200 per cent in quantity and more than 500 per cent in value. A much larger quantity of butter was made into prints and rolls in 1909 and 1904 than in 1899. The value of butter in prints and rolls represented 44 per cent of the total value of the butter product in 1909, 48.4 per cent in 1904, and 17.8 per cent in 1899, while solid packed butter represented 56 per cent in 1909, 51.6 per cent in 1904, and 82.2 per cent in 1899. Under "All other products" are included not only the products of the one cheese factory and the one condensed-milk factory reporting, but also such items as casein, whey, buttermilk, and skim milk. In 1909 only 26 cream separators were reported, as compared with 133 in 1904 and 474 in 1899.

**Petroleum, refining.**—The following tabular statement shows the quantity of crude petroleum used and the quantities of the principal products for 1909:

MATERIAL OR PRODUCT.	1909
Crude petroleum used (barrels, 42 gallons) .....	4,068,270
Oils:	
Illuminating (barrels, 50 gallons) .....	704,845
Fuel (barrels, 50 gallons) .....	2,071,210
Lubricating (barrels, 50 gallons) .....	82,569
Greases, lubricating, etc. (barrels, 50 gallons) .....	1,945
Naphtha and gasoline (barrels, 50 gallons) .....	387,874
Paraffin wax (barrels, 50 gallons) .....	3,171

Kansas ranked tenth among the states in this industry in 1909. Establishments which purchase refined or partly refined petroleum products and mix or compound them with vegetable, animal, or mineral oils or other substances in order to produce a special composition, are not included in this classification. While in commerce crude petroleum is measured by barrels of 42 United States (Winchester) gallons, refined petroleum is measured by barrels of 50 United States gallons.

**Glass.**—This industry was not reported for the state at the census of 1899, but in 1904 products valued at \$958,720 were reported and Kansas held tenth place in the industry. In 1909 products to the value of \$2,036,573 were reported and the state had advanced to eighth place.

The following tabular statement gives the value of the different classes of products, together with the principal forms of equipment, as reported at the censuses of 1909 and 1904:

PRODUCT OR EQUIPMENT.	1909	1904
<b>Product, total value</b> .....	\$2,036,573	\$958,720
Building glass.....	1,131,808	381,084
Pressed and blown glass.....	202,690	64,097
Bottles and jars.....	651,376	407,898
All other products.....	60,693	105,071
<b>Equipment:</b>		
<b>Pot furnaces:</b>		
Number.....	17	5
Pots, number.....	100	30
<b>Tanks:</b>		
<b>Continuous—</b>		
Number.....	19	7
Rings, number.....	276	64
<b>Intermittent or day tanks—</b>		
Number.....	6	.....
Capacity, tons.....	10	.....

In total value of products there was an increase during the five-year period amounting to \$1,077,853, or 112.4 per cent, due principally to the increase in the output of building glass. There were 4 establishments manufacturing building glass in 1904, with products valued at \$381,084, while in 1909 there were 11 establishments whose products were valued at \$1,131,808, an increase of \$750,724, or 197 per cent. In the output of building glass, as measured by value, the state rose from seventh place in 1904 to fourth place in 1909. The term "building glass" includes common window glass, plate glass, and all varieties of cast and rolled sheet glass, but in Kansas only com-

mon window glass was manufactured in 1909. Bottles and jars formed the most important class of products in 1904, but while the value of products increased from \$407,868 to \$651,376, or 59.7 per cent, in the five-year period, the proportion which it formed of the total for the industry fell from 42.5 per cent to 32 per cent. The value of pressed and blown glass increased \$137,999, or 213.3 per cent, from 1904 to 1909.

The cost of materials increased from \$355,093 in 1904 to \$671,744 in 1909. In the latter year 30,171 tons of glass sand, 4,248 tons of soda ash, 4,897 tons of salt cake, 5,672 tons of limestone, and 29,627 bushels of lime were used. The quantity of arsenic reported as used was 43,190 pounds; manganese, 34,260 pounds; litharge and red lead, 52,600 pounds; and potash, or pearlash, 26,256 pounds.

The number of furnaces reported in 1909 was 17, as compared with 5 in 1904. Nineteen continuous tank furnaces, with 276 rings, were reported in 1909, as compared with 7 tanks, with 64 rings, in 1904. There were no intermittent or day tank furnaces reported in 1904, but 6 tanks, with a capacity of 19 tons, were reported in 1909.

**Cement.**—There were 12 establishments in Kansas reported as engaged in the manufacture of cement in 1909, as compared with 4 in 1904. The following tabular statement presents the quantity and value of products reported for the industry at the census of 1909:

PRODUCT.	1909
<b>Total value</b> .....	\$4,681,625
Portland cement:	
Barrels.....	5,334,299
Value.....	\$3,792,764
All other products, including natural cement.....	\$888,861

The total value of all products in 1909 was \$4,681,625. Portland cement, of which 5,334,299 barrels were reported, was the most important product, and the value, \$3,792,764, formed 81 per cent of the total value of products reported for the industry. The other products include lime, limestone, and crushed rock sold by the concerns engaged primarily in the manufacture of cement, and also the comparatively small quantity of natural cement manufactured, as well as the value of barrels and bags used as containers.

The kilns were nearly all of the rotary type, there being 82 of this kind, with a total daily capacity of 28,300 barrels, as compared with 6 of the vertical type, having a daily capacity of 600 barrels. Only one establishment used coal for fuel, all the others using natural gas or oil.

**Laundries.**—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. There were 138 such establishments in the state of Kansas in 1909, 11 of which were in Wichita, 7 in Topeka, 6 in Kansas City, and 24 others

in cities having a population of over 10,000. The following statement summarizes the statistics:

Number of establishments.....	138
Persons engaged in the industry.....	1,751
Proprietors and firm members.....	168
Salaried employees.....	93
Wage earners (average number).....	1,490
Primary horsepower.....	1,958
Capital.....	\$1,026,904
Expenses.....	1,105,239
Services.....	633,752
Materials.....	285,734
Miscellaneous.....	185,753
Amount received for work done.....	1,485,967

The most common form of ownership was the individual, with 96 establishments. The firm and corporate forms of ownership were represented by 34 and 8 establishments, respectively. Forty-eight establishments had receipts for the year's business of less than \$5,000; 73, receipts of \$5,000 but less than \$20,000; and 17, receipts 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.	Percent of maximum.		Number.	Percent of maximum.
January.....	1,388	83.9	July.....	1,549	99.2
February.....	1,388	83.9	August.....	1,558	99.7
March.....	1,401	89.7	September.....	1,562	100.0
April.....	1,440	92.2	October.....	1,551	99.3
May.....	1,449	92.8	November.....	1,556	99.6
June.....	1,499	96.0	December.....	1,539	98.5

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

KIND.	Number of engines or motors.	Horsepower.
<b>Primary power, total.....</b>		<b>1,958</b>
Owned:		
Steam.....	107	1,625
Gas.....	27	256
Rented:		
Electric.....	21	107
Other.....		70
<b>Electric motors:</b>		
Run by current generated by establishment.....	5	49
Run by rented power.....	21	107

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

KIND.	Unit.	Quantity.
Bituminous coal.....	Tons.....	12,180
Oil.....	Barrels.....	1,506
Gas.....	1,000 feet.....	364,702

**Custom sawmills and gristmills.**—Statistics for custom sawmills and gristmills are not included in the general tables or in the totals for manufacturing industries. The statistics for custom gristmills are presented in the following summary. There was one small custom sawmill reported, but the statistics for it are omitted, in order not to disclose individual operations.

Number of establishments.....	39
Persons engaged in the industry.....	170
Proprietors and firm members.....	161
Wage earners (average number).....	9
Primary horsepower.....	911
Capital.....	\$129,366
Expenses.....	152,091
Services.....	3,046
Materials.....	<sup>1</sup> 146,087
Miscellaneous.....	2,958
Value of products.....	<sup>1</sup> 180,117

<sup>1</sup> Includes estimate of all grain ground.



MANUFACTURES—KANSAS.

383

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employes.	Wage earners (average number).							
			Expressed in thousands.										
STATE—All industries.....	1909	3,435	54,649	3,571	6,863	44,215	213,141	\$156,090	\$7,351	\$25,004	\$258,884	\$325,104	\$66,220
	1904	2,475	42,057	2,760	3,721	35,570	99,441	88,480	3,692	18,883	150,510	198,245	41,735
	1899	2,299	.....	.....	3,412	27,119	68,242	59,458	3,123	12,802	120,738	154,009	33,271
Agricultural implements.....	1909	18	181	13	42	120	434	503	44	74	162	309	207
	1904	7	140	9	32	105	255	029	30	52	205	395	190
	1899	4	27	10	6	11	22	20	1	2	11	18	7
Artificial stone.....	1909	207	584	258	19	307	340	413	15	162	297	688	381
	1904	23	87	42	5	40	47	03	2	18	25	56	31
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bread and other bakery products.....	1909	435	1,488	508	80	900	598	1,306	51	483	1,989	3,433	1,444
	1904	208	974	310	38	620	318	752	37	304	1,005	1,802	857
	1899	174	000	187	42	320	.....	325	16	139	518	979	401
Brick and tile.....	1909	55	1,078	28	131	1,819	9,827	3,930	140	911	531	2,339	1,805
	1904	05	1,074	05	109	1,800	7,240	3,473	117	841	444	1,907	1,403
	1899	57	1,021	67	49	905	2,274	755	29	314	156	724	508
Butter, cheese, and condensed milk.....	1909	60	508	55	105	348	2,544	1,776	151	211	4,051	6,071	1,120
	1904	90	604	83	102	414	2,531	1,093	75	188	3,256	3,940	690
	1899	171	598	103	97	395	3,302	1,140	41	167	3,062	3,653	591
Carriages and wagons and materials.....	1909	46	322	59	17	240	266	439	15	134	245	530	285
	1904	* 38	279	53	12	214	90	324	0	105	117	321	204
	1899	* 31	.....	.....	18	101	.....	173	10	68	99	243	144
Cars and general shop construction and repairs by steam-railroad companies.....	1909	23	8,319	.....	633	7,086	10,390	9,697	614	5,173	5,210	11,193	5,974
	1904	23	6,449	.....	253	6,196	2,748	3,042	230	3,630	7,241	11,521	4,280
	1899	37	5,707	.....	175	5,592	2,840	2,932	168	3,476	3,071	6,817	3,740
Cement.....	1909	12	2,305	.....	222	2,143	61,754	16,387	320	1,359	1,556	4,082	3,126
	1904	4	770	.....	62	714	5,760	3,016	83	402	419	1,476	1,050
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clothing, men's, including shirts.....	1909	10	480	12	60	408	130	354	46	118	332	629	297
	1904	9	264	5	27	232	29	219	19	67	* 240	400	160
	1899	7	13	11	13	159	.....	195	7	33	78	140	62
Confectionery.....	1909	27	198	31	32	135	84	275	20	52	172	328	166
	1904	18	93	10	10	64	30	95	7	21	73	144	71
	1899	7	.....	.....	11	68	.....	36	16	19	120	185	65
Copperage and wooden goods, not elsewhere specified.....	1909	12	185	11	12	162	447	385	13	78	333	504	171
	1904	12	240	21	12	207	300	278	10	95	373	536	163
	1899	9	.....	.....	8	222	.....	180	5	95	189	309	210
Copper, tin, and sheet-iron products.....	1909	76	348	97	29	222	98	381	21	151	412	749	337
	1904	20	140	31	13	95	44	126	8	60	126	263	137
	1899	6	.....	.....	35	.....	.....	28	.....	18	34	64	30
Flour-mill and gristmill products.....	1909	501	3,778	568	850	2,360	46,218	22,741	940	1,448	60,439	68,476	8,037
	1904	354	2,713	429	453	1,831	34,055	13,817	452	1,024	30,895	42,034	5,139
	1899	357	.....	.....	278	1,405	27,691	8,016	206	726	18,131	21,329	3,198
Foundry and machine-shop products.....	1909	137	2,605	107	388	2,110	4,304	6,791	413	1,343	3,034	5,919	2,885
	1904	90	1,820	107	146	1,567	2,348	2,366	153	920	1,014	3,489	1,875
	1899	101	.....	.....	118	1,276	.....	2,484	123	731	1,469	2,852	1,363
Furniture and refrigerators.....	1909	17	415	10	48	357	990	527	53	215	236	616	380
	1904	* 12	298	11	22	265	636	306	25	111	181	426	245
	1899	10	260	10	30	220	506	243	22	73	142	302	100
Gas, illuminating and heating.....	1909	12	50	8	6	36	275	257	6	22	57	208	151
	1904	22	291	10	03	218	1,727	2,022	45	95	221	523	302
	1899	17	135	.....	50	85	154	1,415	26	40	107	325	213
Glass.....	1909	23	1,511	7	60	1,435	1,081	1,769	65	986	672	2,037	1,365
	1904	9	745	.....	27	718	452	691	29	447	355	959	604
Ice, manufactured.....	1909	86	789	45	151	593	14,636	4,209	129	380	342	1,460	1,118
	1904	44	337	33	67	237	5,599	1,373	65	145	141	585	444
	1899	19	152	18	20	114	2,142	425	13	55	56	196	140
Leather goods.....	1909	74	493	90	64	339	175	1,105	63	204	821	1,387	566
	1904	* 24	301	30	36	235	65	628	81	124	393	729	330
	1899	11	.....	.....	20	151	.....	277	17	65	206	345	140
Lumber and timber products.....	1909	73	1,160	89	89	982	2,947	2,159	127	540	2,072	3,244	1,172
	1904	39	896	44	75	747	1,860	1,180	84	369	1,053	1,823	775
	1899	03	.....	.....	36	639	.....	602	26	245	679	1,124	445
Marble and stone work.....	1909	82	477	123	66	288	576	535	56	184	385	954	509
	1904	20	300	40	36	233	296	308	20	126	150	494	335
	1899	* 11	.....	.....	12	141	.....	63	0	83	11	140	129
Mattresses and spring beds.....	1909	14	209	17	34	158	297	345	35	70	218	462	244
	1904	12	154	13	17	124	245	187	12	48	121	270	149
	1899	8	.....	.....	10	79	.....	55	28	90	147	147	57

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

<sup>2</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

<sup>3</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

MANUFACTURES—KANSAS.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).							
Expressed in thousands.													
<b>STATE—Continued.</b>													
Paint and varnish.....	1909 1904 1899	6 3 3	127 15 15	2 2 2	21 2 2	104 11 11	621 51 51	\$848 28 28	\$27 2 2	\$56 5 5	\$415 30 30	\$580 60 60	\$165 24 24
Paper and wood pulp.....	1909 1904 1899	3 3 3	109 105 105	1 6 6	11 8 8	97 91 91	920 1,078 1,078	330 132 132	14 8 8	46 46 46	120 78 78	218 202 202	98 124 124
Patent medicines and compounds and druggists' preparations.	1909 1904 1899	39 31 26	159 103 103	27 35 35	69 18 45	63 55 72	96 16 16	345 157 61	77 16 12	34 19 19	245 71 42	619 286 185	374 215 93
Pottery, terra-cotta, and fire-clay products...	1909 1904 1899	4 4 3	259 146 26	..... ..... 3	31 15 1	228 131 22	715 560 112	455 235 20	49 18 1	135 56 12	74 37 6	378 181 29	304 144 23
Printing and publishing.....	1909 1904 1899	798 724 665	4,903 3,744 3,744	879 849 849	792 419 212	3,232 2,476 2,161	4,888 1,556 1,556	6,053 3,577 2,528	693 319 146	1,650 1,092 818	2,290 1,055 707	7,000 4,139 3,028	4,719 3,084 2,231
Salt.....	1909 1904 1899	10 10 8	505 566 484	3 2 2	51 38 32	451 526 450	3,387 2,314 2,130	2,544 1,636 961	80 45 36	188 230 168	519 534 328	1,106 1,123 717	587 589 389
Slaughtering and meat packing.....	1909 1904 1899	36 22 14	12,265 10,394 9,967	23 19 9	1,651 983 1,841	10,591 9,392 8,117	24,560 13,733 11,212	37,869 25,332 16,486	1,797 984 1,632	5,862 4,836 3,575	147,046 85,146 87,900	165,361 96,376 77,412	17,715 11,230 9,503
Smelting and refining, zinc.....	1909 1904 1899	12 13 11	1,968 2,648 1,529	..... ..... 2	147 141 40	1,821 2,507 1,487	5,298 5,739 2,300	9,057 10,903 5,219	280 247 61	1,136 1,570 706	8,877 8,449 4,679	10,857 10,999 5,700	1,980 2,560 1,111
Tobacco manufactures.....	1909 1904 1899	141 172 169	901 823 700	160 206 191	26 23 14	415 594 495	30 17 18	383 512 408	24 17 10	180 238 191	262 341 284	682 910 700	420 566 500
Wall plaster.....	1909 1904 1899	6 8 8	191 159 159	..... ..... 27	21 132 132	170 950 950	1,030 ..... .....	656 620 620	23 22 22	118 66 66	83 79 79	287 272 272	204 193 193
All other industries.....	1909 1904 1899	375 276 303	5,059 5,489 5,489	340 287 287	836 430 434	3,883 2,772 2,247	13,216 6,186 6,186	21,293 7,660 14,471	944 460 424	2,192 1,233 927	13,878 6,030 18,445	21,732 9,534 26,126	7,854 3,504 7,681

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

<b>KANSAS CITY—All industries.....</b>	1909 1904 1899	165 100 114	14,333 11,761 11,761	142 82 82	1,897 1,150 2,063	12,294 10,529 9,483	31,885 ..... .....	\$42,817 27,773 16,236	\$2,138 1,216 1,911	\$7,027 5,449 4,259	\$144,390 83,883 68,876	\$164,081 96,473 80,023	\$19,691 12,580 11,148
Bread and other bakery products.....	1909 1904 1899	33 14 19	105 62 58	40 15 19	..... ..... 6	65 47 33	23 ..... .....	76 42 20	..... ..... 1	30 31 16	143 84 55	245 147 105	102 63 50
Carriages and wagons and materials.....	1909 1904 1899	8 5 4	81 31 .....	11 8 .....	9 ..... .....	33 ..... .....	138 ..... .....	166 22 17	9 ..... .....	38 12 10	105 21 17	183 51 35	78 30 18
Cooperage and wooden goods, not elsewhere specified.	1909 1904 1899	4 3 4	135 157 209	2 4 3	11 7 8	122 146 198	390 ..... .....	348 197 147	12 7 5	65 64 87	299 243 155	443 351 349	144 108 194
Foundry and machine-shop products.....	1909 1904 1899	17 6 6	705 474 315	11 4 4	121 23 21	573 442 290	1,345 ..... .....	2,331 684 688	125 31 20	347 235 223	1,095 546 415	1,881 1,087 770	786 541 361
Printing and publishing.....	1909 1904 1899	18 13 16	103 79 67	14 12 18	17 6 6	72 61 43	100 ..... .....	117 92 46	16 6 4	49 28 19	58 33 23	174 101 77	116 68 54
Slaughtering and meat packing.....	1909 1904 1899	14 11 8	10,656 9,638 9,487	5 7 3	1,300 873 1,771	9,261 8,758 7,713	21,589 ..... .....	32,667 22,324 15,115	1,527 868 1,579	5,167 4,537 3,382	133,554 79,708 65,083	148,459 89,976 73,788	14,905 10,268 8,705
All other industries.....	1909 1904 1899	71 48 57	2,548 1,320 1,320	59 32 32	349 236 251	2,140 1,052 1,189	8,300 ..... .....	7,112 4,412 2,203	449 304 302	1,322 492 522	9,130 3,248 8,127	12,696 4,760 4,893	3,560 1,512 1,766

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

TABLE L.—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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaries and employees.	Wage earners (average number).							
Expressed in thousands.													
<b>WICHITA—All industries</b> .....	1909	225	3,899	198	718	2,783	6,908	\$9,849	\$745	\$1,466	\$14,985	\$22,564	\$5,579
	1904	110	1,599	110	227	1,262		4,135	239	607	5,427	7,390	1,983
	1899	103			121	863		1,865	99	379	2,355	3,329	874
Bread and other bakery products.....	1909	26	238	31	14	193	158	329	16	88	384	624	240
	1904	9	126	10	16	109		116	21	36	100	252	152
	1899	10	47	11	4	32		17	1	8	65	101	86
Flour-mill and gristmill products.....	1909	15	181	17	49	115	1,838	1,075	58	73	3,388	3,801	413
	1904	10	86	11	19	56		313	22	34	1,177	1,347	170
	1899	9			10	33		143	7	17	381	440	59
Foundry and machine-shop products.....	1909	15	183	13	34	136	249	577	34	91	160	402	242
	1904	14	60	3	9	48		114	6	22	18	69	51
	1899	10			6	60		90	3	28	48	120	72
Ice, manufactured.....	1909	5	96	1	18	77	1,140	562	23	51	46	212	166
	1904	3	43		16	27		176	13	20	14	74	60
	1899												
Leather goods.....	1909	5	57	4	12	41	14	138	13	24	120	205	85
	1904	3	62	4	5	53		91	7	32	91	191	100
	1899	3			15	64		114	12	33	98	164	66
Lumber and timber products.....	1909	8	247	5	30	212	369	766	57	106	785	1,134	349
	1904	3	156	2	24	130		448	35	97	422	617	195
	1899	3	43	3	1	39		45	2	18	42	79	37
Patent medicines and compounds and druggists' preparations.....	1909	16	89	9	48	32	15	191	65	19	165	450	291
	1904	7	38	7	10	21		44	11	7	31	142	111
	1899												
Printing and publishing.....	1909	39	544	34	165	345	273	763	140	185	297	903	666
	1904	25	247	24	20	194		206	26	111	121	425	304
	1899	21			10	211		177	14	101	80	280	200
All other industries.....	1909	96	2,064	84	348	1,632	2,843	5,448	333	820	11,640	14,707	3,127
	1904	46	781	40	99	633		2,537	98	273	3,453	4,273	820
	1899	47			99	424		1,079	60	174	1,641	2,145	504

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

<b>Atchison</b> .....	1909	68	1,044	67	153	824	2,726	\$2,183	\$147	\$458	\$3,137	\$4,405	\$1,268
	1904	60	961	61	102	795		1,873	79	366	2,950	3,829	873
	1899	39			41	583		939	30	280	1,502	2,093	591
<b>Coffeyville</b> .....	1909	47	1,240	31	140	1,069	3,375	3,746	153	663	3,491	4,752	1,261
	1904												
	1899												
<b>Fort Scott</b> .....	1909	36	359	34	59	266	657	623	49	130	670	1,010	340
	1904	46	333	51	38	244		650	30	127	463	736	323
	1899	32			29	339		578	26	198	379	714	335
<b>Hutchinson</b> .....	1909	67	876	68	141	667	3,396	3,270	140	320	2,673	3,614	941
	1904	44	633	44	79	510		1,353	63	266	1,387	2,031	644
	1899	42			46	536		1,026	35	210	1,038	1,541	503
<b>Independence</b> .....	1909	31	328	30	46	252	945	793	42	148	392	757	365
	1904												
	1899												
<b>Lawrence</b> .....	1909	40	535	45	68	422	2,540	814	62	195	1,155	1,653	498
	1904	39	477	37	35	402		730	30	172	317	653	341
	1899	39			44	461		607	30	153	892	1,239	347
<b>Leavenworth</b> .....	1909	79	1,644	77	256	1,311	3,005	3,111	295	702	3,198	4,876	1,678
	1904	89	1,619	83	210	1,321		2,681	201	600	2,588	4,152	1,564
	1899	89			194	1,141		2,705	177	520	1,981	3,251	1,270
<b>Parsons</b> .....	1909	25	1,200	29	41	1,130	2,003	1,530	49	722	735	1,620	891
	1904												
	1899												
<b>Pittsburg</b> .....	1909	49	1,152	50	130	972	2,268	1,786	154	633	724	1,817	1,093
	1904	34	1,045	32	94	919		1,368	95	522	646	1,494	848
	1899	33			28	882		750	27	423	911	1,434	523
<b>Topeka</b> .....	1909	202	5,230	202	784	4,244	9,435	10,748	755	2,521	12,259	17,821	5,552
	1904	154	4,513	174	386	3,953		6,597	385	2,146	10,233	14,449	4,216
	1899	145			280	2,874		3,304	215	1,705	5,278	8,357	3,079

<sup>1</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

<sup>2</sup> Figures can not be shown without disclosing individual operations.

<sup>3</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

<sup>4</sup> 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.

<sup>5</sup> Figures not available.

TABLE II.—DETAIL STATEMENT FOR

INDUSTRY.	Number of establishments.	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Average number.	Wage earners.		Total.	16 and over.		Under 16.				
					Male.	Female.		Number.			Male.	Female.	Male.	Female.			
								Maximum month.	Minimum month.								
1 All industries.....	3,435	54,649	3,571	1,935	3,970	958	44,215	Oc 46,679	Ja 41,337	(1)	(1)	(1)	(1)	(1)	213,141		
2 Agricultural implements.....	18	181	13	16	17	9	126	Se 141	Jy 110	108	108				434		
3 Artificial stone.....	207	584	258	14	3	2	307	My 414	Ja 108	416	413		3		349		
4 Bluing.....	3	5	2				3	Ja <sup>2</sup> 3	Jy <sup>2</sup> 3	3	1	2					
5 Bread and other bakery products.....	435	1,488	508	12	18	50	900	De 957	Mh <sup>2</sup> 843	086	806	170	9	1	588		
6 Brick and tile.....	55	1,978	25	76	41	14	1,819	Ja 2,175	Ja 1,143	1,953	1,951		2		9,827		
7 Brooms.....	45	179	44	6	12	1	110	De 151	My 86	103	142	15	6		278		
8 Butter, cheese, and condensed milk.....	60	563	55	60	60	45	348	Au 433	Ja 270	331	289	41	1		2,544		
9 Canning and preserving.....	8	149	4	6	17	2	120	Au 274	Ap <sup>2</sup> 49	186	81	72	17	16	170		
10 Carpets, rag.....	10	58	12				45	Je <sup>2</sup> 50	Ja <sup>2</sup> 39	23	39	4			41		
11 Carriages and wagons and materials.....	46	322	59	6	6	5	240	Je 269	De 218	223	221	1	1		206		
12 Cars and general shop construction and repairs by steam-railroad companies.....	23	8,319		253	371	9	7,686	De 8,200	Ja 7,219	8,207	8,206		1		10,380		
13 Cars and general shop construction and repairs by street-railroad companies.....	5	49		2	1		46	De 53	Au 40	53	53				80		
14 Cement.....	12	2,365		46	143	33	2,143	Au 2,346	Fe 1,913	2,290	2,290				61,754		
15 Clothing, men's, including shirts.....	16	480	12	17	28	15	408	No 441	Ja 372	422	48	384			130		
16 Confectionery.....	27	193	31	5	19	8	135	No 171	Mh 116	163	69	92	2		84		
17 Cooperage and wooden goods, not elsewhere specified.....	12	185	11	5	4	3	162	Au 202	No 129	163	163				447		
18 Copper, tin, and sheet-iron products.....	76	348	97	10	8	11	222	Au 254	Ja 189	222	220		2		68		
19 Cutlery and tools, not elsewhere specified.....	3	6	3		1		2	Ja <sup>2</sup> 3	Je <sup>2</sup> 1	3	3				10		
20 Dairymen's, poultryers', and apiarists' supplies.....	5	23	4		3	1	14	Ja 24	Au 6	12	12				74		
21 Flour-mill and gristmill products.....	501	3,778	568	305	461	84	2,360	Oc 2,604	Je 2,024	2,522	2,477	24	21		46,218		
22 Foundry and machine-shop products.....	137	2,605	107	132	211	45	2,110	De 2,250	Ja 2,020	2,345	2,345				4,364		
23 Furniture and refrigerators.....	17	415	10	20	22	6	357	Je 379	Ja 372	382	378	2	2		960		
24 Gas and electric fixtures and lamps and reflectors.....	3	74		5	11	7	51	De 66	Jy <sup>2</sup> 40	66	50	16			39		
25 Gas, illuminating and heating.....	12	50	8	4	1	1	36	Ap 38	Au <sup>2</sup> 35	37	37				275		
26 Glass.....	23	1,511	7	37	19	13	1,435	De 2,033	Jy 493	2,317	2,227	76	14		1,031		
27 Hand stamps and stencils and brands.....	3	10	4	1			5	Ja <sup>2</sup> 5	Je <sup>2</sup> 5	5	5				1		
28 Ice, manufactured.....	86	789	45	98	33	20	593	Au 926	Ja 360	491	487	2	2		14,636		
29 Jewelry.....	3	5	3				2	Ja <sup>2</sup> 2	Je <sup>2</sup> 2	2	2				4		
30 Leather goods.....	74	493	90	23	33	8	339	My 348	Ja 324	343	324	12	7		175		
31 Lumber and timber products.....	73	1,160	89	32	47	10	982	Au 1,032	Fe 891	1,016	959	2	25		2,947		
32 Marble and stone work.....	82	477	123	14	48	4	288	Oc 326	Ja 227	333	332		1		576		
33 Mattresses and spring beds.....	14	209	17	11	19	4	158	Au 164	Ja 148	154	128	26			297		
34 Paint and varnish.....	6	127	2	8	9	4	104	My 151	Au 43	43	40	3			621		
35 Paper and wood pulp.....	3	109	1	6	3	2	97	Fe 133	Au 42	106	87	19			920		
36 Patent medicines and compounds and druggists' preparations.....	39	159	27	22	29	18	63	Mh 68	Au <sup>2</sup> 59	69	39	28	1	1	96		
37 Petroleum, refining.....	18	464		51	69	20	324	No 348	Ja 300	300	356	3	1		1,150		
38 Photo-engraving.....	3	9	3		1		5	Ja <sup>2</sup> 5	Je <sup>2</sup> 5	5	4				4		
39 Pottery, terra-coita, and fire-clay products.....	4	259		13	14	4	228	Se 269	Ja 155	251	250		1		715		
40 Printing and publishing.....	798	4,903	879	191	351	250	3,232	De 3,413	Jy 3,135	3,428	2,299	1,072	46	11	4,868		
41 Salt.....	10	505	3	19	25	7	451	Oc 469	Ja 387	462	443	19			3,387		
42 Signs and advertising novelties.....	4	25	6	1	2		14	Je 17	My <sup>2</sup> 13	16	10	6			13		
43 Slaughtering and meat packing.....	35	12,265	23	134	1,384	133	10,591	No 11,471	Mh 9,788	11,059	10,230	818	10	1	24,560		
44 Smelting and refining, zinc.....	12	1,968		48	83	16	1,821	De 2,023	Je 1,627	2,023	2,023				5,298		
45 Tobacco manufactures.....	141	601	100	5	17	4	415	Oc 444	Ja 372	439	248	186	4	3	30		
46 Wall plaster.....	6	191		5	12	4	170	Je 208	Fe 128	149	149				1,030		
47 All other industries.....	262	4,003	255	213	317	82	3,136								11,354		

<sup>1</sup> No figures given for reasons explained in the Introduction.

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

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

<sup>4</sup> All other industries embrace—

Automobiles, including bodies and parts.....	4	Chemicals.....	1	Glass, cutting, staining, and ornamenting.....	1
Awnings, tents, and sails.....	8	Clothing, women's.....	2	Glue.....	1
Bags, other than paper.....	1	Coffee and spice, roasting and grinding.....	2	Grease and tallow.....	1
Baking powders and yeast.....	3	Coffins, burial cases, and undertakers' goods.....	1	Hosiery and knit goods.....	1
Baskets, and rattan and willow ware.....	3	Cotton goods, including cotton small wares.....	1	House-furnishing goods, not elsewhere specified.....	1
Beet sugar.....	1	Electrical machinery, apparatus, and supplies.....	1	Instruments, professional and scientific.....	1
Blacking and cleansing and polishing preparations.....	2	Explosives.....	2	Lard, refined, not made in slaughtering and meat-packing establishments.....	1
Boxes, cigar.....	1	Fertilizers.....	1	Lime.....	3
Boxes, fancy and paper.....	2	Flavoring extracts.....	2	Liquors, malt.....	1
Brass and bronze products.....	2	Food preparations.....	46	Looking-glass and picture frames.....	2
Cars, steam-railroad, not including operations of railroad companies.....	3	Furnishing goods, men's.....	6	Millinery and lace goods.....	2
		Furs, dressed.....	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 \$156,080,067	\$305,711,359	\$3,158,224	\$4,193,124	\$25,903,960	\$4,680,748	\$254,202,958	\$384,563	\$1,171,428	\$310,603	\$11,705,761	\$325,104,002	\$66,220,296
2 562,944	322,305	21,414	23,073	73,706	7,286	154,634	589	5,832	400	35,371	368,779	206,859
3 412,780	503,783	12,432	2,450	161,062	3,512	293,317	4,237	3,001	1,000	22,172	687,520	390,700
4 3,875	6,150			300	18	5,140	241	30		331	8,500	3,342
5 2,740,360	15,518	35,537	482,750	72,485	1,910,588	70,404	11,991	1,254	133,833	3,432,504	1,443,491	1,443,491
6 1,306,092	1,871,168	101,820	38,539	910,734	447,827	82,978	2,980	18,587	17,042	250,061	2,386,438	1,805,033
7 189,380	256,041	3,918	8,422	57,017	2,750	162,384	1,940	1,575	640	10,405	315,575	150,441
8 1,776,918	5,681,301	83,554	97,009	43,756	4,906,757	7,592	18,501	250	342,514	6,070,634	1,120,121	1,120,121
9 282,390	296,034	7,425	14,480	40,243	3,830	181,356	420	1,421	30,859	285,532	100,340	100,340
10 18,850	30,169	520	21,404	1,204	2,744	1,450	189		2,708	42,616	38,668	38,668
11 438,815	447,561	6,900	7,884	133,803	5,496	236,338	5,605	4,319	375	43,781	530,483	285,649
12 9,606,828	11,193,106	321,358	292,547	5,178,019	200,081	5,019,019		58,087		128,395	11,193,106	5,974,006
13 40,775	70,442	2,370	720	33,024	1,313	30,276		516	580	1,043	70,442	38,853
14 10,386,866	3,876,492	165,424	154,352	1,358,926	701,377	854,868	1,500	50,728		588,287	4,681,625	3,125,380
15 359,996	550,381	20,472	25,000	117,855	5,747	326,408	0,770	10,940	6,542	30,497	628,887	290,672
16 274,043	272,793	6,534	13,334	52,123	4,470	167,612	6,445	2,069		20,202	327,748	155,657
17 385,040	448,784	6,350	0,372	78,414	2,157	330,481	3,660	2,479		18,871	608,809	171,171
18 381,217	627,272	10,340	10,807	150,750	2,864	409,475	10,241	2,487		30,248	748,737	336,398
19 8,441	3,733		390	1,248	70	1,605	186	81		153	5,580	3,005
20 52,313	39,185	2,500	840	7,443	1,118	21,116	1,380	375	553	3,800	44,855	22,621
21 22,740,766	64,631,564	447,288	498,780	1,448,022	502,519	59,936,314	14,621	103,029	38,306	1,582,625	68,476,410	8,037,577
22 6,791,139	5,276,242	222,362	191,010	1,342,571	140,228	2,893,969	19,650	39,558	50,236	376,658	5,919,379	2,885,182
23 527,350	554,020	35,841	17,398	215,007	9,405	226,090	1,010	6,444		42,735	628,887	380,933
24 115,348	155,114	6,840	11,100	24,700	777	83,860	1,345	847		25,045	177,902	93,265
25 257,064	88,411	4,770	1,080	22,060	40,888	15,761		1,046	576	2,221	207,586	150,937
26 1,769,326	1,840,346	44,163	21,211	989,189	85,523	586,221	2,400	13,093		101,556	2,036,573	1,364,829
27 2,700	6,991	1,200		2,620	120	2,094	600	40		317	10,067	7,853
28 4,208,797	1,060,309	102,343	20,418	379,704	248,224	93,514	203	34,704	1,725	173,474	1,459,842	1,118,104
29 2,170	2,779			1,386	60	500	480	25		322	4,850	4,284
30 1,104,870	1,190,059	31,470	31,516	203,844	6,083	814,743	22,323	9,889	61	70,140	1,380,824	565,998
31 2,159,007	2,951,632	71,008	58,625	539,622	19,701	2,052,065	6,395	16,370	649	189,337	3,244,265	1,172,499
32 534,824	708,512	14,907	41,409	183,698	8,906	376,516	9,385	4,658	3,216	65,667	954,266	568,844
33 344,951	385,032	14,300	21,104	78,090	4,302	214,131	2,250	2,689		48,466	401,647	243,214
34 847,623	556,686	13,925	13,140	55,941	3,521	411,104	1,686	1,634		55,455	579,674	165,040
35 329,513	219,375	10,008	3,712	40,430	13,097	107,309		2,430		36,299	217,982	97,576
36 347,732	488,144	25,675	51,194	33,615	2,044	242,929	5,560	2,867	1,300	122,051	618,730	373,757
37 5,020,765	3,370,341	83,002	61,639	186,403	111,793	2,704,017	204	20,568		210,085	4,077,225	1,200,515
38 6,145	4,002		208	1,612	293	1,020	414	33		422	8,876	7,562
39 464,724	297,728	27,523	21,320	135,018	33,202	41,151		2,280		37,234	378,175	303,822
40 6,053,359	5,504,868	279,599	413,161	1,040,580	82,618	2,207,188	109,795	39,706	109,428	613,793	7,068,865	4,719,059
41 2,544,199	926,008	40,940	30,366	188,123	170,092	349,162		13,647	17,801	109,077	1,105,020	586,066
42 34,113	47,748	936	3,600	8,805	500	27,049	1,740	108	100	4,661	61,042	34,385
43 37,869,081	159,989,169	319,343	1,477,714	5,862,083	704,087	146,881,903	2,175	416,066	10,077	4,255,831	165,360,516	17,714,526
44 9,057,062	10,502,869	171,713	108,135	1,135,922	607,902	8,269,536		35,904	20,000	153,697	10,857,250	1,979,752
45 332,682	578,006	4,076	19,338	180,277	3,261	258,709	16,610	68,534	23	36,908	681,683	419,653
46 656,267	287,738	8,223	14,863	118,257	37,313	45,595		2,648		30,834	286,814	203,906
47 15,522,222	14,881,015	377,435	365,437	1,800,777	276,760	10,253,386	41,008	81,403	27,819	1,666,930	10,621,082	6,000,936

4 All other industries embrace—Continued.

M'neral and soda waters.....	02	Paving materials.....	2	Vinegar and cider.....	9
Models and patterns, not including paper patterns.....	1	Scales and balances.....	2	Washing machines and clothes wringers.....	4
Musical instruments, pianos and organs and materials.....	1	Smelting and refining, lead.....	1	Wheelbarrows.....	1
Oil, cottonseed, and cake.....	1	Soap.....	6	Windmills.....	3
Oil, linseed.....	1	Stoves and furnaces, including gas and oil stoves.....	4	Wirework, including wire rope and cable.....	7
Optical goods.....	2	Sulphuric, nitric, and mixed acids.....	1	Wood preserving.....	1
Paper goods, not elsewhere specified.....	1	Surgical appliances and artificial limbs.....	4	Wood, turned and carved.....	2
Paper patterns.....	1	Toys and games.....	1	Woolen, worsted, and felt goods, and wool hats... ..	2
		Upholstering materials.....	1		

MANUFACTURES—KANSAS.

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

INDUSTRY AND CITY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Primary horse-power.
		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.....	165	14,333	142	257	1,480	180	12,294	11,288	975	51	12,917	11,844	1,019	49	5	31,885
2 Bread and other bakery products.....	33	105	40	.....	.....	.....	65	55	6	4	71	60	7	4	.....	23
3 Carriages and wagons and materials.....	8	81	11	4	3	2	61	61	.....	.....	50	50	.....	.....	.....	138
4 Cooperage and wooden goods, not elsewhere specified.....	4	135	2	5	3	3	122	122	.....	.....	128	128	.....	.....	.....	390
5 Foundry and machine-shop products.....	17	705	11	28	83	10	573	573	.....	.....	672	672	.....	.....	.....	1,345
6 Printing and publishing.....	18	103	14	10	2	5	72	53	18	1	74	55	18	1	.....	400
7 Slaughtering and meat packing.....	14	10,656	5	95	1,193	102	9,261	8,502	750	9	9,647	8,856	781	9	1	21,689
8 All other industries <sup>1</sup> .....	71	2,548	59	115	190	38	2,140	1,902	201	37	2,269	2,017	213	35	4	8,300

<sup>1</sup> All other industries embrace: Agricultural implements, 2; artificial stone, 1; awnings, tents, and sails, 1; baking powders and yeast, 1; baskets, and rattan and willow ware, 1; blacking and cleansing and polishing preparations, 1; bluing, 1; brick and tile, 1; butter, cheese, and condensed milk, 1; carpets, rag, 1; cars and general shop construction and repairs by steam-railroad companies, 1; cars steam-railroad, not including operations of railroad companies, 2; clothing, men's, including shirts, 1; copper, tin, and sheet-iron products, 8; cotton goods, including cotton small wares, 1; fertilizers, 1; flour-mill and gristmill products, 6; furnishing goods, men's, 1;

WICHITA.

1 All industries.....	225	3,609	198	174	418	126	2,783	2,434	345	4	3,008	2,614	390	4	.....	6,908
2 Bread and other bakery products.....	26	238	31	2	9	3	193	129	64	.....	239	100	79	.....	.....	158
3 Flour-mill and gristmill products.....	15	181	17	16	30	3	115	115	.....	.....	117	117	.....	.....	.....	1,838
4 Foundry and machine-shop products.....	15	183	13	12	11	11	180	180	.....	.....	155	155	.....	.....	.....	249
5 Ice, manufactured.....	5	96	1	10	5	3	77	77	.....	.....	44	44	.....	.....	.....	1,149
6 Leather goods.....	5	57	4	6	6	.....	41	41	.....	.....	35	35	.....	.....	.....	14
7 Lumber and timber products.....	8	247	5	8	22	.....	212	212	.....	.....	193	193	.....	.....	.....	369
8 Patent medicines and compounds and druggists' preparations.....	10	89	9	10	26	12	32	15	17	.....	37	17	20	.....	.....	15
9 Printing and publishing.....	39	544	34	31	95	39	345	274	69	2	371	295	74	2	.....	273
10 All other industries <sup>1</sup> .....	90	2,064	84	79	214	55	1,632	1,435	195	2	1,817	1,598	217	2	.....	2,843

<sup>1</sup> All other industries embrace: Artificial stone, 17; awnings, tents, and sails, 3; baskets, and rattan and willow ware, 1; bluing, 2; boxes, fancy and paper, 1; brick and tile, 1; brooms, 3; butter, cheese, and condensed milk, 2; canning and preserving, 2; carpets, rag, 1; carriages and wagons and materials, 6; cars and general shop construction and repairs by street-railroad companies, 1; clothing, men's, including shirts, 4; coffee and spice, roasting and grinding, 1; coffins, burial cases, and undertakers' goods, 1; confectionery, 1; cooperage and wooden goods, not elsewhere specified, 1; copper, tin, and sheet-iron products, 11; flavoring extracts, 1; food preparations, 5; furniture and

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

1 ATCHISON.....	68	1,044	67	42	73	38	824	682	135	7	906	749	149	8	.....	2,720
2 COFFEYVILLE.....	47	1,240	31	44	71	25	1,069	1,026	43	.....	1,237	1,187	50	.....	.....	3,375
3 FORT SCOTT.....	36	359	34	23	26	10	266	201	65	.....	284	214	70	.....	.....	657
4 HUTCHINSON.....	67	876	68	49	76	16	607	620	44	3	754	701	50	3	.....	3,396
5 INDEPENDENCE.....	31	328	30	15	24	7	252	212	38	2	256	215	39	2	.....	945
6 LAWRENCE.....	49	535	45	25	26	17	422	277	141	4	430	288	147	1	3	2,540
7 LEAVENWORTH.....	79	1,044	77	77	135	44	1,311	1,166	131	14	1,353	1,203	135	10	5	3,005
8 PARSONS.....	25	1,200	29	11	24	6	1,130	1,074	56	.....	1,179	1,120	59	.....	.....	2,003
9 PITTSBURG.....	49	1,152	50	45	71	14	972	952	19	1	958	838	19	1	.....	2,268
10 TOPEKA.....	202	5,230	202	236	381	107	4,244	3,743	488	13	4,514	3,983	518	11	2	9,435

MANUFACTURES—KANSAS.

389

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.

KANSAS 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 \$42,817,381	\$159,389,086	\$543,420	\$1,594,313	\$7,027,324	\$961,686	\$143,428,472	\$33,204	\$473,945	\$68,123	\$5,258,599	\$164,080,607	\$19,690,449
2 75,717	200,152	-----	-----	39,322	6,959	130,204	5,640	768	-----	11,250	245,240	102,077
3 165,883	166,083	4,800	4,334	38,339	1,157	103,495	225	1,109	60	12,574	183,224	78,572
4 348,081	399,176	6,350	5,872	64,856	1,702	297,268	3,600	2,081	-----	17,387	443,175	144,205
5 2,331,093	1,735,457	68,083	56,452	347,004	60,483	1,034,770	5,433	13,499	45,676	103,457	1,881,137	785,884
6 116,733	146,420	12,940	2,808	48,827	2,164	55,480	5,304	900	12,520	5,486	174,200	116,556
7 32,697,230	144,417,844	233,142	1,293,394	5,160,733	656,123	132,897,809	1,440	403,182	9,123	3,756,893	148,459,212	14,905,275
8 7,112,694	12,323,945	217,505	231,453	1,322,243	233,093	8,903,446	11,493	52,406	754	1,351,552	12,694,419	3,587,880

furniture and refrigerators, 2; gas, illuminating and heating, 1; grease and tallow, 1; ice, manufactured, 7; jewelry, 1; hard, refined, not made in slaughtering and meat-packing establishments, 1; lumber and timber products, 6; marble and stone work, 1; mineral and soda waters, 1; oil, cottonseed, and cake, 1; paint and varnish, 1; petroleum, refining, 1; pottery, terra-cotta, and fire-clay products, 1; soap, 2; sulphuric, nitric, and mixed acids, 1; tobacco manufactures, 8; wheelbarrows, 1; wirework, including wire rope and cable, 2.

WICHITA.

1	\$9,848,938	\$20,485,349	\$309,051	\$435,202	\$1,465,987	\$108,251	\$16,816,808	\$62,690	\$45,673	\$65,563	\$1,115,164	\$22,564,293	\$5,570,174
2	329,355	554,355	4,050	12,286	87,704	7,827	376,214	0,802	2,590	-----	53,783	624,348	240,307
3	1,075,247	3,653,289	25,959	32,127	72,942	23,220	3,365,164	1,282	7,014	16,852	109,038	3,800,837	412,453
4	577,452	332,451	17,200	17,053	91,057	7,104	152,486	1,233	3,312	2,650	40,296	402,100	242,540
5	561,991	149,850	18,470	4,640	51,184	31,241	15,110	-----	5,161	-----	24,144	212,231	165,880
6	198,384	178,643	7,960	5,075	23,943	814	119,402	7,522	1,764	-----	12,073	205,143	84,837
7	766,334	1,022,921	29,100	27,500	106,475	4,630	779,891	270	5,552	-----	60,404	1,133,072	349,451
8	190,655	352,911	18,650	45,874	18,578	679	163,983	2,720	1,746	1,200	99,481	455,832	201,170
9	763,234	835,754	51,762	93,859	184,800	7,960	288,659	17,124	3,003	40,808	147,674	993,362	609,737
10	5,446,316	13,405,075	137,109	196,689	820,205	84,710	11,555,800	22,647	15,522	4,053	550,271	14,766,309	3,125,700

refrigerators, 3; gas and electric fixtures and lamps and reflectors, 2; glass, cutting, staining, and ornamenting, 1; hosiery and knit goods, 1; jewelry, 1; marble and stone work, 2; mattresses and spring beds, 3; mineral and soda waters, 2; models and patterns, not including paper patterns, 1; paint and varnish, 1; photo-engraving, 1; signs and advertising novelties, 1; slaughtering and meat packing, 3; surgical appliances and artificial limbs, 1; tobacco manufactures, 6; vinegar and cider, 1; wirework, including wire rope and cable, 1.

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

1	\$2,182,629	\$3,980,295	\$59,552	\$37,723	\$457,561	\$40,959	\$3,086,705	\$10,840	\$17,143	\$604	\$204,148	\$4,404,813	\$1,268,089
2	3,746,018	4,558,323	75,327	78,098	663,202	71,280	3,420,177	5,200	25,359	-----	219,680	4,751,595	1,200,138
3	625,530	906,831	20,036	23,369	130,244	16,804	653,497	8,112	5,441	-----	43,328	1,010,033	339,732
4	3,270,249	3,314,665	72,410	67,619	310,754	157,235	2,515,887	7,072	27,074	18,126	129,488	3,613,950	940,828
5	793,426	668,873	20,162	22,015	148,091	26,761	365,009	4,109	7,432	500	74,788	756,706	364,936
6	813,966	1,506,062	30,886	30,070	194,617	38,091	1,117,153	6,420	13,516	5,985	68,415	1,653,488	498,244
7	3,111,260	4,622,369	137,408	157,546	702,101	66,702	3,131,008	13,751	31,821	3,507	378,525	4,875,568	1,677,858
8	1,530,423	1,599,733	15,965	33,370	721,653	50,245	685,921	3,586	24,470	-----	35,797	1,626,272	891,006
9	1,785,525	1,587,054	84,048	99,820	633,433	103,242	620,920	8,633	10,471	338	47,140	1,816,866	1,092,704
10	10,747,613	10,559,149	343,117	411,907	2,520,671	158,323	12,100,503	44,617	93,839	41,794	839,378	17,820,761	5,561,935



# KENTUCKY.

## INDUSTRIES IN GENERAL.

**General character of the state.**—Kentucky, with a gross area of 40,598 square miles, of which 417 represent water surface, ranks thirty-sixth in size among the states and territories of continental United States. Its population in 1910 was 2,289,905, as compared with 2,147,174 in 1900 and 1,858,635 in 1890. It ranked fourteenth among the 49 states and territories as regards population in 1910 and twelfth in 1900. In 1910 the density of population for the entire state was 57 per square mile, the corresponding figure for 1900 being 53.4.

Louisville, with a population of 223,928, and Covington, with 53,270, are the only cities in the state having a population of over 50,000. There are, however, six other cities having a population of over 10,000. The eight cities—Covington, Frankfort, Henderson, Lexington, Louisville, Newport, Owensboro, and Paducah—contained 17.6 per cent of the total population of the state, and were credited with 59.8 per cent of the total value of its manufactures. Twenty-four and three-tenths per cent of the entire population of the state resided in 1910 in cities and incorporated towns having a population of 2,500 or over, as against 21.8 per cent in 1900.

The rapidly improving railway systems of the state, with the Mississippi, Ohio, Cumberland, and Tennessee Rivers, and a number of smaller navigable rivers, together furnish excellent transportation facilities for the greater part of the state.

**Importance and growth of manufactures.**—The value of the manufactured products of Kentucky has increased steadily at each census from 1849 to 1909. In 1849 the total value of the manufactures of the state, including the products of the neighborhood and hand industries, amounted to only \$21,710,000, while in 1909, exclusive of the products of the neighborhood and hand industries, it was more than ten times as great, amounting to \$223,754,000. During 1849 an average of 21,476 wage earners, representing 2.2 per cent of the total population, were engaged in manufactures, and in 1909 an average of 65,400 wage earners, or 2.9 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 \$22 to \$98.

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 2.1 per cent in 1849 and but 1.1 per cent in 1909. In 1899 and in 1904 Kentucky ranked nineteenth among the states in gross value of manufactured products, but in 1909 it occupied twentieth place.

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.....	4,776	3,734	3,648	27.9	2.4
Persons engaged in manufactures.....	79,060	69,755	( <sup>1</sup> )	13.3	.....
Proprietors and firm members.....	5,050	4,108	( <sup>1</sup> )	22.9	.....
Salaried employees.....	8,610	5,853	4,353	47.1	34.4
Wage earners (average number).....	65,400	59,794	51,735	9.4	15.6
Primary horsepower.....	230,224	174,625	144,161	31.8	21.1
Capital.....	\$172,779,000	\$147,282,000	\$87,996,000	17.3	67.4
Expenses.....	201,163,000	137,386,000	108,160,000	46.4	27.0
Services.....	37,491,000	30,310,000	22,639,000	23.7	33.9
Salaries.....	9,603,000	5,871,000	4,185,000	63.6	40.3
Wages.....	27,888,000	24,439,000	18,454,000	14.1	32.4
Materials.....	111,779,000	86,545,000	67,406,000	29.2	28.4
Miscellaneous.....	51,893,000	20,531,000	18,115,000	152.8	13.3
Value of products.....	223,754,000	159,754,000	126,509,000	40.1	28.3
Value added by manufacture (value of products less cost of materials).....	111,975,000	73,209,000	59,103,000	53.0	23.9

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

In 1909 Kentucky had 4,776 manufacturing establishments, which gave employment to an average of 79,060 persons during the year and paid out \$37,491,000

in salaries and wages. Of the persons employed, 65,400 were wage earners. These establishments turned out products to the value of \$223,754,000,

in the manufacture of which materials costing \$111,779,000 were utilized. The value added by manufacture was thus \$111,975,000, 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 Kentucky as a whole showed a much 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 27.9 per cent, the average number of wage earners 9.4

per cent, and the amount paid in wages 14.1 per cent, while the value of products increased 40.1 per cent and the value added by manufacture 53 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 price 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. <sup>1</sup>			
		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.....	4,778	65,400	100.0	\$223,754,000	100.0	\$111,875,000	100.0	40.1	26.3	53.0	23.9
Liquors, distilled.....	206	2,539	3.9	44,360,000	19.8	35,759,000	31.9	295.9	14.5	450.4	4.0
Flour-mill and gristmill products.....	440	1,401	2.1	22,305,000	10.0	3,701,000	3.3	24.2	38.3	27.2	31.0
Lumber and timber products.....	1,592	13,042	19.9	21,381,000	9.6	10,925,000	9.8	4.0	20.2	-7.2	39.9
Tobacco manufactures.....	226	3,973	6.1	18,598,000	8.3	10,173,000	9.1	24.7	-9.4	13.0	-16.0
Foundry and machine-shop products.....	129	4,479	6.9	9,627,000	4.3	4,892,000	4.4	80.0	-7.3	74.2	-10.3
Iron and steel, steel works and rolling mills.....	7	2,372	3.6	7,779,000	3.5	2,218,000	2.0	26.1	23.2	13.7	3.3
Slaughtering and meat packing.....	37	354	0.5	6,568,000	2.9	822,000	0.7	15.3	10.0	-25.2	50.1
Cars and general shop construction and repairs by steam-railroad companies.....	24	5,605	8.6	6,535,000	2.9	3,635,000	3.3	13.9	35.1	30.6	40.6
Printing and publishing.....	431	3,135	4.8	6,454,000	2.9	4,809,000	4.3	-	46.6	-	47.8
Clothing, men's, including shirts.....	123	3,849	5.9	6,062,000	2.7	2,776,000	2.5	-5.9	83.4	-9.0	89.0
Carriages and wagons and materials.....	161	2,777	4.2	5,141,000	2.3	2,428,000	2.2	-6.6	50.2	-9.8	54.5
Liquors, malt.....	19	1,012	1.5	4,949,000	2.2	3,678,000	3.3	34.7	15.3	32.5	8.6
Leather, tanned, curried, and finished.....	18	630	1.0	4,241,000	1.9	1,017,000	0.9	7.3	5.2	-11.2	30.9
Bread and other bakery products.....	286	985	1.5	3,338,000	1.5	1,392,000	1.2	50.0	35.3	68.7	2.4
Boots and shoes, including cut stock and findings.....	13	426	0.7	3,248,000	1.5	804,000	0.7	68.3	-	41.1	-
Cooperage and wooden goods, not elsewhere specified.....	49	878	1.3	2,648,000	1.2	945,000	0.8	-10.9	102.1	7.4	43.8
Leather goods.....	33	814	1.2	2,373,000	1.1	946,000	0.9	14.6	10.3	-5.2	27.1
Confectionery.....	24	685	1.0	2,267,000	1.0	976,000	0.9	55.2	46.9	45.9	30.2
Copper, tin, and sheet-iron products.....	50	464	0.7	2,243,000	1.0	568,000	0.5	208.1	8.8	32.9	32.1
Patent medicines and compounds and druggists' preparations.....	40	280	0.4	2,123,000	0.9	1,367,000	1.2	19.9	-	10.2	-
Paint and varnish.....	17	146	0.2	1,962,000	0.9	749,000	0.7	91.8	47.4	63.5	104.5
Cotton goods, including cotton small wares.....	4	1,044	1.6	1,902,000	0.9	714,000	0.6	21.5	-6.0	78.5	-42.2
Canning and preserving.....	36	653	1.0	1,857,000	0.8	764,000	0.7	69.4	114.1	95.9	68.8
Furniture and refrigerators.....	32	1,095	1.8	1,671,000	0.7	801,000	0.8	11.7	-0.5	7.6	-2.2
Pottery, terra-cotta, and fire-clay products.....	19	1,319	2.0	1,470,000	0.7	1,088,000	1.0	17.9	72.2	20.9	71.4
Woolen, worsted, and felt goods, and wool hats.....	14	818	1.3	1,278,000	0.6	420,000	0.4	0.4	-	-15.7	-
Ice, manufactured.....	78	472	0.7	1,135,000	0.5	828,000	0.7	61.4	54.8	46.8	51.6
Cordage and twine and jute and linen goods.....	6	751	1.2	1,080,000	0.5	371,000	0.3	80.6	-	27.5	-
Marble and stone work.....	75	510	0.8	1,000,000	0.5	710,000	0.6	44.4	30.4	41.4	54.5
Brick and tile.....	82	1,125	1.7	1,015,000	0.5	781,000	0.7	14.4	40.6	9.8	41.4
Gas, illuminating and heating.....	15	386	0.6	1,004,000	0.4	689,000	0.6	4.5	43.2	-1.1	31.0
Stoves and furnaces, including gas and oil stoves.....	8	564	0.9	827,000	0.4	574,000	0.5	14.9	-	10.8	-
Clothing, women's.....	16	392	0.6	772,000	0.3	359,000	0.3	(?)	489.3	1.5	530.2
Musical instruments, pianos and organs and materials.....	6	343	0.5	588,000	0.3	310,000	0.3	16.4	350.9	21.1	536.6
Mirrors.....	4	130	0.2	482,000	0.2	158,000	0.1	-0.2	-	8.2	-
Cars and general shop construction and repairs by street-railroad companies.....	7	217	0.3	276,000	0.1	134,000	0.1	122.6	-	119.7	-
Butter, cheese, and condensed milk.....	13	56	0.1	275,000	0.1	80,000	0.1	227.4	0.1	122.2	63.6
Shipbuilding, including boat building.....	10	157	0.2	271,000	0.1	116,000	0.1	79.5	55.7	12.6	35.5
All other industries.....	418	5,522	8.4	22,549,000	10.1	8,422,000	7.5	-	-	-	-

<sup>1</sup> Percentages are based on figures in Table I; a minus sign (-) denotes a decrease. Where the percentages are omitted, comparable figures can not be given.  
<sup>2</sup> 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 use of the product 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, page 410, that there is 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.

*Liquors, distilled.*—In 1909 Kentucky was the second state in the Union in the manufacture of distilled liquors, having advanced from fourth place since 1904. In 1909 the value of products for the industry was \$44,360,000, or 21.7 per cent of the total reported for the entire country. The enormous increases shown

in the value of products and in value added by manufacture are due mainly to the fact that in 1909 the internal-revenue tax was included in the value of the products whether paid or not, whereas in 1904 this tax was imperfectly reported and included only when it was actually paid and reported by the manufacturer. In 1909 this tax constituted approximately three-fourths of the total value of products reported for the industry.

*Flour-mill and gristmill products.*—The value of flour-mill and gristmill products shows an increase of 71.8 per cent for the decade 1899–1909. With the exception of the lumber industry, there were more establishments engaged in the manufacture of flour-mill and gristmill products in 1909 than in any other industry in the state. Statistics for mills which do only custom grinding for local consumption are not included in the general tables or in the totals for manufacturing industries. Separate statistics for such mills are given on page 405.

*Lumber and timber products.*—This industry includes the logging plants, the chief products of which are logs and bolts; the sawmills, shingle mills, and planing mills, producing rough lumber, shingles, lath, cooperage stock, sash, doors, blinds, interior finish, and other millwork; and the wooden packing-box factories. The greater part of the value of products was reported by the logging plants and sawmills. The importance of the industry is indicated by the fact that it gave employment in 1909 to more than twice as many wage earners as any other industry in the state. The percentage of increase in value of products was considerably less from 1904 to 1909 than from 1899 to 1904. A decrease in the value added by manufacture is shown for the period 1904–1909.

*Tobacco manufactures.*—The statistics for this industry include those for establishments engaged in the manufacture of cigars, cigarettes, chewing and smoking tobacco, and snuff. The factories in Kentucky are engaged chiefly in the manufacture of chewing and smoking tobacco and snuff. Kentucky is the leading tobacco-growing state in the Union, and was one of the first states to engage in tobacco manufactures on a factory basis. From 1899 to 1904 the industry showed decreases both in value of products and in value added by manufacture, but from 1904 to 1909 there was an increase of 24.7 per cent in value of products and of 13 per cent in value added by manufacture.

*Foundry and machine-shop products.*—This industry embraces not only establishments engaged in the manufacture and repair of machinery, but also those which manufacture structural ironwork; plumbers' supplies; hardware; iron and steel pipe, cast; and steam fittings and heating apparatus. The industry was really of greater importance in the state than is indicated by the statistics, as some machine shops manufacture dis-

tinutive products and were assigned to other classifications. A marked development has taken place in this industry during the last five years.

*Iron and steel.*—Because of the extensive iron-ore deposits which exist in about one-fourth of the counties of the state, the manufacture of iron and steel was one of the first industries to be developed in Kentucky. The combined value of products for the iron and steel industry, including blast furnaces and steel works and rolling mills, amounted to \$9,258,000 in 1909. Comparative statistics for the blast-furnace branch of the industry for 1904 can not be shown, since to do so would disclose the operations of the one mill reporting. The statistics for the four furnaces in operation in 1909 are given in Table II, page 410. There were seven steel works and rolling mills in the state in 1909 and six in 1899. The value of their products increased 55.4 per cent during the decade.

*Slaughtering and meat packing.*—This classification includes wholesale slaughtering and meat-packing establishments and those engaged in the manufacture of sausage. The increase in value of products since 1899 has been small, 10 per cent from 1899 to 1904, and 15.3 per cent from 1904 to 1909, and may be accounted for entirely by the general advance in prices.

*Cars and general shop construction and repairs by steam-railroad companies.*—This industry represents the work done in the repair shops of steam-railroad companies, and is confined practically to repairs to the rolling stock and equipment of their own roads. The work is exclusive of minor repairs in roundhouses. This industry in 1909 gave employment to an average of 5,605 wage earners, being exceeded in this respect only by the lumber industry.

*Printing and publishing.*—The establishments classified under this head include those publishing newspapers, books, and periodicals, establishments engaged in job printing, bookbinding and blank-book making, and lithographing and engraving establishments. The total value of products for the entire industry has about doubled during the last 10 years.

Measured by the value added by manufacture, only seven of the industries presented in the preceding table held the same rank as when measured by value of products. The flour mills and gristmills and the steel works and rolling mills, ranking second and sixth, respectively, in value of products, become sixth and eleventh in importance when ranked according to the value added by manufacture. The slaughtering and meat-packing industry drops from seventh place in value of products to twenty-first place in value added by manufacture, while the manufacture of pottery, terra-cotta, and fire-clay products, which ranked twenty-fifth in value of products, occupies fourteenth place in value added by manufacture. Owing to the comparatively simple processes involved in the flour-mill and gristmill products and in the slaughtering and meat-packing indus-

tries, together with the extent to which the manufacturing processes are carried on by machinery in the former industry, the value added by manufacture in these industries is not commensurate with the gross value of products.

This table shows also the percentages of increase which the leading industries show in value of products and in value added by manufacture where comparative statistics can be presented. From 1904 to 1909, with the exception of the distilleries, the manufacture of butter, cheese, and condensed milk shows the largest relative increase in value of products and in value added by manufacture, namely, 227.4 per cent and 122.2 per cent, respectively. From 1899 to 1904 the women's clothing industry showed the highest percentage of increase in value of products, and the manufacture of pianos and organs showed the highest percentage of increase in value added by manufacture. In value of products the men's clothing industry, the carriage and wagon industry, the cooperage and wooden-goods industry, and the manufacture of mirrors each shows a decrease during the period from 1904 to 1909, while the tobacco manufactures, foundry and machine-shop products, the cotton-goods industry, and the manufacture of furniture and refrigerators each shows a decrease during the period from 1899 to 1904.

In addition to the 38 industries presented separately, there are 12 other important industries each of which had a value of products in 1909 in excess of \$600,000. They are included under the 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, and 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. These industries or products are: Agricultural implements; clocks and watches, including cases and materials; coffee and spice, roasting and grinding; fertilizers; food preparations; iron and steel, blast furnaces; mineral and soda waters; oil, cottonseed, and cake; petroleum, refining; soap; wire; and wood, turned and carved. Statistics, however, for blast furnaces and cottonseed-oil mills for 1909 are presented in Table II, page 410.

**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 79,060, of whom 65,400 were wage earners. Of the remainder, 7,979 were proprietors and officials, and 5,681 were clerks. Correspond-

ing figures for individual industries will be found in Table II, page 410.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.		
	Total.	Male.	Female.
All classes.....	79,060	67,860	11,200
Proprietors and officials.....	7,979	7,781	198
Proprietors and firm members.....	5,050	4,893	157
Salaried officers of corporations.....	1,304	1,274	30
Superintendents and managers.....	1,625	1,614	11
Clerks.....	5,681	4,443	1,238
Wage earners (average number).....	65,400	55,636	9,764
16 years of age and over.....	64,567	55,072	9,495
Under 16 years of age.....	833	564	269

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.....	79,060	10.1	7.2	82.7
Boots and shoes, including cut stock and findings.....	570	9.1	16.1	74.7
Bread and other bakery products.....	1,433	22.9	8.4	68.7
Carriages and wagons and materials.....	3,263	9.2	5.7	85.1
Cars and general shop construction and repairs by steam-railroad companies.....	5,887	1.8	3.0	95.2
Clothing, men's, including shirts.....	4,399	4.5	8.0	87.5
Flour-mill and gristmill products.....	2,426	31.7	10.6	57.7
Foundry and machine-shop products.....	5,174	5.9	7.5	86.6
Iron and steel, steel works and rolling mills.....	2,437	1.1	1.6	97.3
Leather, tanned, curried, and finished.....	724	6.5	6.5	87.0
Liquors, distilled.....	3,153	10.8	8.8	80.4
Liquors, malt.....	1,282	5.5	15.6	78.9
Lumber and timber products.....	15,800	14.8	2.8	82.5
Printing and publishing.....	4,577	15.1	16.4	68.5
Slaughtering and meat packing.....	446	13.0	7.6	79.4
Tobacco manufactures.....	4,877	7.4	11.2	81.5
All other industries.....	22,607	8.8	8.0	83.3

Of the total number of persons engaged in all manufacturing industries, 10.1 per cent were proprietors and officials, 7.2 per cent clerks, and 82.7 per cent wage earners. In the flour-mill and gristmill products industry the majority of the establishments are small and the work is to a large extent done by the proprietors or their immediate representatives, so that the proportion of persons engaged in this industry falling into the class of proprietors and officials is very much higher than for most other industries or for all industries combined. Similar conditions prevail to some extent in the bakery, the printing and publishing, and the lumber industries, where proprietors and officials formed 22.9 per cent, 15.1 per cent, and 14.8 per cent, respectively, of the total number of persons engaged in manufactures. The smallest proportions for this class are shown for the steel works and rolling mills and the steam-railroad repair shops, where the average number of wage earners per establishment is very large.

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. <sup>1</sup>	Per cent of total.		
		16 years of age and over.		Under 16 years of age.
		Male.	Female.	
<b>All industries.....</b>	<b>65,400</b>	<b>84.2</b>	<b>14.5</b>	<b>1.3</b>
Boots and shoes, including cut stock and findings.....	426	55.6	40.1	4.2
Bread and other bakery products.....	985	85.2	13.4	1.4
Carriages and wagons and materials.....	2,777	95.8	3.8	0.4
Cars and general shop construction and repairs by steam-railroad companies.....	5,605	100.0	.....	.....
Clothing, men's, including shirts.....	3,840	19.6	77.3	3.1
Flour-mill and gristmill products.....	1,401	98.4	1.6	.....
Foundry and machine-shop products.....	4,470	97.9	1.2	0.9
Iron and steel, steel works and rolling mills.....	2,372	100.0	.....	.....
Leather, tanned, curried, and finished.....	630	99.8	.....	0.2
Liquors, distilled.....	2,539	77.2	22.7	0.1
Liquors, malt.....	1,012	97.0	0.4	2.6
Lumber and timber products.....	13,042	99.1	0.3	0.6
Printing and publishing.....	3,135	80.2	17.2	2.6
Slaughtering and meat packing.....	354	99.7	0.3	.....
Tobacco manufactures.....	3,073	58.7	39.3	2.0
All other industries.....	18,821	89.5	17.0	1.9

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

For all industries combined, 84.2 per cent of the average number of wage earners were males 16 years of age and over; 14.5 per cent, females 16 years of age and over; and 1.3 per cent, children under the age of 16. The larger part of the female wage earners are employed in the men's clothing industry, the distilleries, the printing and publishing industry, and the manufacture of tobacco products. Nearly one-third of all the adult women wage earners in the state are employed in the men's clothing industry. The large percentage of female wage earners in boot and shoe factories but slightly affects the totals for the state, since the number of all wage earners in the industry is small.

The number of children employed in all industries in the state was very small, but of the industries presented separately in the above table those employing the greatest numbers were the men's clothing, printing and publishing, and tobacco products 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 next table makes this comparison according to occupational status.

Comparable figures are not obtainable for 1899. The table shows that the greatest percentage of increase

was for salaried employees. The proportion of proprietors and firm members and of salaried employees was greater in 1909 than in 1904, while that of wage earners was less.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.				Per cent of increase, 1904-1909.
	1909		1904		
	Number	Percent distribution.	Number.	Percent distribution.	
<b>Total.....</b>	<b>79,080</b>	<b>100.0</b>	<b>69,755</b>	<b>100.0</b>	<b>13.3</b>
Proprietors and firm members.....	5,050	6.4	4,108	5.9	22.9
Salaried employees.....	8,610	10.9	5,853	8.4	47.1
Wage earners (average number).....	65,400	82.7	59,794	85.7	9.4

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.
<b>Total.....</b>	<b>65,400</b>	<b>100.0</b>	<b>59,794</b>	<b>100.0</b>	<b>51,735</b>	<b>100.0</b>
16 years of age and over.....	64,567	98.7	57,831	96.7	49,533	95.8
Male.....	55,072	84.2	49,508	82.8	43,600	84.1
Female.....	9,495	14.5	8,323	13.9	6,083	11.8
Under 16 years of age.....	833	1.3	1,963	3.3	2,152	4.2

The table indicates that for all industries combined there has not been much change during the 10 years in the relative importance of the different classes, although the actual number of male and female wage earners has increased substantially. In 1909 males 16 years of age and over constituted 84.2 per cent of all wage earners, as compared with 82.8 per cent in 1904 and 84.1 per cent in 1899. There has been both a proportional and an actual decrease during this period in the employment of children under 16 years of age.

**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 brick and tile, canning and preserving, and lumber industries, and for all other industries combined; it also gives 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 presented so as to show separately the number engaged in the mills and the number engaged in logging operations. In Table II, page 410, are 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.

The lumber industry gives employment to a larger number of wage earners than any other industry and therefore practically determines the movement of employment throughout the year. The difference between the number reported for the months of maximum and of minimum employment for all industries combined was 8,357, and the variations shown for the

lumber industry during the same period account for more than half of this difference.

The manufacture of brick and tile and canning and preserving are both seasonal industries, but the number of wage earners employed in them was not sufficiently large to materially affect the totals for all industries combined.

MONTH.	WAGE EARNERS.													
	All industries.		Brick and tile.		Canning and preserving.		Lumber and timber products.						All other industries.	
	Number.	Percent of maximum.	Number.	Percent of maximum.	Number.	Percent of maximum.	Total.		In mills.		In logging operations.		Number.	Percent of maximum.
Number.							Percent of maximum.	Number.	Percent of maximum.	Number.	Percent of maximum.			
January.....	61,119	88.0	356	21.2	262	14.7	10,839	70.9	8,881	72.8	1,958	63.1	49,602	93.0
February.....	62,345	89.7	359	21.4	269	15.1	11,244	73.5	9,223	75.6	2,021	65.2	50,473	95.2
March.....	63,728	91.7	623	37.1	274	15.4	12,250	80.1	9,955	81.6	2,295	74.0	50,581	95.4
April.....	64,826	93.3	1,196	71.1	298	16.8	13,066	85.3	10,712	87.8	2,344	75.6	50,276	94.8
May.....	64,754	93.2	1,528	90.9	293	16.5	12,817	83.8	10,606	87.0	2,211	71.3	50,116	94.5
June.....	63,767	91.8	1,609	95.7	345	19.4	12,217	79.9	10,180	83.5	2,037	65.7	49,506	93.5
July.....	63,144	90.9	1,665	99.0	447	25.1	12,141	79.4	10,219	83.8	1,922	62.0	48,891	92.2
August.....	65,853	94.8	1,681	100.0	1,730	97.3	12,701	83.0	10,414	85.4	2,287	73.7	49,741	93.8
September.....	68,637	98.8	1,622	96.5	1,778	100.0	14,307	93.5	11,469	94.0	2,838	91.5	50,930	96.0
October.....	69,476	100.0	1,397	83.1	1,183	66.5	15,297	100.0	12,195	100.0	3,102	100.0	51,699	97.3
November.....	68,639	98.3	881	52.4	615	29.0	15,174	99.2	12,094	99.2	3,080	99.3	52,069	98.2
December.....	68,510	98.6	679	34.4	437	24.6	14,401	94.5	11,662	95.6	2,739	90.2	53,033	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 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.....	65,400	9,420	3,364	10,472	9,180	28,692	1,627	1,232	1,413
Boots and shoes, including cut stock and findings.....	426	3	3	58	10	352	.....	.....	.....
Bread and other bakery products.....	985	63	7	47	78	544	167	25	54
Brick and tile.....	1,125	119	25	126	47	756	52	.....	.....
Brooms.....	86	17	.....	7	29	33	.....	.....	.....
Butter, cheese, and condensed milk.....	56	45	.....	1	.....	5	1	4	.....
Canning and preserving.....	653	58	.....	67	95	419	14	.....	.....
Carriages and wagons and materials.....	2,777	667	37	508	678	886	1	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	5,605	2,495	.....	2,208	131	207	564	.....	.....
Cars and general shop construction and repairs by street-railroad companies.....	217	24	.....	113	.....	40	40	.....	.....
Clothing, men's, including shirts.....	3,849	11	240	1,253	1,230	1,115	.....	.....	.....
Confectionery.....	685	7	34	114	448	69	13	.....	.....
Cooperage and wooden goods, not elsewhere specified.....	878	56	21	114	108	579	.....	.....	.....
Copper, tin, and sheet-iron products.....	464	101	57	100	50	160	.....	.....	.....
Cordage and twine and jute and linen goods.....	751	5	.....	.....	.....	746	.....	.....	.....
Cotton goods, including cotton small wares.....	1,044	.....	.....	.....	.....	858	186	.....	.....
Flour-mill and gristmill products.....	1,401	245	189	8	30	470	142	317	.....
Foundry and machine-shop products.....	4,479	9	304	1,692	742	1,653	18	1	.....
Furniture and refrigerators.....	1,095	5	9	69	11	1,001	.....	.....	.....
Gas, illuminating and heating.....	388	.....	.....	.....	1	62	2	16	305
Ice, manufactured.....	472	.....	.....	9	3	23	22	53	302
Iron and steel, steel works and rolling mills.....	2,372	1,446	.....	.....	255	180	.....	490	.....
Leather goods.....	814	2	.....	96	379	335	2	.....	.....
Leather, tanned, curried, and finished.....	630	.....	163	199	54	214	.....	.....	.....
Liquors, distilled.....	2,539	207	79	223	150	1,729	56	95	.....
Liquors, malt.....	1,012	669	.....	171	86	.....	86	.....	.....
Lumber and timber products.....	13,042	643	863	889	670	9,761	161	55	.....
Marble and stone work.....	510	75	3	122	38	237	.....	34	.....
Mirrors.....	130	2	.....	.....	.....	123	.....	.....	.....
Musical instruments, pianos and organs and materials.....	343	.....	14	.....	156	173	.....	.....	.....
Paint and varnish.....	146	11	.....	9	.....	126	.....	.....	.....
Patent medicines and compounds and druggists' preparations.....	280	101	51	42	2	82	.....	2	.....
Pottery, terra-cotta, and fire-clay products.....	1,319	378	.....	68	299	574	.....	.....	.....
Printing and publishing.....	3,135	1,074	804	779	180	283	5	10	.....
Shipbuilding, including boat building.....	157	1	2	142	.....	12	.....	.....	.....
Slaughtering and meat packing.....	354	20	4	178	14	134	4	.....	.....
Tobacco manufactures.....	3,373	536	76	234	2,093	1,034	.....	.....	.....
Woolen, worsted, and felt goods, and wool hats.....	818	.....	9	.....	738	.....	70	1	.....
All other industries.....	6,392	324	310	820	1,112	2,984	21	129	692



It is evident from these figures that for the great majority of wage earners employed in the manufacturing industries of Kentucky the prevailing hours of labor ranged from 54 to 60 a week, inclusive, 19.5 per cent of the total being employed in establishments where less than 54 hours a week prevailed, and 6.5 per cent in establishments where more than 60 hours a week prevailed. There were 32,964 wage earners, or more than one-half of the total for all industries, who worked 60 hours or over per week.

It will be noted that employment in a large number of industries was mainly on the basis of 60 hours a week. The major portion of the wage earners in steam-railroad repair shops, steel works and rolling

mills, and printing and publishing offices are employed 54 hours or less per week. The longest hours are found in bakeries, gas plants, and ice factories, and the most important industries in which the hours of labor are 48 and under per week are the steam-railroad repair shops and the steel works and rolling mills.

**Location of establishments.**—The following table shows the extent to which the manufactures of Kentucky 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 from which to determine the cities that came within the group having 10,000 inhabitants or over.

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	2,289,905	403,294	17.6	60,688	2.7	118,678	5.2	223,928	9.8	1,886,611	82.4
	1900	2,147,174	345,246	16.1	42,907	2.0	97,008	4.5	204,731	9.5	1,801,928	83.9
Number of establishments.....	1909	4,776	1,562	32.7	234	4.9	425	8.0	903	18.9	3,214	67.2
	1899	3,048	1,433	39.3	147	4.0	420	11.7	800	23.6	2,215	60.7
Average number of wage earners..	1909	65,400	39,931	61.1	5,302	8.1	7,606	11.6	27,023	41.3	25,406	38.0
	1899	51,735	32,329	62.5	3,303	6.4	5,964	11.5	23,062	44.6	19,406	37.5
Value of products.....	1909	\$223,754,407	\$133,824,503	59.8	\$14,486,893	6.5	\$18,053,050	8.1	\$101,283,055	45.3	\$89,029,994	40.2
	1899	126,508,060	82,774,847	65.4	5,748,867	4.5	10,915,506	8.6	66,110,474	52.3	43,733,813	34.6
Value added by manufacture.....	1909	111,975,180	62,321,114	55.7	6,196,940	5.5	8,907,798	8.0	47,156,376	42.1	40,654,066	44.3
	1899	59,102,458	40,091,730	67.8	2,918,120	4.9	5,939,082	10.0	31,234,637	52.8	19,010,719	32.2

Although the cities of 10,000 inhabitants or over contained only 17.6 per cent of the total population and 32.7 per cent of all manufacturing establishments of the state in 1909, the establishments located in such cities gave employment to 61.1 per cent of all wage earners and reported 59.8 per cent of the total value of products for the state. These figures, however, represent a decrease in the relative industrial importance of this class of cities, as compared with the remainder of the state, the proportion of the total value of products of the state reported by establishments located outside of such cities having increased from 34.6 per cent in 1899 to 40.2 per cent in 1909. It should be noted in connection with the gain made by the outside districts that Frankfort, which reported products valued at \$3,083,000 in 1909, was included in the group of cities in that year, while in 1899 it was included in the districts outside, because in 1900 the population of the city was less than 10,000.

Each of the three groups of cities shows an actual increase in the average number of wage earners and in the total value of products from 1899 to 1909. The cities having from 10,000 to 25,000 inhabitants reported 6.5 per cent of the total value of the manufactured products of the state in 1909, as compared with 4.5 per cent in 1899; the cities having between 25,000 and 100,000 inhabitants reported 8.1 per cent of the total in 1909, as compared with 8.6 per cent in 1899; and Louisville, the only city having over 100,000

inhabitants, reported only 45.3 per cent of the total in 1909, as compared with 52.3 per cent in 1899.

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

CITY.	1910	1900
Louisville.....	223,928	204,731
Covington.....	53,270	42,638
Lexington.....	35,099	20,309
Newport.....	30,309	28,301
Paducah.....	22,760	19,446
Owensboro.....	16,011	13,189
Henderson.....	11,452	10,272
Frankfort.....	10,465	9,487

The relative importance in manufacturing industry of each of these eight cities is shown in the table on the following page, in which the value of products and average number of wage earners are shown separately for 1909, 1904, and 1899.

With the exception of Paducah, Owensboro, and Lexington, which show decreases from 1904 to 1909 in the average number of wage earners, each of the cities included in this table shows an increase both in average number of wage earners and in value of products from 1904 to 1909 as well as from 1899 to 1904. Measured by value of products, each city held the same rank at each of the three censuses, except that Lexington, which ranked fifth in 1899, dropped to sixth place in 1904 and to eighth in 1909.



Louisville, the leading manufacturing city in the state and the largest city, shows a rapid growth during each of the five-year periods. It owes its importance in manufactures to a wide diversity of industries, foremost among which are tobacco manufactures, 87.5 per cent of the total value of products for this industry in the state being reported from Louisville; and to liquors, distilled; foundry and machine-shop products; flour-mill and gristmill products; slaughtering and meat packing; and clothing, men's.

In Covington the leading industries or products are foundry and machine-shop products and tobacco manufactures; in Newport, iron and steel, steel works and rolling mills, and liquors, malt; in Owensboro, carriages and wagons and materials, and food preparations; in Paducah, lumber and timber products, and cars and general shop construction and repairs by steam-railroad companies; in Frankfort, boots and shoes, including cut stock and findings, and lumber and timber products; in Henderson, cotton goods, including cotton small wares, and carriages and wagons and materials; and in Lexington, flour-mill and gristmill products, and printing and publishing.

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Louisville.....	27,023	24,985	23,082	\$101,283,955	\$83,204,125	\$66,110,474
Covington.....	3,942	3,703	3,212	8,711,929	6,099,715	5,478,764
Newport.....	2,632	1,958	1,955	6,490,596	5,231,084	3,547,667
Paducah.....	2,613	2,841	2,061	4,966,988	4,443,223	2,976,931
Owensboro.....	1,064	1,392	890	3,505,525	3,319,196	1,740,128
Frankfort.....	537	525	281	3,082,746	1,747,338	1,327,342
Henderson.....	1,088	459	352	2,931,639	1,365,120	1,031,808
Lexington.....	1,032	1,114	797	2,851,125	2,774,329	1,888,075

<sup>1</sup> 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.

**Character of ownership.**—The table on the next page has for its purpose the presentation of conditions in respect to the character of ownership, or legal organiza-

tion, 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 on page 400.

The most important distinction shown is that between corporate and all other forms of ownership. For all industries combined, 24 per cent of the total number of establishments were in 1909 under corporate ownership, as against 76 per cent under all other forms. The corresponding figures for 1904 were 23.1 per cent and 76.9 per cent, respectively. In respect to value of products the corresponding proportions are reversed. In 1909 the establishments operated by corporations reported 79.8 per cent of the total value, as against 20.2 per cent for those under all other forms of ownership, while in 1904 the corresponding figures were 73.3 per cent and 26.7 per cent, respectively. The number of establishments operated by firms increased, but they constituted only 22.7 per cent of the total in 1909 as compared with 25.7 per cent in 1904, and the value of their products formed only 8.5 per cent of the total in 1909 as against 13.5 per cent in 1904. Establishments operated by individuals showed a large increase in number from 1904 to 1909, but a decrease in the proportion that they contributed to the total value of products.

Establishments under individual ownership predominate in number in all of the industries enumerated separately in the table except in the manufacture of boots and shoes, foundry and machine-shop products, and malt liquors, while establishments under corporate ownership lead in average number of wage earners and in value of products in all except the bakery industry.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.	INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>					<b>Foundry and machine-shop products, 1909.</b>				
1909.....	4,776	65,400	\$223,754,497	\$111,975,180	Individual.....	129	4,479	\$9,626,888	\$4,891,874
1904.....	3,734	59,794	159,753,968	73,208,504	Firm.....	41	238	361,440	212,009
Individual:					Corporation.....	25	108	318,570	198,273
1909.....	2,521	10,244	25,835,192	13,654,241	Per cent of total.....	63	4,133	8,956,070	4,481,592
1904.....	1,907	9,761	21,110,481	10,495,278	Individual.....	100.0	100.0	100.0	100.0
Firm:					Firm.....	31.8	5.3	8.6	4.3
1909.....	1,094	6,521	19,047,042	7,756,319	Firm.....	19.4	2.4	3.3	4.1
1904.....	958	6,979	21,554,100	8,416,038	Corporation.....	48.8	92.3	93.0	91.6
Corporation:					<b>Liquors, distilled, 1909.</b>				
1909.....	1,147	48,590	178,650,245	90,425,693	Individual.....	206	2,539	\$44,360,104	\$35,758,886
1904.....	862	43,041	117,040,720	54,272,889	Firm.....	93	231	5,061,624	4,220,859
Other:					Corporation.....	24	60	783,405	659,015
1909.....	24	45	222,018	138,927	Per cent of total.....	89	2,252	38,485,015	30,878,812
1904.....	7	13	30,601	24,200	Individual.....	100.0	100.0	100.0	100.0
Per cent of total:					Firm.....	45.1	0.1	11.5	11.8
1909.....	100.0	100.0	100.0	100.0	Firm.....	11.7	2.2	1.8	1.8
1904.....	100.0	100.0	100.0	100.0	Corporation.....	43.2	88.7	86.8	86.4
Individual:					<b>Liquors, malt, 1909.</b>				
1909.....	52.8	15.7	11.5	12.2	Individual.....	19	1,012	\$4,949,047	\$3,677,550
1904.....	51.1	16.3	12.2	14.3	Firm.....	4	20	140,109	108,125
Firm:					Firm.....	3	35	170,036	124,120
1909.....	22.7	10.0	8.5	6.9	Corporation.....	12	948	4,038,902	3,445,299
1904.....	25.7	11.7	13.5	11.5	Per cent of total.....	100.0	100.0	100.0	100.0
Corporation:					Individual.....	21.0	2.9	2.8	2.9
1909.....	24.0	74.3	79.8	80.8	Firm.....	15.8	3.5	3.4	3.4
1904.....	23.1	72.0	73.3	74.2	Corporation.....	63.2	93.7	93.7	93.7
Other:					<b>Lumber and timber products, 1909.</b>				
1909.....	0.5	0.1	( <sup>1</sup> )	( <sup>1</sup> )	Individual.....	1,592	13,042	\$21,380,564	\$10,924,276
1904.....	0.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	Individual.....	980	4,518	4,880,903	3,039,785
<b>Boots and shoes, including outstock and findings, 1909.</b>					Firm.....	444	2,677	3,899,107	2,366,750
Individual.....	13	426	\$3,247,825	\$603,488	Corporation.....	168	5,847	12,600,494	5,517,740
Individual.....	5	78	109,749	41,290	Per cent of total.....	100.0	100.0	100.0	100.0
Corporation.....	8	348	3,138,076	762,192	Individual.....	61.6	34.6	22.8	27.8
Per cent of total.....	100.0	100.0	100.0	100.0	Firm.....	27.9	20.5	18.2	21.7
Individual.....	38.5	18.3	3.4	5.1	Corporation.....	10.6	44.8	58.9	50.5
Corporation.....	61.5	81.7	96.6	94.9	<b>Printing and publishing, 1909.</b>				
<b>Bread and other bakery products, 1909.</b>					Individual.....	431	3,135	\$6,453,342	\$4,808,658
Individual.....	286	985	\$3,337,848	\$1,391,478	Individual.....	230	697	1,199,136	909,977
Individual.....	251	563	1,824,068	769,885	Firm.....	66	223	384,049	287,955
Firm.....	27	71	239,190	107,447	Corporation.....	120	2,183	4,735,010	3,504,518
Firm.....	27	71	239,190	107,447	Other.....	15	32	135,647	115,208
Corporation.....	8	351	1,274,500	514,140	Per cent of total.....	100.0	100.0	100.0	100.0
Per cent of total.....	100.0	100.0	100.0	100.0	Individual.....	53.4	22.2	18.0	18.7
Individual.....	87.8	57.2	54.6	55.3	Firm.....	15.3	7.1	6.0	6.0
Individual.....	9.4	7.2	7.2	7.7	Firm.....	27.8	69.6	73.4	72.9
Firm.....	9.4	7.2	7.2	7.7	Other.....	8.6	1.0	2.1	2.4
Corporation.....	2.8	35.6	38.2	36.9	<b>Slaughtering and meat packing, 1909.</b>				
<b>Carriages and wagons and materials, 1909.</b>					Individual.....	37	354	\$6,568,077	\$822,219
Individual.....	161	2,777	\$5,141,107	\$2,428,601	Individual.....	24	60	1,256,728	153,290
Individual.....	80	376	639,403	335,009	Firm.....	9	25	407,395	63,375
Firm.....	41	338	556,126	282,871	Corporation.....	4	279	4,843,954	600,554
Firm.....	41	338	556,126	282,871	Per cent of total.....	100.0	100.0	100.0	100.0
Corporation.....	40	2,063	3,945,578	1,800,721	Individual.....	64.9	14.1	19.1	19.3
Per cent of total.....	100.0	100.0	100.0	100.0	Firm.....	24.3	7.1	7.1	7.7
Individual.....	49.7	13.5	12.4	13.8	Firm.....	19.8	78.8	73.7	73.0
Individual.....	25.5	12.2	10.8	12.1	<b>Tobacco manufactures, 1909.</b>				
Firm.....	25.5	12.2	10.8	12.1	Individual.....	226	3,973	\$18,597,786	\$10,172,424
Corporation.....	24.8	74.3	76.7	74.1	Individual.....	162	502	1,306,618	631,555
<b>Clothing, men's, including shirts, 1909.</b>					Firm.....	80	160	263,654	161,300
Individual.....	123	3,849	\$6,062,081	\$2,776,314	Corporation.....	84	3,302	17,027,514	9,379,569
Individual.....	87	966	418,047	408,230	Per cent of total.....	100.0	100.0	100.0	100.0
Individual.....	14	370	483,906	293,900	Individual.....	71.7	12.6	7.0	6.2
Corporation.....	22	2,513	5,150,128	2,074,124	Firm.....	13.3	4.3	1.4	1.6
Per cent of total.....	100.0	100.0	100.0	100.0	Corporation.....	15.0	83.1	91.6	92.2
Individual.....	79.7	25.1	0.9	14.7	<b>Flour - mill and gristmill products, 1909.</b>				
Individual.....	11.4	9.0	8.0	10.6	Individual.....	440	1,401	\$22,364,950	\$3,700,707
Corporation.....	17.9	65.3	85.1	74.7	Individual.....	192	373	4,472,560	823,637
<b>Flour - mill and gristmill products, 1909.</b>					Firm.....	183	450	6,620,657	1,217,938
Individual.....	440	1,401	\$22,364,950	\$3,700,707	Corporation.....	65	572	11,265,733	1,659,132
Individual.....	192	373	4,472,560	823,637	Per cent of total.....	100.0	100.0	100.0	100.0
Firm.....	183	450	6,620,657	1,217,938	Individual.....	43.6	26.6	20.0	22.2
Corporation.....	65	572	11,265,733	1,659,132	Firm.....	41.6	32.5	26.6	32.9
Per cent of total.....	100.0	100.0	100.0	100.0	Corporation.....	14.8	40.8	50.4	44.8
Individual.....	43.6	26.6	20.0	22.2					
Firm.....	41.6	32.5	26.6	32.9					
Corporation.....	14.8	40.8	50.4	44.8					

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

<sup>2</sup> Includes the group "Firm," to avoid disclosure of individual operations.

**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 the 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.	INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>					<b>Flour-mill and gristmill products, 1909—Continued.</b>				
1909.....	4,776	65,400	\$223,754,497	\$111,975,180	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	3,734	59,794	159,753,968	73,208,504	Less than \$5,000.....	16.4	3.1	0.8	0.9
Less than \$5,000:					\$5,000 and less than \$20,000.....	30.2	12.1	6.7	8.3
1909.....	2,290	4,857	5,170,841	3,387,017	\$20,000 and less than \$100,000.....	45.2	45.6	37.3	43.1
1904.....	1,453	2,765	3,530,973	2,427,807	\$100,000 and less than \$1,000,000 <sup>2</sup> .....	8.2	39.3	55.2	47.7
\$5,000 and less than \$20,000:					Average per establishment.....		3	\$50,820	\$8,411
1909.....	1,290	7,253	12,796,373	7,165,457	<b>Foundry and machine-shop products, 1909.....</b>	129	4,479	\$9,626,686	\$4,891,874
1904.....	1,172	6,715	11,506,502	6,629,052	Less than \$5,000.....	41	61	109,679	79,950
\$20,000 and less than \$100,000:					\$5,000 and less than \$20,000.....	43	285	425,002	206,597
1909.....	781	13,810	35,218,448	15,769,584	\$20,000 and less than \$100,000.....	26	615	1,262,051	692,300
1904.....	806	14,424	35,207,472	16,865,728	\$100,000 and less than \$1,000,000 <sup>2</sup> .....	19	3,518	7,829,954	3,853,627
\$100,000 and less than \$1,000,000:					Per cent of total.....	100.0	100.0	100.0	100.0
1909.....	386	29,105	108,403,915	56,024,930	Less than \$5,000.....	31.8	1.4	1.1	1.6
1904.....	286	20,291	70,918,685	32,506,966	\$5,000 and less than \$20,000.....	33.3	6.4	4.4	5.4
\$1,000,000 and over:					\$20,000 and less than \$100,000.....	20.2	13.7	13.1	14.2
1909.....	29	10,375	62,164,920	29,628,196	\$100,000 and less than \$1,000,000 <sup>2</sup> .....	14.7	78.5	81.3	78.8
1904.....	17	9,599	33,590,336	15,778,951	Average per establishment.....		35	\$74,025	\$37,922
Per cent of total:					<b>Liquors, distilled, 1909.....</b>	206	2,539	\$44,360,104	\$36,758,686
1909.....	100.0	100.0	100.0	100.0	Less than \$5,000.....	65	83	137,105	114,267
1904.....	100.0	100.0	100.0	100.0	\$5,000 and less than \$20,000.....	31	35	204,496	200,423
Less than \$5,000:					\$20,000 and less than \$100,000.....	18	107	1,037,676	834,748
1909.....	47.9	7.4	2.3	3.0	\$100,000 and less than \$1,000,000.....	84	1,755	27,900,433	22,889,846
1904.....	38.9	4.6	2.2	3.3	\$1,000,000 and over.....	8	609	14,900,334	11,710,904
\$5,000 and less than \$20,000:					Per cent of total.....	100.0	100.0	100.0	100.0
1909.....	27.0	11.1	5.7	6.4	Less than \$5,000.....	31.6	1.3	0.3	0.3
1904.....	31.4	11.2	7.2	9.1	\$5,000 and less than \$20,000.....	15.0	1.4	0.6	0.6
\$20,000 and less than \$100,000:					\$20,000 and less than \$100,000.....	8.7	4.2	2.3	2.3
1909.....	16.4	21.1	15.7	14.1	\$100,000 and less than \$1,000,000.....	40.8	69.1	63.0	64.0
1904.....	21.6	24.1	22.0	21.7	\$1,000,000 and over.....	3.9	24.0	33.7	32.7
\$100,000 and less than \$1,000,000:					Average per establishment.....		12	\$215,340	\$173,586
1909.....	8.1	44.5	48.4	50.0	<b>Liquors, malt, 1909.....</b>	19	1,012	\$4,949,047	\$3,677,550
1904.....	7.7	44.0	44.4	44.4	\$20,000 and less than \$100,000 <sup>1</sup> .....	7	60	292,630	211,825
\$1,000,000 and over:					\$100,000 and less than \$1,000,000 <sup>2</sup> .....	12	952	4,656,417	3,465,725
1909.....	0.6	15.9	27.8	26.4	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	0.5	16.1	24.2	21.6	Less than \$5,000.....	36.8	5.9	5.9	5.8
Average per establishment:					\$100,000 and less than \$1,000,000 <sup>2</sup> .....	63.2	94.1	94.1	94.2
1909.....	14		\$46,850	\$23,445	Average per establishment.....		53	\$260,476	\$193,555
1904.....	16		42,784	19,606	<b>Lumber and timber products, 1909.....</b>	1,592	13,042	\$21,380,564	\$10,924,276
<b>Boots and shoes, including outstook and findings, 1909.</b>	13	426	\$3,247,825	\$803,488	Less than \$5,000.....	1,061	3,058	2,255,661	1,497,203
Less than \$5,000.....	4	14	10,705	6,900	\$5,000 and less than \$20,000.....	336	2,572	3,136,617	1,948,983
\$20,000 and less than \$100,000 <sup>1</sup> .....	4	102	149,412	62,435	\$20,000 and less than \$100,000.....	154	3,439	6,603,439	3,276,517
\$100,000 and less than \$1,000,000 <sup>2</sup> .....	5	310	3,087,708	734,453	\$100,000 and less than \$1,000,000 <sup>2</sup> .....	41	3,973	9,384,847	4,201,573
Per cent of total.....	100.0	100.0	100.0	100.0	Per cent of total.....	100.0	100.0	100.0	100.0
Less than \$5,000.....	30.8	3.3	0.3	0.8	Less than \$5,000.....	66.6	23.4	10.6	13.7
\$20,000 and less than \$100,000 <sup>1</sup> .....	30.8	23.9	4.6	7.8	\$5,000 and less than \$20,000.....	21.1	19.7	14.7	17.8
\$100,000 and less than \$1,000,000 <sup>2</sup> .....	38.5	72.8	95.1	91.4	\$20,000 and less than \$100,000.....	9.7	26.4	30.9	30.0
Average per establishment.....		33	\$249,833	\$61,807	\$100,000 and less than \$1,000,000 <sup>2</sup> .....	2.6	30.5	43.9	38.5
<b>Bread and other bakery products, 1909.....</b>	286	985	\$3,337,848	\$1,391,478	Average per establishment.....		8	\$13,430	\$6,862
Less than \$5,000.....	143	87	410,433	176,342	<b>Printing and publishing, 1909.</b>	431	3,135	\$6,453,842	\$4,808,658
\$5,000 and less than \$20,000.....	124	366	1,158,286	508,201	Less than \$5,000.....	253	386	606,384	488,290
\$20,000 and less than \$100,000.....	13	134	419,367	148,641	\$5,000 and less than \$20,000.....	127	604	1,164,890	904,990
\$100,000 and less than \$1,000,000.....	6	398	1,349,732	558,294	\$20,000 and less than \$100,000.....	41	813	1,853,909	1,372,514
Per cent of total.....	100.0	100.0	100.0	100.0	\$100,000 and less than \$1,000,000.....	10	1,332	2,828,659	2,042,894
Less than \$5,000.....	50.0	8.8	12.3	12.7	Per cent of total.....	100.0	100.0	100.0	100.0
\$5,000 and less than \$20,000.....	43.4	37.2	34.7	36.5	Less than \$5,000.....	58.7	12.3	9.4	10.2
\$20,000 and less than \$100,000.....	4.5	13.6	12.6	10.7	\$5,000 and less than \$20,000.....	29.5	19.3	18.0	18.8
\$100,000 and less than \$1,000,000.....	2.1	40.4	40.4	40.1	\$20,000 and less than \$100,000.....	9.5	25.9	28.7	28.5
Average per establishment.....		3	\$11,071	\$4,865	\$100,000 and less than \$1,000,000.....	2.3	42.5	43.8	42.5
<b>Carriages and wagons and materials, 1909.....</b>	161	2,777	\$5,141,107	\$2,428,601	Average per establishment.....		7	\$14,974	\$11,167
Less than \$5,000.....	58	87	137,541	87,073	<b>Slaughtering and meat packing, 1909.....</b>	37	354	\$6,568,077	\$622,219
\$5,000 and less than \$20,000.....	04	402	640,626	383,481	\$5,000 and less than \$20,000 <sup>1</sup> .....	8	4	106,858	17,515
\$20,000 and less than \$100,000.....	30	835	1,427,454	620,731	\$20,000 and less than \$100,000.....	23	61	1,209,706	165,151
\$100,000 and less than \$1,000,000.....	9	1,453	2,936,486	1,337,316	\$100,000 and less than \$1,000,000 <sup>2</sup> .....	6	239	5,251,513	649,553
Per cent of total.....	100.0	100.0	100.0	100.0	Per cent of total.....	100.0	100.0	100.0	100.0
Less than \$5,000.....	36.0	3.1	2.7	3.6	Less than \$5,000.....	21.6	1.1	1.6	2.1
\$5,000 and less than \$20,000.....	39.8	14.5	12.5	15.8	\$5,000 and less than \$20,000.....	62.2	17.2	18.4	18.9
\$20,000 and less than \$100,000.....	18.6	30.1	27.8	25.6	\$20,000 and less than \$100,000.....	16.2	81.6	80.0	79.0
\$100,000 and less than \$1,000,000.....	5.6	52.3	57.1	55.1	\$100,000 and less than \$1,000,000 <sup>2</sup> .....		10	\$177,516	\$22,222
Average per establishment.....		17	\$31,932	\$15,084	<b>Tobacco manufactures, 1909.</b>	226	3,973	\$18,597,786	\$10,172,424
<b>Clothing, men's, including shirts, 1909.....</b>	123	3,849	\$6,052,081	\$2,776,314	Less than \$5,000.....	149	101	249,293	158,474
Less than \$5,000.....	71	356	171,716	166,861	\$5,000 and less than \$20,000.....	44	261	366,991	228,086
\$5,000 and less than \$20,000.....	25	506	244,398	226,442	\$20,000 and less than \$100,000.....	17	505	930,537	511,492
\$20,000 and less than \$100,000.....	12	581	573,077	285,013	\$100,000 and less than \$1,000,000 <sup>2</sup> .....	16	3,046	17,050,990	9,274,372
\$100,000 and less than \$1,000,000.....	15	2,406	5,082,890	2,094,998	Per cent of total.....	100.0	100.0	100.0	100.0
Per cent of total.....	100.0	100.0	100.0	100.0	Less than \$5,000.....	65.9	2.5	1.3	1.6
Less than \$5,000.....	57.7	9.2	2.8	6.0	\$5,000 and less than \$20,000.....	19.5	6.6	2.0	2.2
\$5,000 and less than \$20,000.....	20.3	13.1	4.0	8.2	\$20,000 and less than \$100,000.....	7.5	14.2	5.0	5.0
\$20,000 and less than \$100,000.....	9.8	15.1	9.5	10.4	\$100,000 and less than \$1,000,000 <sup>2</sup> .....	7.1	76.7	91.7	91.2
\$100,000 and less than \$1,000,000.....	12.2	62.5	83.7	75.5	Average per establishment.....		13	\$82,291	\$45,011
Average per establishment.....		31	\$49,204	\$22,572					
<b>Flour-mill and gristmill products, 1909.....</b>	440	1,401	\$22,364,950	\$3,700,707					
Less than \$5,000.....	72	43	173,623	33,957					
\$5,000 and less than \$20,000.....	133	169	1,499,553	306,297					
\$20,000 and less than \$100,000.....	199	639	8,343,876	1,694,920					
\$100,000 and less than \$1,000,000 <sup>2</sup> .....	36	550	12,348,498	1,765,533					

<sup>1</sup> Includes the group "\$5,000 and less than \$20,000."

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

<sup>3</sup> Includes the group "Less than \$5,000."

This table shows that, in 1909, of the 4,776 manufacturing establishments in the state only 29, or six-tenths of 1 per cent, had a value of products exceeding \$1,000,000. These establishments, however, employed an average of 10,375 wage earners, or 15.9 per cent of the total number in all establishments, and reported 27.8 per cent of the total value of products and 26.4 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 (47.9 per cent) of the total number of establishments, but the value of their products amounted to only 2.3 per cent of the total. The great bulk of the manufacturing was reported by establishments having products valued at not less than \$100,000.

It will be seen from the preceding table that during the five years from 1904 to 1909 there was an increase as measured by value of products in the relative importance of the largest establishments—those reporting products valued at not less than \$100,000. The relative importance of the very small establishments—those reporting products valued at less than \$5,000—remained practically unchanged. The other two classes show decreases in this respect.

The fact that from 1904 to 1909 the average value of products per establishment increased from \$42,784 to \$46,850 and the average value added by manufacture from \$19,606 to \$23,445 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 14.

The table shows further that when the average size of establishments is measured by value of products the bakery, lumber and timber products, and printing and publishing industries are conducted chiefly in rather small establishments, while the distillery, brewery,

and boot and shoe industries are usually carried on in comparatively large establishments.

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 4,776 establishments reported for all industries, 8.4 per cent employed no wage earners; 59.9 per cent, from 1 to 5; 19.7 per cent, from 6 to 20; and 6.5 per cent, from 21 to 50. The most numerous single group consists of the 2,860 establishments employing from 1 to 5 wage earners each, and the next of the 941 establishments employing from 6 to 20 wage earners each. There were only 33 establishments that employed over 250 wage earners; 3 of these—a steam-railroad repair shop, a machine shop, and an establishment engaged in the manufacture of tobacco—employed over 1,000 wage earners each.

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 one employing from 101 to 250 each. This group employed 11,851 wage earners, or 18.1 per cent of the total. The individual industries listed in this table but not in the preceding one, namely, steam-railroad repair shops; iron and steel, steel works and rolling mills; and the tanning, currying, and finishing of leather, 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 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.....	4,776	408	2,860	941	309	153	77	25	5	3
Boots and shoes, including cut stock and findings.....	13	1	4	2	1	5				
Bread and other bakery products.....	236	68	194	17	3	4				
Carriages and wagons and materials.....	161	4	87	46	11	7				
Cars and general shop construction and repairs by steam-railroad companies.....	24		3	3	2	6	4	4		
Clothing, men's, including shirts.....	123	2	39	47	17	6	9	3	1	1
Flour-mill and gristmill products.....	440	63	333	40	2	1	1			
Foundry and machine-shop products.....	129	11	53	30	10	11	5	2		
Iron and steel, steel works and rolling mills.....	7					1	2			
Leather, tanned, curried, and finished.....	18		2	7	5	3	1	3	1	
Liquors, distilled.....	206		118	45	32	9	2			
Liquors, malt.....	19		2	6	5	4		2		
Lumber and timber products.....	1,592	17	1,007	374	67	28	6	2		
Printing and publishing.....	431	90	257	59	13	6	5	1	1	
Slaughtering and meat packing.....	37	4	26	4	1	1				
Tobacco manufactures.....	226	74	101	23	12	7	6	2		1
All other industries.....	1,064	69	544	238	122	54	30	6	1	
AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	65,400	6,875	9,849	9,700	11,080	11,851	7,979	3,152	4,914	
Boots and shoes, including cut stock and findings.....	426	10	14	30	372					
Bread and other bakery products.....	985	403	102	95	325					
Carriages and wagons and materials.....	2,777	213	479	395	423	750		517		
Cars and general shop construction and repairs by steam-railroad companies.....	5,605	9	31	56	454	612	1,237	712	2,494	
Clothing, men's, including shirts.....	3,849	99	485	531	471	1,495	768			
Flour-mill and gristmill products.....	1,401	766	349	51	85	150				
Foundry and machine-shop products.....	4,479	135	300	505	710	833	636		1,360	
Iron and steel, steel works and rolling mills.....	2,372				55	336	1,190	791		
Leather, tanned, curried, and finished.....	630	3	97	163	243	124				
Liquors, distilled.....	2,539	158	531	923	620	307				
Liquors, malt.....	1,012	8	74	155	262		513			
Lumber and timber products.....	13,042	2,832	3,852	2,235	2,018	844	707	554		
Printing and publishing.....	3,135	659	639	379	452	720	286			
Slaughtering and meat packing.....	354	55	31	42	98	128				
Tobacco manufactures.....	3,973	187	244	394	535	1,013	540		1,060	
All other industries.....	18,821	1,338	2,561	3,746	3,957	4,539	2,102	578		
PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	100.0	10.5	15.1	14.8	16.9	18.1	12.2	4.8	7.5	
Boots and shoes, including cut stock and findings.....	100.0	2.3	3.3	7.0	87.3					
Bread and other bakery products.....	100.0	40.9	16.4	9.6	33.0					
Carriages and wagons and materials.....	100.0	7.7	17.2	14.2	15.2	27.0		18.6		
Cars and general shop construction and repairs by steam-railroad companies.....	100.0	0.2	0.6	1.0	8.1	10.9	22.1	12.7	44.5	
Clothing, men's, including shirts.....	100.0	2.6	12.6	13.8	12.2	38.8	20.0			
Flour-mill and gristmill products.....	100.0	54.7	24.9	3.6	6.1	10.7				
Foundry and machine-shop products.....	100.0	3.0	6.7	11.3	15.9	18.6	14.2		30.4	
Iron and steel, steel works and rolling mills.....	100.0				2.3	14.2	50.2	33.3		
Leather, tanned, curried, and finished.....	100.0	0.5	15.4	25.9	38.6	19.7				
Liquors, distilled.....	100.0	6.2	20.9	36.4	24.4	12.1				
Liquors, malt.....	100.0	0.8	7.3	15.3	25.9		50.7			
Lumber and timber products.....	100.0	21.7	29.5	17.1	15.5	6.5	5.4	4.2		
Printing and publishing.....	100.0	21.0	20.4	12.1	14.4	23.0	9.1			
Slaughtering and meat packing.....	100.0	15.5	8.8	11.9	27.7	36.2				
Tobacco manufactures.....	100.0	4.7	6.1	9.9	13.5	25.5	13.6		26.7	
All other industries.....	100.0	7.1	13.6	19.9	21.0	24.1	11.2	3.1		

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 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, on page 410.

This table shows that, for all industries combined, 55.6 per cent of the total expense was incurred for materials, 18.7 per cent for services—that is, salaries and wages—and 25.8 per cent for other purposes. As would be expected, these proportions vary greatly in the different industries. The large proportion of miscellaneous expenses shown for distilled liquors, and

in somewhat less degree for malt liquors and tobacco manufactures, is due to the inclusion of internal-revenue taxes under this head.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries.....	4.8	13.9	55.6	25.8
Boots and shoes, including cut stock and findings.....	6.5	5.3	75.8	12.4
Bread and other bakery products.....	3.7	17.3	69.4	9.6
Carriages and wagons and materials.....	7.0	25.2	58.6	9.3
Cars and general shop construction and repairs by steam-railroad companies.....	4.2	49.6	44.4	1.8
Clothing, men's, including shirts.....	9.9	21.6	69.3	8.7
Flour-mill and gristmill products.....	1.8	2.9	91.3	8.9
Foundry and machine-shop products.....	7.6	27.9	54.9	9.6
Iron and steel, steel works and rolling mills.....	1.4	17.6	76.8	4.2
Leather, tanned, curried, and finished.....	3.0	7.8	81.7	7.5
Liquors, distilled.....	1.5	1.7	20.5	76.3
Liquors, malt.....	10.8	13.6	32.5	43.0
Lumber and timber products.....	4.9	25.1	60.0	10.0
Printing and publishing.....	18.5	32.6	31.7	17.1
Slaughtering and meat packing.....	1.0	4.1	93.0	2.0
Tobacco manufactures.....	5.3	8.3	49.1	37.2
All other industries.....	6.7	17.3	64.9	11.1

**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 <sup>1</sup>	1909	1904	1899 <sup>1</sup>	1909	1904	1899
<b>Primary power, total</b> .....	5,790	3,261	3,152	230,224	174,625	144,161	100.0	100.0	100.0
Owned.....	4,341	3,261	3,152	218,007	170,200	141,721	95.0	97.5	98.3
Steam.....	3,647	2,842	2,839	207,591	162,820	136,122	90.2	93.2	94.4
Gas.....	515	249	135	4,724	1,938	1,090	2.1	1.1	0.8
Water wheels.....	160	152	178	5,320	4,538	4,247	2.3	2.6	2.9
Water motors.....	19	18	( <sup>2</sup> )	57	65	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Other.....				915	890	250	0.4	0.5	0.2
Rented.....	1,440	( <sup>2</sup> )	( <sup>2</sup> )	11,617	4,365	2,440	5.0	2.5	1.7
Electric.....	1,449	( <sup>2</sup> )	( <sup>2</sup> )	11,314	3,874	1,722	4.9	2.2	1.2
Other.....				303	491	718	0.1	0.3	0.5
<b>Electric motors</b> .....	2,795	514	114	31,268	10,690	3,415	100.0	100.0	100.0
Run by current generated by establishment.....	1,346	514	114	19,954	6,810	1,093	63.8	63.8	40.6
Run by rented power.....	1,449	( <sup>2</sup> )	( <sup>2</sup> )	11,314	3,874	1,722	36.2	36.2	59.4

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

The amount of primary power used in the manufacturing industries of Kentucky increased 21.1 per cent from 1899 to 1904 and 31.8 per cent from 1904 to 1909. This increase in primary power was principally in power generated by steam engines, although the proportion which this class of power forms of the total decreased from 94.4 per cent in 1899 to 93.2 per cent in 1904 and to 90.2 per cent in 1909. A more general use of gas engines is also shown, the horsepower of such engines being 4,724 in 1909, as against

1,096 in 1899. The number of water wheels decreased from 1899 to 1909, but the power generated increased. The figures also show that the practice of renting electric power is on the increase, 4.9 per cent of the total power being rented electric in 1909, as against 1.2 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 rapidly increasing, these motors showing 19,954 horsepower in 1909, as against 1,693 horsepower in 1899.

**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).
<b>All industries</b> .....	2,207	1,464,731	193,238	45,157	156,448	2,203,914
Boots and shoes, including cut stock and findings.....		311				
Bread and other bakery products.....	524	4,770	3,438	6,041	164	9,600
Brick and tile.....		78,800	3,563	8,272	19	7,502
Carriages and wagons and materials.....	0	20,214	952	1,222	141	517
Cars and general shop construction and repairs by steam-railroad companies.....	54	69,300	2,094		12,394	
Clothing, men's, including shirts.....		3,583			850	3,428
Coke.....		98,465				
Flour-mill and gristmill products.....	45	87,285	300	14,995	1,640	15,780
Foundry and machine-shop products.....	30	74,600	23,953	279	10,283	33,230
Gas, illuminating and heating.....		98,800	650		27,350	
Iron and steel, blast furnaces.....		10,256	127,320			
Iron and steel, steel works and rolling mills.....		137,438	10,032	384		1,876,047
Leather, tanned, curried, and finished.....		22,177				94,898
Liquors, distilled.....		107,937	6,198	6,739	79	6,321
Liquors, malt.....	359	70,471				8
Lumber and timber products.....		51,589	1,582	1,080	718	8,260
Pottery, terra-cotta, and fire-clay products.....		102,299	1,000	470	4	5,409
Printing and publishing.....	30	6,021		70	625	22,901
Slaughtering and meat packing.....		15,762		460	64	100
Tobacco manufactures.....	1	11,616	3	17		828
All other industries.....	1,149	317,935	5,151	5,128	102,102	118,488

NOTE.—In addition, there were 11,142 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 value of products and other information for securing which no provision is made on the general schedule. Certain data for six important industries in Kentucky are here presented.

**Flour-mill and gristmill products.**—The next tabular statement gives the quantities and values of products for the last three census years.

White wheat flour, the most important product, which represented 71.1 per cent of the total value of products of the industry in 1909, 73.3 per cent in 1904, and 70.5 per cent in 1899, shows an increase in quantity of 189,924 barrels, or 7.2 per cent, and an increase in value of \$2,710,571, or 20.5 per cent, since 1904. The output of feed, barley meal, and of corn meal and corn flour combined decreased in quantity during this five-year period.

PRODUCT.	1909	1904	1899
<b>Total value</b> .....	\$22,364,950	\$18,007,786	\$13,017,043
<b>Wheat flour:</b>			
White—			
Barrels.....	2,330,541	2,040,617	2,527,099
Value.....	\$15,912,192	\$13,201,621	\$9,176,202
Graham—			
Barrels.....	1,747	887	
Value.....	\$3,833	\$3,575	
<b>Corn meal and corn flour:</b>			
Barrels.....	984,217	1,003,020	673,782
Value.....	\$3,071,856	\$2,314,364	\$2,006,920
<b>Rye flour:</b>			
Barrels.....	908	654	1,044
Value.....	\$4,232	\$2,606	\$2,194
<b>Buckwheat flour:</b>			
Pounds.....	16,000		
Value.....	\$600		
<b>Barley meal:</b>			
Pounds.....	14,400	70,000	
Value.....	\$242	\$850	
<b>Feed:</b>			
Tons.....	18,053	19,270	32,245
Value.....	\$490,953	\$423,233	\$597,513
<b>Offal:</b>			
Tons.....	125,951	114,227	88,547
Value.....	\$2,729,877	\$2,049,260	\$1,209,460
<b>All other products</b> .....	\$146,160	\$12,187	\$24,748

Lumber and timber products.—The following is a statement of the quantities of the three main classes of products of the sawmills as reported at the censuses of 1909 and 1899:

PRODUCT.		QUANTITY.	
		1909	1899
Rough lumber	M feet b. m.	860,712	774,651
Lath	thousands	19,776	17,091
Shingles	thousands	55,010	59,375

The quantity of rough lumber sawed increased 86,061 M feet board measure, or 11.1 per cent, from 1899 to 1909.

Kentucky timber is principally hardwood, of which 781,823 M feet was cut in 1909. Of this amount, 405,677 M feet was oak and 149,808 M feet yellow poplar. During this year, 78,889 M feet board measure of softwood was cut, of which 38,419 M feet was yellow pine.

Iron and steel, steel works and rolling mills.—The following statement shows for this industry the quantities and values of products, by general groups, for the last two census years:

PRODUCT.	1909	1904
Total value	\$7,779,320	\$6,167,542
Rolled, forged, and other classified products:		
Tons	216,311	169,466
Value	\$7,119,158	\$5,901,428
All other products, including value added to iron and steel rolling-mill products by further manufacture.	\$660,162	\$266,114

In 1909, compared with 1904, the output of rolled, forged, and other classified iron and steel products increased 46,845 tons, or 27.6 per cent, in quantity and \$1,217,730, or 20.6 per cent, in value.

Slaughtering and meat packing.—The next table shows the quantities and values of the different products in 1909, 1904, and 1899.

The most prominent facts shown in the table are the general increase in the quantities of fresh meats and the decrease in the quantity of all products requiring curing or other further preparation, and the general increase in prices of the several products.

The table also indicates that the greatest gain was in the production of fresh beef, which increased 102.7 per cent in quantity during the decade 1899-1909. During this period the quantity of salted and cured pork decreased 59.6 per cent, while the proportion which its value formed of the total value of all products of the industry decreased considerably.

PRODUCT.	1909	1904	1899
Total value	\$8,568,077	\$8,693,731	\$5,177,167
Beef, fresh:			
Pounds	17,090,098	7,297,142	8,429,007
Value	\$1,453,210	\$475,926	\$614,540
Veal, fresh:			
Pounds	1,339,303	500,482	338,102
Value	\$149,944	\$41,431	\$36,009
Mutton, fresh:			
Pounds	404,445	455,965	440,016
Value	\$40,876	\$34,534	\$36,164
Pork, fresh:			
Pounds	5,771,593	4,981,087	6,822,730
Value	\$642,951	\$419,959	\$523,393
Pork, salted or cured:			
Pounds	17,276,390	39,089,950	42,714,543
Value	\$2,264,481	\$3,499,376	\$2,837,200
Sausage, fresh or cured	\$353,974	\$298,181	\$309,149
Lard:			
Pounds	7,870,530	10,330,271	8,658,416
Value	\$988,763	\$707,999	\$491,720
Fertilizers and fertilizer materials:			
Tons	1,230	1,740	1,687
Value	\$23,344	\$25,524	\$23,376
Hides:			
Number	57,260	23,890	25,905
Pounds	2,506,385	1,137,381	1,233,773
Value	\$281,390	\$91,444	\$114,571
Pelts:			
Number	12,952	12,308	( <sup>1</sup> )
Value	\$9,686	\$9,686	
All other products	\$300,059	\$29,611	\$171,040

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

Printing and publishing.—Of the 431 establishments reported for the printing and publishing industry in 1909, 302 were engaged in publishing newspapers and periodicals.

The following table shows the number of publications in the state, together with their aggregate circulation per issue, for the three census years 1909, 1904, and 1899:

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1909	1904	1899	1909	1904	1899
Total	339	337	294	1,194,245	1,041,802	1,099,172
Daily	35	34	27	226,180	162,658	164,624
Sunday	12	10	12	115,855	83,115	( <sup>1</sup> )
Semiweekly and triweekly	27	21	25	61,248	41,058	127,375
Weekly	226	230	190	481,957	466,926	425,323
Monthly	28	34	32	136,995	142,550	262,450
All other classes	11	8	8	172,010	145,495	119,400

<sup>1</sup> Included in circulation of dailies.

Between 1904 and 1909 the number of publications in Kentucky increased but two, while the total circulation of all publications increased 152,443, or 14.6 per cent. The number of dailies increased by only one, but their circulation increased 63,522, or 39.1 per cent, while the monthlies decreased 6 in number and 5,555, or 3.9 per cent, in circulation. This latter class, for the 10-year period, shows a decrease in circulation of 125,455, or 47.8 per cent. The number of weeklies was slightly less in 1909 than in 1904, but the circulation was considerably greater. All but seven of the publications were printed in the English language.



Six of these—one daily, one Sunday paper, one semi-weekly, two weeklies, and one monthly—were printed in German, the other one, a monthly, was printed in German and English.

Leather, tanned, curried, and finished.—The following is a statement of the quantities and values of the different kinds of products in the leather industry, for the three census years 1909, 1904, and 1899:

PRODUCT.	1909	1904	1899
Total value.....	\$4,240,795	\$3,952,277	\$3,757,016
Oak sole leather:			
Sides.....	404,382	393,808	442,975
Value.....	\$2,712,009	\$2,117,495	\$2,314,770
Harness leather:			
Sides.....	100,750	187,632	200,743
Value.....	\$980,970	\$1,075,228	\$1,001,901
All other leather.....	228,453	531,287	285,852
All other products.....	70,599	90,094	64,454
Work on materials for others.....	248,734	83,173	( <sup>1</sup> )

<sup>1</sup> None reported.

The leather industry shows an increase of \$483,779, or 12.9 per cent, in value of products from 1899 to 1909. This growth was due largely to the increased value of sole leather, the quantity of which, however, was less in 1909 than in 1899. Harness leather decreased both in quantity and in value. The only item that showed a marked percentage of increase was the amount received for work on materials furnished by others.

Laundries.—Statistics for steam laundries are not included in the general tables, or in the totals for manufacturing industries. In 1909 there were 73 such establishments in the state of Kentucky, 22 of which were in Louisville, 6 in Lexington, 4 in Paducah, and 3 in Owensboro.

The following statement summarizes the statistics:

Number of establishments.....	73
Persons engaged in the industry.....	1,749
Proprietors and firm members.....	67
Salaried employees.....	128
Wage earners (average number).....	1,554
Primary horsepower.....	2,139
Capital.....	\$730,112
Expenses.....	907,610
Services.....	618,705
Materials.....	202,229
Miscellaneous.....	146,676
Amount received for work done.....	1,208,811

The most common form of ownership was the individual, with 30 establishments. The firm and corporate forms of ownership were represented by 17 and 26 establishments, respectively. Eleven establishments had receipts for the year's business of less than \$5,000; 42, receipts of \$5,000 but less than

\$20,000; and 20, receipts 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.....	1,387	83.7	July.....	1,658	100.0
February.....	1,305	84.1	August.....	1,640	99.5
March.....	1,419	85.6	September.....	1,628	98.2
April.....	1,547	93.3	October.....	1,617	97.5
May.....	1,576	95.1	November.....	1,575	95.0
June.....	1,611	97.2	December.....	1,593	96.1

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.....		2,139
Owned:		
Steam.....	71	2,068
Gas.....	1	2
Rented—Electric.....	14	69

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

KIND.	Unit	Quantity.
Bituminous coal.....	Tons.....	24,121
Wood.....	Cords.....	52
Oil.....	Barrels.....	22
Gas.....	1,000 feet.....	13,507

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.....	204	522
Persons engaged in the industry.....	1,009	1,400
Proprietors and firm members.....	381	1,038
Salaried employees.....	2	2
Wage earners (average number).....	626	369
Primary horsepower.....	5,650	11,933
Capital.....	\$294,594	\$544,171
Expenses.....	144,954	1,725,797
Services.....	115,416	38,702
Materials.....	6,002	1,063,346
Miscellaneous.....	23,446	23,749
Value of products.....	326,563	1,205,077

<sup>1</sup> Includes estimate of all grain ground. A similar estimate for value of lumber sawed by custom sawmills is impracticable.

## MANUFACTURES—KENTUCKY.

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.					Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).								
Expressed in thousands.														
STATE—All industries.....	1909	4,776	79,060	5,050	8,610	65,400	230,224	\$172,779	\$9,603	\$27,888	\$111,779	\$223,764	\$11,975	
	1904	3,734	69,755	4,108	5,853	59,794	174,625	147,282	5,871	24,439	86,545	158,754	73,209	
	1899	3,648			4,356	51,735	144,161	87,998	4,185	18,454	67,406	126,509	59,103	
Boots and shoes, including out stock and findings.....	1909	13	570	11	133	426	232	1,700	211	171	2,444	3,248	804	
	1904	19	720	8	53	650	268	756	47	200	1,360	1,930	570	
	1899	211	303	19	63	221	122	261	37	57	470	657	187	
Bread and other bakery products.....	1909	286	1,433	308	140	985	745	2,108	104	485	1,946	3,338	1,392	
	1904	237	1,050	257	55	744	386	1,114	42	350	1,400	2,225	825	
	1899	226	928	243	79	606		861	39	216	838	1,044	306	
Brick and tile.....	1909	82	1,267	61	81	1,125	4,463	2,160	78	400	234	1,015	781	
	1904	88	1,277	96	67	1,114	3,068	1,563	48	362	176	887	711	
	1899	84	1,051	97	36	918	1,800	805	26	252	128	631	503	
Butter, cheese, and condensed milk.....	1909	13	78	5	17	56	164	81	10	30	195	275	80	
	1904	3	21	6	3	12	37	19	3	5	48	84	36	
	1899	9	31	14		17	37	19		5	55	77	22	
Canning and preserving.....	1909	36	876	38	185	653	907	1,562	168	177	1,093	1,857	764	
	1904	16	607	13	74	520	591	724	69	101	706	1,096	390	
	1899	12			32	493		242	25	74	281	512	231	
Carriages and wagons and materials.....	1909	161	3,263	171	315	2,777	6,617	7,759	322	1,164	2,713	5,141	2,428	
	1904	131	3,119	133	252	2,734	4,971	5,309	252	1,104	2,814	5,505	2,691	
	1899	160			164	2,247		3,734	189	809	1,922	3,664	1,742	
Cars and general shop construction and repairs by steam-railroad companies.....	1909	24	5,887		282	5,605	4,994	5,600	275	3,240	2,900	6,535	3,635	
	1904	24	4,773		185	4,583	2,624	2,413	170	2,525	2,956	5,739	2,783	
	1899	25	3,668		96	3,572	2,063	1,762	83	1,842	2,268	4,248	1,980	
Cars and general shop construction and repairs by street-railroad companies.....	1909	7	229		12	217	295	232	12	116	142	276	134	
	1904	3	109		6	103		94	6	49	63	124	61	
	1899													
Clothing, men's, including shirts.....	1909	123	4,399	121	429	3,840	807	3,746	543	1,184	3,276	6,052	2,776	
	1904	141	4,198	139	300	3,750	568	4,870	278	1,055	3,381	6,433	3,052	
	1899	196			185	2,831		1,555	142	723	1,892	3,507	1,615	
Clothing, women's.....	1909	15	475	18	65	392	65	273	43	151	433	772	339	
	1904	12	510	13	35	462	76	140	43	190	438	772	334	
	1899	9	109	15	3	91	19	18	2	22	78	131	53	
Confectionery.....	1909	24	827	25	117	685	339	811	111	210	1,281	2,257	976	
	1904	16	716	12	78	626	362	485	70	157	785	1,454	669	
	1899	13			62	476		357	62	93	476	690	514	
Cooperage and wooden goods, not elsewhere specified.....	1909	49	972	49	45	878	2,726	2,729	65	394	1,703	2,648	945	
	1904	257	1,168	63	52	1,053	1,819	1,375	60	348	2,093	2,973	880	
	1899	244			42	1,270		1,008	64	314	859	1,471	612	
Copper, tin, and sheet-iron products.....	1909	50	595	55	76	464	323	784	78	229	1,685	2,243	558	
	1904	39	507	40	53	414	230	411	48	174	308	728	420	
	1899	19			26	351		302	20	127	351	669	318	
Cordage and twine and jute and linen goods.....	1909	6	778	1	26	751	1,801	1,505	33	225	709	1,080	371	
	1904	3	475		23	452	1,448	943	27	115	307	598	291	
	1899	14	404	2	18	384		404	22	116	260	479	210	
Cotton goods, including cotton small wares.....	1909	4	1,066	1	21	1,044	3,159	1,917	36	307	1,188	1,902	714	
	1904	4	1,056		25	1,031	3,085	2,156	25	243	1,165	1,565	400	
	1899	6	1,375		24	1,351	3,605	1,868	34	280	972	1,664	692	
Flour-mill and gristmill products.....	1909	440	2,428	647	378	1,401	24,773	9,010	377	591	18,664	22,365	3,701	
	1904	398	2,244	617	254	1,373	23,256	7,342	193	515	15,099	18,808	2,909	
	1899	341			168	1,050	18,761	4,389	125	462	10,797	13,017	2,220	
Foundry and machine-shop products.....	1909	129	5,174	97	598	4,479	8,689	9,906	651	2,402	4,735	9,627	4,892	
	1904	85	3,048	57	316	2,672	4,095	5,110	346	1,212	2,541	5,349	2,803	
	1899	107			295	3,593		4,519	308	1,511	2,040	5,771	3,131	
Furniture and refrigerators.....	1909	32	1,233	19	119	1,095	2,936	1,350	121	444	770	1,671	901	
	1904	34	1,203	28	75	1,103	2,309	1,220	74	438	659	1,496	837	
	1899	124	1,018	28	72	918		1,353	66	333	648	1,504	856	
Gas, illuminating and heating.....	1909	15	500		114	386	691	5,789	93	206	315	1,004	689	
	1904	17	509		92	417	792	5,391	95	192	264	961	697	
	1899	17	339		60	279	343	4,496	51	122	139	671	532	
Ice, manufactured.....	1909	78	645	45	128	472	9,040	4,108	116	243	807	1,135	828	
	1904	48	444	33	66	345	8,760	1,816	55	152	139	703	564	
	1899	81	265	22	52	192	3,201	1,200	33	84	82	454	372	
Iron and steel, steel works and rolling mills.....	1909	7	2,437		65	2,372	29,640	4,178	99	1,273	5,561	7,779	2,218	
	1904	8	2,220		71	2,149	26,965	4,716	78	1,272	4,217	6,168	1,851	
	1899	6	1,839		73	1,766	17,250	3,134	92	949	3,116	5,005	1,889	
Leather goods.....	1909	33	1,068	34	220	814	499	1,356	191	389	1,427	2,373	946	
	1904	247	985	47	112	826	308	1,254	92	373	1,073	2,071	998	
	1899	224			92	778		1,040	73	322	1,093	1,878	785	
Leather, tanned, curried, and finished.....	1909	18	724	1	93	630	2,669	5,070	118	308	3,224	4,241	1,017	
	1904	20	802	12	62	728	1,766	4,429	90	327	2,807	3,952	1,145	
	1899	23	880	17	53	810	1,836	4,681	61	322	2,882	3,757	875	

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

MANUFACTURES—KENTUCKY.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).							
STATE—Continued.													
Liquors, distilled.....	1900	200	3,158	143	476	2,530	16,031	\$22,452	\$609	\$728	\$3,601	\$44,360	\$35,759
	1904	188	1,936	157	351	1,428	11,850	17,774	364	554	4,778	11,295	6,427
	1899	177	1,548	188	248	1,112	11,886	12,280	328	550	3,605	9,787	6,182
Liquors, malt.....	1900	19	1,282	10	260	1,012	6,057	8,893	421	532	1,271	4,040	3,078
	1904	20	966	12	207	747	4,362	6,000	265	471	808	3,674	2,776
	1899	26	720	14	124	591	3,125	5,132	193	327	631	3,187	2,556
Lumber and timber products.....	1900	1,602	15,800	1,968	700	13,042	59,653	20,884	847	4,382	10,456	21,381	10,925
	1904	960	14,392	1,229	753	12,407	43,404	16,495	724	4,832	8,797	20,555	11,768
	1899	1,000	.....	.....	446	11,282	41,073	9,238	341	3,618	7,614	15,923	8,409
Marble and stone work.....	1900	75	676	100	66	510	1,685	875	80	261	350	1,060	710
	1904	43	481	52	32	307	926	573	33	211	232	734	502
	1899	26	.....	.....	20	307	.....	340	21	168	238	603	325
Mirrors.....	1900	4	143	4	0	130	225	241	11	77	324	482	168
	1904	4	149	3	7	139	180	183	11	84	337	483	146
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Musical instruments, pianos and organs and materials.....	1900	6	370	4	23	343	706	655	32	222	272	588	310
	1904	6	351	0	15	360	478	424	19	188	244	505	261
	1899	14	50	4	3	43	140	118	1	22	71	112	41
Paint and varnish.....	1900	17	272	6	120	146	768	1,150	196	79	1,213	1,962	740
	1904	13	199	4	52	143	498	591	44	59	565	1,023	458
	1899	12	144	7	44	93	396	382	39	40	470	694	224
Patent medicines and compounds and druggists' preparations.....	1900	49	519	38	201	280	447	1,151	189	93	750	2,123	1,367
	1904	35	395	26	161	208	442	1,369	152	73	529	1,770	1,241
	1899	27	.....	.....	58	191	.....	348	60	64	319	1,077	758
Pottery, terra-cotta, and fire-clay products.....	1900	19	1,429	7	103	1,310	3,654	2,340	114	538	382	1,470	1,088
	1904	21	1,406	14	80	1,312	2,790	1,518	92	456	347	1,247	900
	1899	10	899	11	47	841	1,576	699	45	233	199	724	525
Printing and publishing.....	1900	431	4,577	391	1,051	3,135	2,945	5,546	961	1,690	1,645	6,454	4,809
	1904	398	3,678	411	979	2,688	2,397	4,784	617	1,201	1,171	4,807	3,636
	1899	336	2,656	314	443	1,599	.....	3,444	390	813	819	3,279	2,460
Shipbuilding, including boat building.....	1900	10	179	12	10	157	524	271	7	97	155	271	116
	1904	0	131	9	7	115	108	73	7	71	48	151	103
	1899	10	124	6	104	206	60	60	4	48	21	97	76
Slaughtering and meat packing.....	1900	37	440	44	48	354	853	1,269	61	251	5,746	6,568	822
	1904	22	548	30	40	472	887	1,464	44	243	4,595	5,094	1,099
	1899	28	604	31	62	511	.....	1,327	52	214	4,445	5,177	732
Stoves and furnaces, including gas and oil stoves.....	1900	8	635	5	66	564	618	889	81	280	253	827	574
	1904	7	586	2	44	540	361	726	57	345	202	720	518
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tobacco manufactures.....	1900	226	4,877	226	678	3,973	2,713	11,019	911	1,432	3,425	18,598	10,173
	1904	238	4,509	243	207	3,969	2,691	22,691	371	1,226	5,914	14,913	8,999
	1899	239	5,368	258	574	4,536	1,836	4,591	592	1,233	5,736	16,455	10,719
Woolen, worsted, and felt goods, and wool hats.....	1900	14	858	8	32	818	2,506	1,646	56	241	858	1,278	420
	1904	21	900	20	47	917	2,016	1,936	69	261	775	1,273	493
	1899	36	656	18	20	618	1,232	1,589	20	145	406	747	341
All other industries.....	1900	418	6,917	377	1,018	5,522	24,575	18,774	1,172	2,637	14,127	22,549	8,422
	1904	319	7,241	310	763	6,168	13,210	16,131	791	2,565	12,314	20,160	7,855
	1899	320	.....	.....	500	5,298	.....	10,451	566	1,930	10,676	16,286	5,610

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

COVINGTON—All industries.....	1900	196	4,528	189	307	3,942	8,256	\$6,634	\$427	\$1,838	\$4,471	\$8,712	\$4,241
	1904	199	4,150	203	244	3,703	.....	6,725	256	1,453	2,610	6,100	3,400
	1899	204	.....	.....	199	3,212	.....	4,228	199	1,200	2,517	5,479	2,963
Bread and other bakery products.....	1900	18	52	21	3	28	10	34	1	18	76	130	54
	1904	14	45	18	.....	27	.....	74	.....	15	51	89	38
	1899	20	57	26	.....	31	.....	16	.....	12	45	86	41
Brick and tile.....	1900	5	68	6	4	58	460	165	3	33	10	75	65
	1904	3	60	4	3	53	.....	51	1	21	5	43	38
	1899	3	30	4	1	25	.....	21	1	7	3	20	17
Carriages and wagons and materials.....	1900	4	20	5	.....	21	5	45	.....	10	9	28	19
	1904	7	36	9	.....	27	.....	52	.....	12	15	39	24
	1899	4	28	6	.....	22	.....	23	.....	9	7	26	19
Clothing, men's, including shirts.....	1900	38	454	43	.....	411	50	66	.....	130	4	188	184
	1904	53	611	59	2	550	.....	53	2	136	2	204	202
	1899	82	600	88	.....	572	.....	32	.....	127	1	189	188

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 Not reported separately.

## MANUFACTURES—KENTUCKY.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).							
<b>COVINGTON—Continued.</b>													
Copper, tin, and sheet-iron products.....	1909	14	130	13	16	96	38	\$199	\$20	\$49	\$444	\$578	\$134
	1904	17	26	10	1	15		32	1	9	15	39	24
	<sup>2</sup> 1899												
Foundry and machine-shop products.....	1909	12	679	3	100	576	710	1,297	116	289	601	1,305	704
	1904	11	463	7	56	400		820	60	192	346	828	482
	1899	<sup>3</sup> 9	333	6	30	297		296	23	147	171	410	239
Liquors, malt.....	1909	3	173		25	143	1,275	884	46	60	147	681	534
	1904	3	90		10	80		1,043	14	59	82	398	316
	1899	3	102		18	84		765	29	52	66	397	331
Lumber and timber products.....	1909	10	177	11	24	142	601	327	17	83	172	312	140
	1904	7	186	5	10	171		230	9	80	192	349	157
	1899	6		4		141		159	4	44	136	209	73
Marble and stone work.....	1909		29	6	2	21	124	29	1	16	14	47	33
	1904	4	26	5		21		20		12	22	51	29
	<sup>2</sup> 1899												
Printing and publishing.....	1909	13	75	14	34	27	21	54	24	15	27	125	68
	1904	12	75	12	24	39		81	17	21	24	121	67
	1899	9	51	10	5	36		26	8	13	13	57	44
Tobacco manufactures.....	1909	30	408	29	68	311	387	589	69	115	740	1,223	483
	1904	31	345	34	26	285		352	28	93	201	819	528
	1899	19	229	18	46	165		217	42	51	175	607	432
All other industries.....	1909	44	2,257	33	121	2,103	4,575	2,945	130	1,011	2,227	4,020	1,793
	1904	47	2,137	40	112	2,035		3,917	124	803	1,565	3,120	1,555
	1899	49		95		1,839		2,673	92	738	1,900	3,478	1,578
<b>LOUISVILLE—All Industries.</b>													
	1909	903	32,397	669	4,705	27,023	49,926	\$78,437	\$5,533	\$12,460	\$54,128	\$101,284	\$47,156
	1904	842	28,817	706	3,126	24,985		79,999	3,367	10,812	45,682	83,204	37,522
	1899	860			2,491	23,062		44,016	2,595	8,436	34,876	66,110	31,234
Baking powders and yeast.....	1909	3	11	1	4	6	5	6	2	3	4	9	5
	1904	3	12	1		4		4		1	4	9	5
	1899	4	33	8	12	13		9	2	3	13	24	11
Boots and shoes, including cut stock and findings.	1909	7	269	8	15	246	169	234	18	91	269	439	170
	1904	3	228	3	22	203		208	18	65	193	318	125
	1899	<sup>1</sup> 6	222	11	30	181		96	14	46	138	231	93
Bread and other bakery products.....	1909	133	920	135	106	679	484	1,807	89	332	1,302	2,246	944
	1904	129	683	132	38	518		782	34	248	990	1,514	524
	1899	130	641	135	69	437		684	36	151	611	1,164	353
Brick and tile.....	1909	5	221	3	13	205	650	474	16	80	50	104	144
	1904	10	403	3	24	376		702	22	143	83	322	239
	1899	9	316	7	11	298		256	10	93	63	256	193
Canning and preserving.....	1909	7	449	1	142	306	325	1,033	156	107	846	1,465	619
	1904	7	269	9	56	204		535	57	60	521	807	286
	1899	3	112	5	19	88		90	17	14	146	219	73
Carriages and wagons and materials.....	1909	38	1,075	36	90	940	2,341	3,276	108	418	800	1,574	774
	1904	31	1,126	27	95	1,004		2,799	107	465	1,160	2,244	1,084
	1899	30		68	68	955		2,187	91	367	980	1,754	774
Cars and general shop construction and repairs by steam-railroad companies.	1909	4	2,811		106	2,705	2,570	3,019	112	1,482	1,503	3,098	1,595
	1904	4	1,751		69	1,682		670	64	968	1,816	2,882	1,066
	1899	5	1,583		20	1,563		655	16	817	1,389	2,252	863
Clothing, men's, including shirts.....	1909	20	2,518	9	346	2,163	472	2,604	421	689	2,533	4,354	1,321
	1904	23	2,054	19	256	1,779		3,143	241	579	2,529	4,639	2,110
	1899	15		138	1,245			1,168	127	382	1,558	2,617	1,059
Confectionery.....	1909	16	747	17	96	634	286	725	96	202	1,205	2,105	900
	1904	10	654	8	67	579		429	63	141	696	1,309	613
	1899	9			59	455		337	58	87	456	944	488
Cooperage and wooden goods, not elsewhere specified.	1909	13	690	8	37	645	1,966	2,142	56	298	1,287	2,028	741
	1904	<sup>1</sup> 14	617	12	35	570		824	41	179	1,457	1,963	606
	1899	<sup>1</sup> 14		38	1,103			838	62	253	539	1,009	470
Copper, tin, and sheet-iron products.....	1909	17	251	17	30	204	112	275	27	99	409	625	216
	1904	13	234	7	37	190		197	27	90	168	386	218
	1899	<sup>1</sup> 11		24	171			137	18	67	157	338	181
Flour-mill and gristmill products.....	1909	5	419		156	263	2,410	2,145	184	147	5,734	6,580	846
	1904	5	282	1	74	207		1,220	92	98	3,800	4,374	514
	1899	6	149	4	27	118		507	32	58	1,825	1,825	238
Foundry and machine-shop products.....	1909	43	3,575	25	380	3,164	5,724	7,096	431	1,700	3,499	6,888	3,389
	1904	<sup>3</sup> 31	1,530	17	170	1,049		3,142	207	735	1,794	3,674	1,880
	1899	47		223	2,749			3,542	251	1,120	2,066	4,467	2,391

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

MANUFACTURES—KENTUCKY.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaries employed.	Wage earners (average number).							
Expressed in thousands.													
<b>LOUISVILLE—Continued.</b>													
Furniture and refrigerators.....	1909	17	497	17	55	425	900	\$487	\$57	\$178	\$350	\$755	\$409
	1904	17	668	16	39	613	.....	473	39	240	305	704	459
	1899	16	.....	.....	30	603	.....	481	20	217	297	706	409
Ice, manufactured.....	1909	12	146	.....	24	122	1,172	1,741	36	67	78	338	260
	1904	6	75	.....	3	15	.....	404	17	34	41	200	159
	1899	7	66	.....	4	12	.....	372	10	27	35	132	97
Leather goods.....	1909	20	721	23	171	627	315	975	153	270	1,001	1,670	660
	1904	15	537	16	76	445	.....	767	65	208	626	1,200	574
	1899	18	.....	.....	73	624	.....	758	60	207	787	1,310	523
Leather, tanned, curried, and finished.....	1909	12	492	1	54	437	1,784	3,426	76	226	2,455	3,169	714
	1904	12	562	4	51	527	.....	2,750	67	240	2,231	3,075	844
	1899	15	623	8	40	575	.....	3,698	49	260	2,373	3,115	742
Liquors, distilled.....	1909	13	579	1	110	468	2,173	3,152	125	141	2,000	9,684	7,684
	1904	19	436	10	110	316	.....	4,370	119	131	1,478	3,878	2,400
	1899	9	254	8	60	186	.....	3,433	76	68	802	2,909	2,107
Liquors, malt.....	1909	11	578	10	109	459	2,902	5,347	187	214	503	2,133	1,540
	1904	12	453	12	103	338	.....	4,354	130	217	411	1,931	1,520
	1899	10	393	14	62	317	.....	2,735	98	180	381	1,782	1,401
Lumber and timber products.....	1909	34	1,013	15	212	1,684	4,415	4,377	259	733	2,509	4,227	1,718
	1904	28	1,761	21	141	1,599	.....	3,185	163	645	2,086	3,584	1,498
	1899	27	1,845	31	88	1,726	.....	1,502	87	567	1,179	2,214	1,035
Marble and stone work.....	1909	10	161	4	28	129	668	274	39	77	131	384	253
	1904	15	201	5	15	181	.....	308	19	101	87	321	234
	1899	25	.....	.....	5	136	.....	120	5	49	54	140	80
Mirrors.....	1909	4	143	4	9	130	225	241	11	77	324	482	158
	1904	4	149	3	7	139	.....	183	11	84	337	483	140
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Patent medicines and compounds and druggists' preparations.....	1909	26	188	27	66	95	239	510	92	36	524	1,419	895
	1904	20	190	15	89	89	.....	869	92	38	387	1,301	914
	1899	20	.....	.....	50	107	.....	240	57	43	259	915	656
Printing and publishing.....	1909	124	2,716	80	725	1,011	1,815	3,396	715	1,080	1,111	4,162	3,631
	1904	110	2,186	87	484	1,615	.....	2,371	480	610	859	3,332	2,473
	1899	100	1,491	84	318	1,089	.....	2,650	312	632	697	2,232	1,625
Slaughtering and meat packing.....	1909	22	353	24	36	293	670	1,101	55	219	4,715	5,372	657
	1904	13	495	17	45	433	.....	1,392	44	220	4,264	5,285	1,022
	1899	12	515	14	52	449	.....	1,218	46	189	3,323	4,445	617
Tobacco manufactures.....	1909	76	3,637	68	540	3,020	1,907	0,653	704	1,121	7,213	10,209	9,050
	1904	104	3,298	100	195	2,963	.....	21,235	275	920	5,203	12,861	7,658
	1899	116	4,321	123	443	3,755	.....	3,707	498	1,038	5,235	14,790	9,565
All other industries.....	1909	211	6,317	135	1,039	5,143	13,018	10,421	1,248	2,373	11,677	19,575	7,898
	1904	194	7,072	151	813	6,798	.....	20,933	900	3,028	12,096	20,547	8,451
	1899	207	.....	.....	514	4,169	.....	12,597	543	1,581	6,336	14,330	4,994

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

Frankfort.....	1909	31	727	26	104	537	1,331	\$2,403	\$224	\$232	\$1,968	\$3,083	\$1,115
	1904	30	605	28	62	525	.....	1,387	69	152	1,133	1,747	614
	1899	34	.....	.....	63	281	.....	1,035	55	124	829	1,327	498
Henderson.....	1909	43	1,210	40	82	1,088	3,270	2,267	87	413	1,722	2,932	1,210
	1904	34	558	31	68	459	.....	1,453	51	186	762	1,365	603
	1899	20	.....	.....	34	352	.....	653	28	127	581	1,032	451
Lexington.....	1909	85	1,307	70	205	1,032	2,579	1,896	194	511	1,249	2,851	1,602
	1904	84	1,389	79	198	1,114	.....	2,064	148	455	1,386	2,775	1,389
	1899	88	.....	.....	120	797	.....	1,366	88	316	983	1,889	903
Newport.....	1909	144	2,995	146	217	2,632	3,750	4,568	277	1,341	3,366	6,491	3,125
	1904	105	2,220	102	160	1,958	.....	2,816	191	1,052	2,972	5,231	2,250
	1899	134	.....	.....	199	1,055	.....	2,389	117	873	1,473	3,548	2,075
Owensboro.....	1909	69	1,340	48	228	1,064	4,059	4,294	214	408	2,252	3,505	1,253
	1904	60	1,627	52	183	1,302	.....	2,845	160	500	1,815	3,319	1,504
	1899	51	.....	.....	116	890	.....	1,069	78	276	915	1,740	825
Paducah.....	1909	91	8,066	64	380	2,613	5,247	4,703	392	1,245	2,348	4,907	2,619
	1904	84	3,204	72	291	2,341	.....	4,393	272	1,185	1,845	4,443	2,598
	1899	70	.....	.....	124	2,061	.....	2,559	99	795	1,335	2,977	1,642

<sup>1</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

<sup>2</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

<sup>3</sup> Figures can not be shown without disclosing individual operations.

<sup>4</sup> 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.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Average number.	Wage earners.		Total.	16 and over.		Under 16.				
					Male.	Female.		Maximum month.	Minimum month.		Male.	Female.	Male.	Female.			
1 All industries.....	4,778	79,060	5,050	2,929	4,443	1,238	65,400	69,476	61,119	(1)	(1)	(1)	(1)	(1)	230,224		
2 Artificial stone.....	31	119	39	7	1	72	Jy 114	Fe 19	127	127					70		
3 Baking powders and yeast.....	3	11	1	1	2	1	6	De <sup>2</sup> 7	Ja <sup>2</sup> 4	7	5	2			5		
4 Baskets, and rattan and willow ware.....	9	18	9			9	De <sup>2</sup> 10	My <sup>2</sup> 6	10	10							
5 Boots and shoes, including cut stock and findings.....	13	570	11	41	81	11	426	Oc 466	Au 412	472	263	189	9	11	232		
6 Boxes, cigar.....	3	28	4	2		22	Au <sup>2</sup> 23	De <sup>2</sup> 21	21	8	13				17		
7 Brass and bronze products.....	7	42	8	5	3	1	25	Ap 28	Ja 21	31	30	1			99		
8 Bread and other bakery products.....	286	1,433	303	20	62	58	935	No 1,037	Ja 941	1,023	871	137	14	1	745		
9 Brick and tile.....	82	1,267	61	65	13	3	1,125	Au 1,031	Ja 356	1,538	1,617		21		4,463		
10 Brooms.....	32	140	36	12	5	1	80	Oc 110	Ja 69	91	82	1	2		96		
11 Butter, cheese, and condensed milk.....	13	78	5	7	4	6	50	Je <sup>2</sup> 59	Ja <sup>2</sup> 54	57	50	1			164		
12 Canning and preserving.....	36	870	38	55	105	25	653	Se 1,778	Ja 262	1,711	654	936	19	52	907		
13 Carpets, rag.....	5	60	4	5		5	46	My 73	Ja 29	39	34	5			100		
14 Carriages and wagons and materials.....	161	3,263	171	128	142	45	2,777	Ap 2,913	No 2,842	2,868	2,747	109	11	1	6,617		
15 Cars and general shop construction and repairs by steam-railroad companies.....	24	5,887		107	157	18	5,605	De 6,205	My 5,150	6,207	6,205	2			4,994		
16 Cars and general shop construction and repairs by street-railroad companies.....	7	229		8	4		217	No 224	Mh 209	222	221	1			295		
17 Chemicals.....	5	49	2	7	1		39	Au 44	De <sup>2</sup> 36	37	37				102		
18 Clothing, men's, including shirts.....	123	4,399	121	75	312	42	3,849	Ja 3,947	My 3,758	3,889	762	3,006	19	102	897		
19 Clothing, women's.....	15	475	18	22	21	22	392	Oc 432	Je 355	403	106	294			65		
20 Confectionery.....	24	827	25	18	61	38	685	Oc 832	Jy 509	754	303	444			339		
21 Cooperage and wooden goods, not elsewhere specified.....	49	972	49	25	15	5	878	Fe 1,127	Jy 604	1,126	1,119		7		2,726		
22 Copper, tin, and sheet-iron products.....	50	595	55	34	22	20	464	Se 516	Mh 403	483	462	9	12		323		
23 Cordage and twine and jute and linen goods.....	6	778	1	13	9	4	751	Oc 821	Au 621	815	393	399	21	2	1,801		
24 Cotton goods, including cotton small wares.....	4	1,066	1	13	5	3	1,044	Je 1,069	Au 976	1,058	419	557	39	43	3,159		
25 Electrical machinery, apparatus, and supplies.....	4	146	1	11	13	4	117	Se 132	My <sup>2</sup> 96	131	100	31			161		
26 Flour-mill and gristmill products.....	440	2,426	647	122	214	42	1,401	Au 1,489	Je 1,281	1,455	1,431	24			24,773		
27 Foundry and machine-shop products.....	129	5,174	97	209	298	91	4,479	De 5,041	Ja 3,875	5,078	4,974	59	45		8,089		
28 Furnishing goods, men's.....	8	85	10	3	3	2	67	Se 84	Ja <sup>2</sup> 47	90	14	76			20		
29 Furniture and refrigerators.....	32	1,233	19	61	42	16	1,095	Mh 1,167	Ap 1,031	1,205	1,175	26	4		2,936		
30 Gas, illuminating and heating.....	15	500		49	37	28	386	Je 407	Se 370	392	390	2			991		
31 Hand stamps and stencils and brands.....	7	35	9	2	5	2	17	De 18	Fe <sup>2</sup> 16	18	16		2		25		
32 Ice, manufactured.....	78	645	45	86	34	8	472	Jy 708	Ja 257	463	460	1	2		9,040		
33 Iron and steel, blast furnaces.....	4	359	4	12	10	2	331	Je 481	Au 205	325	325				7,895		
34 Iron and steel, steel works and rolling mills.....	7	2,437		20	31	8	2,372	No 2,594	Mh 2,048	2,486	2,486				29,940		
35 Jewelry.....	3	25	4	3		15	My <sup>2</sup> 16	Ja <sup>2</sup> 13	14	13	1				6		
36 Leather goods.....	33	1,068	34	42	153	25	814	Mh 847	Ja 781	812	736	50	22	4	499		
37 Leather, tanned, curried, and finished.....	18	724	1	46	41	6	630	Ja 676	Ap 598	669	668		1		2,669		
38 Liquors, distilled.....	206	3,158	143	199	225	52	2,539	Fe 3,269	Au 1,723	3,327	2,567	756	3	1	16,031		
39 Liquors, malt.....	19	1,282	10	60	136	14	1,012	Jy 1,143	Ja 904	991	962	4	25		6,057		
40 Lumber and timber products.....	1,592	15,800	1,968	376	330	84	13,042	Oc 15,297	Ja 10,839	17,493	17,335	53	104	1	59,653		
41 Marble and stone work.....	75	676	1,060	37	19	10	510	Se 557	Ja 422	546	546				1,685		
42 Mattresses and spring beds.....	8	77	10	6	3	2	56	No 68	Ja 43	67	47	6	13	1	92		
43 Mirrors.....	4	143	4	5	2	2	130	De <sup>2</sup> 140	Fe 117	140	140				225		
44 Musical instruments, pianos and organs and materials.....	6	370	4	10	9	4	343	De 395	Au 313	394	382	8	3	1	796		
45 Oil, cottonseed, and cake.....	5	240		15	32	6	187	No 269	Jy 95	248	248				1,225		
46 Paint and varnish.....	17	272	6	36	74	16	146	De 178	Ja 128	178	144	32		2	768		
47 Patent medicines and compounds and druggists' preparations.....	49	510	38	46	107	48	280	Oc 301	My 263	280	163	109	3	5	447		
48 Pottery, terra-cotta, and fire-clay products.....	19	1,429	7	44	40	10	1,319	De 1,411	Fe 1,221	1,413	1,334	70	9		3,554		
49 Printing and publishing.....	431	4,577	391	302	529	220	3,135	De 3,202	Au 3,069	3,203	2,568	551	76	8	2,945		
50 Pumps, not including steam pumps.....	3	5	4				1	De <sup>3</sup> 1	Jy <sup>3</sup> 1	1	1				3		
51 Shipbuilding, including boat building.....	10	179	12	6	4		157	Au 278	Ja 13	168	168				524		
52 Slaughtering and meat packing.....	37	446	44	14	34		354	Ja 377	Ap 323	366	365	1			853		
53 Stoves and furnaces, including gas and oil stoves.....	8	635	5	24	39	3	564	Oc 653	My 416	586	584		2		613		
54 Tobacco manufactures.....	226	4,877	226	133	452	93	3,973	Mh 4,143	Au 3,779	4,178	2,454	1,641	58	25	2,713		
55 Wall plaster.....	3	33		8	5		20	Au <sup>2</sup> 23	Ja 16	17	17				130		
56 Woolen, worsted, and felt goods, and wool hats.....	14	858	8	23	5	4	818	No 873	Ja 680	873	308	501	46	18	2,506		
57 All other industries.....	278	5,445	232	249	434	124	4,406								14,529		

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

Agricultural implements.....	6	Cement.....	2	Food preparations.....	9
Automobiles, including bodies and parts.....	2	Clocks and watches including cases and materials.....	3	Foundry supplies.....	1
Avnings, tents, and sails.....	5	Cloth, sponging and refinishing.....	2	Fur goods.....	1
Axle grease.....	1	Coffee and spice, roasting and grinding.....	13	Gas and electric fixtures and lamps and reflectors.....	2
Bags, other than paper.....	1	Coffins, burial cases, and undertakers' goods.....	1	Glass.....	1
Belting and hose, leather.....	1	Coke.....	4	Glass, cutting, staining, and ornamenting.....	2
Blackening and cleansing and polishing preparations.....	2	Cutlery and tools, not elsewhere specified.....	4	Gloves and mittens, leather.....	1
Bluing.....	2	Dentists' materials.....	4	Glue.....	1
Boxes, fancy and paper.....	2	Dyeing and finishing textiles.....	2	Gold and silver, leaf and foil.....	1
Brushes.....	2	Electroplating.....	2	Grease and tallow.....	2
Buttons.....	3	Fertilizers.....	4	Hair work.....	1
Cars, steam-railroad, not including operations of railroad companies.....	1	Firearms and ammunition.....	1	Hats and caps, other than felt, straw, and wool.....	2
		Flavoring extracts.....	2	Hats, fur-felt.....	2
		Flax and hemp, dressed.....	7		

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 \$172,778,806	\$201,162,611	\$4,731,350	\$4,872,023	\$27,887,672	\$3,589,757	\$108,189,560	\$582,735	\$35,661,033	\$1,052,093	\$14,596,388	\$223,754,497	\$111,975,180
2 92,249	92,249	3,738	180	30,215	263	51,904	1,173	488	.....	4,907	116,875	64,708
3 5,704	0,122	1,200	794	2,590	142	3,370	507	15	.....	498	8,906	5,394
4 5,675	7,473	.....	.....	2,948	80	4,165	30	11	.....	239	10,800	6,561
5 1,700,306	3,226,157	69,549	141,022	170,740	4,230	2,440,107	2,940	4,091	253,403	139,404	3,247,825	803,488
6 13,759	29,602	1,144	.....	9,568	332	10,800	240	98	.....	1,420	36,250	10,118
7 43,171	54,882	1,065	12,379	2,159	20,850	2,736	330	.....	.....	2,471	61,422	29,413
8 2,198,451	2,805,280	39,954	63,773	485,447	99,010	1,877,354	59,950	14,407	940	194,433	3,337,848	1,391,478
9 2,100,341	812,951	67,690	9,994	399,737	178,077	55,903	3,500	0,342	645	88,057	1,015,447	781,467
10 209,057	424,082	18,090	4,572	31,440	1,031	310,432	1,036	1,051	20,927	22,297	528,818	210,755
11 81,363	247,009	3,794	6,180	30,428	2,296	103,103	480	682	.....	10,146	275,389	79,990
12 1,561,612	1,701,913	59,289	108,813	177,326	11,170	1,082,171	10,920	0,890	.....	245,334	1,856,895	763,554
13 33,940	40,741	6,408	1,895	20,043	1,069	6,824	2,730	1,05	.....	6,497	51,625	43,032
14 7,759,088	4,627,490	189,725	132,592	1,103,085	55,815	2,663,091	10,238	42,008	4,474	366,282	5,141,107	2,428,601
15 5,600,167	6,534,930	145,261	129,827	3,240,035	69,900	2,799,878	.....	10,336	.....	109,033	6,534,930	3,635,092
16 232,079	270,040	9,464	2,240	115,880	2,385	130,079	.....	2,020	.....	4,069	270,040	133,682
17 154,105	72,023	9,007	706	10,088	4,023	35,582	100	540	.....	4,477	94,710	54,205
18 3,746,268	5,470,325	147,826	395,401	1,184,283	34,205	3,241,592	33,800	20,375	36,707	386,106	6,052,081	2,776,314
19 272,022	697,043	30,034	13,018	161,101	4,096	428,201	10,235	1,233	.....	58,625	772,082	339,185
20 811,375	1,952,937	32,394	79,056	218,000	13,258	1,267,834	21,310	5,465	.....	314,720	2,265,990	975,898
21 2,728,524	2,218,196	43,893	20,751	304,287	7,183	1,695,785	2,093	11,864	0,434	36,000	2,647,519	944,551
22 784,380	2,075,724	48,265	29,900	228,647	11,800	1,073,187	10,720	4,209	6,040	62,860	2,243,339	558,250
23 1,505,196	1,088,143	26,160	7,789	224,046	16,611	692,486	2,332	5,580	.....	83,282	1,070,570	370,473
24 1,916,512	1,657,054	28,018	7,657	307,479	29,311	1,158,024	1,000	10,985	.....	104,980	1,902,407	714,532
25 220,720	204,240	15,136	7,898	53,921	2,407	98,624	1,080	1,301	.....	23,912	228,927	127,836
26 9,009,997	20,438,837	140,394	231,088	591,415	184,030	18,480,218	8,755	63,647	10,150	723,145	22,364,950	3,700,707
27 9,005,550	8,017,482	348,010	303,477	2,401,764	254,250	4,480,502	20,102	47,125	42,289	710,894	9,020,686	4,891,874
28 41,326	97,148	1,400	3,360	12,953	551	75,453	692	320	150	2,209	105,582	29,578
29 1,349,795	1,478,000	79,934	41,179	444,340	16,175	763,912	5,585	7,430	12,407	112,545	1,671,234	901,147
30 5,788,607	777,987	02,205	31,080	205,730	201,298	53,247	25,000	47,090	175	92,102	1,003,682	680,037
31 21,556	32,970	2,640	2,810	9,072	927	11,033	3,140	135	308	2,251	40,496	27,936
32 4,108,436	840,477	94,241	21,702	243,338	193,775	113,080	6,700	21,775	410	145,447	1,134,590	827,735
33 2,583,590	1,395,399	24,018	14,091	105,229	379,347	736,483	3,000	24,002	.....	48,302	1,478,595	862,705
34 4,177,795	7,230,710	70,700	28,218	1,273,307	370,770	5,189,795	15,000	14,129	.....	274,740	7,779,320	2,218,755
35 9,706	34,842	3,900	1,758	9,000	195	15,600	781	52	.....	3,496	50,520	34,065
36 1,356,880	2,164,604	68,222	123,138	388,958	10,709	1,416,480	23,399	7,858	338	125,602	2,373,299	946,110
37 5,969,593	3,044,125	74,034	43,183	307,593	40,784	3,183,302	810	23,204	.....	270,225	4,240,795	1,016,709
38 22,452,042	41,014,182	372,770	236,092	727,811	365,784	8,235,634	19,508	31,228,276	13,882	714,425	44,800,104	35,758,089
39 8,892,528	3,907,347	178,086	242,655	532,300	134,173	1,137,324	1,200	774,472	.....	906,478	4,949,047	3,677,550
40 20,833,500	17,425,804	638,424	308,236	4,382,405	120,674	10,335,614	24,131	120,652	444,469	1,151,269	21,380,564	10,924,270
41 875,325	805,810	62,040	18,213	261,296	16,021	393,532	6,620	6,042	.....	7,296	1,059,798	710,245
42 71,268	115,274	5,070	3,183	23,171	1,355	64,533	2,230	1,064	.....	14,059	129,060	63,172
43 240,841	420,240	5,771	5,228	76,776	3,039	321,378	800	1,266	.....	5,982	482,294	157,877
44 654,553	550,968	21,224	10,830	221,993	5,543	206,192	240	3,385	.....	21,552	588,352	316,017
45 2,392,683	3,893,107	43,095	34,707	99,409	22,050	3,540,124	.....	11,259	.....	141,923	4,141,175	570,001
46 1,149,800	1,606,523	74,577	121,189	78,541	12,045	1,200,498	5,061	8,498	75	166,039	1,992,081	749,538
47 1,150,703	1,817,123	74,362	115,123	93,082	8,942	747,335	8,914	6,590	.....	762,805	2,123,072	1,366,795
48 2,399,729	1,262,507	64,646	49,840	538,161	152,811	229,547	433	10,036	.....	207,123	1,409,767	1,087,399
49 5,545,596	5,184,657	474,511	486,027	1,090,244	94,440	1,550,744	100,750	41,382	138,578	607,081	6,453,842	4,808,058
50 4,290	2,633	.....	.....	480	34	1,816	125	30	.....	143	4,875	3,025
51 271,390	267,004	5,590	1,300	97,483	393	154,771	901	719	.....	5,847	271,007	115,903
52 1,268,876	6,179,132	35,300	25,805	251,325	30,478	5,709,380	1,844	12,093	.....	106,847	6,568,077	822,219
53 889,223	689,974	41,744	39,488	280,050	13,215	239,814	2,040	6,166	.....	10,336	528,751	573,722
54 11,019,145	17,157,060	301,578	609,421	1,431,509	64,063	8,361,354	32,247	2,034,661	1,510	3,420,790	18,597,786	10,172,424
55 78,690	85,381	14,170	4,004	11,730	2,293	42,946	180	634	.....	9,445	93,900	48,391
56 1,646,642	1,241,089	49,165	6,816	241,467	24,433	833,815	2,250	6,028	.....	77,115	1,277,917	419,699
57 12,759,680	13,226,466	391,165	542,933	2,131,373	245,410	8,398,033	65,281	67,952	28,990	1,356,389	15,367,855	6,724,412

4 All other industries embrace—Continued.  
 Hosiery and knit goods. 2  
 House-furnishing goods, not elsewhere specified. 2  
 Ink, writing. 2  
 Instruments, professional and scientific. 4  
 Iron and steel, bolts, nuts, washers, and rivets, not made in steel works or rolling mills. 1  
 Kaolin and ground earths. 2  
 Labels and tags. 2  
 Lard, refined, not made in slaughtering and meat-packing establishments. 1  
 Lime. 5  
 Malt. 1  
 Mineral and soda waters. 70  
 Models and patterns, not including paper patterns. 1

Manila and paste. 1  
 Musical instruments and materials, not specified. 2  
 Oil, not elsewhere specified. 2  
 Optical goods. 2  
 Peanuts, grading, roasting, cleaning, and shelling. 1  
 Petroleum, refining. 1  
 Photo-engraving. 3  
 Safes and vaults. 1  
 Signs and advertising novelties. 1  
 Soap. 5  
 Sporting and athletic goods. 4  
 Statuary and art goods. 1  
 Steam packing. 1

Stereotyping and electrotyping. 1  
 Surgical appliances and artificial limbs. 2  
 Type founding and printing materials. 2  
 Umbrellas and canes. 1  
 Upholstering materials. 3  
 Vault lights and ventilators. 1  
 Vinegar and cider. 8  
 Washing machines and clothes wringers. 1  
 Wheels. 1  
 Window shades and fixtures. 2  
 Wire. 1  
 Wirework, including wire rope and cable. 5  
 Wood, turned and carved. 19  
 Wool pulling. 1



MANUFACTURES—KENTUCKY.

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

INDUSTRY AND CITY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Pri- mary horse- power.
		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 .....	196	4,528	189	145	192	60	3,942	3,098	797	47	4,130	3,264	819	30	17	8,286	
2 Bread and other bakery products.....	18	52	21	.....	2	1	28	25	2	1	28	25	2	1	.....	10	
3 Brick and tile .....	5	68	6	3	1	.....	58	57	.....	1	104	103	.....	1	.....	460	
4 Carriages and wagons and materials.....	4	26	5	.....	.....	.....	21	21	.....	.....	20	20	.....	.....	.....	5	
5 Clothing, men's, including shirts.....	38	454	43	.....	.....	.....	411	60	335	16	422	62	344	.....	16	50	
6 Copper, tin, and sheet-iron products.....	14	130	18	5	5	6	90	95	.....	1	108	107	.....	1	.....	38	
7 Foundry and machine-shop products.....	12	679	3	87	45	18	576	568	.....	8	586	578	.....	8	.....	710	
8 Liquors, malt.....	3	173	.....	12	13	.....	148	148	.....	.....	146	146	.....	.....	.....	1,275	
9 Lumber and timber products.....	10	177	11	11	10	3	142	142	.....	.....	182	182	.....	.....	.....	601	
10 Marble and stone work.....	5	29	6	2	.....	.....	21	21	.....	.....	24	24	.....	.....	.....	124	
11 Printing and publishing.....	13	75	14	9	20	5	27	26	1	.....	28	27	1	.....	.....	21	
12 Tobacco manufactures.....	30	408	29	12	50	6	311	193	115	3	318	197	118	3	.....	387	
13 All other industries <sup>1</sup> .....	44	2,257	33	54	46	21	2,103	1,742	344	17	2,164	1,793	354	16	1	4,675	

<sup>1</sup> All other industries embrace: Artificial stone, 1; awnings, tents, and sails, 1; carpets, rag, 2; cars and general shop construction and repairs by steam-railroad companies, 2; cordage and twine and jute and linen goods, 2; dyeing and finishing textiles, 1; electrical machinery, apparatus, and supplies, 1; flour-mill and gristmill products, 1; foundry supplies, 1; furniture and refrigerators, 2; ice, manufactured, 3; ink, writing, 1; iron and steel, steel works and rolling mills, 1; jewelry, 1; labels and tags, 1; lard, refined, not made in slaughtering and meat-packing establishments, 1; leather goods, 1; liquors, distilled, 1; mineral and soda waters, 1; paint and varnish, 2; patent

LOUISVILLE.

1 All industries .....	903	32,397	669	1,288	2,671	746	27,023	21,244	5,417	362	28,716	22,718	5,621	255	122	49,926
2 Baking powders and yeast.....	3	11	1	1	2	1	6	4	2	.....	7	5	2	.....	.....	5
3 Boots and shoes, including cut stock and findings.....	7	269	8	7	4	4	246	135	103	8	251	138	105	5	3	169
4 Bread and other bakery products.....	133	920	135	16	44	46	679	561	113	5	705	583	117	4	1	484
5 Brick and tile .....	5	221	3	7	5	1	205	205	.....	.....	142	142	.....	.....	.....	650
6 Canning and preserving .....	7	449	1	24	95	23	306	181	125	.....	303	179	124	.....	.....	325
7 Carriages and wagons and materials.....	38	1,075	36	45	35	10	949	944	4	1	978	973	4	1	.....	2,341
8 Cars and general shop construction and repairs by steam-railroad companies.....	4	2,811	.....	58	45	3	2,705	2,703	2	.....	2,965	2,963	2	.....	.....	2,570
9 Clothing, men's, including shirts.....	20	2,518	9	61	245	40	2,193	487	1,637	89	2,139	482	1,619	4	84	472
10 Confectionery.....	16	747	17	14	49	83	634	249	378	7	692	272	413	.....	7	288
11 Cooperage and wooden goods, not elsewhere specified.....	13	690	8	19	13	5	645	641	.....	4	789	784	.....	.....	.....	1,966
12 Copper, tin, and sheet-iron products.....	17	251	17	14	8	8	204	195	9	.....	210	201	9	.....	.....	112
13 Flour-mill and gristmill products.....	6	419	.....	29	107	20	263	241	22	.....	270	247	23	.....	.....	2,410
14 Foundry and machine-shop products.....	43	3,575	25	120	214	52	3,164	3,110	51	3	3,624	3,562	69	3	.....	5,724
15 Furniture and refrigerators.....	17	497	17	28	19	8	425	423	.....	2	440	438	.....	.....	.....	930
16 Ice, manufactured.....	12	146	.....	15	8	1	122	120	2	.....	101	100	1	.....	.....	1,172
17 Leather goods.....	20	721	23	30	124	17	527	477	38	12	535	484	39	8	4	315
18 Leather, tanned, curried, and finished.....	12	492	1	84	16	2	437	437	.....	.....	459	459	.....	.....	.....	1,784
19 Liquors, distilled.....	13	579	1	25	72	13	468	430	137	1	625	441	183	1	.....	2,173
20 Liquors, malt.....	11	578	10	24	84	1	459	353	.....	6	446	440	.....	.....	.....	2,982
21 Lumber and timber products.....	34	1,913	15	61	105	26	1,686	1,622	10	54	1,755	1,688	11	56	.....	4,415
22 Marble and stone work.....	10	161	4	16	9	3	129	129	.....	.....	124	124	.....	.....	.....	658
23 Mirrors.....	4	143	4	5	2	2	130	130	.....	.....	140	140	.....	.....	.....	225
24 Patent medicines and compounds and druggists' preparations.....	26	188	27	23	28	15	95	68	24	3	97	69	25	3	.....	239
25 Printing and publishing.....	124	2,716	80	183	389	153	1,911	1,502	379	80	1,948	1,531	388	25	6	1,815
26 Slaughtering and meat packing.....	22	353	24	10	26	.....	293	292	1	.....	300	299	1	.....	.....	679
27 Tobacco manufactures.....	76	3,637	68	96	360	84	3,029	1,710	1,253	66	3,074	1,735	1,272	44	23	1,987
28 All other industries <sup>1</sup> .....	211	6,317	135	303	561	175	5,143	3,895	1,127	121	5,597	4,239	1,226	88	44	13,018

<sup>1</sup> All other industries embrace: Agricultural implements, 2; artificial stone, 3; automobiles, including bodies and parts, 1; awnings, tents, and sails, 2; axle grease, 1; bags, other than paper, 1; belting and hose, leather, 1; blacking and cleansing and polishing preparations, 1; bluing, 1; boxes, cigar, 2; boxes, fancy and paper, 1; brass and bronze products, 5; brooms, 6; brushes, 2; butter, cheese, and condensed milk, 1; buttons, 2; carpets, rag, 3; cars and general shop construction and repairs by street-railroad companies, 1; cement, 1; chemicals, 2; clocks and watches, including cases and materials, 1; cloth, sponging and refinishing, 1; clothing, women's, 14; coffee and spice, roasting and grinding, 12; coffins, burial cases, and undertakers' goods, 1; cordage and twine and jute and linen goods, 2; cotton goods, including cotton small wares, 1; cutlery and tools, not elsewhere specified, 1; dentists' materials, 3; dyeing and finishing textiles, 1; electrical machinery, apparatus, and supplies, 1; electroplating, 2; fertilizers, 2; flavoring extracts, 2; food preparations, 6; furnishing goods, men's, 1; gas and electric fixtures and lamps and reflectors, 1; gas, illuminating and heating, 3; glass, cutting, staining, and ornamenting, 2; gloves and mittens, leather, 1; glue, 1; hair work, 1; hand stamps and stencils and brands, 6; hats and caps,

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

1 FRANKFORT.....	31	727	26	65	85	14	537	509	22	6	525	498	21	2	4	1,331
2 HENDERSON.....	43	1,210	40	32	40	10	1,088	702	368	18	1,114	719	377	3	15	3,270
3 LEXINGTON.....	85	1,307	70	67	97	41	1,032	971	66	5	1,126	1,060	61	5	.....	2,579
4 NEWPORT.....	144	2,995	140	61	115	41	2,632	1,997	583	62	2,737	2,077	606	43	11	3,760
5 OWENSBORO.....	69	1,340	45	91	92	45	1,064	969	80	15	1,193	1,086	90	17	.....	4,059
6 PADUCAH.....	91	3,066	64	127	209	53	2,613	2,331	234	48	3,064	2,733	274	46	11	6,247

MANUFACTURES—KENTUCKY.

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.  
COVINGTON.

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.		
\$6,633,612	\$8,011,697	\$224,711	\$202,465	\$1,838,215	\$158,689	\$4,312,250	\$34,194	\$449,397	\$49,600	\$742,376	\$8,711,929	\$4,240,890
34,322	104,041	.....	1,248	18,258	2,332	73,707	3,672	323	.....	4,451	130,261	54,172
164,704	54,270	2,400	540	32,684	8,155	1,460	150	654	.....	8,233	74,842	65,227
46,294	22,724	.....	.....	10,434	340	8,595	90	430	40	2,795	28,440	19,505
65,560	145,122	.....	.....	129,500	3,821	25	1,476	818	4,208	5,124	188,101	184,345
108,752	530,340	11,540	8,870	48,862	2,587	440,958	1,980	1,092	720	13,737	578,150	134,005
1,296,840	1,217,410	61,201	55,224	288,730	13,693	587,950	9,116	5,826	21,170	174,672	1,304,619	703,166
839,927	517,410	28,843	16,705	99,470	17,871	129,227	.....	104,722	.....	150,563	681,295	534,197
327,398	292,840	11,178	6,077	83,230	4,408	167,210	2,480	1,310	475	16,403	312,429	140,742
29,425	39,536	720	.....	16,453	455	13,680	814	105	.....	7,240	47,300	33,165
54,180	105,450	11,200	12,795	15,180	1,606	25,212	2,948	330	22,863	13,353	128,208	98,430
588,537	1,210,424	16,923	51,693	115,218	3,202	736,935	1,068	200,313	.....	81,255	1,223,233	483,096
2,944,673	3,706,312	80,701	49,413	1,010,109	100,330	2,127,282	9,488	124,414	25	264,541	4,017,951	1,700,340

medicines and compounds and druggists' preparations, 3; pottery, terra-cotta, and fire-clay products, 1; safes and vaults, 1; slaughtering and meat packing, 4; soap, 1; stoves and furnaces, including gas and oil stoves, 1; umbrellas and canes, 1; vault lights and ventilators, 1; vinegar and cider, 1; wirework, including wire rope and cable, 1; wood, turned and carved, 1; wool pulling, 1.

LOUISVILLE.

1	\$79,437,347	\$91,729,589	\$2,467,100	\$3,066,182	\$12,459,977	\$1,204,485	\$52,863,094	\$317,010	\$10,343,191	\$167,600	\$8,780,044	\$101,283,955	\$47,156,376
2	5,704	9,122	1,200	794	2,590	142	3,370	607	15	.....	408	8,906	5,394
3	234,233	406,925	9,345	8,250	90,602	3,442	205,645	2,946	804	.....	25,882	439,400	170,493
4	1,807,426	1,935,270	36,180	52,576	331,955	40,576	1,255,035	33,653	10,387	946	167,962	2,245,785	944,174
5	473,957	179,207	12,012	3,870	89,497	33,670	15,982	850	.....	.....	29,656	104,257	144,625
6	1,032,553	1,354,078	48,915	100,684	109,526	7,492	838,293	8,920	5,821	.....	231,427	1,465,354	619,560
7	3,276,259	1,476,904	70,684	37,681	418,293	25,540	774,527	8,805	10,418	841	124,027	1,573,802	773,355
8	3,019,473	3,098,035	77,595	34,086	1,481,731	46,717	1,455,968	.....	1,345	.....	693	3,098,035	1,595,730
9	2,604,418	4,045,322	127,646	293,129	688,014	18,722	2,514,400	20,320	10,611	27,625	335,856	4,353,021	1,820,400
10	724,905	1,822,803	27,414	68,108	202,061	11,723	1,193,007	18,226	4,709	.....	297,490	2,105,082	900,347
11	2,142,390	1,677,646	30,970	19,337	298,155	3,479	1,283,506	2,622	7,877	392	25,248	2,028,205	741,160
12	275,321	578,000	16,700	10,490	99,093	2,568	406,747	4,230	1,081	5,320	30,877	624,775	215,470
13	2,145,267	6,424,493	60,120	123,358	147,114	23,408	5,710,221	.....	18,926	.....	340,256	6,580,203	846,504
14	7,085,836	6,140,574	222,362	208,593	1,700,055	209,948	3,291,820	12,099	33,463	7,721	457,250	6,887,546	3,388,778
15	489,994	655,423	32,772	23,948	177,742	8,151	347,839	4,985	3,414	5,897	50,675	764,908	408,918
16	1,741,423	250,225	28,184	7,598	67,275	50,948	18,220	1,200	4,804	.....	62,996	337,796	259,623
17	975,433	1,551,699	52,050	101,023	260,832	6,934	994,268	20,970	6,185	338	100,085	1,669,910	608,714
18	3,426,411	2,985,727	58,226	17,770	226,414	26,101	2,428,310	980	17,457	.....	210,679	3,108,902	714,401
19	3,152,034	9,487,732	61,974	72,969	141,314	63,336	1,936,497	.....	7,025,530	.....	196,112	9,683,897	7,684,004
20	5,346,700	1,588,813	75,968	110,569	214,247	79,447	513,115	1,200	401,150	.....	193,108	2,132,715	1,540,153
21	4,877,225	3,776,713	146,966	111,820	733,071	36,838	2,472,177	7,725	32,237	.....	235,930	4,226,884	1,717,899
22	273,568	294,362	20,340	9,184	76,044	4,357	126,519	2,060	3,100	8,850	38,369	384,011	253,135
23	240,841	420,240	6,771	5,228	76,770	3,039	321,378	800	1,260	.....	5,982	482,294	157,877
24	509,969	1,185,388	41,599	50,650	35,954	2,887	520,651	4,348	4,722	.....	524,577	1,418,748	895,210
25	3,396,342	3,525,480	341,590	373,780	1,080,283	61,133	1,049,670	52,511	27,036	97,397	442,062	4,192,160	3,081,357
26	1,100,769	5,087,527	32,500	22,348	219,478	32,066	4,682,616	734	11,439	.....	80,346	5,371,842	657,160
27	9,653,245	14,957,293	200,060	502,554	1,120,609	53,629	7,159,444	20,532	2,663,377	.....	3,276,488	16,268,768	9,055,695
28	19,418,621	16,813,672	565,968	684,837	2,372,536	390,997	11,283,780	76,451	126,136	17,270	1,290,638	19,576,953	7,896,228

other than felt, straw, and wool, 1; hats, fur-felt, 2; house-furnishing goods, not elsewhere specified, 2; instruments, professional and scientific, 4; 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; jewelry, 1; labels and tags, 1; malt, 1; mattresses and spring beds, 7; mineral and soda waters, 12; models and patterns, not including paper patterns, 1; mucilage and paste, 1; musical instruments, pianos and organs and materials, 4; oil, cottonseed, and cake, 4; oil, not elsewhere specified, 2; optical goods, 2; paint and varnish, 12; peanuts, grading, roasting, cleaning, and shelling, 1; photo-engraving, 1; pottery, terra-cotta, and fire-clay products, 2; pumps, not including steam pumps, 2; shipbuilding, including boat building, 1; soap, 3; sporting and athletic goods, 1; statuary and art goods, 1; steam packing, 1; stereotyping and electrotyping, 1; stoves and furnaces, including gas and oil stoves, 6; surgical appliances and artificial limbs, 1; type founding and printing materials, 2; upholstering materials, 1; vinegar and cider, 4; wall plaster, 3; window shades and fixtures, 1; wirework, including wire rope and cable, 4; wood, turned and carved, 6; woolen, worsted, and felt goods, and wool hats, 4.

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

1	\$2,402,547	\$2,343,737	\$99,150	\$124,670	\$232,065	\$18,986	\$1,949,185	\$2,061	\$61,060	\$230,323	\$129,232	\$3,082,740	\$1,114,575
2	2,257,071	2,656,658	53,837	33,121	412,525	40,442	1,675,255	12,130	250,939	960	171,448	2,991,039	1,209,041
3	1,896,298	5,841,768	95,425	98,590	510,536	62,695	1,189,040	23,214	335,610	8,838	221,020	2,851,125	1,602,460
4	4,593,332	2,555,015	132,820	144,039	1,340,631	130,669	3,235,699	14,825	207,297	4,322	647,197	6,490,596	3,124,318
5	4,294,273	3,230,595	116,438	97,145	468,164	63,112	2,180,023	8,341	24,917	17,537	245,718	3,505,525	1,253,190
6	4,702,890	4,634,654	213,996	177,540	1,245,478	64,420	2,283,334	16,646	163,731	5,081	464,422	4,960,988	2,619,234

# LOUISIANA.

## INDUSTRIES IN GENERAL.

**General character of the state.**—Louisiana, with a gross area of 48,506 square miles, of which 3,097 represent water surface, ranks thirtieth in size among the states and territories of continental United States. Its population in 1910 was 1,656,388, as compared with 1,381,625 in 1900 and 1,118,588 in 1890. In 1910 the density of population for the entire state was 36.5 per square mile, the corresponding figure for 1900 being 30.4. It ranked twenty-fourth among the 49 states and territories as regards population in 1910 and twenty-third in 1900. Thirty per cent of the entire population of the state resides in incorporated cities and towns having a population of 2,500 or over, as against 26.5 per cent in 1900.

New Orleans, with a population of 339,075, is the only city of the state having a population of over 50,000. Five other cities, however—Alexandria, Baton Rouge, Lake Charles, Monroe, and Shreveport—have a population of less than 50,000 but exceeding 10,000. These six cities contain 25 per cent of the total population of the state and are credited with 39.2 per cent of the total value of its manufactures. Eliminating these cities, only 4.9 per cent of the population resides in towns of 2,500 inhabitants or over.

A large proportion of the raw materials used in the manufactures of Louisiana is furnished by the forests of the state, and by its sugar cane, cotton, and rice fields.

The difficulty of obtaining a sufficient supply of fuel much retarded the early development of manufactures, but the opening of short canals and recent improvements of waterways and in railroad facilities have materially reduced the cost of transportation of coal as

well as of other commodities. The rapid development of the oil fields of the South, particularly in Texas, has afforded a cheap substitute for coal and given an increased impetus to manufactures in Louisiana. New Orleans, the most important southern port, affords excellent opportunities for domestic coastwise and foreign commerce.

**Importance and growth of manufactures.**—Although Louisiana is not essentially a manufacturing state, from 1849 to 1909 the value of its manufactures increased at a somewhat greater rate than the value of the manufactures of the United States as a whole. The proportion of the total value of products which the state contributed was seven-tenths of 1 per cent in 1849 and 1.1 per cent in 1909. In 1849 the total value of the manufactures of the state, including the products of the neighborhood and hand industries, amounted to only \$6,779,000, while in 1909, exclusive of the value of the products of the neighborhood and hand industries, it reached \$223,949,000, representing an increase of over thirty-two fold during the period. The population of the state during the same period increased only a little more than twofold. The value of manufactured products per capita of the total population of the state increased from \$13 to \$135. Louisiana ranked twenty-fourth in 1849 among the states in respect to gross value of products, but advanced to nineteenth place in 1909.

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.....	2,516	2,091	1,826	20.3	14.5
Persons engaged in manufactures.....	86,563	63,735	( <sup>1</sup> )	35.8	.....
Proprietors and firm members.....	2,295	1,899	( <sup>1</sup> )	20.9	.....
Salaried employees.....	8,103	5,977	3,576	35.6	67.1
Wage earners (average number).....	76,165	55,859	40,878	36.4	36.6
Primary horsepower.....	346,652	251,963	190,182	37.6	32.5
Capital.....	\$221,816,000	\$150,811,000	\$100,875,000	47.1	49.5
Expenses.....	204,024,000	164,442,000	101,164,000	37.5	62.5
Services.....	42,394,000	31,360,000	17,659,000	35.2	77.6
Salaries.....	9,008,000	6,044,000	2,934,000	49.0	106.0
Wages.....	33,386,000	25,316,000	14,725,000	31.9	71.9
Materials.....	134,865,000	117,035,000	75,404,000	15.2	55.2
Miscellaneous.....	26,765,000	16,047,000	8,101,000	66.8	98.1
Value of products.....	223,949,000	186,380,000	111,398,000	20.2	67.3
Value added by manufacture (value of products less cost of materials).....	89,084,000	69,345,000	35,994,000	28.5	92.7

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

In 1909 the state of Louisiana had 2,516 manufacturing establishments, which gave employment to an average of 86,563 persons during the year and paid out \$42,394,000 in salaries and wages.

Of the persons employed, 76,165 were wage earners. These establishments turned out products to the value of \$223,949,000, to produce which materials costing \$134,865,000 were consumed. The value added by manufacture was thus \$89,084,000, 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 Louisiana have shown a substantial increase during each of the two periods 1899-1904 and 1904-1909. The greater percentage of gain for all items, except number of establishments and primary horsepower, occurred during the earlier period. During the five-year period 1899-1904 the number of

establishments increased 14.5 per cent and the average number of wage earners 36.6 per cent, while the value of products increased 67.3 per cent and the value added by manufacture 92.7 per cent. The same items increased 20.3 per cent, 36.4 per cent, 20.2 per cent, and 28.5 per cent, respectively, during the five-year period 1904-1909. 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 price 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. <sup>1</sup>			
		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.....	2,516	76,165	100.0	\$223,949,000	100.0	\$89,084,000	100.0	20.2	67.3	28.5	92.7
Sugar and molasses and sugar refining, not including beet sugar.....	209	5,063	6.7	63,775,000	28.5	11,473,000	12.9	-13.6	57.8	-19.7	101.9
Lumber and timber products.....	702	46,072	60.5	62,838,000	28.1	39,682,000	44.5	63.8	100.9	41.8	167.5
Oil, cottonseed, and cake.....	43	894	1.2	13,085,000	5.8	1,517,000	1.7	-0.8	87.7	-11.3	38.7
Rice, cleaning and polishing.....	37	693	0.9	12,529,000	5.6	1,558,000	1.7	18.9	86.9	-10.7	123.1
Bags, other than paper.....	6	474	0.6	5,382,000	2.4	280,000	0.3	31.3	18.4	-35.2	19.7
Bread and other bakery products.....	289	1,289	1.7	4,620,000	2.1	1,917,000	2.2	72.0	17.0	89.2	12.3
Printing and publishing.....	268	1,544	2.0	3,823,000	1.7	2,810,000	3.2	20.1	61.8	15.1	51.6
Liquors, malt.....	9	512	0.7	3,573,000	1.6	2,536,000	2.8	58.2	55.4	50.1	53.1
Foundry and machine-shop products.....	83	1,314	1.7	2,998,000	1.3	1,546,000	1.7	-8.1	14.0	-22.2	35.1
Copper, tin, and sheet-iron products.....	66	979	1.3	2,899,000	1.3	1,169,000	1.3	.....	.....	.....	.....
Cars and general shop construction and repairs by steam-railroad companies.....	26	2,426	3.2	2,527,000	1.1	1,545,000	1.7	-4.1	84.4	1.6	75.6
Cooperage and wooden goods, not elsewhere specified.....	41	966	1.3	1,595,000	0.7	716,000	0.8	-11.8	185.6	14.6	125.6
Ice, manufactured.....	69	633	0.8	1,501,000	0.7	1,002,000	1.1	38.4	92.6	30.6	99.2
Turpentine and rosin.....	23	1,688	2.2	1,174,000	0.5	1,015,000	1.1	453.8	84.3	430.0	113.4
Clothing, men's, including shirts.....	19	817	1.1	1,168,000	0.5	508,000	0.6	-43.1	-5.9	-34.6	-17.2
Leather goods.....	17	230	0.3	1,025,000	0.5	317,000	0.4	6.8	32.2	-7.6	22.1
Canning and preserving.....	26	974	1.3	978,000	0.4	405,000	0.5	-16.6	174.7	-24.6	206.9
Flour-mill and gristmill products.....	11	82	0.1	498,000	0.4	108,000	0.1	1,328.8	77.2	692.3	-63.9
Confectionery.....	12	207	0.3	709,000	0.3	372,000	0.4	29.9	118.4	24.4	214.7
Furniture and refrigerators.....	17	359	0.5	620,000	0.3	346,000	0.4	.....	.....	.....	.....
Shipbuilding, including boat building.....	25	374	0.5	573,000	0.3	419,000	0.5	-77.4	29.2	83.0	28.7
Carriages and wagons and materials.....	40	858	0.5	529,000	0.2	323,000	0.4	.....	.....	.....	.....
Boots and shoes, including out stock and findings.....	13	278	0.3	517,000	0.2	214,000	0.2	.....	.....	.....	.....
Brick and tile.....	48	583	0.8	490,000	0.2	385,000	0.4	-49.0	82.9	-49.5	77.4
Mattresses and spring beds.....	23	293	0.3	491,000	0.2	201,000	0.2	-3.0	222.3	-15.2	415.2
All other industries.....	395	7,123	9.3	33,611,000	15.0	16,725,000	18.8	.....	.....	.....	.....

<sup>1</sup> 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.

In addition to the industries presented separately, there are eight 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 properly present the true condition of the industry, as it is interwoven with one or more other industries. These industries are as follows: Coffee and spice, roasting and grinding; cotton goods, including cotton small wares; fertilizers; food preparations; gas, illuminating and heating; liquors, distilled; tobacco manufactures; and wood preserving. Statistics, however, for distilled liquors are presented in Table II for 1909.

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.

*Sugar and molasses and sugar refining, not including beet sugar.*—The statistics for these two characteristic industries of Louisiana are combined in the preceding tabular statement and in Table I for comparison with 1904 and 1899. In other tables, however, where industries are shown for 1909 only, the two are presented separately. The combined industry is the largest in the state from the standpoint of its value of products, which amounted to 28.5 per cent of the total for all manufacturing industries of the state. It shows a considerable decrease, however, in 1909, as compared with 1904, both in value of products and value added by manufacture. This condition is due to the fact that in 1909 as compared with 1904 the cane crop was short, and that the imports of raw sugar at New Orleans for the fiscal year ending June 30, 1909, were about \$2,750,000 less in value than in 1904. Furthermore, in 1904 several establishments which were engaged in compounding table sirups were included under this head. In 1909 these establishments were included under the head of "Food preparations." In 1904 Louisiana was the second most important state in the Union in the production of sugar and molasses and refined sugar, contributing 26.6 per cent of the total value of these products, whereas, in 1909, although the state retained the same relative position, it contributed only 22.8 per cent of the total value of these products.

The manufacture of cane sugar in the United States is confined almost exclusively to Louisiana, all but six of the establishments reported for this industry at the census of 1909 being located in that state.

*Lumber and timber products.*—This industry includes, in addition to timber plants whose chief products are logs and bolts, the sawmills, shingle mills, and planing mills producing rough lumber, shingles, lath, cooperage stock, sash, doors, blinds, interior finish and other millwork, and also wooden packing-box factories. Far more establishments are engaged in this line of manufacture than in any other one industry in the state, and the value of the output is exceeded only by that for the combined sugar and molasses and sugar refining industries. The lumber and timber industry in Louisiana has reached an advanced stage of development. It gave employment to an average of 46,072 wage earners during 1909 and the value of its products amounted to \$62,838,000, these figures representing 60.5 per cent and 28.1 per cent, respectively, of the corresponding totals for 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. The decided decrease from 1904 to 1909 in the production of cotton in Louisiana caused a decline in the output of cottonseed products during the same

period. Prior to 1870 cotton seed was for the most part treated as waste or used as a fertilizer, but since that date the discovery of many new and varied uses for cottonseed products has caused a constant increase in the demand for cotton seed, and a decided advance in its price. Measured by value of products, Louisiana is fourth in order of importance among the states in this industry, having been displaced from third place by Mississippi since 1904.

*Rice, cleaning and polishing.*—Of the 71 establishments in the United States in 1909 reported as engaged in cleaning and polishing rice, the combined output of which was valued at \$22,371,000, Louisiana had 37, with products valued at \$12,529,000. The introduction, just prior to the census of 1899, of new methods of cultivating and harvesting rice and the establishing of irrigation plants in the rice-producing sections of the state, had a noteworthy effect upon the industry during the next five years, the number of rice-milling establishments increasing from 37 to 43, and the value of the products from \$5,736,000 to \$10,718,000. During the next five years the gain in value of products, although substantial, was not so pronounced, while the number of establishments decreased to 37.

*Bags, other than paper.*—The importance of this industry is in a measure dependent upon the demands made by other industries of the state for its output. Burlap bags and sacks are used in handling cotton seed, cottonseed meal, rice, and fertilizers. Ranked by value of products, Louisiana was third in 1909 and second in 1904 among the states in this class of manufacture, reporting 9.8 per cent of the total value of products for this industry in 1909 and 10.9 per cent in 1904.

Measured by value added by manufacture, the relative importance of the first 10 industries is considerably different from the order shown in the table. The lumber and the combined sugar and molasses industries exchange places, while the printing and publishing and malt-liquor industries become third and fourth in importance, thereby displacing the cottonseed-oil industry and the cleaning and polishing of rice, which drop to eighth and sixth places, respectively. The bakery industry displaces the bag industry from fifth place, this latter industry falling to twenty-second place. The foundry and machine-shop industry advanced from ninth to seventh place.

Owing to the comparatively simple processes involved in the manufacture of bags and of cottonseed oil and in the cleaning and polishing of rice, as well as to 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. When measured by value of products, steam-railroad

repair shops and the turpentine and rosin industry do not rank among the most important of the industries, but they occupy the third and fourth positions, respectively, in the number of wage earners employed.

The table also shows the percentages of increase for these leading industries in respect to value of products and value added by manufacture where these statistics are comparable. The flour-mill and gristmill industry shows a greater rate of increase from 1904 to 1909, both in value of products and value added by manufacture, than any other industry shown separately, namely, 1,328.8 per cent and 692.3 per cent, respectively. The turpentine and rosin industry also shows remarkable increases both in gross value of products and in value added by manufacture.

There are some striking differences among the several industries shown separately as respects the relative increase from 1899 to 1904, and from 1904 to 1909, respectively. Nine of the industries show decreases from 1904 to 1909 in value of products and ten show decreases in value added by manufacture, while on the other hand, only one industry decreased in value of products and two industries decreased in value added by manufacture from 1899 to 1904. The most pronounced decreases from 1904 to 1909 are shown for the brick and tile industry—49 per cent in value of products and 49.5 per cent 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.....	86,563	80,787	5,776
Proprietors and officials.....	5,001	4,822	179
Proprietors and firm members.....	2,295	2,144	151
Salaried officers of corporations.....	872	861	11
Superintendents and managers.....	1,834	1,817	17
Clerks.....	5,397	4,838	559
Wage earners (average number).....	76,165	71,127	5,038
16 years of age and over.....	74,026	70,153	4,478
Under 16 years of age.....	1,539	974	565

The average number of persons engaged in manufactures during 1909 was 86,563, of whom 76,165 were wage earners. The remainder was about equally divided between proprietors and officials, and 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. The figures cover all industries combined and 12 important industries individually.

INDUSTRY.	PERSONS ENGAGED IN MANUFACTURES.			
	Total number.	Per cent of total.		
		Proprietors and officials.	Clerks.	Wage earners (average number).
All industries.....	86,563	5.8	6.2	88.0
Bags, other than paper.....	538	4.3	7.0	88.1
Bread and other bakery products.....	1,744	19.4	6.7	73.9
Cars and general shop construction and repairs by steam-railroad companies.....	2,615	2.0	5.3	92.8
Copper, tin, and sheet-iron products.....	1,200	8.7	9.7	81.6
Foundry and machine-shop products.....	1,573	8.7	7.8	83.5
Liquors, malt.....	620	4.8	12.6	82.6
Lumber and timber products.....	49,535	3.4	3.6	93.0
Oil, cottonseed, and cake.....	1,165	9.7	13.6	76.7
Printing and publishing.....	2,461	17.8	19.5	62.7
Rice, cleaning and polishing.....	960	8.5	19.3	72.2
Sugar and molasses.....	5,077	11.2	11.3	77.4
Sugar refining, not including beet sugar.....	1,323	3.3	8.8	87.8
All other industries.....	17,762	7.9	8.3	83.8

Of the total number of persons engaged in all manufacturing industries, 5.8 per cent were proprietors and officials, 6.2 per cent clerks, and 88 per cent wage earners.

In the bakery and in the printing and publishing industries the majority of the establishments are small, and in many of them the proprietors or their immediate representatives do all or a part of the work, so that the proportion of persons engaged in these industries falling in the class of proprietors and officials is very much higher than for other industries or all industries combined. The sugar and molasses industry also shows a large proportion of proprietors and officials, 11.2 per cent. Railroad repair shops show the smallest proportion, because these establishments are operated by corporations for which no proprietors are reported and whose general officials are not as a rule assigned to the supervision of this particular branch of work.

The next table shows, in percentages, for 1909, 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, 92.1 per cent of the average number of wage earners were males 16 years of age and over; 5.9 per cent, females 16 years of age and over; and 2 per cent, persons under the age of 16. The larger part of the total number of female wage earners is made up of those employed in tobacco manufactures



In considering this table it should be noted that the sugar and molasses industry—not including the refining of sugar—is a seasonal one, so that the number employed during certain months is far greater than the average number for the entire year. In November 15,112 wage earners were employed in this industry, while but 419 were employed in February, the average for the year being 3,931.

The average number of wage earners in all industries combined shows some irregularity during the year, owing to the seasonal character of a number of industries which are dependent upon agriculture for their raw material. The greatest number, 91,814, was employed in the month of December, which was the period of greatest activity in the lumber industry, and the smallest number, 69,620, in the month of February, this number being equal to 75.8 per cent of the maximum.

The variation from the maximum was relatively small in October and November, being 9.2 and 1.3 per cent, respectively. During the first nine months of the year the number of wage earners, though comparatively constant, was considerably less than the maximum, the ratio ranging from 75.8 to 80.9 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.....	76,165	4,348	1,410	6,448	1,584	35,245	20,767	3,559	2,804
Bags, other than paper.....	474	2		18		454			6
Boots and shoes, including cut stock and findings.....	278	12		10	143	107			6
Bread and other bakery products.....	1,289	154	4	8	58	248	638	10	119
Brick and tile.....	583	37		9	6	396	128		7
Canning and preserving.....	974	24		13	2	517	317	96	5
Carriages and wagons and materials.....	358		58	218		74	2	0	
Cars and general shop construction and repairs by steam-railroad companies.....	2,426	20		1,441		341	624		
Clothing, men's, including shirts.....	817	190	417	137		67			
Confectionery.....	207	84	72			49			2
Cooperage and wooden goods, not elsewhere specified.....	906	402	13	137	82	322		6	4
Copper, tin, and sheet-iron products.....	979	171	9	340	105	348			
Flour-mill and gristmill products.....	82	4		40		30			
Foundry and machine-shop products.....	1,314	14	1	706	72	423		2	8
Furniture and refrigerators.....	359	4	7	97	48	203			
Ice, manufactured.....	633				51	22	68	68	427
Leather goods.....	230	80		6	12	132			
Liquors, malt.....	612	224		181	107				
Lumber and timber products.....	46,072	380	259	852	300	25,965	18,184	112	
Mattresses and spring beds.....	203	28	23	12	14	126			
Oil, cottonseed, and cake.....	894	5				207	132	524	26
Printing and publishing.....	1,544	773	195	356	119	91	1	9	
Rice, cleaning and polishing.....	693	10				110	324	249	
Shipbuilding, including boat building.....	374	33		258		83			
Sugar and molasses.....	3,931	99				40	12	1,992	1,788
Sugar refining, not including beet sugar.....	1,162					650		376	136
Turpentine and rosin.....	1,638	262				1,277	149		
All other industries.....	7,123	1,330	352	1,513	465	2,937	138	112	276

It is evident from these figures that for the great majority of wage earners employed in the manufacturing industries of Louisiana the prevailing hours of labor range from 60 to 72 a week, or from 10 to 12 a day, only 18.1 per cent of the total being employed in establishments where the prevailing hours are less than 10 a day and only 3.7 per cent in establishments where the prevailing hours are more than 12 a day.

It will be noted that wage earners engaged in the canning and preserving, brick and tile, lumber and timber, and turpentine and rosin industries and in the manufacture of bags, other than paper, furniture and refrigerators, leather goods and mattresses and spring

beds, work largely on the basis of a 10-hour day (60 hours per week), while half of the employees in the sugar and molasses industry are in establishments operating 72 hours per week, with nearly all the other employees working over 72 hours. The cottonseed-oil and cake industry is mainly on a 72-hour basis. The manufacture of ice is conspicuous for the long hours of work, as 67.5 per cent of the total number of wage earners were employed over 72 hours per week. Most of the industries just mentioned are seasonal in character.

Location of establishments.—The next table shows the extent to which the manufactures of Louisiana 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 or towns that came within the group having over 10,000 inhabitants.

ITEM.	Year.	Total.	LOCATION OF ESTABLISHMENT.		PER CENT OF TOTAL.	
			In cities and towns with population of 10,000 and over.	Outside districts.	In cities and towns with population of 10,000 and over.	Outside districts.
Population.....	1910 1900	1,656,388 1,381,625	414,858 314,386	1,241,530 1,067,239	25.0 22.8	75.0 77.2
Number of establishments.	1909 1899	2,516 1,826	1,028 747	1,488 1,079	40.9 40.9	59.1 59.1
Average number of wage earners.	1909 1899	76,165 40,878	20,587 17,250	55,578 23,628	27.0 42.2	73.0 57.8
Value of products.	1909 1899	\$223,948,638 111,307,919	\$87,880,248 59,719,597	\$136,068,390 51,578,322	39.2 53.6	60.8 46.4
Value added by manufacture.	1909 1899	89,083,863 35,993,932	34,311,474 18,046,533	54,772,389 17,947,449	38.5 50.1	61.5 49.0

In 1900 New Orleans, Shreveport, and Baton Rouge were the only cities with a population of 10,000 and over, but increases in population since 1900 brought the cities of Alexandria, Lake Charles, and Monroe into this class in 1910. Although the total value of products in 1909 of the last three cities named was \$4,785,230, it was not large enough to affect materially the showing for the two groups presented in the table.

In 1909 only 39.2 per cent of the total value of products was reported from the six cities having over 10,000 inhabitants, and 27 per cent of the average number of wage earners were employed in such cities. The figures indicate that during the last decade the manufacturing industries outside these cities have developed much more rapidly than those located in the cities. This is due in part to the size and rapid growth of the lumber industry, which is conducted almost entirely outside the cities covered by the table.

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 OR TOWN.	1910	1900
New Orleans.....	339,075	287,104
Shreveport.....	28,015	19,013
Baton Rouge.....	14,897	11,269
Lake Charles.....	11,440	16,680
Alexandria.....	11,213	15,948
Monroe.....	10,209	15,428

<sup>1</sup> Population less than 10,000 in 1900, therefore, in the preceding table, the statistics for 1899 are included with those for the districts outside cities.

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

CITY OR TOWN.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
New Orleans <sup>1</sup> .....	17,186	17,468	16,185	\$78,794,030	\$81,410,706	\$57,446,116
Shreveport <sup>1</sup> .....	1,114	1,162	736	3,642,609	2,837,923	1,556,113
Lake Charles.....	736	( <sup>2</sup> )	( <sup>2</sup> )	2,250,973	( <sup>2</sup> )	( <sup>2</sup> )
Alexandria.....	513	( <sup>2</sup> )	( <sup>2</sup> )	1,278,941	( <sup>2</sup> )	( <sup>2</sup> )
Monroe.....	681	( <sup>2</sup> )	( <sup>2</sup> )	1,258,316	( <sup>2</sup> )	( <sup>2</sup> )
Baton Rouge.....	357	620	329	658,379	1,383,061	717,868

<sup>1</sup> 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.

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

Each of the three cities for which comparable statistics are available shows a decrease in number of wage earners from 1904 to 1909, and all but Shreveport show a loss in value of products during the same period. Although the decreases in the manufactures of Baton Rouge were due largely to the disappearance of the sugar and molasses industry and to the great shrinkage in the lumber industry, the production of nearly half of the other industries which were represented in both years also decreased. The value of products reported for Shreveport, although not important when compared with the total for the state, more than doubled during the decade.

This table shows to what extent the manufactures of the state are centralized in the city of New Orleans. Of the total value of products and the total average number of wage earners reported for the state in 1909, 35.2 per cent and 22.6 per cent, respectively, represent the proportions falling to this city. Ranked by value of products New Orleans was twenty-third in 1899 among the cities of the country, twentieth in 1904, and twenty-fifth in 1909. The value of its manufactured products increased 37.2 per cent from 1899 to 1909. There was a decrease, however, of 3.2 per cent from 1904 to 1909, due to a loss in the sugar and molasses industry, which is the most important in the city.

The manufactures of New Orleans are diversified. All the establishments in the state reported as engaged in the manufacture of distilled liquors, bags, cotton goods, and men's clothing are located there. In tobacco manufactures, the malt-liquor industry, the roasting and grinding of coffee and spice, and the manufacture of illuminating gas, the value of the city's product represented more than 95 per cent of the totals reported for the state in each industry. Copper, tin, and sheet-iron products, printing and publishing, foundry and machine-shop products, and cleaning and polishing rice are other leading industries in New Orleans. Of the total value of products in 1909 which were shown for these industries in the state, 88.1 per cent, 78.8 per cent, 63.2 per cent, and 40.9 per cent, respectively, were reported from New Orleans.

The leading industries in Shreveport are the manufacture of lumber and timber products, steam-railroad repair shops, and the flour-mill and gristmill industry.

The output of the latter industry represents 40.3 per cent of the total value of products of this character for the state. Other industries of importance are printing and publishing, the manufacture of fertilizers, and the production of cottonseed oil and cake.

The lumber industry is foremost among those in Lake Charles, Alexandria, and Monroe.

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 and the following table.

INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.	INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>					<b>Copper, tin, and sheet-iron products, 1909.</b>				
1909.....	2,516	76,165	\$223,948,838	\$89,083,863	Individual.....	66	979	\$2,898,597	\$1,168,680
1904.....	2,091	55,859	186,379,592	69,344,287	Individual.....	44	312	972,743	344,356
Individual:					Firm.....	10	82	105,751	67,516
1909.....	1,143	8,423	21,241,976	8,894,583	Corporation.....	12	585	1,820,103	756,808
1904.....	1,003	8,538	25,046,838	10,420,725	Per cent of total.....	100.0	100.0	100.0	100.0
Firm:					Individual.....	66.7	31.9	33.6	29.5
1909.....	456	6,089	19,297,319	6,506,026	Firm.....	15.2	8.4	3.6	5.8
1904.....	383	6,558	22,389,261	7,821,257	Corporation.....	18.2	59.8	62.8	64.8
Corporation:					<b>Foundry and machine-shop products, 1909.</b>				
1909.....	910	61,561	183,303,633	73,586,938	Individual.....	83	1,314	\$2,998,273	\$1,546,179
1904.....	700	40,768	138,977,223	51,089,131	Individual.....	40	501	1,244,915	552,768
Other:					Firm.....	13	110	177,902	104,229
1909.....	7	92	105,710	95,316	Corporation.....	30	703	1,575,456	889,192
1904.....	5	5	15,270	13,174	Per cent of total.....	100.0	100.0	100.0	100.0
Per cent of total:					Individual.....	48.2	38.1	41.5	35.7
1909.....	100.0	100.0	100.0	100.0	Firm.....	15.7	8.4	5.9	6.7
1904.....	100.0	100.0	100.0	100.0	Corporation.....	36.1	53.5	52.5	57.5
Individual:					<b>Lumber and timber products, 1909.</b>				
1909.....	45.4	11.1	9.5	10.0	Individual.....	702	46,072	\$62,837,912	\$39,681,716
1904.....	48.0	15.3	13.4	15.0	Individual.....	236	3,268	3,536,060	2,337,126
Firm:					Firm.....	173	2,830	3,783,345	2,522,579
1909.....	18.1	8.0	8.6	7.3	Corporation.....	293	39,974	55,518,507	34,822,011
1904.....	18.3	11.7	12.0	11.3	Per cent of total.....	100.0	100.0	100.0	100.0
Corporation:					Individual.....	33.6	7.1	5.6	5.9
1909.....	36.2	80.8	81.8	82.6	Firm.....	24.6	6.1	6.0	6.4
1904.....	33.5	73.0	74.6	73.7	Corporation.....	41.7	86.8	88.4	87.8
Other:					<b>Printing and publishing, 1909.</b>				
1909.....	0.3	0.1	( <sup>1</sup> )	0.1	Individual.....	268	1,544	\$3,823,473	\$2,810,180
1904.....	0.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	Individual.....	151	356	617,554	484,025
<b>Bread and other bakery products, 1909.</b>					Firm.....	46	185	313,121	234,977
Individual.....	289	1,289	\$4,619,618	\$1,916,441	Corporation <sup>2</sup> .....	71	1,003	2,892,798	2,091,178
Individual.....	251	746	2,759,952	1,111,046	Per cent of total.....	100.0	100.0	100.0	100.0
Firm.....	30	130	672,143	252,582	Individual.....	56.3	23.1	16.2	17.2
Corporation.....	8	413	1,187,523	552,813	Firm.....	17.2	12.0	8.2	8.4
Per cent of total.....	100.0	100.0	100.0	100.0	Corporation <sup>2</sup> .....	26.5	65.0	75.7	74.4
Individual.....	86.9	57.9	59.7	58.0	<b>Sugar and molasses, 1909.</b>				
Firm.....	10.4	10.1	14.5	13.2	Individual.....	204	3,931	\$29,001,027	\$8,879,302
Corporation.....	2.8	32.0	25.7	28.8	Individual.....	72	948	6,696,446	1,924,701
<b>Cooperage and wood goods, not elsewhere specified, 1909.</b>					Firm.....	41	600	4,415,208	1,309,903
Individual.....	41	966	\$1,594,830	\$715,890	Corporation.....	91	2,383	17,889,373	5,644,698
Individual.....	26	178	330,973	148,382	Per cent of total.....	100.0	100.0	100.0	100.0
Firm.....	6	25	41,948	21,405	Individual.....	35.3	24.1	23.1	21.7
Corporation.....	9	763	1,221,909	546,102	Firm.....	20.1	15.3	15.2	14.8
Per cent of total.....	100.0	100.0	100.0	100.0	Corporation.....	44.6	60.6	61.7	63.6
Individual.....	63.4	18.4	20.8	20.7					
Firm.....	14.6	2.6	2.6	3.0					
Corporation.....	22.0	79.0	76.6	76.3					

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

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

The most important distinction shown is that between corporate and all other forms of ownership. For all industries combined, 36.2 per cent of the total number of establishments were in 1909 under corporate ownership, as against 63.8 per cent under all other forms. The corresponding figures for 1904 were 33.5 per cent and 66.5 per cent, respectively. Of the total value of products, however, establishments with corporate ownership contributed 81.8 per cent in 1909 and 74.6 per cent 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 figures for the establishments in the following table are grouped according to the value of 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.	INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>	<b>2,516</b>	<b>76,165</b>	<b>\$223,948,638</b>	<b>\$39,083,869</b>	<b>Copper, tin, and sheet-iron products, 1909.....</b>	<b>66</b>	<b>979</b>	<b>\$2,898,597</b>	<b>\$1,168,680</b>
1909.....	2,091	55,859	186,379,592	69,344,237	Less than \$5,000.....	23	40	77,376	47,795
1904.....	2,091	55,859	186,379,592	69,344,237	\$5,000 and less than \$20,000.....	26	136	256,407	161,505
Less than \$5,000:	661	1,432	1,707,700	1,109,020	\$20,000 and less than \$100,000.....	9	180	340,297	189,086
1909.....	468	800	1,269,970	822,103	\$100,000 and less than \$1,000,000.....	8	623	2,224,517	769,424
1904.....	468	800	1,269,970	822,103	Per cent of total.....	100.0	100.0	100.0	100.0
\$5,000 and less than \$20,000:	814	5,703	8,033,602	5,012,465	Less than \$5,000.....	34.8	4.1	2.7	4.1
1909.....	658	4,174	6,800,320	4,033,052	\$5,000 and less than \$20,000.....	39.4	13.9	8.8	13.8
1904.....	658	4,174	6,800,320	4,033,052	\$20,000 and less than \$100,000.....	13.0	18.4	11.7	16.3
\$20,000 and less than \$100,000:	634	14,739	30,049,092	14,591,951	\$100,000 and less than \$1,000,000.....	12.1	63.6	70.7	65.8
1909.....	554	12,428	26,708,992	13,052,237	Average per establishment.....	15		\$43,918	\$17,707
1904.....	554	12,428	26,708,992	13,052,237	<b>Foundry and machine-shop products, 1909.....</b>	<b>88</b>	<b>1,314</b>	<b>\$2,958,273</b>	<b>\$1,546,179</b>
\$100,000 and less than \$1,000,000:	354	44,049	108,140,739	49,290,737	Less than \$5,000.....	17	23	50,355	33,623
1909.....	398	35,112	97,332,115	45,173,432	\$5,000 and less than \$20,000.....	30	225	333,091	211,310
1904.....	398	35,112	97,332,115	45,173,432	\$20,000 and less than \$100,000.....	31	615	1,202,897	701,635
\$1,000,000 and over:	23	9,642	75,417,505	19,079,681	\$100,000 and less than \$1,000,000.....	5	451	1,411,150	599,611
1909.....	13	3,255	54,118,183	5,602,863	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	13	3,255	54,118,183	5,602,863	Less than \$5,000.....	20.5	1.8	1.7	2.2
Per cent of total:	100.0	100.0	100.0	100.0	\$5,000 and less than \$20,000.....	30.1	17.1	11.1	13.7
1909.....	100.0	100.0	100.0	100.0	\$20,000 and less than \$100,000.....	37.3	40.8	40.1	45.4
1904.....	100.0	100.0	100.0	100.0	\$100,000 and less than \$1,000,000.....	0.0	34.3	47.1	38.8
Less than \$5,000:	26.3	1.9	0.8	1.2	Average per establishment.....	16		\$30,124	\$18,029
1909.....	22.4	1.6	0.7	1.2	<b>Lumber and timber products, 1909.....</b>	<b>702</b>	<b>46,072</b>	<b>\$62,837,912</b>	<b>\$39,661,716</b>
1904.....	22.4	1.6	0.7	1.2	Less than \$5,000.....	130	568	201,513	248,454
\$5,000 and less than \$20,000:	32.4	7.5	3.9	5.0	\$5,000 and less than \$20,000.....	210	2,390	2,350,407	1,520,898
1909.....	31.5	7.5	3.7	5.8	\$20,000 and less than \$100,000.....	107	6,905	9,130,029	5,748,811
1904.....	31.5	7.5	3.7	5.8	\$100,000 and less than \$1,000,000.....	144	29,321	42,751,349	20,590,313
\$20,000 and less than \$100,000:	25.2	19.4	13.4	10.4	\$1,000,000 and over.....	6	7,122	5,232,557	6,507,270
1909.....	20.5	22.2	14.4	19.7	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	20.5	22.2	14.4	19.7	Less than \$5,000.....	19.8	1.2	0.6	0.6
\$100,000 and less than \$1,000,000:	15.3	58.0	48.3	55.3	\$5,000 and less than \$20,000.....	30.8	5.2	3.8	3.8
1909.....	10.0	62.9	52.2	65.1	\$20,000 and less than \$100,000.....	28.1	14.5	14.5	14.5
1904.....	10.0	62.9	52.2	65.1	\$100,000 and less than \$1,000,000.....	20.5	63.0	68.0	67.0
\$1,000,000 and over:	0.9	12.7	33.7	21.4	\$1,000,000 and over.....	0.9	15.5	13.1	14.0
1909.....	0.6	5.8	29.0	8.2	Average per establishment.....	66		\$80,513	\$56,527
1904.....	0.6	5.8	29.0	8.2	<b>Printing and publishing, 1909.....</b>	<b>898</b>	<b>1,544</b>	<b>\$3,823,473</b>	<b>\$2,810,130</b>
Average per establishment:	30		\$80,010	\$35,407	Less than \$5,000.....	100	233	375,053	298,133
1909.....	27		89,134	33,163	\$5,000 and less than \$20,000.....	70	318	618,858	492,432
1904.....	27		89,134	33,163	\$20,000 and less than \$100,000.....	32	583	1,248,208	893,180
<b>Bread and other bakery products, 1909.....</b>	<b>289</b>	<b>1,289</b>	<b>\$4,619,618</b>	<b>\$1,916,441</b>	\$100,000 and less than \$1,000,000.....	6	410	1,580,454	1,151,445
Less than \$5,000.....	77	71	229,043	99,580	Per cent of total.....	100.0	100.0	100.0	100.0
\$5,000 and less than \$20,000.....	167	473	1,713,835	604,357	Less than \$5,000.....	59.7	15.1	0.8	10.0
\$20,000 and less than \$100,000.....	38	285	1,244,291	493,910	\$5,000 and less than \$20,000.....	20.1	20.0	10.2	17.5
\$100,000 and less than \$1,000,000.....	7	460	1,431,840	631,588	\$20,000 and less than \$100,000.....	11.0	37.8	32.0	30.9
Per cent of total.....	100.0	100.0	100.0	100.0	\$100,000 and less than \$1,000,000.....	2.2	20.6	41.3	41.0
Less than \$5,000.....	20.6	5.5	5.0	5.0	Average per establishment.....	0		\$14,267	\$10,480
\$5,000 and less than \$20,000.....	57.8	36.7	37.1	36.2	<b>Sugar and molasses, 1909.....</b>	<b>204</b>	<b>3,931</b>	<b>\$29,001,027</b>	<b>\$8,879,303</b>
\$20,000 and less than \$100,000.....	13.1	22.1	26.9	25.8	Less than \$5,000.....	6	7	13,792	5,897
\$100,000 and less than \$1,000,000.....	2.4	35.7	31.0	33.0	\$5,000 and less than \$20,000.....	7	30	90,182	23,097
Average per establishment.....	4		\$15,985	\$6,031	\$20,000 and less than \$100,000.....	100	1,039	6,166,339	1,657,615
<b>Cooperage and wooden goods, not elsewhere specified, 1909.....</b>	<b>41</b>	<b>968</b>	<b>\$1,594,830</b>	<b>\$715,800</b>	\$100,000 and less than \$1,000,000.....	85	2,855	22,791,714	7,101,793
Less than \$5,000.....	13	27	41,457	21,300	Per cent of total.....	100.0	100.0	100.0	100.0
\$5,000 and less than \$20,000.....	15	112	1,581,442	84,136	Less than \$5,000.....	2.9	0.2	(*)	0.1
\$20,000 and less than \$100,000.....	10	400	550,310	281,339	\$5,000 and less than \$20,000.....	3.4	0.8	0.3	0.3
\$100,000 and less than \$1,000,000.....	3	427	833,921	329,040	\$20,000 and less than \$100,000.....	52.0	20.4	21.3	18.7
Per cent of total.....	100.0	100.0	100.0	100.0	\$100,000 and less than \$1,000,000.....	41.7	72.6	78.4	81.0
Less than \$5,000.....	31.7	2.8	2.6	3.0	Average per establishment.....	19		\$142,162	\$43,620
\$5,000 and less than \$20,000.....	30.6	11.0	9.9	11.8	<b>Copper, tin, and sheet-iron products, 1909.....</b>	<b>66</b>	<b>979</b>	<b>\$2,898,597</b>	<b>\$1,168,680</b>
\$20,000 and less than \$100,000.....	24.4	41.4	34.9	39.3	Less than \$5,000.....	23	40	77,376	47,795
\$100,000 and less than \$1,000,000.....	7.3	44.2	52.6	46.0	\$5,000 and less than \$20,000.....	26	136	256,407	161,505
Average per establishment.....	24		\$38,898	\$17,461	\$20,000 and less than \$100,000.....	9	180	340,297	189,086

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

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

This table shows that, in 1909, of the 2,516 manufacturing establishments in the state only 23, 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 9,642, or 12.7 per cent of the total number in all establishments, and reported 33.7 per cent of the total value of products, and 21.4 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 (26.3 per cent), of the total number of establishments, but the value of their products amounted to

only eight-tenths of 1 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.

The average value of products per establishment was somewhat less in 1909 than in 1904, while the average value added by manufacture was slightly greater. The average number of wage earners per establishment also increased. The table shows further that when the size of establishments is measured by the average value of products per establishment the bakeries, cooperage shops, foundries and machine shops, copper, tin, and sheet-iron shops, and printing and publishing establishments are usually rather small, while

the lumber and sugar industries are conducted mainly in larger establishments.

In some respects, and especially from the standpoint of the 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 12 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.										
<b>All industries</b> .....	2,516	118	1,021	778	321	109	110	47	8	4
Bags, other than paper.....	6		1	2		1	2			
Bread and other bakery products.....	289	26	220	36	4		3			
Cars and general shop construction and repairs by steam-railroad companies.....	28		5	8		1	4		1	
Copper, tin, and sheet-iron products.....	66	1	40	16	3	5		1		
Foundry and machine-shop products.....	83	2	31	34	12	1	3			
Liquors, malt.....	9			1	5	2	1			
Lumber and timber products.....	702	1	159	253	120	52	74	33	6	4
Oil, cottonseed, and cake.....	43		7	21	12	3				
Printing and publishing.....	268	45	164	40	13	2	1			
Rice, cleaning and polishing.....	37		5	21	10		1			
Sugar and molasses.....	204		32	112	50	8	2			
Sugar refining, not including beet sugar.....	5			1			1	3		
All other industries.....	778	40	357	233	87	34	18	8	1	
AVERAGE NUMBER OF WAGE EARNERS.										
<b>All industries</b> .....	76,165		2,804	8,993	10,909	7,964	17,332	16,165	5,250	6,748
Bags, other than paper.....	474		1	28		85	360			
Bread and other bakery products.....	1,289		534	295	124		336			
Cars and general shop construction and repairs by steam-railroad companies.....	2,426		19	104	220	99	497	699	788	
Copper, tin, and sheet-iron products.....	979		105	184	89	335		266		
Foundry and machine-shop products.....	1,314		83	413	384	54	380			
Liquors, malt.....	512			8	215	147	142			
Lumber and timber products.....	46,072		545	3,149	4,280	3,834	12,059	11,616	3,841	6,748
Oil, cottonseed, and cake.....	894		24	238	308	234				
Printing and publishing.....	1,544		388	432	444	156	124			
Rice, cleaning and polishing.....	693		12	279	297		105			
Sugar and molasses.....	3,931		113	1,307	1,650	495	366			
Sugar refining, not including beet sugar.....	1,162			8			136	1,018		
All other industries.....	14,875		980	2,548	2,808	2,525	2,827	2,566	621	
PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.										
<b>All industries</b> .....	100.0		3.7	11.8	14.3	10.5	22.8	21.2	6.9	8.9
Bags, other than paper.....	100.0		0.2	5.9		17.9	75.9			
Bread and other bakery products.....	100.0		41.4	22.9	9.0		26.1			
Cars and general shop construction and repairs by steam-railroad companies.....	100.0		0.8	4.3	9.1	4.1	20.5	28.8	32.5	
Copper, tin, and sheet-iron products.....	100.0		10.7	18.8	9.1	34.2		27.2		
Foundry and machine-shop products.....	100.0		6.3	31.4	29.2	4.1	28.9			
Liquors, malt.....	100.0			1.6	42.0	28.7	27.7			
Lumber and timber products.....	100.0		1.2	6.8	9.3	8.3	26.2	25.2	8.3	14.6
Oil, cottonseed, and cake.....	100.0		2.7	26.6	44.5	26.2				
Printing and publishing.....	100.0		25.1	28.0	28.8	10.1	8.0			
Rice, cleaning and polishing.....	100.0		1.7	40.3	42.9		15.2			
Sugar and molasses.....	100.0		2.9	33.2	42.0	12.6	9.3			
Sugar refining, not including beet sugar.....	100.0			0.7			11.7	87.6		
All other industries.....	100.0		6.6	17.1	18.9	17.0	19.0	17.2	4.2	

The per cent distribution of the number of establishments is not shown in this table. Of the 2,516 establishments reported for all industries, 40.6 per cent employed from 1 to 5 wage earners; 30.9 per cent, 6 to 20; 12.8 per cent, 21 to 50; and 8.7 per cent, 51 to 250. The most numerous single group consists of the 1,021 establishments employing from 1 to 5 wage earners, and the next of the 778 establishments employing from 6 to 20 wage earners. There were 59 establishments that employed over 250 wage earners, and 4, all of which were lumber mills, that employed over 1,000 wage earners.

Of the total number of wage earners, 37 per cent were in establishments employing over 250 wage earners. The single group having the largest number of employees was the group employing from 101 to 250 wage earners. This group employed 17,332 wage earners, or 22.8 per cent of the total. The group of establishments employing from 251 to 500 wage earners, however, with 16,165 wage earners, or 21.2 per cent of the total, was nearly as important. Of the individual industries listed in this table, but not in the preceding one, the bags, other than paper, railroad repair shop, and sugar refining industries are

conducted in comparatively large establishments, as appears from the classification according to the number of wage earners, while the malt-liquor and cottonseed-oil industries and the cleaning and polishing of rice are conducted in establishments employing generally less than 100 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, however, can be brought out concerning the relative importance of the different classes of expenses which make up the total.

The following table shows, in percentages, for 1909, 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.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries.....	4.4	16.4	66.1	13.1
Bags, other than paper.....	1.4	2.9	93.4	2.3
Bread and other bakery products.....	2.8	17.1	69.1	11.0
Cars and general shop construction and repairs by steam-railroad companies.....	7.5	52.0	39.0	0.9
Copper, tin, and sheet-iron products.....	0.7	18.8	64.9	9.6
Foundry and machine-shop products.....	8.8	30.2	53.9	7.1
Liquors, malt.....	7.9	14.7	39.7	37.6
Lumber and timber products.....	0.0	30.1	41.8	15.4
Oil, cottonseed, and cake.....	2.3	2.5	91.5	3.7
Printing and publishing.....	17.9	31.8	30.4	10.9
Rice, cleaning and polishing.....	2.8	2.7	90.7	3.8
Sugar and molasses.....	2.8	7.1	81.6	8.6
Sugar refining, not including beet sugar.....	0.7	2.0	94.5	2.8
All other industries.....	5.2	12.8	54.5	27.5

This table shows that, for all industries combined, 66.1 per cent of the total expenses was incurred for materials, 20.8 per cent for services—that is, salaries and wages—and 13.1 per cent for other purposes. As would be expected, these proportions vary greatly in the different industries.

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 from 1904 to 1909 there was an increase of 94,689 horsepower, or 37.6 per cent, in the total power used in manufactures, while from 1899 to 1904 the increase was 61,781 horsepower, or 32.5 per cent. Of the total increase from 1904 to 1909 in power used, 85,625 horsepower was in that generated by steam engines, and 6,299 horsepower in rented electric power. The water power employed has decreased from 313 horsepower in 1899 to 266 in 1904 and 75 in 1909. The more general use of gas engines is

shown, there being 284 such engines with a capacity of 3,496 horsepower reported in 1909, as against 136 engines with 961 horsepower in 1904, and 69 engines with 462 horsepower in 1899. The figures also show that the practice of renting electric power is increasing, 2.6 per cent of the total power being of this character in 1909, as compared with 1.1 per cent in 1904, and six-tenths of 1 per cent in 1899. The use of electric motors for the purpose of applying power generated within the establishments is also increasing, the horsepower of such motors increasing from 668 in 1899 to 3,974 in 1904, and 18,062 in 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.			PER CENT DISTRIBUTION OF HORSEPOWER.		
	1909	1904	1899	1909	1904	1899	1909	1904	1899
Primary power, total.....	6,128	2,765	2,987	346,652	251,968	190,182	100.0	100.0	100.0
Owned.....	4,678	2,765	2,987	337,342	240,112	188,589	97.3	98.9	99.2
Steam.....	4,388	2,022	2,887	331,370	245,745	187,492	95.0	97.5	98.6
Gas.....	284	180	69	3,496	961	462	1.0	0.4	0.2
Water wheels.....	2	5	11	65	200	313	(2)	(2)	0.1
Water motors.....	4	2	(*)	10	6	.....	(2)	(2)	(2)
Other.....	.....	.....	.....	2,401	2,140	322	0.7	0.8	0.2
Rented.....	1,445	(*)	(*)	9,310	2,851	1,593	2.7	1.1	0.8
Electric.....	1,445	(*)	(*)	9,077	2,778	1,401	2.6	1.1	0.6
Other.....	.....	.....	.....	233	78	192	0.1	(2)	0.1
Electric motors	2,334	135	61	27,139	6,752	2,069	100.0	100.0	100.0
Run by current generated by establishment.....	889	135	61	18,062	3,974	668	66.6	58.9	32.3
Run by rented power.....	1,445	(*)	(*)	9,077	2,778	1,401	33.4	41.1	67.7

\* Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.  
 † Less than one-tenth of 1 per cent.  
 ‡ Not reported.

Fuel.—Closely related to the question of kind of power employed is that of the fuel consumed in generating this power, or otherwise consumed 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.....	13,358	1,074,837	21,980	152,424	2,516,385	509,626
Bags, other than paper.....	50	1,000	.....	.....	2	32
Bread and other bakery products.....	1,575	5,333	444	16,250	284	15,316
Brick and tile.....	150	1,338	.....	40,505	0,018	18,000
Cars and general shop construction and repairs by steam railroad companies.....	.....	16,140	289	50	5,793	64,743
Copper, tin, and sheet-iron products.....	.....	2,475	294	251	653	832
Foundry and machine-shop products.....	160	5,526	2,394	5,491	921	8,092
Gas, illuminating and heating.....	664	13,453	15,706	.....	73,520	26,719
Ice, manufactured.....	8,850	72,509	7,203	.....	52,069	265,928
Liquors, malt.....	.....	27,983	.....	.....	8,878	85
Lumber and timber products.....	68	68,000	80	22,781	24,129	550
Oil, cottonseed, and cake.....	076	31,358	.....	2,411	75,681	68,274
Printing and publishing.....	1	610	.....	38	477	7,533
Rice, cleaning and polishing.....	.....	9,379	.....	1,112	26,922	.....
Sugar and molasses.....	480	575,043	500	41,314	2,010,130	.....
Sugar refining, not including beet sugar.....	.....	157,600	.....	.....	167,025	.....
All other industries.....	678	87,000	2,273	16,018	62,938	31,932

NOTE.—In addition, there were 49,213 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 value of materials and products which do not appear on the general schedule. Such data for seven important industries in Louisiana are here presented.

**Lumber and timber products.**—Although this industry is one of the oldest in the state, it was comparatively undeveloped in 1889. The excellent long-leaf pine and cypress forests which are so extensive in the state were practically untouched before that time. Since 1899, especially, the development of the industry has been remarkable. Louisiana was the second state in the Union in 1909 in the amount of lumber sawed. Some of the largest sawmills in the country are located in this state.

The following statement shows the quantity of the different products of the sawmills reported for the census years 1909 and 1899:

PRODUCT.	QUANTITY.	
	1909	1899
Lumber.....M feet b. m..	3,551,918	1,115,366
Lath.....thousands..	377,708	96,852
Shingles.....thousands..	757,868	504,819

From 1899 to 1909 the total quantity of rough lumber sawed increased 218.5 per cent; lath, 278.3 per cent; and shingles, 50.1 per cent. Of the total lumber cut in 1909 softwoods furnished 3,345,610,000 feet and hardwoods 206,308,000 feet. The softwoods consisted entirely of yellow pine and cypress. Yellow pine was the principal species cut, with 2,736,756,000 feet, while cypress was the next in importance with 608,854,000 feet. The most important species of hardwoods were cottonwood, red gum, tupelo, ash, and hickory.

**Sugar and molasses.**—At censuses prior to 1909 the statistics of cane-sugar and cane-sirup factories were grouped with refineries under the one general classification, "Sugar and molasses, refining," without distinction as to whether the factories did or did not refine. At the census of 1909 the statistics for the establishments exclusively engaged in sugar refining are shown under the head of "Sugar refining, not including beet sugar," and the statistics for establishments using sugar cane as a material, under the head of "Sugar and molasses."

The total quantity of cane treated in mills manufacturing sugar and the quantity of the different products manufactured at the census of 1909 are shown in the next tabular statement.

MATERIAL OR PRODUCT.	Quantity.
Cane treated.....tons..	4,471,921
Products:	
Sugar.....tons..	325,497
Brown sugar (open-kettle process).....tons..	3,678
Vacuum-pan sugar.....tons..	321,819
First-strike sugar.....tons..	271,822
Second-strike sugar.....tons..	41,335
Third-strike sugar.....tons..	8,662
Molasses (liquid product from which more or less sugar has been extracted).....gallons..	24,342,555
Sirup (liquid product from which no sugar has been extracted), gallons.....	942,997

This table does not include the statistics for 16 establishments engaged in the manufacture of sirup from sugar cane, but does include those for 1 establishment using sugar cane which was operated in connection with a penal institution and for 1 other manufacturing sugar incidentally in connection with another product. Cane sugar produced on farms is not included, but as the quantity was small the omission affects the accuracy and relative importance of the statistics but very little. Of the 196 establishments in the United States manufacturing sugar from cane during the last census year, all but 6, which are in Texas, are located in Louisiana.

Of the 325,497 tons of sugar manufactured, only 3,678 tons were brown sugar manufactured by the open-kettle process. Of the total quantity of vacuum-pan sugar, 84.5 per cent was first strike, 12.8 per cent second strike, and 2.7 per cent third strike.

**Oil, cottonseed, and cake.**—Although the manufacture of oil from cotton seed is of recent origin, the industry has shown a marked development. As late as 1889 only 7 establishments were reported in the state, and their products were valued at only \$1,574,000, whereas in 1909 there were 43 mills in operation which manufactured cottonseed products valued at \$13,085,000.

The following statement shows the quantity of seed crushed and the quantities of crude products manufactured, by kind, in 1909, 1904, and 1899:

MATERIAL OR PRODUCT.	QUANTITY.		
	1909	1904	1899
Cotton seed, crushed.....tons..	155,548	319,704	250,983
Crude products manufactured:			
Oil.....gallons..	6,527,563	13,158,549	9,692,640
Meal and cake.....tons..	70,739	138,301	91,348
Hulls.....tons..	45,617	103,955	114,446
Linters.....pounds..	7,282,908	10,771,905	6,138,661

The totals presented include all cotton seed crushed, whether by establishments where the exclusive or chief products were those obtained from cotton seed or by such mills as were engaged primarily in the manufacture of other products, but incidentally



crushed some cotton seed. The crude products reported represent the total products derived from crushing cotton seed, 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 of feed.

All products show a very large decrease in 1909. To a large extent this was caused by a decline in the production of cotton in the state, due to the ravages of the boll weevil. The cotton crop in 1904 was 1,107,271 bales and in 1909 only 269,573 bales, and the average quantity of seed crushed per mill fell from 6,525 tons in 1904 to 3,794 in 1909.

Of the 41 cottonseed-oil mills reported in 1909 as engaged in crushing seed, 5 crushed less than 1,000 tons each during the year, 12 crushed 1,000 but less than 2,000 tons, 14 crushed 2,000 but less than 5,000 tons, 5 crushed 5,000 but less than 10,000 tons, and 5 crushed 10,000 but less than 20,000 tons.

In 1909 the ratios which the several products bore to the total weight of the seed when received at the mill were: Crude oil, 15.7 per cent; meal and cake, 45.5 per cent; hulls, 29.3 per cent; and linters, 2.3 per cent; whereas, in 1904 the proportions were, crude oil, 15.4 cent; meal and cake, 43.3 per cent; hulls, 32.5 per cent; and linters, 1.7 per cent. It is interesting to note that from 1899 to 1909 there was an increase of 1.2 in the percentage of oil, 9.1 in that for meal and cake, and 1.1 in that for linters, while in the percentage for hulls there was a decrease of 16.3.

Rice, cleaning and polishing.—The following statement shows the quantity of rice treated and the quantity of products, by kinds, for the census years 1909, 1904, and 1899:

MATERIAL OR PRODUCT.	QUANTITY (POUNDS).		
	1909	1904	1899
Rough rice, milled.....	540,002,250	635,010,886	290,105,708
Products manufactured:			
Clean rice—			
Whole.....	291,004,848	287,400,040	173,632,724
Broken.....	59,697,690	107,283,746	( <sup>1</sup> )
Polish.....	17,558,008	22,526,750	11,491,810
Bran.....	55,215,905	74,631,334	60,243,288
Hulls.....	72,749,236	143,203,415	54,798,377

<sup>1</sup> Included with whole clean rice.

Although this industry has practically disappeared in the South Atlantic states during the last decade, it has shown rapid development in Louisiana, and although this was already the leading rice-milling state in 1899 the quantity treated in 1909 was nearly double the quantity in the earlier year. That the quantity of rice treated was 95,008,635 pounds, or 15 per cent, less in 1909 than in 1904 is due to a smaller crop in the year of the later census. A change in the variety of rice grown and improvements in methods of treatment account for the greater output of whole rice in 1909, as compared with 1904, and a relatively smaller pro-

duction of broken rice. The decrease in the quantity of polish, bran, and hulls may be accounted for to some extent by the practice of mills disposing of these products in the form of feed.

Printing and publishing.—The following tabular statement shows the number, period of issue, and average circulation of the newspapers and periodicals published in Louisiana in 1909, 1904, and 1899:

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1909	1904	1899	1909	1904	1899
Total.....	198	197	170	511,689	511,636	300,072
Daily.....	23	25	23	130,226	134,828	100,990
Sunday.....	8	8	10	152,920	159,183	( <sup>1</sup> )
Semiweekly.....	17	5	18	18,879	18,885	135,098
Weekly.....	141	143	112	176,193	172,949	137,434
Monthly.....	10	10	15	23,671	16,216	14,750
All other classes.....	3	6	2	3,800	9,575	6,800

<sup>1</sup> Included in circulation of dailies.

<sup>2</sup> Includes two triweeklies.

<sup>3</sup> Includes one triweekly.

The total number of publications and total circulation increased during the decade and during each of the five-year periods, although the increases from 1904 to 1909 were practically negligible. During the later period there was an increase of only 1 in number of publications and of 53 in their circulation; monthlies increased both in number and circulation, while both dailies and weeklies decreased in number but increased in circulation. The number of Sunday publications remained the same, but the circulation decreased; semiweeklies increased in number, but the circulation remained practically the same; and all other classes of publications decreased both in number and circulation. In 1909, 6 of the 23 daily papers, with an aggregate circulation of 64,946, were morning editions. All of the publications were in English, except 1 daily and 1 Sunday which were in French, and 7 weeklies, 2 of which were in French, 3 in French and English, 1 in German, and 1 in Italian.

Ice, manufactured.—The quantity and value of the products of this industry for 1909, 1904, and 1899 are given in the statement below:

PRODUCT.	QUANTITY AND VALUE.		
	1909	1904	1899 <sup>1</sup>
Total value.....	\$1,509,985	\$1,099,726	\$591,500
Can ice:			
Tons.....	449,362	309,334	179,716
Value.....	\$1,438,300	\$1,047,703	\$503,501
Plate ice:			
Tons.....	5,000	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$12,202		
All other products.....	\$50,393	\$52,023	\$27,939

<sup>1</sup> Includes the statistics for two establishments, the schedules for which were received too late to be included in the general tabulation.

<sup>2</sup> Not reported.

Practically the entire product is can ice, the value of which increased 155.2 per cent and the quantity 150 per cent during the 10 years. The compressor system of manufacture prevails. "All other products" includes amount received for cold storage.



Turpentine and rosin.—This is one of the oldest industries of the state, but only in recent years has it become of importance. The statistics are interesting because Louisiana and Florida are the only states in which the industry did not show decreases during the period from 1904 to 1909, the depletion of the forests in the localities where it had been carried on for a longer time having tended to lessen the output. A severe storm in Louisiana in 1909 destroyed much of the timber which was being worked and curtailed the production for that year.

The quantity of products, by classes, in 1909, 1904, and 1899, are given below:

PRODUCT.	1909	1904	1899
Total value.....	\$1,173,848	\$211,820	\$115,324
Spirits of turpentine:			
Gallons.....	1,231,254	245,300	219,504
Value.....	\$592,641	\$124,005	\$85,415
Rosin:			
Barrels (280 pounds).....	139,486	30,023	23,843
Value.....	\$573,306	\$87,715	\$27,319
All other products.....	\$7,901	\$100	\$2,590

The quantity of turpentine manufactured increased 985,954 gallons, or fourfold, from 1904 to 1909, and 25,796 gallons, or 11.8 per cent, from 1899 to 1904. Rosin shows a gain of 109,463 barrels, or 364.6 per cent, from 1904 to 1909, and of 6,180 barrels, or 25.9 per cent, from 1899 to 1904.

The working unit in turpentine operations is the "crop," which consists of 10,500 boxes or cups. In 1909 there were 355 crops worked in Louisiana by the box system and 278 by the cup system. Of the crops obtained by the former method 90 were from virgin trees, 113 from second-year trees, 97 from third-year trees, and 55 from trees of older working, while of those obtained by the cup system, 116 were from virgin trees, 99 from second-year trees, 63 from third-year trees, and none from trees of older working. It is an interesting fact that although the comparatively crude and wasteful box method predominates, the new cup system is extensively employed. Most of the crops worked were from virgin and second-year trees.

Laundries.—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. In 1909 there were 25 such establishments in the state of Louisiana, 9 of which were in New Orleans.

The following statement summarizes the statistics:

Number of establishments.....	25
Persons engaged in the industry.....	1,117
Proprietors and firm members.....	19
Salaried employees.....	62
Wage earners (average number).....	1,036
Primary horsepower.....	1,109
Capital.....	\$795,657
Expenses.....	679,382
Services.....	446,378
Materials.....	132,328
Miscellaneous.....	100,676
Amount received for work done.....	852,021

The most common forms of organization were the individual and the corporate, for each of which eleven establishments were reported. The firm form of ownership was represented by three establishments. Six establishments had receipts for the year's business of less than \$5,000; six, \$5,000 but less than \$20,000; eleven, \$20,000 but less than \$100,000; and two, \$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.....	1,010	94.4	July.....	1,070	100.0
February.....	1,023	96.2	August.....	1,047	97.9
March.....	1,030	96.3	September.....	1,055	98.6
April.....	1,035	93.9	October.....	1,035	96.7
May.....	1,028	95.9	November.....	1,022	95.5
June.....	1,042	97.4	December.....	1,058	98.9

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

KIND.	Number of engines or motors.	Horsepower.
Primary power, total.....		1,109
Owned:		
Steam.....	26	1,040
Gas.....	1	12
Rented—Electric.....	10	48

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

KIND.	Unit.	Quantity.
Anthracite coal.....	Tons.....	1,534
Bituminous coal.....	Tons.....	5,940
Oil.....	Barrels.....	810
Gas.....	1,000 feet.....	58,574
Wood.....	Cords.....	2,144

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.....	3	31
Persons engaged in the industry.....	15	81
Proprietors and firm members.....	2	32
Salaried employees.....	2	4
Wage earners (average number).....	11	45
Primary horsepower.....	95	830
Capital.....	\$9,600	\$34,751
Expenses.....	4,959	40,065
Services.....	4,404	3,268
Materials.....	213	135,462
Miscellaneous.....	342	1,345
Value of products.....	6,090	146,471

<sup>1</sup> Includes estimate of all grain ground. A similar estimate for value of lumber sawed by custom sawmills is impracticable.

MANUFACTURES—LOUISIANA.

429

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaries employed.	Wage earners (average number).							
Expressed in thousands.													
STATE—All industries.....	1909	2,516	80,563	2,295	8,103	70,165	345,652	\$221,816	\$9,008	\$33,386	\$134,865	\$223,049	\$80,084
	1904	2,091	63,735	1,899	6,977	55,859	251,963	150,811	6,044	25,316	117,035	130,380	60,345
	1899	1,820	.....	.....	8,576	40,878	190,182	100,875	2,934	14,725	75,404	111,898	35,394
Bags, other than paper.....	1909	0	538	0	58	474	180	2,352	70	158	5,072	5,352	280
	1904	0	422	5	47	370	131	1,145	51	117	3,044	4,076	432
	1899	5	377	4	43	330	.....	810	28	74	3,052	3,443	301
Boots and shoes, including out stock and findings.	1909	13	319	21	20	278	190	366	23	112	303	517	214
	1904	10	422	15	37	370	160	352	31	137	378	620	242
	1899	12	444	20	27	397	146	289	26	145	442	661	210
Bread and other bakery products.....	1909	289	1,744	312	143	1,280	946	1,829	110	669	2,703	4,620	1,917
	1904	230	1,032	257	33	742	572	787	17	374	1,673	2,680	1,013
	1899	157	1,183	168	89	926	.....	932	54	296	1,394	2,206	902
Brick and tile.....	1909	48	673	43	47	583	2,010	1,256	36	204	111	466	385
	1904	62	1,150	58	65	1,027	3,215	1,343	51	399	210	973	703
	1899	58	1,153	66	43	1,044	1,217	672	26	261	102	532	430
Canning and preserving.....	1909	26	1,124	50	91	974	659	1,393	107	183	573	978	405
	1904	19	722	21	87	614	344	1,001	55	144	630	1,173	537
	1899	15	461	27	26	398	.....	285	22	02	252	427	175
Carriages and wagons and materials.....	1909	40	427	45	24	358	568	407	22	196	200	520	323
	1904	40	350	46	11	263	220	237	11	150	151	436	285
	1899	41	.....	.....	13	285	.....	260	8	110	128	360	232
Cars and general shop construction and repairs by steam-railroad companies.	1909	26	2,615	.....	189	2,426	1,799	1,690	188	1,323	982	2,527	1,545
	1904	16	2,645	.....	211	2,434	799	1,471	188	1,285	1,114	2,635	1,521
	1899	19	1,421	.....	43	1,378	632	783	46	800	563	1,429	866
Clothing, men's, including shirts.....	1909	10	920	20	74	817	136	1,116	74	173	660	1,168	508
	1904	32	1,413	48	109	1,256	156	1,347	82	260	1,276	2,053	777
	1899	20	.....	.....	117	2,177	.....	1,210	102	412	1,243	2,181	638
Confectionery.....	1909	12	240	9	33	207	189	268	24	64	337	709	372
	1904	10	303	13	26	264	174	236	33	65	247	546	299
	1899	7	.....	.....	12	96	.....	151	0	35	155	250	95
Cooperage and wooden goods, not elsewhere specified.	1909	41	1,057	40	51	960	1,315	2,063	55	351	879	1,595	716
	1904	67	957	63	63	831	920	975	67	321	1,183	1,808	625
	1899	39	.....	.....	31	377	.....	350	21	139	356	633	277
Copper, tin, and sheet-iron products.....	1909	66	1,200	65	186	979	1,173	4,107	179	503	1,730	2,899	1,169
	1904	30	382	30	61	291	122	339	35	185	375	796	421
	1899	13	.....	.....	25	203	.....	279	25	80	279	478	199
Flour-mill and gristmill products.....	1909	11	112	5	25	82	895	594	34	33	840	943	103
	1904	3	0	4	1	4	140	60	1	2	53	66	13
	1899	4	.....	.....	2	30	.....	70	2	9	253	289	36
Foundry and machine-shop products.....	1909	83	1,573	71	188	1,314	2,557	3,710	237	812	1,452	2,068	1,546
	1904	72	1,890	64	176	1,659	2,548	4,048	247	957	1,272	3,261	1,959
	1899	83	.....	.....	117	1,406	.....	3,100	151	695	1,369	2,860	1,471
Furniture and refrigerators.....	1909	17	423	17	47	359	570	578	58	107	274	620	346
	1904	10	469	9	30	430	689	646	31	177	103	515	319
	1899	17	273	15	17	241	347	268	11	51	137	320	183
Ice, manufactured.....	1909	60	798	16	149	633	10,556	5,333	146	357	499	1,561	1,092
	1904	62	586	27	161	458	8,276	3,496	87	236	333	1,100	767
	1899	34	378	15	74	289	4,827	2,233	66	122	186	571	385
Leather goods.....	1909	17	314	19	65	230	122	677	68	120	708	1,025	317
	1904	11	400	10	99	261	125	500	80	130	617	960	343
	1899	8	.....	.....	53	168	.....	335	56	104	445	726	281
Liquors, malt.....	1909	9	620	.....	108	512	2,207	5,056	206	384	1,037	3,573	2,536
	1904	9	373	.....	55	318	1,560	3,105	118	244	597	2,287	1,690
	1899	6	431	.....	87	374	1,813	3,200	88	225	403	1,472	1,069
Lumber and timber products.....	1909	702	49,535	652	2,811	46,072	150,286	88,973	3,679	20,033	23,156	62,838	39,682
	1904	471	30,161	418	1,866	27,877	84,186	30,573	2,252	12,827	10,385	38,371	27,986
	1899	376	.....	.....	713	15,242	38,799	14,926	603	5,010	8,229	19,098	10,869
Mattresses and spring beds.....	1909	22	254	20	31	203	287	419	27	86	290	491	201
	1904	12	298	10	32	256	179	205	28	89	269	506	237
	1899	7	.....	.....	9	110	.....	50	5	20	111	157	46
Oil, cottonseed, and cake.....	1909	43	1,165	1	270	804	12,142	7,104	289	318	11,568	13,085	1,517
	1904	51	1,916	4	307	1,605	12,698	8,687	312	561	11,477	13,188	1,711
	1899	24	1,430	5	164	1,317	4,821	4,623	159	347	5,792	7,026	1,234
Printing and publishing.....	1909	268	2,461	280	637	1,544	1,494	2,996	597	1,061	1,013	3,823	2,810
	1904	240	2,035	219	603	1,313	1,167	2,121	450	836	742	3,184	2,442
	1899	203	.....	.....	215	1,386	.....	1,734	195	744	487	2,098	1,611

<sup>1</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.  
<sup>2</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

## MANUFACTURES—LOUISIANA.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaries employed.	Wage earners (average number).							
STATE—Continued.													
Rice, cleaning and polishing.....	1909	37	960	10	257	693	10,706	\$8,385	\$338	\$327	\$10,971	\$12,529	\$1,558
	1904	43	1,167	12	232	923	10,333	6,138	288	400	8,973	10,718	1,745
	1899	37	564	26	126	412	5,079	1,818	141	181	4,954	5,786	782
Shipbuilding, including boat building.....	1909	25	431	27	30	374	1,301	629	40	236	154	573	419
	1904	18	241	22	8	211	432	83	11	123	94	323	229
	1899	15	280	10	23	247	427	213	15	105	72	250	178
Sugar and molasses and sugar refining, not including beet sugar.	1909	209	6,400	197	1,110	5,093	128,047	50,868	931	2,430	52,302	63,775	11,473
	1904	251	7,100	281	1,004	5,815	112,165	54,872	717	3,166	50,508	73,787	14,279
	1899	355	.....	.....	1,042	6,444	119,784	52,606	421	2,818	39,676	46,748	7,072
Turpentine and rosin.....	1909	23	1,800	19	93	1,688	105	804	88	420	159	1,174	1,015
	1904	15	269	13	20	236	.....	76	12	70	87	212	175
	1899	10	325	15	8	302	5	75	3	54	33	115	82
All other industries.....	1909	395	8,851	332	1,396	7,123	15,303	28,183	1,376	2,657	16,886	33,611	16,725
	1904	289	7,014	250	793	5,971	10,613	17,969	789	2,052	11,595	20,100	8,505
	1899	262	.....	.....	487	5,269	.....	9,446	564	1,757	5,241	11,242	6,001

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

NEW ORLEANS—All industries.....	1909	848	20,938	754	2,998	17,186	38,145	\$56,934	\$3,240	\$8,090	\$48,732	\$78,794	\$30,062
	1904	890	20,406	606	2,332	17,468	.....	56,995	2,386	7,996	58,828	81,411	22,583
	1899	688	.....	.....	1,579	16,185	.....	42,658	1,667	6,176	40,386	57,446	17,060
Bags, other than paper.....	1909	6	538	6	58	474	189	2,352	76	158	5,072	5,352	280
	1904	6	422	5	47	370	.....	1,145	51	117	3,644	4,076	432
	1899	5	377	4	43	330	.....	819	28	74	3,082	3,443	361
Bread and other bakery products.....	1909	125	1,107	134	79	894	814	1,303	84	474	1,930	3,243	1,313
	1904	113	636	119	25	492	.....	618	15	266	1,169	1,783	684
	1899	127	.....	.....	88	871	.....	873	53	280	1,308	2,136	828
Canning and preserving.....	1909	11	222	14	26	182	95	255	35	38	202	292	90
	1904	11	264	13	54	197	.....	379	84	63	223	320	297
	1899	15	.....	.....	8	50	.....	19	5	10	56	74	18
Carriages and wagons and materials.....	1909	20	309	22	15	272	217	257	14	151	141	373	232
	1904	16	196	16	6	174	.....	102	5	90	90	242	152
	1899	23	.....	.....	8	219	.....	149	6	93	93	208	175
Cars and general shop construction and repairs by steam-railroad companies.	1909	6	1,055	.....	82	973	571	874	80	452	361	895	534
	1904	5	1,638	.....	131	1,507	.....	815	118	755	746	1,627	881
	1899	6	836	.....	21	915	.....	472	24	550	348	930	682
Clothing, men's, including shirts.....	1909	19	920	29	74	817	136	1,116	74	173	660	1,168	508
	1904	32	1,413	48	109	1,256	.....	1,347	82	260	1,276	2,053	777
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Confectionery.....	1909	8	220	6	27	187	102	224	21	56	299	638	339
	1904	11	268	9	23	236	.....	201	30	54	201	467	266
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cooperage and wooden goods, not elsewhere specified.	1909	20	509	20	32	457	410	1,180	34	184	535	934	399
	1904	33	693	36	48	609	.....	721	53	250	856	1,310	454
	1899	22	.....	.....	23	224	.....	205	16	92	197	379	182
Copper, tin, and sheet-iron products.....	1909	43	1,031	41	143	847	1,068	3,861	165	426	1,574	2,554	980
	1904	15	300	9	62	229	.....	310	35	124	291	596	304
	1899	9	.....	.....	25	189	.....	273	25	70	269	447	178
Foundry and machine-shop products.....	1909	39	844	38	108	698	1,000	1,920	129	468	1,020	1,895	875
	1904	30	1,231	29	119	1,033	.....	2,717	181	626	926	2,197	1,271
	1899	53	.....	.....	89	1,108	.....	2,395	124	567	1,197	2,387	1,190
Ice, manufactured.....	1909	20	340	2	54	284	3,140	2,934	57	174	250	661	411
	1904	16	168	4	85	129	.....	1,918	34	86	141	451	310
	1899	10	.....	.....	28	135	.....	1,538	38	49	116	309	193
Leather goods.....	1909	12	269	13	53	203	101	565	53	103	537	823	286
	1904	15	90	4	19	67	.....	53	18	26	29	87	58
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber and timber products.....	1909	54	2,042	45	197	1,800	6,611	4,582	235	906	2,121	3,867	1,746
	1904	30	2,053	16	167	1,870	.....	3,584	204	831	1,357	3,205	1,849
	1899	22	.....	.....	103	1,114	.....	1,782	121	449	1,034	2,118	1,084

<sup>1</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

<sup>2</sup> 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.

<sup>3</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

<sup>4</sup> Figures can not be shown without disclosing individual operations.

MANUFACTURES—LOUISIANA.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employees.	Wage earners (average number).							
Expressed in thousands.													
<b>NEW ORLEANS—Continued.</b>													
Patent medicines and compounds and druggists' preparations.	1909	20	176	13	53	110	68	\$199	\$67	\$28	\$132	\$360	\$228
	1904	19	108	3	53	142	.....	337	62	30	179	412	233
	1899	17	230	4	72	154	.....	474	130	04	200	731	471
Printing and publishing.....	1909	122	1,702	111	539	1,112	1,131	2,041	499	824	810	3,014	2,204
	1904	102	1,378	66	428	884	.....	1,560	381	588	542	2,340	1,708
	1899	98	.....	.....	195	1,126	.....	1,377	179	038	422	1,700	1,344
Rice, cleaning and polishing.....	1909	9	317	5	78	234	3,611	2,265	120	137	4,081	5,125	444
	1904	10	331	0	40	276	.....	1,580	66	114	4,383	4,882	499
	1899	9	.....	.....	61	153	.....	855	04	78	2,003	2,025	322
Shipbuilding, including boat building.....	1909	10	211	7	20	184	435	471	30	124	05	303	238
	1904	15	85	0	4	75	.....	11	6	34	18	73	55
	1899	0	.....	.....	10	137	.....	172	11	57	26	133	107
All other industries.....	1909	304	9,060	248	1,300	7,455	18,437	30,535	1,471	3,144	28,342	47,297	18,955
	1904	240	9,042	217	953	7,872	.....	30,685	1,012	3,030	42,767	55,081	12,314
	1899	286	.....	.....	801	6,400	.....	31,505	843	3,105	20,375	39,400	10,025

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

Alexandria.....	1909	30	628	20	80	513	3,910	\$1,038	\$95	\$235	\$508	\$1,279	\$681
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baton Rouge.....	1909	33	438	46	35	357	1,522	900	37	143	330	658	322
	1904	37	710	30	69	620	.....	1,291	65	309	598	1,383	785
	1899	13	.....	.....	40	329	.....	747	32	111	387	717	330
Lake Charles.....	1909	33	840	20	90	736	3,777	1,010	128	395	1,209	2,251	982
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monroe.....	1909	23	704	21	62	681	2,894	1,082	70	394	545	1,255	710
	1904	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shreveport.....	1909	61	1,381	41	226	1,114	3,042	3,710	255	671	2,089	3,643	1,554
	1904	63	1,351	43	141	1,162	.....	2,556	161	661	1,284	2,338	1,554
	1899	40	.....	.....	71	730	.....	1,229	60	320	901	1,550	655

<sup>1</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

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

<sup>3</sup> 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.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horsepower.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners.			Total.	16 and over.		Under 16.				
					Male.	Female.	Average number.	Number.			Male.	Female.	Male.	Female.			
								Maximum month.	Minimum month.								
1 All industries .....	2,516	88,563	2,205	2,706	4,838	559	76,165	De 31,814	Fe 69,620	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	346,652		
2 Artificial stone .....	15	95	15	5	1	74	Se 97	Ja 54	75	75					4		
3 Bags, other than paper .....	0	538	0	17	20	15	474	No 536	Je 393	531	156	253	28	94	189		
4 Baskets, and rattan and willow ware .....	5	14	5				9	De <sup>2</sup> 9	Se <sup>2</sup> 8	9							
5 Belting and hose, leather .....	3	25	1	4	6	4	10	De <sup>2</sup> 10	Jy <sup>2</sup> 10	10	9		1		10		
6 Boots and shoes, including outstock and findings .....	13	319	21	6	8	6	278	Oc 305	Ja 188	291	220	61	5	5	190		
7 Boxes, fancy and paper .....	3	136	3	3	7	1	122	Au 130	De <sup>2</sup> 118	118	27	70	9	12	36		
8 Bread and other bakery products .....	289	1,744	312	27	33	33	1,239	Oc 1,341	Ap 1,249	1,326	1,090	169	45	22	946		
9 Brick and tile .....	48	673	43	37	9	1	583	Jy 791	Ja 247	816	767	1	48		2,910		
10 Brooms .....	4	73	4	1	2		66	De 74	Ap 56	74	61		13		10		
11 Canning and preserving .....	26	1,124	59	33	56	2	974	Oc 1,213	Je 377	1,619	669	820	65	65	630		
12 Carriages and wagons and materials .....	40	427	45	14	8	2	358	De 379	Je 340	379	378		1		568		
13 Cars and general shop construction and repairs by steam-railroad companies .....	26	2,615		51	136	2	2,426	De 2,826	My 2,236	2,824	2,824				1,799		
14 Chemicals .....	4	52	1	3	10	2	36	Mh 56	Jy 29	37	37				159		
15 Clothing, men's, including shirts .....	19	920	29	11	54	9	817	De 998	My 677	1,000	88	908		4	130		
16 Clothing, women's .....	5	129	4	7	3	7	108	Oc 203	Ja 38	187	4	180	3		9		
17 Confectionery .....	12	249	9	10	17	6	207	Oc 235	Jy 155	208	70	114	12	12	189		
18 Cooperage and wooden goods, not elsewhere specified .....	41	1,057	40	25	24	2	966	De 1,186	Jy 844	1,144	1,129		15		1,315		
19 Copper, tin, and sheet-iron products .....	66	1,200	65	40	91	25	979	Oc 1,148	My 812	1,116	957	122	30	7	1,173		
20 Electroplating .....	3	7	3				4	De <sup>2</sup> 4	Je <sup>2</sup> 3	4	4				9		
21 Flour-mill and gristmill products .....	11	112	5	8	16	1	82	De 95	Jy <sup>2</sup> 75	98	98				895		
22 Foundry and machine-shop products .....	83	1,573	71	68	108	10	1,314	Oc 1,493	Fe 1,180	1,357	1,348	1	8		2,557		
23 Furnishing goods, men's .....	3	41	4	4	1	1	31	Ap 33	Jy 27	28	7		21		3		
24 Furniture and refrigerators .....	17	423	17	26	15	6	359	De 410	Ja 266	410	380	1	29		570		
25 Hand stamps and stencils and brands .....	3	21	3	1	4		13	De <sup>2</sup> 13	Jy <sup>2</sup> 13	13	11		2		5		
26 Ice, manufactured .....	69	798	16	82	65	2	633	Jy 827	Fe 451	618	610	1	7		10,556		
27 Leather goods .....	17	314	19	11	50	4	230	De 254	Mh 190	256	244	4	8		122		
28 Liquors, distilled .....	4	101	2	10	12		77	Au 89	Mh 64	81	81				140		
29 Liquors, malt .....	9	620		30	78		512	Jy 528	No 493	498	481	16	1		2,207		
30 Lumber and timber products .....	702	49,535	652	1,010	1,665	136	46,072	De 49,316	Fe 43,932	51,645	51,202	55	382	6	150,286		
31 Marble and stone work .....	22	281	22	13	13	3	230	De 259	Fe 207	259	258		1		226		
32 Mattresses and spring beds .....	22	254	20	12	12	7	203	Au <sup>2</sup> 218	De 118	234	205	24	5		287		
33 Oil, cottonseed, and cake .....	43	1,165	1	112	153	5	894	No 1,595	Je 383	1,720	1,704	11	4	1	12,142		
34 Patent medicines and compounds and druggists' preparations .....	21	178	14	14	25	14	111	Ja 118	Au 105	116	49	60	5	2	68		
35 Pottery, terra-cotta, and fire-clay products .....	4	33	6	1			26	Fe <sup>2</sup> 27	De <sup>2</sup> 26	26	21		5		40		
36 Printing and publishing .....	268	2,461	280	158	417	62	1,544	De 1,598	Fe 1,522	1,600	1,354	167	78	1	1,494		
37 Pumps, not including steam pumps .....	3	35	6	2	1	1	24	Mh 35	De <sup>2</sup> 18	18	18				57		
38 Rice, cleaning and polishing .....	37	960	10	72	172	13	693	Oc 1,180	Je 188	939	929	0	4		10,706		
39 Shipbuilding, including boat building .....	25	431	27	13	11	1	374	Au 433	My 319	391	391				1,301		
40 Slaughtering and meat packing .....	10	210	10	8	9	1	182	Se 192	My 177	184	184				596		
41 Sugar and molasses .....	204	5,077	193	377	552	24	3,931	No 15,112	Fe 419	14,717	14,560	71	83	3	118,162		
42 Sugar refining, not including beet sugar .....	5	1,323	4	40	112	5	1,162	Jy 1,629	Ja 857	1,798	1,706		32		9,885		
43 Turpentine and resin .....	23	1,800	19	45	47	1	1,688	An <sup>2</sup> 1,821	Ja 1,407	1,837	1,830		7		105		
44 All other industries <sup>4</sup> .....	283	7,420	229	292	760	139	6,000								13,631		

<sup>1</sup> No figures given for reasons explained in the Introduction.

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

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

<sup>4</sup> All other industries embrace—

1 Agricultural implements .....	1	Carriages and sleds, children's .....	2	Fertilizers .....	6
1 Artificial flowers and feathers and plumes .....	1	Cars and general shop construction and repairs by street-railroad companies .....	2	Flags, banners, regalia, society badges, and emblems .....	1
7 Awnings, tents, and sails .....	7	Cars, steam-railroad, not including operations of railroad companies .....	1	Flavoring extracts .....	4
3 Axle grease .....	3	Coffee and spice, roasting and grinding .....	17	Food preparations .....	29
1 Baking powders and yeast .....	1	Coffins, burial cases, and undertakers' goods .....	1	Gas and electric fixtures and lamps and reflectors .....	1
1 Blacking and cleansing and polishing preparations .....	1	Cordage and twine and jute and linen goods .....	1	Gas, illuminating and heating .....	5
2 Bluing .....	2	Cordials and sirups .....	8	Glass, cutting, staining, and ornamenting .....	2
2 Boxes, cigar .....	2	Cotton goods, including cotton small wares .....	2	Gold and silver, reducing and refining, not from the ore .....	1
2 Brass and bronze products .....	2	Electrical machinery, apparatus, and supplies .....	2	Grease and tallow .....	2
1 Brushes .....	1	Fancy articles, not elsewhere specified .....	1	Hosiery and knit goods .....	1
1 Butter, cheese, and condensed milk .....	1				
1 Candles .....	1				

MANUFACTURES—LOUISIANA.

433

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 \$221,816,398	\$204,023,520	\$4,679,847	\$4,328,288	\$33,385,904	\$3,952,109	\$180,912,866	\$541,827	\$10,074,141	\$2,555,405	\$18,598,939	\$228,948,638	\$69,088,868
2 97,298	76,686	2,216	900	34,063	30	32,273	343	159	340	6,362	107,008	74,705
3 2,362,005	5,430,920	30,144	45,865	158,439	9,850	5,002,323	10,876	12,270	.....	101,147	5,351,661	279,488
4 10,388	12,598	.....	.....	4,432	27	0,388	1,200	98	.....	391	18,360	11,945
5 67,895	138,255	6,900	8,986	8,481	170	93,565	3,250	243	.....	16,660	141,777	48,042
6 366,342	466,123	9,850	12,040	112,234	0,064	296,961	4,980	920	.....	21,178	516,789	213,774
7 89,337	157,619	4,600	3,700	21,042	1,380	110,217	4,020	370	.....	5,390	173,390	55,802
8 1,828,794	3,910,806	41,889	68,161	608,906	61,565	2,611,612	51,270	15,352	1,434	360,257	4,619,618	1,916,441
9 1,255,697	428,488	32,984	3,400	204,165	68,144	13,241	330	5,365	300	70,559	496,497	386,112
10 50,611	116,772	1,200	1,646	39,804	480	70,421	816	.....	.....	2,405	125,732	54,831
11 1,392,777	965,479	58,692	48,597	182,657	17,103	555,995	7,554	5,092	1,550	87,399	977,703	404,665
12 467,273	450,727	15,100	6,806	190,281	8,225	107,793	6,012	1,505	.....	19,005	528,757	322,739
13 1,690,369	2,516,836	68,287	120,094	1,323,145	49,688	932,579	.....	3,932	.....	18,611	2,527,337	1,545,070
14 337,320	242,806	7,840	10,542	21,430	7,392	164,540	920	1,993	.....	28,143	248,815	79,877
15 1,116,666	1,008,453	19,695	54,113	173,396	2,825	667,044	16,186	1,670	40,809	43,766	1,168,205	598,336
16 99,944	108,884	6,540	1,280	18,520	454	72,080	2,403	333	.....	6,747	117,608	45,055
17 268,354	550,483	16,730	7,405	64,135	5,643	331,449	8,305	1,802	.....	115,014	700,402	372,310
18 2,063,146	1,400,501	34,423	20,219	351,210	9,613	860,327	4,062	16,089	500	96,068	1,594,830	715,890
19 4,107,483	2,667,460	89,738	89,196	502,688	20,075	1,700,842	41,267	12,229	11,664	190,770	2,898,507	1,168,680
20 5,895	4,701	.....	.....	2,196	371	980	1,020	16	.....	118	7,700	6,349
21 593,968	924,502	8,100	26,220	32,838	5,565	894,572	637	1,039	.....	15,531	942,955	102,819
22 3,710,304	2,692,422	126,160	111,033	812,246	46,688	1,405,406	13,062	14,373	5,607	167,757	2,998,273	1,540,179
23 47,871	50,758	6,550	305	4,897	121	36,068	1,237	59	.....	831	62,477	25,658
24 577,715	535,938	39,209	18,372	167,067	3,597	269,903	3,860	1,963	.....	31,841	619,684	340,124
25 28,079	21,600	624	1,500	6,500	146	9,545	3,090	21	.....	204	29,477	19,786
26 5,332,898	1,252,875	97,719	48,034	350,573	301,464	137,074	111	35,098	900	215,902	1,509,985	1,002,447
27 678,794	955,357	21,905	40,282	119,600	2,516	705,422	10,391	2,366	.....	40,809	1,025,187	317,249
28 1,178,858	8,397,771	41,149	8,242	58,202	46,737	816,617	.....	7,330,078	.....	96,656	8,654,317	7,790,993
29 5,655,842	2,698,516	108,140	98,220	383,809	90,040	939,868	.....	540,984	12,499	427,906	3,573,401	2,536,593
30 88,973,294	55,421,176	1,887,613	1,811,894	20,033,213	303,169	22,868,027	40,203	837,515	2,330,523	5,344,110	62,837,012	39,681,716
31 398,094	475,724	18,145	17,275	155,013	3,271	256,875	2,928	801	3,741	17,585	608,883	345,737
32 419,270	467,271	16,994	10,282	85,856	4,403	285,402	4,471	1,151	.....	68,622	490,522	200,627
33 7,183,820	12,639,592	177,012	112,171	318,084	227,261	11,340,440	20,100	75,994	100	368,430	13,084,580	1,516,885
34 209,028	284,014	31,850	24,860	28,725	1,001	133,032	6,922	12,222	.....	45,402	363,338	229,300
35 66,445	22,189	720	.....	9,055	1,045	10,107	180	116	.....	960	34,642	23,490
36 2,996,167	3,333,901	279,381	317,803	1,000,760	40,680	972,613	61,751	10,079	80,066	480,778	3,823,473	2,810,180
37 101,622	81,294	2,700	1,180	13,980	876	59,951	630	177	.....	1,800	98,207	37,380
38 8,385,212	12,090,348	165,850	172,116	826,537	68,141	10,902,721	6,320	41,778	.....	415,885	12,528,650	1,557,794
39 629,027	468,948	32,904	6,742	235,099	5,183	149,030	4,023	4,461	.....	30,006	572,602	418,389
40 506,656	217,700	10,700	6,596	67,589	24,018	74,187	780	8,024	.....	25,896	276,454	178,249
41 34,642,802	24,699,951	487,433	193,839	1,700,728	1,386,604	18,735,121	30,225	272,813	40,268	1,762,920	29,001,027	8,879,302
42 16,225,474	34,062,328	140,433	108,979	678,243	532,200	31,648,228	23,550	70,652	.....	850,653	34,774,173	2,593,655
43 804,345	749,810	54,990	33,091	420,005	1,007	167,042	.....	3,146	1,184	78,736	1,173,848	1,015,199
44 24,888,903	20,908,141	496,769	649,303	2,163,246	469,507	14,385,090	105,756	720,491	23,830	1,903,999	22,543,798	7,669,021

\*All other industries embrace—Continued.

House-furnishing goods, not elsewhere specified.....	2	Petroleum, refining.....	2	Tobacco manufactures.....	28
Iron and steel forgings.....	1	Photo-engraving.....	3	Type founding and printing materials.....	1
Jewelry.....	2	Roofing materials.....	2	Umbrellas and canes.....	2
Leather, tanned, curried, and finished.....	1	Salt.....	2	Upholstering materials.....	17
Liquors, various.....	1	Show cases.....	1	Vinegar and elder.....	1
Millinery and lace goods.....	1	Silverware and plated ware.....	1	Window shades and fixtures.....	1
Mineral and soda waters.....	72	Soap.....	5	Wirework, including wire rope and cable.....	2
Mirrors.....	2	Statuary and art goods.....	2	Wood distillation, not including turpentine and rosin.....	2
Models and patterns, not including paper patterns.....	3	Steam packing.....	1	Wood preserving.....	5
Paint and varnish.....	3	Sulphuric, nitric, and mixed acids.....	1	Wood, turned and carved.....	2
Paper and wood pulp.....	1	Surgical appliances and artificial limbs.....	2		

## MANUFACTURES—LOUISIANA.

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

INDUSTRY AND CITY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.									WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Primary horse-power.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners (average number).			16 and over.		Under 16.				
					Male.	Female.	Total.	16 and over.	Under 16.	Male.	Female.	Male.	Female.			
														Male.		Female.
1 All industries.....	848	20,938	754	747	1,924	327	17,186	12,209	4,005	972	19,426	13,579	4,737	503	607	38,145
2 Bags, other than paper.....	6	538	6	17	26	15	474	139	226	109	531	156	253	28	94	189
3 Bread and other bakery products.....	125	1,107	134	15	41	23	894	695	155	44	910	707	158	23	22	814
4 Canning and preserving.....	11	222	14	9	15	2	182	45	137	.....	321	79	242	.....	.....	95
5 Carriages and wagons and materials.....	20	309	22	8	6	1	272	271	.....	1	284	283	.....	1	.....	217
6 Cars and general shop construction and repairs by steam-railroad companies.....	6	1,095	.....	10	72	.....	973	.....	.....	.....	1,113	1,113	.....	.....	.....	571
7 Clothing, men's, including shirts.....	19	920	29	11	54	9	817	72	742	3	1,000	88	908	.....	4	136
8 Confectionery.....	8	220	6	6	15	6	187	51	112	24	190	52	114	12	12	102
9 Cooperage and wooden goods, not elsewhere specified.....	20	509	20	14	18	.....	457	456	.....	1	448	447	.....	1	.....	410
10 Copper, tin, and sheet-iron products.....	43	1,031	41	34	55	24	847	711	104	32	992	833	122	30	7	1,068
11 Foundry and machine-shop products.....	39	844	38	33	67	8	698	692	.....	6	760	754	.....	6	.....	1,009
12 Tea, manufactured.....	20	340	2	29	25	.....	284	284	.....	.....	270	270	.....	.....	.....	3,140
13 Leather goods.....	12	269	13	9	41	3	203	194	4	5	221	211	4	6	.....	101
14 Lumber and timber products.....	54	2,042	45	72	113	12	1,800	1,743	19	38	1,897	1,837	20	34	6	6,611
15 Patent medicines and compounds and druggists' preparations.....	20	176	13	14	25	14	110	46	57	7	115	48	60	5	2	68
16 Printing and publishing.....	122	1,762	111	107	385	47	1,112	943	116	53	1,127	956	117	54	.....	1,131
17 Rice, cleaning and polishing.....	9	317	5	24	49	5	234	227	5	2	311	302	6	3	.....	3,611
18 Shipbuilding, including boat building.....	10	211	7	11	8	1	184	184	.....	.....	179	179	.....	.....	.....	435
19 All other industries <sup>1</sup> .....	304	9,065	248	324	879	157	7,458	4,483	2,328	647	8,757	5,264	2,733	300	460	18,437

<sup>1</sup> All other industries embrace: Artificial flowers and feathers and plumes, 1; artificial stone, 11; awnings, tents, and sails, 6; axle grease, 3; baking powders and yeast, 1; baskets, and rattan and willow ware, 5; belting and hose, leather, 2; blacking and cleansing and polishing preparations, 1; bluing, 2; boots and shoes, including cut stock and findings, 12; boxes, cigar, 2; boxes, fancy and paper, 2; brass and bronze products, 2; brooms, 4; brushes, 1; carriages and sleds, children's, 2; cars and general shop construction and repairs by street-railroad companies, 1; chemicals, 3; clothing, women's, 5; coffee and spice, roasting and grinding, 16; coffins, burial cases, and undertakers' goods, 1; cordage and twine and jute and linen goods, 1; cordials and sirups, 8; cotton goods, including cotton small wares, 2; electrical machinery, apparatus, and supplies, 2; electroplating, 3; fancy articles, not elsewhere specified, 1; fertilizers, 1; flags, banners, regalia, society badges, and emblems, 1; flavoring extracts, 3; flour-mill and gristmill products, 2; food preparations, 22; furnishing goods, men's, 3; furniture and refrigerators, 17; gas and electric fixtures and lamps and reflectors, 1; gas, illuminating and heating, 2; glass, cutting, staining, and ornamenting, 2; gold and silver, reducing and refining, not from the ore, 1; grease and tallow, 1; hand stamps and

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

1 ALEXANDRIA.....	30	628	26	34	48	7	513	505	3	5	668	658	4	6	.....	3,910
2 BATON ROUGE.....	33	438	46	17	10	8	357	331	20	6	434	402	25	7	.....	1,522
3 LAKE CHARLES.....	33	846	20	50	30	10	736	730	2	4	771	765	2	4	.....	3,777
4 MONROE.....	23	764	21	35	22	5	681	678	1	2	760	757	1	2	.....	2,594
5 SHREVEPORT.....	61	1,381	41	95	113	18	1,114	1,105	6	3	1,340	1,329	7	4	.....	3,042



MANUFACTURES—LOUISIANA.

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.

NEW ORLEANS.

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 \$58,933,549	\$73,514,472	\$1,535,152	\$1,704,716	\$8,020,060	\$1,228,586	\$47,593,473	\$308,126	\$9,768,375	\$155,467	\$4,230,518	\$78,794,030	\$30,061,971
2 2,352,005	5,430,920	30,144	45,805	158,430	0,850	5,002,323	10,870	12,270	.....	101,147	5,351,661	279,488
3 1,303,355	2,840,652	33,005	50,692	474,407	64,800	1,805,484	20,538	11,815	.....	310,582	3,242,739	1,312,386
4 254,801	308,359	18,720	16,568	37,514	2,211	199,691	3,678	2,173	.....	28,814	292,461	90,559
5 255,977	322,880	8,887	5,886	150,982	0,017	135,276	5,733	1,003	.....	0,310	373,015	231,723
6 873,984	894,779	16,060	63,770	462,472	18,651	342,916	.....	1,061	.....	143	804,779	534,112
7 1,115,660	1,008,453	10,095	54,113	173,305	2,825	657,044	15,136	1,070	40,800	43,705	1,168,205	508,336
8 494,014	14,480	6,905	50,102	4,171	295,281	4,785	4,785	1,429	.....	110,801	638,206	338,754
9 1,180,122	833,328	10,063	16,199	183,997	5,772	620,160	3,822	12,720	.....	63,586	993,670	398,720
10 3,861,346	2,388,118	82,334	82,406	425,631	17,823	1,555,700	35,917	11,750	1,000	175,452	2,554,111	980,570
11 1,919,799	1,737,006	63,508	60,778	468,222	27,173	992,377	11,964	0,706	5,097	95,401	1,894,720	875,170
12 2,034,481	594,350	37,970	10,451	173,968	201,416	48,880	.....	10,638	900	95,118	600,570	410,274
13 565,423	743,309	18,005	34,410	103,037	2,130	534,972	12,828	2,105	.....	34,556	823,138	280,630
14 4,582,477	3,407,532	149,207	85,283	605,804	10,704	2,103,810	12,882	22,810	225	170,738	3,806,734	1,746,220
15 199,028	280,014	31,850	24,860	28,225	1,001	131,032	0,622	12,222	.....	43,902	360,333	228,300
16 2,041,366	2,721,596	214,215	284,285	823,597	20,124	780,951	68,042	0,237	75,748	438,407	3,014,449	2,204,374
17 2,264,728	5,089,072	60,846	59,226	136,954	43,437	4,637,681	6,120	10,116	.....	119,002	6,124,836	443,718
18 470,904	253,213	24,448	5,003	123,900	3,407	61,653	3,816	4,004	.....	26,203	303,356	238,296
19 30,532,880	44,105,868	680,080	789,701	3,143,233	771,990	27,570,125	135,166	8,622,328	31,085	2,362,085	47,207,047	18,554,023

stenells and brands, 3; hostery and knit goods, 1; house-furnishing goods, not elsewhere specified, 2; iron and steel forgings, 1; jewelry, 2; leather, tanned, curried, and finished, 1; liquors, distilled, 4; liquors, malt, 3; liquors, vinous, 1; marble and stone work, 13; mattresses and spring beds, 19; millinery and lace goods, 1; mineral and soda waters, 13; mirrors, 2; models and patterns, not including paper patterns, 2; oil, cottonseed, and cake, 1; paint and varnish, 3; photo-engraving, 2; pottery, terra-cotta, and fire-clay products, 3; pumps, not including steam pumps, 1; roofing materials, 2; show cases, 1; silverware and plated ware, 1; slaughtering and meat packing, 8; soap, 5; statuary and art goods, 2; steam packing, 1; sugar and molasses, 2; sugar, refining, not including beet sugar, 3; surgical appliances and artificial limbs, 2; tobacco manufactures, 22; type founding and printing materials, 1; umbrellas and canes, 2; upholstering materials, 7; vinegar and cider, 1; window shades and fixtures, 1; wire-work, including wire rope and cable, 1; wood distillation, not including turpentine and rosin, 2; wood preserving, 1.

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

1 \$1,637,754	\$1,104,301	\$40,721	\$48,568	\$234,502	\$20,452	\$577,035	\$3,156	\$14,458	\$05,839	\$02,820	\$1,278,041	\$080,554
2 905,730	576,926	20,243	10,838	192,929	31,486	304,210	6,391	7,084	1,410	45,726	658,379	322,083
3 1,919,077	1,657,897	102,775	21,835	305,442	16,638	1,232,558	0,227	17,310	55,700	86,343	2,250,073	981,777
4 1,081,963	1,110,444	51,000	24,075	304,400	28,244	516,450	1,680	13,787	2,072	85,750	1,255,310	710,016
5 3,718,856	3,314,239	143,500	111,521	671,403	40,350	2,030,386	35,240	10,223	21,006	223,446	3,042,009	1,553,373

# MAINE.

## INDUSTRIES IN GENERAL.

**General character of the state.**—Maine, with a gross area of 33,040 square miles, of which 3,145 represent water surface, ranks thirty-eighth in size among the states and territories of continental United States. Its population in 1910 was 742,371, as compared with 694,466 in 1900 and 661,086 in 1890. It ranked thirty-fourth among the 49 states and territories as regards population in 1910, and thirty-first in 1900. The density of population of the state was 24.8 per square mile in 1910, the corresponding figure for 1900 being 23.2. Fifty-one and four-tenths per cent of the entire population of the state resided in cities and towns having a population of 2,500 or over in 1910, as against 48.6 per cent in 1900.

Portland, with a population of 58,571, is the only city in the state having over 50,000 inhabitants. Six cities—Lewiston, Bangor, Biddeford, Auburn, Augusta, and Waterville—had a population of over 10,000 but less than 50,000 in 1910. These seven cities contained 22.4 per cent of the total population in 1910 and were credited with 29.2 per cent of the total value of manufactured products of the state in 1909.

The transportation facilities of the state are good. The important manufacturing centers are accessible by rail, while good harbors and navigable rivers afford excellent facilities for water transportation and have

been very important factors in the development of the manufactures of the state. Portland has one of the best harbors on the North Atlantic coast and is an important seaport for domestic and foreign shipping.

**Importance and growth of manufactures.**—Although agriculture and fishing are both important in Maine, manufacturing is the leading branch of industry in the state. In 1849 an average of 28,020 wage earners, representing 4.8 per cent of the total population, were employed in manufactures, while in 1909 an average of 79,955 wage earners, or 10.8 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 \$42 to \$237. Notwithstanding the fact that the manufactures of the state have advanced steadily, the proportion which their value represents of the total value of manufactured products in the United States has decreased. This proportion was 2.4 per cent in 1849, 1.5 per cent in 1879, 1 per cent in 1904, and nine-tenths of 1 per cent in 1909.

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.....	3,546	3,145	2,878	12.8	9.3
Persons engaged in manufactures.....	88,476	82,109	(1)	7.8	.....
Proprietors and firm members.....	3,061	3,379	(1)	8.3	.....
Salaried employees.....	4,860	3,772	3,103	28.8	21.6
Wage earners (average number).....	79,955	74,058	69,014	6.7	7.2
Primary horsepower.....	459,599	343,627	259,232	33.7	32.6
Capital.....	\$202,260,000	\$143,708,000	\$114,008,000	40.7	26.0
Expenses.....	154,821,000	120,208,000	97,520,000	19.8	32.5
Services.....	43,429,000	36,081,000	28,782,000	18.4	27.4
Salaries.....	5,797,000	3,989,000	3,051,000	45.3	30.7
Wages.....	37,632,000	32,092,000	25,731,000	15.1	27.1
Materials.....	97,101,000	80,042,000	61,210,000	21.3	30.8
Miscellaneous.....	14,291,000	12,485,000	7,528,000	14.5	65.8
Value of products.....	176,029,000	144,020,000	112,959,000	22.2	27.5
Value added by manufacture (value of products less cost of materials).....	78,928,000	63,978,000	51,749,000	23.4	23.6

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

In 1909 the state of Maine had 3,546 manufacturing establishments, which gave employment to an average of 88,476 persons during the year and paid out \$43,429,000 in salaries and wages. Of the persons employed, 79,955 were wage earners. These establishments turned out products to the value of \$176,029,000, to produce which materials costing \$97,101,000 were used. The value added by manu-

facture was thus \$78,928,000, 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 Maine as a whole show about the same development during both of the five-year periods, 1899-1904 and 1904-1909. During the

later period the number of establishments increased 12.8 per cent and the average number of wage earners 6.7 per cent, while the value of products increased 22.2 per cent and the value added by manufacture 23.4 per cent. 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. <sup>1</sup>			
		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.....	3,546	79,955	100.0	\$176,029,000	100.0	\$78,928,000	100.0	22.2	27.5	23.4	23.6
Paper and wood pulp.....	45	8,647	10.8	33,950,000	19.3	13,440,000	17.0	47.9	73.6	48.0	48.8
Lumber and timber products.....	1,065	15,086	18.9	26,125,000	14.8	15,195,000	19.2	22.4	39.5	22.3	63.8
Cotton goods, including cotton small wares.....	16	14,634	18.3	21,932,000	12.5	10,542,000	13.4	42.4	5.3	09.1	-17.9
Woolen, worsted, and felt goods, and wool hats.....	65	8,754	10.9	18,490,000	10.5	7,128,000	9.0	5.2	31.1	5.3	23.8
Boots and shoes, including cut stock and findings.....	55	6,626	8.3	15,509,000	8.8	5,568,000	7.1	23.0	1.4	33.4	4.7
Canning and preserving.....	245	3,850	4.8	7,689,000	4.4	2,564,000	3.2	5.8	17.8	-15.3	8.5
Foundry and machine-shop products.....	125	2,885	3.6	5,237,000	3.0	2,893,000	3.7	7.1	35.1	0.2	57.2
Flour-mill and gristmill products.....	173	225	0.3	4,507,000	2.6	480,000	0.6	14.6	25.1	-2.2	-5.6
Printing and publishing.....	195	1,651	2.1	3,438,000	2.0	2,336,000	3.0	1.1	26.5	-5.3	22.9
Shipbuilding, including boat building.....	156	1,755	2.2	3,082,000	1.7	1,893,000	2.4				
Marble and stone work.....	142	2,381	3.0	2,565,000	1.4	2,075,000	2.6	0.4	26.4	-4.8	23.5
Bread and other bakery products.....	186	586	0.7	2,235,000	1.3	807,000	1.0	50.1	23.6	31.9	9.1
Cars and general shop construction and repairs by steam-railroad companies.....	18	1,200	1.5	2,048,000	1.2	849,000	1.1	72.1	38.9	68.1	36.9
Leather, tanned, curried, and finished.....	17	436	0.5	1,905,000	1.1	453,000	0.6	-23.8	2.0	-13.9	2.3
Wood, turned and carved.....	62	1,287	1.6	1,870,000	1.1	971,000	1.2	14.0	92.4	-0.2	87.1
Copper, tin, and sheet-iron products.....	16	374	0.5	1,689,000	1.0	671,000	0.8	231.2	420.4	510.0	74.6
Butter, cheese, and condensed milk.....	29	96	0.1	1,301,000	0.7	203,000	0.3				
Lime.....	12	528	0.7	1,215,000	0.7	486,000	0.6	3.5			
Clothing, men's, including shirts.....	33	1,068	1.3	1,164,000	0.7	567,000	0.7	25.3	-37.5	-15.0	-27.1
Carrriages and wagons and materials.....	150	472	0.6	966,000	0.5	569,000	0.7	1.0	32.8	2.3	25.8
Slaughtering and meat packing.....	20	107	0.1	957,000	0.5	172,000	0.2				
Cooperage and wooden goods, not elsewhere specified.....	68	349	0.4	842,000	0.5	407,000	0.5	46.9	130.1	44.3	100.0
Patent medicines and compounds and druggists' preparations.....	37	144	0.2	756,000	0.4	559,000	0.7				
Confectionery.....	28	214	0.3	711,000	0.4	375,000	0.5	43.1	67.3	93.3	39.6
Glucose and starch.....	64	120	0.2	687,000	0.4	212,000	0.3	31.1	-5.8	32.5	-18.8
Clothing, women's.....	7	532	0.7	686,000	0.4	348,000	0.4	23.8	92.4	42.0	82.8
Leather goods.....	17	286	0.4	675,000	0.4	284,000	0.3	-4.1	44.0	-31.2	49.1
Gas, illuminating and heating.....	19	216	0.3	549,000	0.3	337,000	0.4	23.6	55.8	7.0	48.6
Tobacco manufactures.....	77	252	0.3	464,000	0.3	295,000	0.4	3.1	57.9	10.1	44.1
Brick and tile.....	49	263	0.3	390,000	0.2	285,000	0.4	-7.1	-4.5	-5.6	-9.6
Furniture and refrigerators.....	13	215	0.3	368,000	0.2	200,000	0.3	-2.4	-35.1	-13.8	-21.9
Stoves and furnaces, including gas and oil stoves.....	4	190	0.2	329,000	0.1	231,000	0.3	8.2		-0.4	
Boxes, fancy and paper.....	10	280	0.3	304,000	0.2	179,000	0.2	28.8	13.5	37.7	19.3
Agricultural implements.....	30	121	0.2	226,000	0.1	142,000	0.2	9.7	-29.0	9.2	-32.3
All other industries.....	318	4,127	5.1	11,188,000	6.4	5,206,000	6.7				

<sup>1</sup> 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.

Although five industries greatly predominate in importance, reporting approximately two-thirds of the average number of wage earners, value of products, and value added by manufacture, it will be seen from Table II on page 456 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 call for brief consideration.

*Paper and wood pulp.*—The manufacture of paper and wood pulp, which is the leading industry of the state, measured by value of products, gave employment to an average of 8,647 wage earners in 1909, and the value of its products amounted to \$33,950,000.

This industry contributed 19.3 per cent of the total value of manufactures of the state in 1909, in which year Maine reported 12.7 per cent of the total value of paper and wood pulp products for the United States.

*Lumber and timber products.*—This industry, which includes logging operations, sawmills, planing mills, and factories manufacturing wooden packing-boxes, was first in importance in the state in 1909 in number of establishments, average number of wage earners, and value added by manufacture, and second in value of products. The utilization of forest products, one of the earliest forms of manufacture in Maine, continues to be a most important factor in its industrial activities.

*Textiles.*—Eight textile industries are represented in Maine, namely, the manufacture of (1) cotton goods, including cotton small wares; (2) woolen, worsted, and felt goods; (3) hosiery and knit goods; (4) silk goods,

later period the number of establishments increased 12.8 per cent and the average number of wage earners 6.7 per cent, while the value of products increased 22.2 per cent and the value added by manufacture 23.4 per cent. 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.

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INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		PER CENT OF INCREASE. <sup>1</sup>			
		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
<b>All Industries.....</b>	<b>3,546</b>	<b>79,955</b>	<b>100.0</b>	<b>\$176,029,000</b>	<b>100.0</b>	<b>\$78,928,000</b>	<b>100.0</b>	<b>22.2</b>	<b>27.5</b>	<b>23.4</b>	<b>23.6</b>
Paper and wood pulp.....	45	8,647	10.8	33,950,000	19.3	13,440,000	17.0	47.9	73.6	48.0	48.8
Lumber and timber products.....	1,065	15,086	18.9	26,125,000	14.8	15,195,000	19.2	22.4	39.5	22.3	63.8
Cotton goods, including cotton small wares.....	16	14,634	18.3	21,932,000	12.5	10,542,000	13.4	42.4	5.3	69.1	-17.0
Woolen, worsted, and felt goods, and wool hats.....	65	8,754	10.9	18,490,000	10.5	7,128,000	9.0	5.2	31.1	5.3	23.8
Boots and shoes, including cut stock and findings.....	55	6,623	8.3	15,569,000	8.8	5,568,000	7.1	23.0	1.4	33.4	4.7
Canning and preserving.....	245	3,850	4.8	7,689,000	4.4	2,564,000	3.2	5.8	17.8	-15.3	8.5
Foundry and machine-shop products.....	125	2,885	3.6	5,237,000	3.0	2,893,000	3.7	7.1	35.1	0.2	57.2
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Shipbuilding, including boat building.....	156	1,755	2.2	3,062,000	1.7	1,893,000	2.4				
Marble and stone work.....	142	2,381	3.0	2,565,000	1.4	2,075,000	2.6	0.4	26.4	-4.8	23.5
Bread and other bakery products.....	186	586	0.7	2,235,000	1.3	807,000	1.0	50.1	23.6	31.9	9.1
Cars and general shop construction and repairs by steam-railroad companies.....	18	1,200	1.5	2,048,000	1.2	849,000	1.1	72.1	38.9	68.1	36.9
Leather, tanned, curried, and finished.....	17	433	0.5	1,905,000	1.1	453,000	0.6	-23.8	2.0	-13.9	3.3
Wood, turned and carved.....	62	1,287	1.6	1,870,000	1.1	971,000	1.2	14.0	92.4	-0.2	87.1
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This industry contributed 19.3 per cent of the total value of manufactures of the state in 1909, in which year Maine reported 12.7 per cent of the total value of paper and wood pulp products for the United States.

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*Textiles.*—Eight textile industries are represented in Maine, namely, the manufacture of (1) cotton goods, including cotton small wares; (2) woolen, worsted, and felt goods; (3) hosiery and knit goods; (4) silk goods,

including the operations of throwsters; (5) cordage and twine; (6) shoddy; (7) fur-felt hats; and (8) the dyeing and finishing of textiles. The manufacture of cotton goods ranks third among the industries of the state and the manufacture of woolen, worsted, and felt goods, fourth. The other six industries are of comparatively little importance in the state.

From 1899 to 1904 the cotton-goods industry of the state was practically stationary, the value of its products increasing only 5.3 per cent, but between 1904 and 1909 the increase in prices, the renewed activity of the mills of the state, and the establishment of an additional mill brought about an increase of 42.4 per cent in this respect. In 1909 employment was given to 14,634 wage earners, and the value of products amounted to \$21,932,000.

In 1909 the woolen, worsted, and felt-goods industry in Maine embraced the operations of 55 woolen mills, 8 worsted mills, and 2 felt mills. No wool-hat establishments were reported. This industry as a whole had a greater growth during the five years 1899-1904 than during the more recent five-year period, 1904-1909. The output of the woolen mills declined slightly in the latter period, but the increased output of the worsted mills resulted in a small gain for the combined industry.

*Boots and shoes, including cut stock and findings.*—The boot and shoe industry of the state remained practically stationary between 1899 and 1904, the value of products and the amount paid in wages increasing only slightly and the number of persons employed in the industry decreasing. From 1904 to 1909 the value of products increased 23 per cent, but this resulted chiefly from increased prices. The actual output of boots, shoes, and slippers was considerably smaller in 1909 than in 1899 and only slightly larger than in 1904.

*Canning and preserving.*—This industry, which includes the canning and preserving of fruits, vegetables, fish, and oysters, ranked sixth among the industries of the state in value of products in 1909, in which year it gave employment to 3,850 wage earners and reported products valued at \$7,689,000.

*Shipbuilding, including boat building.*—The totals for this industry as presented in Table I, page 454, show an apparent increase in number of wage earners and value of products in 1909 as compared with 1904. A proper comparison of the totals for this industry, however, is impracticable, since it was necessary to omit the statistics for one establishment from the figures for 1904 and those for two establishments from the figures for 1899 in order to avoid the disclosure of individual operations. It may be stated, however, that if it were possible to include the statistics for the one establishment omitted in 1904 the totals for the industry would show a large decrease in 1909 as compared with 1904.

In addition to the 28 industries presented separately in the preceding table for which products valued at more than \$500,000 were reported, 4 other industries in the state had a value of products in 1909 in excess of this amount. These industries are included under the 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 and 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. These industries are the manufacture of paper bags, the dyeing and finishing of textiles, the fertilizer industry, and the steel works and rolling mills.

Considerable change occurs in the relative importance of the leading industries of the state when measured by value added by manufacture instead of by value of products. The lumber and timber products industry becomes first, displacing the manufacture of paper and wood pulp; the foundry and machine-shop industry, which was seventh, changes places with canning and preserving, which was sixth; printing and publishing advances from ninth to eighth place; marble and stone work becomes ninth instead of eleventh; the flour-mill and gristmill industry drops from eighth place to nineteenth, and the turning and carving of wood advances from fifteenth place to eleventh place.

The preceding table also shows the percentages of increase for these leading industries in respect to value of products and value added by manufacture in all cases where comparative statistics can be given. The manufacture of copper, tin, and sheet-iron products shows greater rates of increase in value of products for both five-year periods, and in value added by manufacture from 1904 to 1909, than any other industry listed in the table. The cooperage and wooden-goods industry made the greatest increase in value added by manufacture from 1899 to 1904.

Four of the industries listed separately—the tanning, currying, and finishing of leather, the manufacture of leather goods, the brick and tile industry, and the manufacture of furniture and refrigerators—show a decrease in value of products from 1904 to 1909, while two of these, the brick and tile and the furniture and refrigerator industries, together with three others, show a decrease in this respect from 1899 to 1904. Eleven show a decrease in value added by manufacture from 1904 to 1909, and seven a decrease from 1899 to 1904.

*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.

CLASS.	PERSONS ENGAGED IN MANUFACTURES.		
	Total.	Male.	Female.
All classes.....	88,476	68,647	19,829
Proprietors and officials.....	5,649	5,497	152
Proprietors and firm members.....	3,661	3,532	129
Salaried officers of corporations.....	643	632	11
Superintendents and managers.....	1,345	1,333	12
Clerks.....	2,872	1,730	1,142
Wage earners (average number).....	79,955	61,420	18,535
16 years of age and over.....	78,568	60,612	17,956
Under 16 years of age.....	1,387	808	579

The average number of persons engaged in manufactures during 1909 was 88,476, of whom 79,955 were wage earners. Of the remainder, 5,649 were proprietors and officials, and 2,872 were clerks. Corresponding figures for individual industries will be found in Table II, page 456.

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.....	88,476	6.4	3.2	90.4
Boots and shoes, including cut stock and findings.....	7,195	2.5	5.4	92.1
Bread and other bakery products.....	858	25.4	6.3	68.3
Canning and preserving.....	4,410	10.3	2.4	87.3
Cars and general shop construction and repairs by steam-railroad companies.....	1,256	2.1	2.3	95.5
Cotton goods, including cotton small wares.....	14,783	0.6	0.4	99.0
Flour-mill and gristmill products.....	614	48.6	7.0	43.8
Foundry and machine-shop products.....	3,229	6.5	4.1	89.3
Lumber and timber products.....	17,101	9.9	1.8	88.2
Marble and stone work.....	2,663	8.5	2.1	89.4
Paper and wood pulp.....	9,146	2.0	3.5	94.5
Printing and publishing.....	2,359	11.7	18.4	70.0
Shipbuilding, including boat building.....	2,014	10.5	2.4	87.1
Woolen, worsted, and felt goods, and wool hats.....	9,070	2.0	1.5	96.5
All other industries.....	13,378	10.5	5.4	84.1

Of the total number of persons engaged in all manufacturing industries, 6.4 per cent were proprietors and officials, 3.2 per cent clerks, and 90.4 per cent wage earners. The highest percentage of proprietors and officials shown for any individual industry, 48.6, is for the flour mills and gristmills, which are generally small and in which the work is to a large extent performed by the proprietors themselves or with the assistance of comparatively few wage earners. Similar conditions also prevail, although to a less extent, in the bakery and in the printing and publishing industries. The smallest proportion of proprietors and officials, six-tenths of 1 per cent, is shown for the cotton-goods industry, in which the number of wage earners per

establishment is very large and all the establishments are under corporate ownership. The proportions of proprietors and officials is also very small in the boot and shoe factories, railroad repair shops, paper mills, and woolen and worsted mills.

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.	Average number. <sup>1</sup>	WAGE EARNERS.		
		Per cent of total.		
		16 years of age and over.		Under 16 years of age.
Male.	Female.			
All industries.....	79,955	75.8	22.5	1.7
Boots and shoes, including cut stock and findings.....	6,626	65.3	33.0	1.7
Bread and other bakery products.....	586	75.6	21.2	3.2
Canning and preserving.....	3,850	55.8	42.8	1.4
Cars and general shop construction and repairs by steam-railroad companies.....	1,200	100.0	.....	.....
Cotton goods, including cotton small wares.....	14,634	47.6	46.6	5.8
Flour-mill and gristmill products.....	225	99.6	0.4	.....
Foundry and machine-shop products.....	2,885	98.4	1.4	0.2
Lumber and timber products.....	15,086	99.5	0.4	0.2
Marble and stone work.....	2,381	100.0	.....	.....
Paper and wood pulp.....	8,647	94.4	5.4	0.2
Printing and publishing.....	1,651	62.1	37.3	0.6
Shipbuilding, including boat building.....	1,755	99.8	0.2	.....
Woolen, worsted, and felt goods, and wool hats.....	8,754	62.4	35.5	2.1
All other industries.....	11,675	74.3	24.8	1.0

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

For all industries combined, 75.8 per cent of the average number of wage earners were males 16 years of age and over; 22.5 per cent females 16 years of age and over; and 1.7 per cent children under the age of 16. Of the total number of female wage earners 16 years of age and over in the manufacturing industries of the state in 1909, 38 per cent were employed in the cotton-goods industry, in which the women constituted 46.6 per cent of all the wage earners. Exceptionally high proportions of women wage earners were reported for several industries shown in Table II; in the women's clothing industry they formed 86.3 per cent and in the men's clothing industry, 77.3 per cent of the total. Women were also employed to a relatively large extent in several other important industries, representing 42.8 per cent of the total in the canning and preserving industry, 37.3 per cent in printing and publishing, 35.5 per cent in the manufacture of woolen, worsted, and felt goods, and 33 per cent in the boot and shoe industry. There are no important industries where children under 16 years of age are employed to any



considerable extent, with the exception of the cotton mills, where employment was given to 850, or 61.3 per cent of the total number of children employed in the factories of the state.

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.....	88,476	100.0	82,109	100.0	7.8
Proprietors and firm members.....	3,661	4.1	3,379	4.1	8.3
Salaried employees.....	4,860	5.5	3,772	4.6	28.8
Wage earners (average number).....	79,955	90.4	74,958	91.3	6.7

Comparable figures are not obtainable for 1899. The table shows that the greatest percentage of increase was in the salaried employees.

The table in the next column 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 has been both an actual and relative decrease during the 10 years in the

employment of children under 16 years of age. In 1909 males 16 years of age and over formed 75.8 per cent of all wage earners, as compared with 75.6 per cent in 1904 and 72.1 per cent in 1899.

CLASS.	AVERAGE NUMBER OF WAGE EARNERS.					
	1909		1904		1899	
	Number.	Per cent distribution.	Number.	Per cent distribution.	Number.	Per cent distribution.
Total.....	79,955	100.0	74,958	100.0	69,914	100.0
10 years of age and over.....	78,508	98.3	73,487	98.0	67,739	96.9
Male.....	60,012	75.8	56,602	75.6	50,382	72.1
Female.....	17,956	22.5	16,825	22.4	17,357	24.8
Under 16 years of age....	1,387	1.7	1,471	2.0	2,175	3.1

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 and the lumber and timber 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 456, 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.		Canning and preserving.		Lumber and timber products.						All other industries.	
	Number.	Per cent of maximum.	Number.	Per cent of maximum.	Total.		In mills.		In logging operations.		Number.	Per cent of maximum.
January.....	70,737	80.7	689	5.8	17,382	100.0	6,774	59.4	10,608	100.0	58,767	94.1
February.....	77,541	90.7	668	6.6	17,205	99.3	7,385	58.3	9,820	93.1	59,608	95.5
March.....	77,956	91.2	885	8.7	16,431	94.5	9,042	71.3	7,389	69.7	60,040	97.1
April.....	77,722	90.0	3,354	33.1	13,946	80.2	10,707	85.2	3,140	29.7	60,422	96.8
May.....	81,355	95.2	4,375	43.2	15,071	90.2	12,674	100.0	2,397	28.3	61,300	98.2
June.....	79,315	92.8	4,012	39.6	14,013	80.6	12,248	96.6	1,765	16.0	61,290	98.2
July.....	76,489	80.5	3,392	33.5	12,338	71.0	10,620	83.8	1,718	16.2	60,750	97.3
August.....	78,086	91.3	4,075	40.1	12,146	69.9	10,232	89.7	1,914	18.0	60,965	97.6
September.....	85,360	99.8	10,131	100.0	13,369	76.9	10,027	70.1	3,342	31.5	61,800	99.1
October.....	85,501	100.0	7,355	72.6	15,713	99.4	9,988	78.8	5,725	54.0	62,433	100.0
November.....	84,468	98.8	5,363	52.0	10,701	86.6	8,720	68.8	8,071	76.1	62,314	99.8
December.....	78,925	92.3	1,100	10.9	15,970	91.9	6,354	50.1	9,616	90.6	61,855	99.1

For all industries combined, the maximum employment occurred in October and the minimum in July, in which month the number of wage earners engaged represented 89.5 per cent of the maximum. The most important seasonal industries are canning and preserving, in which the number of wage earners varied from 10,131 in September, the month of greatest

activity, to 588 in January, the month of least activity, and the lumber industry, in which the maximum number, 17,382, were employed in January and the minimum, 12,146, in August. In their effect on the monthly fluctuations for all industries combined these two industries partially offset each other, inasmuch as the canneries were most active in September



and October, when employment in the lumber industry was relatively low, and were least active in January and February, when employment in the lumber industry was at its highest. There is considerable seasonal variation in the glucose and starch, brick and tile, and marble and stone work industries, but these industries do not give employment to sufficiently large numbers of wage earners to influence greatly the movement of employment for all industries combined.

**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.....	79,955	4,409	4,378	7,483	15,310	41,696	5,032	1,163	484
Agricultural implements.....	121	69	6	33	11	2			
Boots and shoes, including out stock and findings.....	6,626	1	171	268	4,775	1,411			
Boxes, fancy and paper.....	280		79	13	171	17			
Bread and other bakery products.....	586	38	4	91	7	374	31	30	11
Brick and tile.....	263		10	49		135	58	11	
Butter, cheese, and condensed milk.....	96	2		31		51	7	2	3
Canning and preserving.....	3,850	10		123		3,617	4	17	
Carriages and wagons and materials.....	472	3		50	105	313	1		
Cars and general shop construction and repairs by steam-railroad companies.....	1,200		670	268	192	44	26		
Clothing, men's, including shirts.....	1,068	6	64	509	416	73			
Clothing, women's.....	532		192	27	205	108			
Confectionery.....	214	6		52	145	11			
Cooperage and wooden goods, not elsewhere specified.....	349	9		151	54	134	1		
Copper, tin, and sheet-iron products.....	374	52		18	80	218			
Cotton goods, including cotton small wares.....	14,634				1,118	13,516			
Flour-mill and gristmill products.....	225	38		17	36	130	2	2	
Foundry and machine-shop products.....	2,885	9	8	774	1,647	447			
Furniture and refrigerators.....	215	1		84	15	115			
Gas, illuminating and heating.....	216	5		3		28	78	10	92
Glucose and starch.....	120					60	49		5
Leather goods.....	286			6	243	37			
Leather, tanned, curried, and finished.....	436	1		17	233	185			
Lime.....	526	4				174	21		327
Lumber and timber products.....	15,086	30	129	1,061	1,320	8,784	3,758	4	
Marble and stone work.....	2,381	1,983	16	217	17	148			
Paper and wood pulp.....	8,647	1,011	2,775	1,992	236	841	667	1,085	40
Patent medicines and compounds and druggists' preparations.....	144	71	4	51	5	13			
Printing and publishing.....	1,651	573	142	690	208	38			
Shipbuilding, including boat building.....	1,755	26	3	179	1,265	282			
Slaughtering and meat packing.....	107	13	17	3	3	69	2		
Stoves and furnaces, including gas and oil stoves.....	190			190					
Tobacco manufactures.....	252	241		4	4	3			
Wood, turned and carved.....	1,287	3		71	235	773	199		6
Woolen, worsted, and felt goods, and wool hats.....	8,754			2	701	8,050		1	
All other industries.....	4,127	204	88	439	1,778	1,489	128	1	

Slightly more than one-half of the wage earners employed in the manufacturing industries of Maine were reported from establishments where 60 hours ordinarily constitute a week's work, this high proportion resulting principally from the more or less general prevalence of the 60-hour week in the cotton and woolen mills and the lumber and canning industries. Twenty-eight and five-tenths per cent of the wage earners were in establishments where the usual hours of labor were 54 but less than 60 a week, 11 per cent in establishments where they were less than 54 a week, and only 8.4 per cent in establishments where they were more than 60 a week. The greater part of the wage earners in the boot and shoe, foundry and machine-shop, and shipbuilding industries were in plants where the prevailing hours were between 54 and 60 a week. The majority of the wage earners in the agricultural-implementation, the marble and stone work, and the tobacco-manufactures industries worked 48 hours or less per

week, while the majority of those in the gas and lime industries worked more than 60 hours a week.

**Location of establishments.**—The next table shows the extent to which the manufactures of Maine 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.

In 1909 the seven cities having over 10,000 inhabitants contained 22.4 per cent of the total population of the state, and reported 31.8 per cent of the average number of wage earners engaged in manufactures and 29.2 per cent of the total value of manufactured products. Several of the more important industries of the state, including the manufacture of paper and wood pulp, lumber and timber products, canning, and the manufacture of woolen goods, are carried on principally outside of this class of cities.

The relative importance in manufactures of each of the seven cities having a population of 10,000 and 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.

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 1900	742,371 694,406	106,433 147,012	575,938 547,454	22.4 21.2	77.0 78.8
Number of establishments.	1909 1899	3,546 2,878	675 631	2,871 2,247	19.0 21.9	81.0 78.1
Average number of wage earners.	1909 1899	79,955 69,914	25,453 23,190	54,502 46,724	31.8 33.2	68.2 66.8
Value of products..	1909 1899	\$176,029,393 112,959,098	\$51,406,847 36,896,611	\$124,562,546 76,062,487	29.2 32.7	70.8 67.3
Value added by manufacture.	1909 1899	78,928,169 51,748,771	23,393,234 17,537,395	55,534,935 34,181,376	29.6 33.0	70.4 66.1

In 1900 the group of cities having over 10,000 inhabitants comprised the first six cities named in the next table, together with Bath, which, owing to a decrease in population, was not included in this group in 1910. Waterville had less than 10,000 inhabitants in 1900, so that for 1899 its statistics are not included with those for this class of cities. Owing, however, to the relatively small difference between the totals for the manufacturing industries of Bath and Waterville, the change in the composition of the group of cities has had little effect upon its proportions of the various totals for the state.

The population in 1910 and 1900 of the seven cities which had 10,000 inhabitants or over in 1910, and of the one city which had over 10,000 inhabitants in 1900 but less than that number in 1910, is given in the following tabular statement:

CITY.	1910	1900
Portland.....	58,571	50,145
Lewiston.....	26,247	23,701
Bangor.....	24,803	21,850
Biddeford.....	17,079	16,145
Auburn.....	15,064	12,951
Augusta.....	13,211	11,083
Waterville.....	11,468	9,477
Bath.....	9,306	10,477

The principal statistics for Bath, for 1909 and 1899, are given in the following statement:

	1909	1899
Population.....	9,306	10,477
Number of establishments.....	39	54
Average number of wage earners.....	1,016	2,097
Value of products.....	\$2,817,679	\$3,697,099
Value added by manufacture.....	\$1,747,306	\$1,768,841

Not only the population but the manufactures of Bath decreased during the decade. The number of establishments decreased from 54 to 39, while the average number of wage earners decreased 22.9 per cent, and the value of products 23.8 per cent. These decreases were due chiefly to the decline in the ship-building and the lumber industries.

CITY.	AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.		
	1909	1904	1899	1909	1904	1899
Portland.....	4,002	4,345	3,763	\$11,950,367	\$9,132,801	\$7,333,760
Lewiston.....	6,788	6,167	6,977	10,475,374	8,527,049	7,778,941
Biddeford.....	5,070	4,704	4,375	9,611,600	9,948,722	5,472,254
Auburn.....	3,452	2,662	2,740	8,842,620	9,407,157	5,065,033
Augusta.....	2,006	1,860	2,018	4,662,174	3,880,833	3,313,158
Bangor.....	1,327	1,490	1,511	3,345,717	3,408,355	3,335,785
Waterville.....	1,812	2,011	1,926	3,178,080	3,069,309	2,283,630

Every city for which comparative figures are given, except Bangor, shows an increase in value of products from 1904 to 1909, and all show increases from 1899 to 1904. In general, the percentages of increase were greater from 1904 to 1909. During this later period the greatest relative gain, 38 per cent, was made by Auburn, this being due chiefly to the increased activity in the boot and shoe industry. In spite of the fact that decreases were reported for a large number of the industries in Portland, this city showed the second largest relative gain in the state, 30.9 per cent. The decrease in Bangor from 1904 to 1909 was due to the decline of the boot and shoe industry in this city. In 1899 Lewiston ranked first in value of manufactured products, but by 1904 Portland had taken first place, which it retained in 1909.

Portland is the largest and most important city in the state. The lumber and timber products, foundry and machine-shop, and printing and publishing industries were the leading industries in the city. About three-fourths of the total value of products of the women's clothing industry for the state, four-fifths of that for the confectionery industry, and three-fifths of that for the manufacture of patent medicines and compounds and druggists' preparations were reported from this city.

Lewiston and Biddeford owe their importance to the manufacture of cotton goods, which contributed 66.4 and 68.2 per cent, respectively, of the total value of the manufactured products of the two cities. In Auburn the manufacture of boots and shoes was the principal industry, the value of products of this industry forming 71.4 per cent of the total value of the manufactured products of the city. Of the total value of products for this industry in the state, 40.7 per cent was reported from Auburn.

In 1904 printing and publishing was the principal industry of Augusta, with the manufacture of cotton goods second, but in 1909 these positions were reversed. The value of the products of these two industries

formed 60.6 per cent of the value of the manufactured products of this city in 1909.

Although Waterville showed an increase in value of manufactured products from 1904 to 1909, there was a decrease in the average number of wage earners. In this city the cotton-goods industry led in value of products, with steam-railroad repair shops second.

**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 certain 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.	INDUSTRY AND CHARACTER OF OWNERSHIP.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>									
1909.....	3,546	79,955	\$176,029,393	\$78,928,169	<b>Canning and preserving, 1909..</b>	245	3,850	\$7,688,833	\$2,563,915
1904.....	3,145	74,958	144,020,197	63,978,107	Individual.....	91	447	755,899	306,158
<b>Individual:</b>					Firm.....	63	668	1,173,117	403,749
1909.....	1,923	9,579	18,904,839	9,697,893	Corporation <sup>1</sup> .....	91	2,735	5,759,817	1,854,008
1904.....	1,736	10,290	19,108,440	9,256,118	Per cent of total.....	100.0	100.0	100.0	100.0
<b>Firm:</b>					Individual.....	37.1	11.6	9.8	11.9
1909.....	746	8,853	20,476,080	9,274,402	Firm.....	25.7	17.4	15.3	15.7
1904.....	708	11,422	22,927,394	10,705,283	Corporation <sup>1</sup> .....	37.1	71.0	74.9	72.3
<b>Corporation:</b>					<b>Lumber and timber products, 1909</b>	1,065	15,086	\$26,124,640	\$15,194,465
1909.....	861	61,340	136,156,275	59,817,833	Individual.....	619	5,243	7,068,199	4,484,019
1904.....	671	53,138	101,575,154	43,770,068	Firm.....	299	2,860	4,938,034	2,993,034
<b>Other:</b>					Corporation.....	147	6,983	14,118,407	7,716,812
1909.....	16	183	492,199	228,036	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	30	108	349,209	146,638	Individual.....	58.1	34.8	27.1	29.5
Per cent of total:					Firm.....	28.1	19.0	18.9	19.7
1909.....	100.0	100.0	100.0	100.0	Corporation.....	13.8	46.3	54.0	50.8
1904.....	100.0	100.0	100.0	100.0	<b>Paper and wood pulp, 1909..</b>	45	8,647	\$33,950,230	\$13,446,017
<b>Individual:</b>					Firm.....	7	1,408	4,839,434	2,050,219
1909.....	54.2	12.0	10.7	12.2	Corporation.....	38	7,239	29,110,796	11,395,798
1904.....	55.2	13.7	13.3	14.6	Per cent of total.....	100.0	100.0	100.0	100.0
<b>Firm:</b>					Firm.....	15.6	16.3	14.3	15.3
1909.....	21.0	11.1	11.6	11.8	Corporation.....	84.4	83.7	85.7	84.7
1904.....	22.5	15.2	15.9	16.7	<b>Woolen, worsted, and felt goods, and wool hats, 1909..</b>	85	8,754	\$18,490,120	\$7,128,523
<b>Corporation:</b>					Individual.....	10	108	173,102	73,280
1909.....	24.3	76.7	77.3	75.8	Firm.....	5	251	448,497	195,934
1904.....	21.3	70.9	70.5	68.4	Corporation.....	50	8,395	17,868,521	6,859,209
<b>Other:</b>					Per cent of total.....	100.0	100.0	100.0	100.0
1909.....	0.5	0.2	0.3	0.3	Individual.....	15.4	1.2	0.9	1.0
1904.....	1.0	0.1	0.2	0.2	Firm.....	7.7	2.9	2.4	2.7
<b>Boots and shoes, including out stock and findings, 1909.</b>					Corporation.....	76.9	95.9	96.6	96.2
Individual.....	55	6,626	\$15,508,771	\$5,568,266					
Firm.....	8	43	70,980	37,250					
Corporation.....	39	5,302	12,643,476	4,550,945					
Per cent of total.....	100.0	100.0	100.0	100.0					
Individual.....	14.5	0.6	0.5	0.7					
Firm.....	14.5	19.3	18.0	17.0					
Corporation.....	70.9	80.0	81.5	81.7					

<sup>1</sup> Includes the group "Other," to avoid disclosure of individual operations.

<sup>2</sup> Includes the group "Individual," to avoid disclosure of individual operations.

Although less than one-fourth of the total number of manufacturing establishments were under corporate ownership in 1909, these establishments reported more than three-fourths of the total value of products, the proportion being considerably larger than in 1904. The establishments under individual ownership formed 54.2 per cent of the total number in 1909, but reported only 10.7 per cent of the total value of products. This class of establishments and those under firm ownership show decreases both in average number of wage earners employed and in value of products between 1904 and 1909.

**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 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 individual industries figures are given for 1909 only.

The cotton-goods industry is not shown in this table or the one preceding, because all the establishments were under corporate control in 1904 and 1909. In the latter year one establishment reported products valued at less than \$100,000; seven, products valued at between \$100,000 and \$1,000,000; and eight, products exceeding \$1,000,000 in value.

Of the 3,546 manufacturing establishments in the state in 1909, only 25, or seven-tenths of 1 per cent, had a value of products exceeding \$1,000,000. These establishments, however, employed an average of 24,552 wage earners, or 30.7 per cent of the total number in all establishments, and reported 32.5 per cent of the total value of products and 32 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 a very considerable proportion (40.9 per cent) of the total number of establishments, but the value

of their products amounted to only 1.9 per cent of the total. More than three-fourths of the total value of manufactured products of the state was reported by establishments having products 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.	INDUSTRY AND VALUE OF PRODUCTS.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
<b>ALL INDUSTRIES:</b>									
1909.....	3,546	79,955	\$178,029,393	\$78,928,169	<b>Canning and preserving, 1909..</b>	245	3,850	\$7,688,833	\$2,568,915
1904.....	3,146	74,958	144,020,197	63,978,107	Less than \$5,000.....	71	174	143,350	71,140
Less than \$5,000:					\$5,000 and less than \$20,000.....	96	730	1,008,936	435,787
1909.....	1,451	2,178	3,286,105	2,098,023	\$20,000 and less than \$100,000.....	62	1,135	2,418,024	806,270
1904.....	1,213	1,718	2,809,282	1,810,707	\$100,000 and less than \$1,000,000.....	16	1,811	4,039,523	1,193,700
\$5,000 and less than \$20,000:					Per cent of total.....	100.0	100.0	100.0	100.0
1909.....	1,194	6,910	12,200,950	6,520,305	Less than \$5,000.....	29.0	4.5	1.9	2.8
1904.....	1,091	6,250	10,886,807	5,810,455	\$5,000 and less than \$20,000.....	39.2	10.0	13.8	10.0
\$20,000 and less than \$100,000:					\$20,000 and less than \$100,000.....	25.3	20.5	31.4	33.7
1909.....	610	13,308	20,888,857	12,840,007	\$100,000 and less than \$1,000,000.....	6.5	47.0	62.9	46.0
1904.....	565	14,039	25,150,603	12,051,103	Average per establishment.....		16	\$31,883	\$10,405
\$100,000 and less than \$1,000,000:					<b>Lumber and timber products, 1909..</b>	1,065	15,088	\$20,124,640	\$15,104,465
1909.....	296	32,908	76,542,607	32,216,172	Less than \$5,000.....	465	918	1,000,114	742,817
1904.....	259	36,077	72,208,023	30,449,802	\$5,000 and less than \$20,000.....	390	2,984	3,705,178	2,416,761
\$1,000,000 and over:					\$20,000 and less than \$100,000.....	184	4,780	7,472,019	4,416,717
1909.....	25	24,552	57,250,005	25,237,532	\$100,000 and less than \$1,000,000.....	56	6,424	13,818,331	7,618,180
1904.....	17	16,805	32,815,822	13,255,080	Per cent of total.....	100.0	100.0	100.0	100.0
Per cent of total:					Less than \$5,000.....	43.7	6.1	4.1	4.9
1909.....	100.0	100.0	100.0	100.0	\$5,000 and less than \$20,000.....	33.8	19.0	14.4	15.9
1904.....	100.0	100.0	100.0	100.0	\$20,000 and less than \$100,000.....	17.3	31.7	28.6	29.1
Less than \$5,000:					\$100,000 and less than \$1,000,000.....	5.3	42.0	52.9	50.1
1909.....	40.9	2.7	1.9	2.7	Average per establishment.....		14	\$24,530	\$14,207
1904.....	35.6	2.3	2.0	2.8	<b>Paper and wood pulp, 1909..</b>	45	8,647	\$33,950,230	\$13,446,017
\$5,000 and less than \$20,000:					\$5,000 and less than \$20,000.....	3	21	19,120	8,916
1909.....	33.7	8.7	7.0	8.3	\$20,000 and less than \$100,000.....	7	160	426,627	221,638
1904.....	34.7	8.4	7.0	9.1	\$100,000 and less than \$1,000,000.....	26	3,493	10,761,345	3,807,434
\$20,000 and less than \$100,000:					\$1,000,000 and over.....	9	4,983	22,763,238	9,318,110
1909.....	17.2	16.8	15.2	16.3	Per cent of total.....	100.0	100.0	100.0	100.0
1904.....	13.0	13.7	17.6	19.8	\$5,000 and less than \$20,000.....	6.7	0.2	0.1	0.1
\$100,000 and less than \$1,000,000:					\$20,000 and less than \$100,000.....	15.6	1.7	1.3	1.6
1909.....	7.5	41.3	43.5	40.8	\$100,000 and less than \$1,000,000.....	57.8	40.4	31.7	29.0
1904.....	8.2	48.1	50.2	47.0	\$1,000,000 and over.....	20.0	57.0	67.0	60.3
\$1,000,000 and over:					Average per establishment.....		102	\$754,450	\$208,800
1909.....	0.7	30.7	32.5	32.0	<b>Woolen, worsted, and felt goods, and wool hats, 1909..</b>	65	8,764	\$18,490,120	\$7,128,523
1904.....	0.5	22.5	22.8	20.7	Less than \$5,000.....	10	12	15,947	9,509
Average per establishment:					\$5,000 and less than \$20,000.....	4	33	39,010	20,130
1909.....	23	\$40,642	\$22,258	\$20,343	\$20,000 and less than \$100,000.....	6	219	358,708	136,199
1904.....	24	45,793	\$281,978	\$101,241	\$100,000 and less than \$1,000,000.....	40	8,490	18,073,486	9,056,789
<b>Boots and shoes, including outstook and findings, 1909..</b>	55	6,628	\$15,508,771	\$5,568,268	Per cent of total.....	100.0	100.0	100.0	100.0
Less than \$5,000.....	5	18	11,200	8,548	Less than \$5,000.....	15.4	0.1	0.1	0.1
\$5,000 and less than \$20,000.....	9	35	84,174	38,381	\$5,000 and less than \$20,000.....	6.2	0.4	0.2	0.4
\$20,000 and less than \$100,000.....	14	398	650,302	280,599	\$20,000 and less than \$100,000.....	7.7	2.5	1.9	1.6
\$100,000 and less than \$1,000,000.....	27	6,175	14,762,945	5,280,771	\$100,000 and less than \$1,000,000.....	70.8	97.0	97.8	97.6
Per cent of total.....	100.0	100.0	100.0	100.0	Average per establishment.....		150	\$284,463	\$109,070
Less than \$5,000.....	9.1	0.3	0.1	0.2					
\$5,000 and less than \$20,000.....	16.4	0.5	0.5	0.7					
\$20,000 and less than \$100,000.....	25.5	6.0	4.2	4.7					
\$100,000 and less than \$1,000,000.....	40.1	93.2	95.2	94.5					
Average per establishment.....		120	\$281,978	\$101,241					

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

<sup>2</sup> Includes the group "Less than \$5,000."

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

The fact that between 1904 and 1909 the average value of products per establishment increased from \$45,793 to \$49,642, and the average value added by manufacture from \$20,343 to \$22,258, 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 24 to 23.

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 into each group, but also the average number of wage earners employed.

Of the 3,546 establishments reported for all industries, 8.4 per cent employed no wage earners; 56.4 per cent employed from 1 to 5 each; 20.2 per cent, from 6 to 20; 7.2 per cent, from 21 to 50; and 7.8 per cent, over 50. The most numerous single group consists of the 1,999 establishments employing from 1 to 5 wage earners, and the next, of the 717 establishments employing from 6 to 20 wage earners. There were 49 establishments that employed over 250 wage earners; 11 of these, including 6 cotton mills and 2 woolen mills, employed over 1,000 each.

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.....	3,546	288	1,999	717	254	133	96	27	11	11
Boots and shoes, including cut stock and findings.....	55	1	13	4	10	7	11	8	1	.....
Bread and other bakery products.....	180	20	148	15	2	1	.....	.....	.....	.....
Canning and preserving.....	245	3	110	90	26	5	3	1	1	.....
Cars and general shop construction and repairs by steam-railroad companies.....	18	.....	2	6	6	.....	2	2	.....	.....
Cotton goods, including cotton small wares.....	16	.....	.....	.....	2	1	2	2	3	6
Flour-mill and gristmill products.....	173	35	134	4	.....	.....	.....	.....	.....	.....
Foundry and machine-shop products.....	125	12	70	23	14	.....	4	.....	.....	1
Lumber and timber products.....	1,065	24	579	310	87	42	20	2	1	.....
Marble and stone work.....	149	8	93	19	12	2	8	.....	.....	.....
Paper and wood pulp.....	45	.....	1	5	11	7	10	6	4	1
Printing and publishing.....	195	32	99	44	16	3	1	.....	.....	.....
Shipbuilding, including boat building.....	156	33	93	21	6	2	.....	.....	.....	1
Woolen, worsted, and felt goods, and wool hats.....	65	1	12	2	2	21	22	3	.....	2
All other industries.....	1,060	129	639	174	60	41	13	3	1	.....
AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	79,955	.....	4,407	7,956	8,445	9,745	15,632	9,575	7,313	16,882
Boots and shoes, including cut stock and findings.....	6,026	.....	30	54	357	557	1,957	2,991	680	.....
Bread and other bakery products.....	588	.....	318	138	54	76	.....	.....	.....	.....
Canning and preserving.....	3,850	.....	312	1,007	913	301	361	321	575	.....
Cars and general shop construction and repairs by steam-railroad companies.....	1,200	.....	8	73	209	.....	282	628	.....	.....
Cotton goods, including cotton small wares.....	14,634	.....	.....	81	55	.....	395	790	2,309	11,004
Flour-mill and gristmill products.....	2,385	.....	190	29	.....	.....	.....	.....	.....	.....
Foundry and machine-shop products.....	15,088	.....	154	271	476	94	616	.....	.....	1,274
Lumber and timber products.....	2,381	.....	1,428	3,527	2,728	2,971	3,261	667	509	.....
Marble and stone work.....	1,847	.....	229	215	449	160	1,328	.....	.....	.....
Paper and wood pulp.....	6,547	.....	2	56	382	1,794	2,058	2,717	.....	1,062
Printing and publishing.....	1,651	.....	.....	464	592	228	.....	.....	.....	.....
Shipbuilding, including boat building.....	1,755	.....	125	237	227	117	.....	.....	.....	1,049
Woolen, worsted, and felt goods, and wool hats.....	8,754	.....	25	34	66	1,747	3,422	967	.....	2,493
All other industries.....	11,675	.....	1,331	1,851	1,916	2,803	2,008	1,153	523	.....
PER CENT OF AVERAGE NUMBER OF WAGE EARNERS.										
All industries.....	100.0	.....	5.5	10.0	10.6	12.2	19.6	12.0	9.1	21.1
Boots and shoes, including cut stock and findings.....	100.0	.....	0.5	0.8	5.4	8.4	29.5	45.1	10.3	.....
Bread and other bakery products.....	100.0	.....	54.3	23.5	9.2	13.0	.....	.....	.....	.....
Canning and preserving.....	100.0	.....	8.1	26.2	23.7	9.4	9.4	8.3	14.9	.....
Cars and general shop construction and repairs by steam-railroad companies.....	100.0	.....	0.7	6.1	17.4	.....	23.5	52.3	.....	.....
Cotton goods, including cotton small wares.....	100.0	.....	.....	0.6	0.4	.....	2.7	5.4	15.8	75.2
Flour-mill and gristmill products.....	100.0	.....	87.1	12.9	.....	.....	.....	.....	.....	.....
Foundry and machine-shop products.....	100.0	.....	5.3	9.4	16.5	3.3	21.4	.....	.....	44.2
Lumber and timber products.....	100.0	.....	9.6	23.4	18.0	19.7	21.6	4.4	3.4	.....
Marble and stone work.....	100.0	.....	9.6	9.0	18.9	6.7	55.8	.....	.....	12.3
Paper and wood pulp.....	100.0	.....	0.1	0.6	4.4	6.7	20.7	23.8	31.4	.....
Printing and publishing.....	100.0	.....	15.1	28.1	35.9	13.8	7.1	.....	.....	.....
Shipbuilding, including boat building.....	100.0	.....	7.1	13.5	12.9	6.7	.....	.....	.....	59.8
Woolen, worsted, and felt goods, and wool hats.....	100.0	.....	0.3	0.4	0.8	20.0	39.1	11.0	.....	28.5
All other industries.....	100.0	.....	11.4	15.9	16.4	24.0	18.0	9.9	4.5	.....

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

Of the total number of wage earners, 42.2 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 over 1,000 wage earners each. These establishments employed an aggregate of 16,882 wage earners, or 21.1 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, however, can be brought out concerning the relative importance of the different classes of expenses which make up the total. The table in the next column 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 456.

INDUSTRY.	PER CENT OF TOTAL EXPENSES REPORTED.			
	Salaries.	Wages.	Materials.	Miscellaneous expenses.
All industries.....	3.7	24.3	62.7	9.2
Boots and shoes, including cut stock and findings.....	4.7	21.8	67.0	5.9
Bread and other bakery products.....	2.2	15.9	74.9	7.0
Canning and preserving.....	4.6	10.8	73.2	5.1
Cars and general shop construction and repairs by steam-railroad companies.....	2.6	37.2	58.5	1.7
Cotton goods, including cotton small wares.....	1.9	30.2	60.2	7.7
Flour-mill and gristmill products.....	0.7	2.4	95.5	1.4
Foundry and machine-shop products.....	5.9	33.5	51.9	8.6
Lumber and timber products.....	2.9	31.3	48.1	17.7
Marble and stone work.....	5.4	67.7	21.6	5.2
Paper and wood pulp.....	3.5	18.0	70.0	8.5
Printing and publishing.....	13.6	27.6	39.0	19.9
Shipbuilding, including boat building.....	4.4	30.3	46.3	10.0
Woolen, worsted, and felt goods, and wool hats.....	2.5	23.2	68.2	6.0
All other industries.....	5.2	21.2	63.7	9.9

This table shows that for all industries combined 62.7 per cent of the total expenses was incurred for materials, 28 per cent for services—that is, salaries

and wages—and 9.2 per cent for other purposes. As would be expected, these 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 <sup>1</sup>	1909	1904	1899 <sup>1</sup>	1909	1904	1899
Primary power, total.....	5,634	3,748	3,615	459,599	343,627	259,232	100.0	100.0	100.0
Owned.....	4,070	3,748	3,615	431,099	333,445	250,443	93.9	97.0	96.6
Steam.....	1,886	1,720	1,933	168,505	120,818	89,257	36.7	34.9	34.4
Gas.....	370	246	100	3,933	3,003	2,178	0.9	0.9	0.6
Water wheels.....	1,786	1,738	1,876	250,480	202,873	158,788	55.8	59.0	61.3
Water motors.....	28	44	(*)	1,012	221	(*)	0.4	0.1	(*)
Other.....				179	470	220	(*)	0.1	0.1
Rented.....	1,564	(*)	(*)	28,500	10,182	8,789	6.2	3.0	3.4
Electric.....	1,564	(*)	(*)	27,203	8,061	7,572	5.9	2.3	2.9
Other.....				1,297	1,217	1,217	0.3	0.0	0.5
Electric motors	2,395	264	97	54,266	26,587	9,859	100.0	100.0	100.0
Run by current generated by establishment.....	831	264	97	27,063	18,520	2,087	40.9	69.7	21.6
Run by rented power.....	1,564	(*)	(*)	27,203	8,061	7,572	50.1	30.3	78.4

<sup>1</sup> Includes the neighborhood industries and hand trades, omitted in 1904 and 1909.  
<sup>2</sup> Not reported.      \* Less than one-tenth of 1 per cent.

All forms of owned primary power, except "Other" power, show marked increases for the decade. More than half of the total primary power was developed by the use of water wheels. The increase in such power during the decade was 97,692 horsepower, or 61.5 per cent, but the proportion which it formed of the total decreased from 61.3 per cent in 1899 to 55.8 per cent in 1909. Steam power shows an increase of 88.9 per cent for the decade, but represented a slightly smaller proportion of the total in 1909 than in 1904, although a somewhat larger proportion

than in 1899. The horsepower generated by gas engines increased 80.6 per cent between 1899 and 1909, but still forms an insignificant proportion of the total. Rented electric power shows an increase of 19,631 horsepower, or 259.3 per cent, for the decade as a whole, and 19,142 horsepower, or 237.5 per cent, for the five-year period 1904-1909. As a result of this rapid increase such power formed 5.9 per cent of the total primary power in 1909, as compared with 2.3 per cent in 1904 and 2.9 per cent in 1899.

The use of electric motors for applying power by means of current generated in the establishment is increasing rapidly, the horsepower of such motors in 1909 being more than twelve times as great as in 1899.

**Fuel.**—Closely related to the question of kind of power employed is that of 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.	Anthracite coal (tons).	Bituminous coal (tons).	Coke (tons).	Wood (cords).	Oil, including gasoline (barrels).	Gas (1,000 feet).
All industries.....	46,728	935,326	10,714	128,763	20,935	8,999
Boots and shoes, including cut stock and findings.....	1,008	8,000	173	1,810	70	.....
Bread and other bakery products.....	2,500	310	227	2,033	11	1,402
Brick and tile.....	100	912	.....	27,185	70	.....
Canning and preserving.....	1,417	15,741	37	3,238	592	.....
Carrriages and wagons and materials.....	100	910	10	608	240	.....
Cars and general shop construction and repairs by steam-railroad companies.....	100	9,300	48	.....	109	.....
Confectionery.....	700	200	35	31	.....	357
Cooperage and wooden goods, not elsewhere specified.....	31	603	.....	451	36	.....
Cotton goods, including cotton small wares.....	796	61,531	.....	570	903	.....
Flour-mill and gristmill products.....	63	1,006	.....	718	1,358	473
Foundry and machine-shop products.....	2,512	9,720	4,473	650	1,250	545
Gas, illuminating and heating.....	12,800	10,653	4,522	.....	11,205	50
Glucose and starch.....	.....	1,755	.....	7,445	32	.....
Lime.....	.....	45,185	.....	26,744	.....	.....
Lumber and timber products.....	471	1,401	.....	1,809	964	115
Marble and stone work.....	150	17,743	.....	1,235	208	8
Paper and wood pulp.....	15,202	590,101	.....	41,009	.....	.....
Printing and publishing.....	1,164	1,192	65	231	323	4,837
Shipbuilding, including boat building.....	317	5,103	104	270	206	263
Stoves and furnaces, including gas and oil stoves.....	831	399	540	85	14	50
Woolen, worsted, and felt goods, and wool hats.....	3,179	82,605	.....	2,770	825	.....
All other industries.....	3,072	60,009	474	10,094	2,504	959

NOTE.—In addition, there were 1,895 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 six important industries in Maine are here presented.

**Paper and wood pulp.**—The table following shows for this industry, for 1909, 1904, and 1899, the quantity and cost of the materials used, the quantity and value of the different products, and the character and capacity of equipment.

The statistics for the paper and wood-pulp industry cover three classes of establishments, namely, those making pulp only, those making paper only, and those making both pulp and paper. In determining the cost of materials for this industry the materials of all three classes of establishments are added, although the product of the pulp mills becomes the material for the paper mills. Similarly, the value of products for the industry as a whole includes the products as disposed of for all three classes of establishments. The totals for cost of materials and value of products for the combined industry include, therefore, a considerable element of duplication. Undoubtedly a large part of the cost of wood pulp purchased represents a duplication in the cost of materials, and a large part of the value of "wood pulp produced for sale or for consumption in mills other than where produced" represents a duplication in the value of products.

Pulp wood is the most important of the materials, representing more than one-third of the cost of all materials used in the industry in 1909. In 1909 the mills of Maine consumed 903,962 cords of pulp wood, nearly three times the quantity used in 1899. Of this wood, 718,532 cords were spruce (166,500 cords of which were imported), 123,052 cords were poplar, 10,954 cords were hemlock, and 2,737 cords were of other species, and 48,687 cords were slab wood and other mill waste. Next to pulp wood the largest cost was reported for "All other materials," which includes such items as fuel, chemicals, clay, freight, etc. Rags, and old and waste paper formed a comparatively unimportant part of the materials, since practically the entire production of paper in the state was confined to those kinds in which wood fiber was the principal material.

The quantity of all kinds of paper produced in 1909 was 574,215 tons, as compared with 385,999 tons in 1904 and 207,281 tons in 1899. Each class of paper products shows a decided increase in output during the five years 1904-1909.

Of the wood pulp produced in 1909, ground wood pulp represented 52.2 per cent, soda fiber 12.7 per cent, and sulphite fiber 35 per cent. Of the wood pulp produced for sale, ground pulp formed 55.1 per cent, soda fiber 21.2 per cent, and sulphite fiber 23.7 per cent. The total quantity of wood pulp produced for sale increased 15.6 per cent from 1904 to 1909. This gain was wholly in the ground pulp, since there was a decrease in soda and in sulphite fiber.

MATERIAL OR PRODUCT.	1909	1904	1899
<b>Materials used, total cost.....</b>	<b>\$20,504,213</b>	<b>\$13,868,147</b>	<b>\$7,118,946</b>
Pulp wood.....	\$7,984,338	\$4,838,375	\$1,718,091
Wood pulp purchased:			
Tons.....	167,126	107,268	93,999
Cost.....	\$4,637,964	\$2,735,002	\$2,029,333
Ground—			
Tons.....	98,553	60,132	48,740
Cost.....	\$1,831,737	\$937,741	\$599,129
Sulphite fiber—			
Tons.....	52,805	34,020	36,541
Cost.....	\$2,118,781	\$1,252,521	\$1,061,125
All other fiber—			
Tons.....	15,768	13,116	8,718
Cost.....	\$687,446	\$544,480	\$369,079
Rags, including cotton and flax waste and sweepings:			
Tons.....	4,400	5,766	7,894
Cost.....	\$167,316	\$166,378	\$241,359
Old and waste paper:			
Tons.....	7,264	5,666	1,010
Cost.....	\$119,305	\$92,745	\$16,489
All other materials.....	\$7,595,290	\$6,035,647	\$3,113,673
<b>Products, total value.....</b>	<b>\$33,950,330</b>	<b>\$22,951,124</b>	<b>\$13,223,275</b>
News paper:			
Tons.....	313,125	215,307	122,738
Value.....	\$11,424,388	\$7,721,864	\$4,122,050
Book paper:			
Tons.....	95,295	67,397	30,041
Value.....	\$7,302,070	\$5,159,239	\$2,660,211
Wrapping paper:			
Tons.....	143,096	89,818	39,659
Value.....	\$8,079,299	\$4,075,497	\$2,092,298
Boards:			
Tons.....	22,099	13,477	14,843
Value.....	\$831,340	\$523,568	\$520,087
Wood pulp made for sale or for consumption in mills other than where produced:			
Ground—			
Tons.....	107,116	64,480	78,954
Value.....	\$1,822,734	\$922,206	\$1,168,887
Soda fiber—			
Tons.....	41,106	45,376	32,956
Value.....	\$1,743,294	\$1,773,899	\$1,269,141
Sulphite fiber—			
Tons.....	46,073	58,261	27,143
Value.....	\$1,799,476	\$2,192,704	\$1,390,601
All other products.....	\$942,029	\$582,147	.....
<b>Wood pulp produced (including that used in mills where manufactured), total tons.....</b>	<b>620,705</b>	<b>456,921</b>	<b>231,619</b>
Ground.....	324,264	230,340	129,873
Soda fiber.....	73,940	63,257	44,162
Sulphite fiber.....	217,501	173,324	57,579
<b>Equipment:</b>			
<b>Paper machines:</b>			
Total number.....	104	91	78
Yearly capacity, tons.....	634,059	425,848	246,583
Fourdriner—			
Number.....	84	73	56
Daily capacity, tons.....	1,893	1,349	( <sup>1</sup> )
Cylinder—			
Number.....	20	18	22
Daily capacity, tons.....	174	126	( <sup>1</sup> )
<b>Pulp equipment:</b>			
Grinders, number.....	330	268	178
Digesters, total number.....	98	93	83
Sulphite, number.....	60	55	( <sup>1</sup> )
Soda, number.....	38	38	( <sup>1</sup> )
Yearly capacity, tons.....	807,798	571,397	350,649
Ground.....	491,095	305,982	( <sup>1</sup> )
Sulphite.....	99,265	91,028	( <sup>1</sup> )
Soda.....	217,438	174,387	( <sup>1</sup> )

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



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

PRODUCT.	QUANTITY.	
	1909	1899
Rough lumber..... M feet b. m. . . . .	1,111,565	784,647
Lath..... thousands..	337,086	217,370
Shingles..... thousands..	598,131	465,862

The rough lumber sawed in 1909 amounted to 1,111,565 M feet board measure, as compared with 784,647 M feet in 1899, a gain of 41.7 per cent. The output of lath increased 55.1 per cent during the decade, while that of shingles increased 28.4 per cent.

Maine ranked first among the states in its cut of spruce, reporting 24.1 per cent of the total for the United States in 1909. It was also first in the cut of balsam fir, with 46.4 per cent of the total; third in that of birch, with 13.9 per cent of the total; and third in that of white pine, with 9.8 per cent of the total.

Textiles.—The progress of the textile industries is best indicated by the number of spindles and looms, which were reported as the mill equipment. The following table shows the number for the four principal textile industries in 1909, 1904, and 1899:

KIND.	Cen- sus.	Total.	Cotton goods, including cotton small wares.	Silk and silk goods, in- cluding throw- sters.	Woolen, worsted, and felt goods.	Hosiery and knit goods.
Producing spindles .....	1909	1,240,492	1,020,688	4,740	214,584	480
	1904	1,085,898	891,246	4,068	180,684	.....
	1899	1,007,748	841,521	(1)	166,227	.....
Looms .....	1909	30,501	26,319	158	4,024	.....
	1904	28,028	24,180	150	3,680	.....
	1899	26,288	23,366	120	2,802	.....

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

The number of producing spindles shows an increase between 1904 and 1909 of 154,594, or 14.2 per cent; and that of looms an increase of 2,473, or 8.8 per cent. In 1909 the cotton mills reported 82.3 per cent of the producing spindles in the four branches of the textile industry and made the largest gain in number, between 1904 and 1909, 129,442, or 14.5 per cent. In the woolen, worsted, and felt mills the increase in the number of spindles was 13.1 per cent. The number of looms used in the cotton mills increased 8.8 per cent, the number in the woolen mills 9.1 per cent, and the number in the silk mills 5.3 per cent.

Cotton goods.—The quantity and cost of the principal materials used in the manufacture of cotton goods and the quantity and value of the principal products for 1909, 1904, and 1899 are given in the next table.

MATERIAL OR PRODUCT.	1909	1904	1899
Materials used, total cost.....	\$11,390,470	\$9,173,226	\$7,036,287
Cotton:			
Domestic—			
Pounds.....	78,302,022	67,023,278	70,212,256
Cost.....	\$9,384,474	\$7,721,045	\$5,400,379
Foreign—			
Pounds.....	370,021	486,414	553,317
Cost.....	\$55,580	\$88,455	\$62,014
Cotton yarn, purchased:			
Pounds.....	1,260,512	1,515,472	1,417,213
Cost.....	\$305,638	\$208,725	\$225,210
Starch.....	\$93,783	\$77,505	\$62,364
Chemicals and dyestuffs.....	\$178,038	\$183,038	\$186,045
Fuel and rent of power.....	\$341,702	\$230,710	\$177,185
All other materials.....	\$1,030,295	\$615,857	\$671,581
Products, total value.....	\$21,032,225	\$15,405,823	\$14,631,086
Plain cloths for printing or converting:			
Square yards.....	35,857,441	30,024,061	30,019,808
Value.....	\$2,288,441	\$1,492,520	\$1,850,213
Brown or bleached sheetings and shirt- ings:			
Square yards.....	100,591,406	83,405,950	94,410,781
Value.....	\$6,830,368	\$5,284,507	\$4,825,924
Twills and sateens:			
Square yards.....	27,017,061	19,130,558	25,188,579
Value.....	\$2,452,673	\$1,263,170	\$1,620,978
Fancy woven fabrics:			
Square yards.....	13,228,293	9,359,011	6,922,300
Value.....	\$2,016,453	\$1,273,075	\$784,204
Bags and bagging:			
Square yards.....	0,512,876	2,522,430	6,142,221
Value.....	\$704,110	\$205,447	\$477,010
Yarns, for sale:			
Pounds.....	3,259,274	3,381,111	2,768,234
Value.....	\$657,011	\$874,779	\$466,426
Cotton waste, not used for further manu- facture:			
Pounds.....	7,745,530	5,680,226	10,532,390
Value.....	\$251,170	\$241,752	\$210,176
All other products.....	\$6,307,060	\$4,770,264	\$4,440,555

The cost of raw cotton formed 82.9 per cent of the total cost of all materials used in 1909, 85.1 per cent in 1904, and 77.6 per cent in 1899. The amount of foreign cotton used is comparatively small, forming less than 1 per cent of the total in 1909, 1904, and 1899, and showing a decrease for the decade.

Brown or bleached sheetings and shirtings showed the greatest value of any class of products in 1909 as in 1904; the output of these fabrics increased 20.5 per cent, and their value 29.4 per cent, during the five-year period. Plain cloths for printing or converting show increases of 19.4 per cent in quantity and 53 per cent in value, and twills and sateens increases of 44.3 per cent in quantity and 94.2 per cent in value. Yarns made for sale is the only class of products showing a decrease in output during the five-year period; notwithstanding this decrease, however, an increase of 9.4 per cent was reported in their value.

Woolen, worsted, and felt goods.<sup>1</sup>—The quantity and cost of the different materials used in this industry and the quantity and value of the principal products are given in the next table.

The cost of wool, both foreign and domestic, formed 44.7 per cent of the total cost of materials in 1909; that of cotton, 2.2 per cent; that of shoddy, 4.3 per cent; that of waste and noils, 6.4 per cent; that of

<sup>1</sup> The title of this industry in the tables, being uniform for all states, is "Woolen, worsted, and felt goods, and wool hats," but in Maine only woolen, worsted, and felt goods are made.

yarns purchased, 14.2 per cent; and that of chemicals and dyestuffs, 5.3 per cent. Of the total quantity of wool reported in 1909, 74 per cent was domestic and 26 per cent foreign, the cost of the former representing 74.5 per cent of the total cost of wool used and that of the latter 25.5 per cent.

MATERIAL OR PRODUCT.	1909	1904 <sup>1</sup>	1899 <sup>1</sup>
Materials used, total cost.....	\$11,361,697	\$10,811,235	\$7,944,986
Wool:			
Foreign (in condition purchased)—			
Pounds.....	3,588,706	2,724,534	3,121,357
Cost.....	\$1,292,296	\$843,083	\$766,203
Domestic (in condition purchased)—			
Pounds.....	10,193,888	12,390,314	16,172,948
Cost.....	\$3,781,852	\$4,160,873	\$3,617,005
Equivalent in scoured condition, pounds.....	10,763,585	11,016,422	10,567,069
Cotton:			
Pounds.....	1,986,953	3,132,243	2,298,770
Cost.....	\$253,498	\$431,692	\$247,988
Shoddy:			
Pounds.....	4,110,846	4,114,911	3,094,185
Cost.....	\$487,099	\$602,176	\$464,512
Waste and noils of wool, mohair, camel's hair, etc.:			
Pounds.....	2,399,147	1,850,639	1,048,310
Cost.....	\$721,825	\$427,032	\$323,838
Yarn, purchased:			
Woolen and worsted—			
Pounds.....	947,343	1,650,420	725,806
Cost.....	\$768,778	\$1,127,867	\$458,500
Cotton—			
Pounds.....	2,453,388	2,005,774	971,083
Cost.....	\$813,996	\$604,875	\$186,600
All other—			
Pounds.....	29,830	14,673	3,595
Cost.....	\$29,446	\$18,671	\$3,955
Chemicals and dyestuffs.....	\$604,064	\$549,171	\$424,684
Fuel and rent of power.....	\$397,700	\$392,148	\$243,132
All other materials.....	\$2,211,073	\$1,653,747	\$1,208,563
Products, total value.....	\$18,480,120	\$17,579,590	\$13,412,784
All-wool woven goods:			
Woolen cassimeres, suitings, etc.—			
Square yards.....	6,189,031	2,925,363	4,175,588
Value.....	\$3,546,999	\$1,975,609	\$2,420,866
Worsted coatings, dress goods, etc.—			
Square yards.....	2,285,713	2,160,598	1,620,161
Value.....	\$1,389,538	\$1,046,033	\$903,485
Woolen overcoatings and cloakings—			
Square yards.....	1,857,948	1,406,334	1,779,389
Value.....	\$1,490,455	\$1,517,262	\$1,602,482
Woolen dress goods—			
Square yards.....	4,354,196	5,876,735	5,403,946
Value.....	\$1,954,016	\$2,984,858	\$2,182,474
All other—			
Square yards.....	403,041	630,122	2,234,281
Value.....	\$226,702	\$339,215	\$576,872
Union or cotton-mixed woven goods:			
Unkn. tweeds, etc.—			
Square yards.....	2,682,295	3,816,292	2,664,583
Value.....	\$1,288,516	\$2,287,614	\$1,691,408
All other—			
Square yards.....	1,314,290	2,408,073	2,021,883
Value.....	\$630,603	\$908,344	\$870,073
Cotton-warp woven goods:			
Wool-filling suitings and dress goods—			
Square yards.....	2,244,187	4,774,737	2,866,284
Value.....	\$709,016	\$1,874,231	\$630,072
All other—			
Square yards.....	12,347,581	7,380,063	3,748,730
Value.....	\$4,123,466	\$2,534,418	\$1,234,147
Upholstery goods and sundries.....	\$1,039,495	\$525,312	\$475,591
Yarns, for sale:			
Woolen yarn—			
Pounds.....	16,779	95,531	30,100
Value.....	\$12,181	\$64,146	\$19,742
Worsted yarn and tops—			
Pounds.....	1,452,845	439,423	358,500
Value.....	\$1,201,838	\$331,128	\$304,629
All other yarns—			
Pounds.....	106,736	177,369	267,637
Value.....	\$42,887	\$140,766	\$319,803
Waste and noils—			
Pounds.....	1,404,756	698,673	531,806
Value.....	\$258,912	\$155,117	\$104,088
Amount received for contract work.....	\$78,722	\$129,753	.....
All other products.....	\$496,775	\$65,784	\$77,052

<sup>1</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

Of the total value of products for the industry in 1909, all-wool woven goods contributed 46.6 per cent; union or cotton-mixed woven goods, 10.4 per cent; goods woven on cotton warp, 26.1 per cent; upholstery

goods and sundries, 5.6 per cent; yarns for sale, 8.2 per cent; and other products, together with contract work, 3.1 per cent. The quantity of all-wool woven goods shows a gain of 2,090,777 square yards in 1909 as compared with 1904, and a decrease of 123,436 square yards in 1909 as compared with 1899. The relative importance of the union or cotton-mixed woven goods has decreased, such fabrics representing only 10.4 per cent of the total value of products for the industry in 1909, as contrasted with 18.2 per cent in 1904 and 19.1 per cent in 1899. Among the partly manufactured goods produced for sale, worsted yarns and tops show the striking increase in quantity of 230.6 per cent between 1904 and 1909. These partly manufactured articles represent a certain amount of duplication, because, although they are the products of one set of mills, they become the materials of other establishments within the industry.

Boots and shoes, including cut stock and findings.—The following is a statement of the various kinds of footwear manufactured in the boot and shoe factories of Maine in 1909, 1904, and 1899.

PRODUCT.	NUMBER OF PAIRS.		
	1909	1904	1899
<b>Total.....</b>	<b>9,275,102</b>	<b>9,261,587</b>	<b>10,748,890</b>
Boots and shoes, total.....	9,066,454	9,152,833	10,114,090
Men's.....	4,786,134	5,709,462	6,134,268
Boys' and youths.....	665,270	1,048,268	1,421,682
Women's.....	2,886,923	2,244,921	2,208,873
Misses' and children's.....	728,127	150,182	349,267
Slippers, infants' shoes and slippers, and all other footwear.....	208,648	108,754	634,800

In 1909, as compared with 1904, the total output of boots and shoes of all kinds, including slippers, shows a slight increase, amounting to less than 1 per cent, but as compared with 1899 a decrease of 13.7 per cent, due to decreases in all classes except women's and misses' and children's boots and shoes.

In the following table the various kinds of footwear reported for 1909 are classified according to the method of manufacture.

PRODUCT.	NUMBER OF PAIRS.				
	Total.	Machine or hand welt.	McKay.	Wire-screw or metal-fastened.	Other methods.
<b>Boots and shoes:</b>					
Men's.....	4,786,134	3,496,629	1,006,002	243,850	39,653
Boys' and youths.....	665,270	447,467	188,243	29,500	.....
Women's.....	2,886,923	577,444	1,816,038	( <sup>1</sup> )	493,441
Misses' and children's.....	728,127	187,043	541,084	.....	.....
Slippers, infants' shoes and slippers, and all other footwear.....	208,648	( <sup>1</sup> )	( <sup>1</sup> )	.....	208,648

<sup>1</sup> Included under "Other methods," to avoid disclosing operations of individual establishments.

Of the total output of boots and shoes, and slippers, 50.8 per cent were made by the machine or hand welt process; 38.3 per cent were made by the McKay

process; 2.9 per cent employed the wire-screw or metal fastening; and 8 per cent were made by other methods not classified. The greater part of the men's and the boys' and youths' boots and shoes (73.1 per cent and 67.2 per cent, respectively) were made by the machine or hand welt process, but in making the women's and the misses' and children's boots and shoes the McKay process was used to a greater extent.

**Canning and preserving.**—The next table shows the quantity and value of the various products reported for this industry in 1909, 1904, and 1889.

PRODUCT.	1909	1904	1899
Total value.....	\$7,088,833	\$7,207,281	\$0,160,854
<b>Canned vegetables:</b>			
Cases.....	920,257	854,210	730,438
Value.....	\$1,545,452	\$1,714,414	\$1,008,030
<b>Beans—</b>			
Cases.....	92,602	54,805	14,815
Value.....	\$151,476	\$92,231	\$33,635
<b>Corn—</b>			
Cases.....	792,185	703,295	710,419
Value.....	\$1,320,223	\$1,525,080	\$1,038,316
<b>All other—</b>			
Cases.....	35,470	36,110	14,204
Value.....	\$73,753	\$97,094	\$23,085
<b>Canned fruits:</b>			
Cases.....	143,452	53,970	10,823
Value.....	\$230,006	\$121,173	\$30,470
<b>Apples—</b>			
Cases.....	75,540	3,088	10,823
Value.....	\$122,791	\$0,704	\$30,470
<b>All other—</b>			
Cases.....	67,912	50,882	.....
Value.....	\$107,005	\$114,370	.....
<b>Fish and clams:</b>			
Pounds.....	110,287,000	112,011,720	74,022,141
Value.....	\$5,738,055	\$5,134,012	\$4,753,071
<b>Canned—</b>			
Pounds.....	90,445,752	80,425,168	48,411,624
Value.....	\$4,812,730	\$4,486,173	\$4,309,184
<b>Sardines—</b>			
Pounds.....	87,513,020	86,218,610	44,420,236
Value.....	\$4,009,224	\$4,201,324	\$4,049,784
<b>Clams—</b>			
Pounds.....	2,175,277	2,700,310	3,090,086
Value.....	\$174,355	\$104,490	\$267,201
<b>All other—</b>			
Pounds.....	750,555	446,248	895,392
Value.....	\$32,100	\$30,353	\$52,100
<b>Smoked—</b>			
Pounds.....	8,814,981	10,925,323	0,705,196
Value.....	\$320,674	\$254,155	\$150,310
<b>Finnan haddie—</b>			
Pounds.....	975,682	650,100	80,000
Value.....	\$63,141	\$38,030	\$8,800
<b>Herring—</b>			
Pounds.....	7,502,003	0,821,243	0,422,476
Value.....	\$255,498	\$200,870	\$130,310
<b>All other—</b>			
Pounds.....	246,306	453,080	202,720
Value.....	\$8,035	\$8,340	\$5,200
<b>Salted—</b>			
Pounds.....	17,027,167	12,561,238	17,845,321
Value.....	\$599,272	\$304,284	\$203,577
<b>Cod—</b>			
Pounds.....	7,207,330	2,682,355	8,535,000
Value.....	\$333,021	\$141,345	\$80,454
<b>Haddock—</b>			
Pounds.....	902,935	611,171	681,050
Value.....	\$30,324	\$17,238	\$12,652
<b>Herring—</b>			
Pounds.....	216,400	1,853,899	3,540,045
Value.....	\$4,332	\$41,557	\$73,029
<b>All other—</b>			
Pounds.....	8,550,502	7,413,813	5,080,226
Value.....	\$230,095	\$104,144	\$127,442
<b>All other products.....</b>	\$174,000	\$297,082	\$287,368

Of the 245 establishments embraced in this classification in 1909, 100 canned fruits and vegetables and 141 canned or cured fish and clams, and 4 were engaged in the manufacture of pickles, preserves, and sauces.

There was a decrease of 13.4 per cent from 1904 to 1909 in the value of canned corn, which was the largest individual product in the canned vegetable branch of the industry, representing 85.4 per cent of the total value of canned vegetables reported in the later year.

The fruit-canning industry shows an increase in value of products between 1904 and 1909 amounting to 90.4 per cent. Apples contributed 53.2 per cent of the value of the fruit products in 1909, as compared with 5.6 per cent in 1904.

The principal branch of the canning industry in Maine is the canning and curing of fish and the canning of clams, the value of which formed 74.6 per cent of the value of all products for the combined industry in the year 1909, 70.7 per cent in 1904, and 77 per cent in 1899. Sardines are the principal product of this subdivision of the industry, contributing, in 1909, 59.9 per cent of the aggregate value of all products and 80.3 per cent of the value of the fish and clam product. In 1909 Maine produced more than nine-tenths of the total quantity of sardines canned in the United States.

**Laundries.**—Statistics for steam laundries are not included in the general tables or in the totals for manufacturing industries. In 1909 there were 78 such establishments in Maine, 12 of which were in Portland, 5 in Bangor, and 3 in Lewiston.

The following statement summarizes the statistics:

Number of establishments.....	78
Persons engaged in the industry.....	956
Proprietors and firm members.....	87
Salaried employees.....	53
Wage earners (average number).....	816
Primary horsepower.....	1,085
Capital.....	\$536,361
Expenses.....	540,777
Services.....	335,240
Materials.....	115,661
Miscellaneous.....	89,876
Amount received for work done.....	736,367

Fifty-four of the 78 establishments were under individual ownership, 15 under firm ownership, and 9 under corporate ownership. Thirty-two establishments had receipts for the year's business of less than \$5,000; 39 had receipts of between \$5,000 and \$20,000; and 7 had receipts of between \$20,000 and \$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.....	697	68.0	July.....	984	96.8
February.....	701	69.0	August.....	1,016	100.0
March.....	699	68.8	September.....	911	89.7
April.....	704	78.2	October.....	826	81.3
May.....	775	76.3	November.....	778	76.6
June.....	851	83.8	December.....	789	77.7

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

KIND.	Number of engines or motors.	Horse-power.
Primary power, total.....		1,085
Owned:		
Steam.....	55	811
Gas.....	2	10
Water.....	2	35
Rented:		
Electric.....	41	224
Other.....		5

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

KIND.	Unit.	Quantity.
Anthracite coal.....	Tons.....	1,804
Bituminous coal.....	Tons.....	6,163
Coke.....	Tons.....	17
Wood.....	Cords.....	502
Oil.....	Barrels.....	74
Gas.....	1,000 feet.....	16,264

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 following summary:

	Custom sawmills.	Custom gristmills.
Number of establishments.....	88	34
Persons engaged in the industry.....	223	45
Proprietors and firm members.....	100	35
Salaried employees.....	4	
Wage earners (average number).....	119	19
Primary horsepower.....	4,339	1,279
Capital.....	\$173,590	\$49,623
Expenses.....	57,087	203,563
Services.....	44,696	3,993
Materials.....	3,135	197,687
Miscellaneous.....	9,256	1,883
Value of products.....	102,802	1,248,593

<sup>1</sup> 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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employes.	Wage earners (average number).							
STATE—All industries.....	1909	3,546	88,476	3,681	4,860	79,955	459,599	\$202,260	\$5,797	\$27,632	\$97,101	\$176,029	\$78,028
	1904	3,145	82,109	3,379	3,772	74,958	343,627	143,708	3,089	32,682	80,042	144,020	63,878
	1899	2,878	75,938	3,103	3,408	69,014	259,232	114,008	3,051	25,731	61,210	112,959	51,749
Agricultural implements.....	1909	10	147	8	18	121	1,014	440	27	78	84	226	142
	1904	13	180	14	19	153	1,891	304	13	77	76	206	130
	1899	17	260	15	27	218	1,446	384	17	100	98	290	102
Boots and shoes, including cut stock and findings.	1909	55	7,105	29	540	6,626	3,810	7,284	693	3,210	0,041	15,509	5,508
	1904	58	6,363	42	371	5,950	3,010	4,643	382	2,073	8,435	12,008	4,173
	1899	153	6,876	46	302	6,468	.....	5,188	353	2,670	8,445	12,431	3,986
Boxes, fancy and paper.....	1909	10	308	6	22	280	131	252	20	92	125	304	179
	1904	9	237	5	10	222	130	145	9	70	100	236	130
	1899	9	199	6	6	187	.....	95	6	55	90	208	109
Bread and other bakery products.....	1909	189	858	207	65	586	253	661	42	303	1,428	2,235	807
	1904	151	701	172	60	469	146	497	41	220	877	1,489	612
	1899	106	697	122	83	492	.....	401	51	213	644	1,205	561
Brick and tile.....	1909	49	330	44	23	263	880	529	19	150	105	390	285
	1904	66	416	68	18	330	880	590	13	105	118	420	302
	1899	71	404	78	24	392	401	455	8	102	106	440	334
Butter, cheese, and condensed milk....	1909	29	138	11	31	96	523	424	24	48	1,008	1,801	203
	1904	40	123	21	24	78	455	385	9	47	1,045	1,230	185
	1899	61	240	30	30	102	496	430	17	70	1,407	1,728	321
Canning and preserving.....	1909	245	4,410	252	308	3,850	4,355	5,114	321	1,138	5,125	7,089	2,564
	1904	235	4,073	245	341	3,487	3,018	3,432	243	1,308	4,240	7,267	3,027
	1899	179	7,010	236	284	6,400	.....	9,359	106	1,393	3,381	6,170	2,789
Carriages and wagons and materials....	1909	150	667	168	27	472	1,121	1,004	24	257	397	966	590
	1904	153	659	180	14	450	700	692	11	247	400	950	556
	1899	161	.....	.....	17	344	.....	612	11	175	278	720	442
Cars and general shop construction and repairs by steam-railroad companies.	1909	18	1,256	.....	50	1,200	953	1,090	52	763	1,199	2,048	849
	1904	15	891	.....	28	863	820	1,024	27	458	685	1,190	505
	1899	10	608	.....	37	571	427	922	31	301	488	867	399
Clothing, men's, including shirts.....	1909	33	1,148	20	51	1,068	229	690	65	333	597	1,164	507
	1904	34	1,185	41	54	1,090	1,321	449	36	304	497	920	522
	1899	44	.....	.....	44	1,527	.....	470	29	342	770	1,487	717
Clothing, women's.....	1909	7	574	3	30	532	142	388	45	184	338	686	348
	1904	10	512	7	19	486	76	104	16	121	309	554	245
	1899	9	324	11	23	290	18	193	12	73	154	288	134
Confectionery.....	1909	28	278	32	32	214	127	435	31	76	336	711	375
	1904	17	236	21	15	200	62	112	8	59	303	497	194
	1899	10	.....	.....	22	148	.....	90	21	40	158	297	139
Cooperage and wooden goods, not elsewhere specified.	1909	68	444	67	28	340	1,070	870	23	164	435	842	407
	1904	78	468	88	10	354	1,408	400	15	144	291	573	282
	1899	155	.....	.....	5	155	.....	131	5	57	108	249	141
Copper, tin, and sheet-iron products....	1909	16	452	13	65	374	439	5,513	74	190	1,018	1,689	671
	1904	12	176	11	23	142	175	245	23	72	400	509	199
	1899	11	.....	.....	5	45	.....	61	3	21	35	93	63
Cotton goods, including cotton small wares.	1909	10	14,783	.....	140	14,034	53,823	25,653	357	5,718	11,390	21,032	10,542
	1904	15	12,582	.....	200	12,382	37,230	21,643	342	4,037	9,173	15,406	6,233
	1899	16	13,824	1	100	13,723	39,698	21,087	232	4,330	7,936	14,631	7,595
Flour-mill and gristmill products.....	1909	173	514	220	69	225	7,720	1,910	30	101	4,027	4,507	480
	1904	161	471	209	28	234	6,603	1,423	18	108	3,442	3,933	491
	1899	157	.....	.....	18	182	.....	1,146	12	89	2,623	3,143	520
Foundry and machine-shop products....	1909	125	3,229	116	228	2,885	4,957	6,318	208	1,512	2,344	5,237	2,893
	1904	106	3,294	108	184	3,002	4,371	5,280	222	1,518	2,001	4,888	2,887
	1899	117	.....	.....	147	2,239	.....	4,306	150	1,084	1,783	3,610	1,836
Furniture and refrigerators.....	1909	13	266	8	43	215	554	355	31	116	168	368	200
	1904	11	203	7	19	237	316	414	22	118	145	377	232
	1899	14	385	12	30	334	912	422	36	127	284	581	207
Gas, illuminating and heating.....	1909	10	284	2	66	216	349	2,665	58	120	212	540	337
	1904	15	156	.....	56	100	171	2,058	38	63	120	444	316
	1899	9	108	.....	47	61	.....	1,425	20	38	78	285	212
Glucose and starch.....	1909	64	195	65	10	120	1,838	890	2	68	475	687	212
	1904	65	202	74	21	107	1,946	630	8	47	364	524	160
	1899	45	174	46	17	111	1,617	344	3	35	350	550	197
Leather goods.....	1909	17	342	15	41	286	1,210	738	42	150	391	675	284
	1904	19	352	18	30	325	1,409	597	36	152	291	704	413
	1899	12	.....	.....	29	239	.....	335	20	110	212	489	277
Leather, tanned, curried, and finished..	1909	17	466	10	20	436	1,497	1,729	25	208	1,452	1,905	453
	1904	27	672	28	29	515	1,787	1,465	31	237	1,074	2,500	526
	1899	31	653	30	36	587	1,700	1,376	27	229	1,943	2,452	509

<sup>1</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.  
<sup>2</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

MANUFACTURES—MAINE.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employes.	Wage earners (average number).							
Expressed in thousands.													
<b>STATE—Continued.</b>													
Lime.....	1909	12	564	13	25	526	205	\$1,959	\$48	\$197	\$729	\$1,215	\$486
	1904	8	698	9	26	663	950	1,927	24	207	602	1,174	572
	1899												
Lumber and timber products.....	1909	1,065	17,101	1,331	684	15,086	95,363	26,536	656	7,103	10,930	26,125	15,195
	1904	882	16,307	1,110	620	13,677	76,267	17,810	459	6,155	8,912	21,337	12,425
	1899	745			388	10,817	67,022	14,529	308	3,949	7,710	15,297	7,587
Marble and stone work.....	1909	142	2,663	163	119	2,381	7,785	4,280	123	1,532	490	2,565	2,075
	1904	61	2,691	69	90	2,532	4,867	3,008	109	1,514	376	2,555	2,179
	1899	64			80	2,147		2,905	80	1,082	256	2,021	1,705
Paper and wood pulp.....	1909	45	9,146	17	432	8,047	223,787	65,133	1,019	5,267	20,504	33,950	13,446
	1904	37	7,935	11	350	7,574	152,294	41,274	605	4,053	13,868	22,951	9,083
	1899	35	5,121	12	258	4,861	92,380	17,473	445	2,168	7,119	13,223	6,104
Patent medicines and compounds and druggists' preparations.	1909	37	213	25	44	144	94	725	43	49	197	756	559
	1904	27	193	20	26	147	30	204	23	46	158	535	427
	1899	20			25	127		446	23	39	120	370	259
Printing and publishing.....	1909	195	2,359	155	553	1,651	1,565	2,611	383	779	1,102	3,438	2,336
	1904	217	2,292	182	306	1,804	1,352	2,177	259	767	932	3,400	2,468
	1899	208	2,082	193	240	1,043		2,066	200	619	680	2,688	2,008
Shipbuilding, including boat building...	1909	156	2,014	173	86	1,755	2,447	2,304	112	992	1,169	3,062	1,893
	1904	138	1,528	173	33	1,322	1,710	1,222	84	759	1,715	3,038	1,323
	1899	115	1,547	150	28	1,369		1,316	23	760	1,378	2,492	1,114
Slaughtering and meat packing.....	1909	20	152	19	26	107	213	197	21	58	785	957	172
	1904	12	190	13	17	100	359	316	13	85	524	723	199
	1899	11	50	12	6	38	52	133	3	18	457	554	97
Stoves and furnaces, including gas and oil stoves.	1909	4	230	1	39	190	203	412	52	113	93	329	231
	1904	4	232	1	24	207	205	382	38	113	72	304	232
	1899												
Tobacco manufactures.....	1909	77	351	84	15	252		202	11	146	169	464	295
	1904	64	327	75	8	244		137	5	123	182	450	268
	1899	54	251	59	10	182		134	6	86	99	285	186
Wood, turned and carved.....	1909	62	1,424	57	80	1,287	4,525	2,063	69	572	899	1,870	971
	1904	58	1,550	57	39	1,454	4,049	1,722	36	577	668	1,641	973
	1899	52	941	56	34	851		694	20	290	333	853	520
Woolen, worsted, and felt goods, and wool hats.	1909	65	9,070	22	294	8,754	22,209	10,834	424	3,870	11,362	18,490	7,323
	1904	72	9,052	26	283	8,743	15,228	17,552	391	3,514	10,811	17,580	6,769
	1899	70	7,409	37	217	7,155	15,170	14,129	269	2,689	7,945	13,413	5,468
All other industries.....	1909	318	4,905	296	482	4,127	13,534	10,437	593	1,066	5,982	11,188	5,206
	1904	264	5,966	258	362	5,346	15,473	9,154	430	2,441	6,011	10,842	4,831
	1899	300			400	5,769		10,647	400	2,332	4,629	9,530	4,901

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

PORTLAND—All industries.....	1909	271	5,891	193	796	4,902	7,849	\$9,597	\$769	\$2,508	\$6,009	\$11,950	\$5,941
	1904	243	5,112	208	559	4,345		6,280	485	2,073	4,354	9,133	4,779
	1899	234			406	3,783		5,318	371	1,879	3,603	7,334	3,731
Bread and other bakery products.....	1909	27	178	28	14	136	42	117	13	71	373	531	158
	1904	29	157	33	23	101		64	9	54	142	258	116
	1899	23	288	25	51	212		284	35	97	293	535	242
Brick and tile.....	1909	3	50	3	2	45	180	80	2	27	18	71	53
	1904	3	53	3		50		27		28	14	53	39
	1899	3	40	4		36		28		16	11	48	37
Canning and preserving.....	1909	7	96	4	14	78	71	278	20	30	142	226	84
	1904	11	200	9	22	169		209	18	47	264	401	137
	1899	9			8	86		142	9	31	138	218	80
Carriages and wagons and materials.....	1909	4	67	2	8	57	85	107	6	34	66	127	61
	1904	3	83	3	2	78		33	1	51	46	112	66
	1899	7			6	65		98	4	35	69	169	100
Clothing, women's.....	1909	3	421		25	396	64	302	32	137	261	504	243
	1904	3	323	3	9	311		69	6	84	136	279	143
	1899	3	254	3	20	241		170	11	60	105	212	107
Confectionery.....	1909	12	190	9	26	155	166	348	27	53	265	574	309
	1904	6	126	5	6	115		39	3	33	225	347	122
	1899	5			20	112		72	20	28	112	218	106
Copper, tin, and sheet-iron products.....	1909	9	153	8	21	124	94	234	14	51	166	246	80
	1904	6	45	6	7	32		28	5	18	24	66	42
	1899	6			4	23		31	2	14	25	75	50
Flour-mill and gristmill products.....	1909	6	24	3	8	13	1,023	62	2	3	169	190	21
	1904	3	4			4		61		2	123	142	14
	1899	4		3	1	6		35	1	3	109	127	18

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

<sup>2</sup> Excluding statistics for one establishment, to avoid disclosure of individual operations.

<sup>3</sup> Excluding statistics for two establishments, to avoid disclosure of individual operations.

MANUFACTURES—MAINE.

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.				Primary horse-power.	Capital.	Salaries.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
			Total.	Proprietors and firm members.	Salaried employes.	Wage earners (average number).							
Expressed in thousands.													
<b>PORTLAND—Continued.</b>													
Foundry and machine-shop products...	1909	21	590	11	96	483	1,209	\$1,615	\$98	\$266	\$613	\$1,200	\$587
	1904	20	752	20	70	659	.....	1,471	90	330	352	1,280	908
	1899	18	583	19	80	528	.....	986	42	258	208	684	416
Lumber and timber products.....	1909	11	723	1	115	607	1,500	1,557	93	305	920	1,838	918
	1904	11	387	0	63	318	.....	330	44	170	400	948	548
	1899	11	.....	.....	23	206	.....	470	19	140	202	518	226
Marble and stone work.....	1909	9	68	10	5	53	55	83	4	35	34	92	58
	1904	4	31	0	2	23	.....	25	1	10	11	46	35
	1899	10	75	15	3	57	.....	70	3	38	42	114	72
Patent medicines and compounds and druggists' preparations.	1909	13	89	12	24	53	33	171	19	19	126	461	335
	1904	5	31	6	0	19	.....	45	4	0	34	148	114
	1899	6	31	9	4	18	.....	17	5	6	27	50	32
Printing and publishing.....	1909	43	792	31	142	610	436	736	121	290	294	1,010	716
	1904	47	689	33	138	518	.....	581	114	247	265	855	590
	1899	45	581	35	82	404	.....	548	50	223	161	691	500
All other industries.....	1909	108	2,450	71	296	2,083	2,091	3,007	318	1,118	2,562	4,880	2,318
	1904	92	2,231	75	205	1,651	.....	2,792	190	925	2,813	4,213	1,905
	1899	84	.....	.....	148	1,049	.....	2,417	161	724	1,051	3,600	1,745

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

Auburn.....	1909	83	3,778	73	253	3,452	3,445	\$4,085	\$208	\$1,748	\$5,790	\$8,843	\$3,053
	1904	72	2,860	65	152	2,652	.....	2,520	174	1,210	4,417	6,407	1,990
	1899	67	.....	.....	201	2,749	.....	3,240	171	1,150	3,957	5,900	1,970
Augusta.....	1909	40	2,431	30	365	2,066	5,350	3,414	232	1,150	2,484	4,662	2,178
	1904	44	2,026	41	125	1,800	.....	2,286	134	702	1,887	3,887	2,000
	1899	52	.....	.....	94	2,018	.....	3,290	112	607	1,211	3,313	2,102
Bangor.....	1909	122	1,672	117	228	1,327	2,441	3,565	204	735	1,847	3,340	1,409
	1904	87	1,700	85	128	1,400	.....	2,944	120	748	1,737	3,408	1,071
	1899	101	.....	.....	148	1,511	.....	2,125	127	695	1,995	3,330	1,431
Biddeford.....	1909	43	5,178	45	57	5,070	17,038	7,172	122	1,093	4,897	9,012	4,115
	1904	33	4,890	34	02	4,764	.....	7,900	126	1,791	4,136	6,949	2,813
	1899	39	.....	.....	44	4,375	.....	5,924	76	1,487	2,060	5,472	2,505
Lewiston.....	1909	83	7,050	70	180	6,788	10,438	12,639	308	2,741	6,275	10,475	5,200
	1904	81	6,419	85	167	6,167	.....	11,205	230	2,168	4,716	8,528	3,812
	1899	84	.....	.....	152	6,077	.....	10,657	193	2,307	3,718	7,779	4,061
Waterville.....	1909	33	1,907	17	78	1,812	3,184	4,762	59	805	1,771	3,170	1,408
	1904	40	2,122	36	75	2,011	.....	4,051	116	738	1,773	3,069	1,296
	1899	29	.....	.....	48	1,920	.....	3,721	50	627	1,040	2,284	1,238



TABLE II.—DETAIL STATEMENT FOR

INDUSTRY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, supts. and managers.	Clerks.		Wage earners.			Total.	16 and over.		Under 16.				
					Male.	Female.	Average number.	Number.			Male.	Female.	Male.	Female.			
								Maximum month.	Minimum month.								
1 All industries.....	3,546	88,478	3,661	1,988	1,730	1,142	79,955	Oc 85,501	Jy 76,489	(1)	(1)	(1)	(1)	(1)	459,599		
2 Agricultural implements.....	10	147	8	10	5	3	121	Mh 151	Au 74	135	133	2			1,014		
3 Artificial stone.....	9	52	8	3		2	39	Jy 64	Ja 12	40	39		1		12		
4 Baskets, and rattan and willow wares.....	6	20	6				14	Je 2	No 7	16	9	7			25		
5 Blacking and cleansing and polishing preparations.....	4	5	1	1	1		2	Mh 2	Ja 2	3	2	1			9		
6 Boots and shoes, including out stock and findings.....	55	7,195	29	148	234	168	6,626	Fe 7,274	Jy 6,190	7,170	4,682	2,366	92	30	3,810		
7 Boxes, fancy and paper.....	10	308	6	11	1	10	280	De 323	Ja 250	323	83	237		3	131		
8 Brass and bronze products.....	3	15	1	1		1	12	Je 2	Ja 8	8	7	1			10		
9 Bread and other bakery products.....	186	858	207	11	25	29	586	Jy 674	Fe 516	623	471	132	12	8	253		
10 Brick and tile.....	49	330	44	16	4	3	263	Jy 530	Mh 32	401	398		3		889		
11 Brooms.....	9	23	8	1		1	13	Ja 2	Au 8	14	14				11		
12 Brushes.....	4	30	4	2		1	23	Au 26	No 20	21	11	10			22		
13 Butter, cheese, and condensed milk.....	29	138	11	18	4	9	96	Je 107	De 2	99	91	8			523		
14 Canning and preserving.....	245	4,410	252	201	50	57	3,850	Se 10,131	Ja 588	10,464	5,388	4,482	83	61	4,355		
15 Carriages and wagons and materials.....	150	667	168	14	10	3	472	Fe 2	Au 388	507	507				1,121		
16 Cars and general shop construction and repairs by steam-railroad companies.....	18	1,256		27	25	4	1,200	Ja 1,249	Jy 1,141	1,204	1,204				953		
17 Cars and general shop construction and repairs by street-railroad companies.....	13	168		3	4		161	Jy 2	Ja 150	154	153	1			258		
18 Clothing, men's, including shirts.....	33	1,148	29	18	19	14	1,068	De 1,158	Au 980	1,171	266	905			229		
19 Clothing, women's.....	7	574	3	12	21	6	532	Mh 609	Au 388	570	75	492		3	142		
20 Coffins, burial cases, and undertakers' goods.....	8	66	12	2	2	1	49	Fe 2	Ja 46	54	54				149		
21 Confectionery.....	28	278	32	6	17	9	214	De 242	My 198	242	82	159	1		127		
22 Cooperage and wooden goods, not elsewhere specified.....	68	444	67	15	4	9	349	Fe 451	Au 210	466	386	79	1		1,670		
23 Copper, tin, and sheet-iron products.....	16	452	13	14	38	13	374	Se 594	Ja 130	203	196		5	2	439		
24 Cotton goods, including cotton small wares.....	16	14,783		84	55	10	14,634	Au 14,922	Ja 14,474	14,626	6,957	6,819	477	373	53,823		
25 Cutlery and tools, not elsewhere specified.....	10	100	21	9	4	2	64	Ja 70	Je 59	75	75				789		
26 Flour-mill and gristmill products.....	173	514	220	30	26	13	225	De 232	Je 220	237	236	1			7,720		
27 Foundry and machine-shop products.....	125	3,239	116	95	71	62	2,885	Oc 3,003	Ja 2,628	3,063	3,005	43	5		4,957		
28 Furnishing goods, men's.....	6	49	8	1			40	Oc 2	Ja 19	53	5	48			9		
29 Furniture and refrigerators.....	13	266	8	19	17	7	215	Oc 233	Au 182	229	210	19			554		
30 Gas, illuminating and heating.....	19	284	2	24	30	12	216	Je 327	Mh 143	186	186				349		
31 Glucose and starch.....	64	195	65	10	3		120	Oc 628	Ja 0	636	618	18			1,838		
32 Hosiery and knit goods.....	5	56	7	2	2		45	Au 52	Mh 38	52	23	27		2	69		
33 Jewelry.....	3	14	4	2		1	7	No 9	Ja 6	8	7	1			3		
34 Leather goods.....	17	342	15	10	23	8	286	De 310	Ja 270	311	285	26			1,210		
35 Leather, tanned, curried, and finished.....	17	406	10	15	4	1	436	De 530	Ja 308	521	521				1,467		
36 Lime.....	12	564	13	14	9	2	526	Se 607	Ja 448	474	474				205		
37 Lumber and timber products.....	1,065	17,101	1,331	370	186	128	15,086	Ja 17,382	Au 12,146	22,401	22,286	80	34	1	95,363		
38 Marble and stone work.....	142	2,663	163	63	40	16	2,381	Se 3,036	Fe 1,315	2,770	2,770				7,785		
39 Mattresses and spring beds.....	10	92	11	5	2	2	72	My 79	Ja 59	72	59	11	2		69		
40 Models and patterns, not including paper patterns.....	3	5	3				2	Jy 4	Mh 1	2	2				5		
41 Musical instruments, pianos and organs and materials.....	3	26	1	2	2	1	20	De 27	Ap 10	27	27				135		
42 Paint and varnish.....	4	28	4	3	4	2	15	Je 2	Ja 14	15	15				157		
43 Paper and wood pulp.....	45	9,146	17	165	252	65	8,647	De 8,841	Se 8,334	8,892	8,899	477	16		223,787		
44 Patent medicines and compounds and druggists' preparations.....	37	213	25	15	19	10	144	Ja 184	Au 89	191	57	133	1		94		
45 Printing and publishing.....	195	2,359	155	120	149	287	1,651	Mh 1,789	Au 1,537	1,814	1,126	677	9	2	1,565		
46 Shipbuilding, including boat building.....	156	2,014	173	38	28	20	1,755	Ap 1,975	De 1,530	1,738	1,738	2			2,447		
47 Slaughtering and meat packing.....	20	152	19	8	11	7	107	No 123	Jy 96	123	123				213		
48 Stoves and furnaces, including gas and oil stoves.....	4	230	1	9	25	5	190	No 204	Jy 151	203	203				208		
49 Tobacco manufactures.....	77	351	84	3	8	4	252	Je 263	Mh 242	262	200	57	4	1			
50 Wood, turned and carved.....	62	1,424	57	43	21	16	1,287	Mh 1,411	Jy 1,184	1,415	1,253	158	2	2	4,525		
51 Woolen, worsted, and felt goods, and wool hats.....	65	9,070	22	100	94	40	8,754	De 9,373	Ja 8,021	9,397	5,868	3,332	86	111	22,239		
52 All other industries.....	212	4,156	197	135	187	88	3,549								11,802		

<sup>1</sup> No figures given for reasons explained in the Introduction.

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

<sup>3</sup> None reported for one or more other months.

<sup>4</sup> All other industries embrace—

Awnings, tents, and sails.....	23	Dyestuffs and extracts.....	2	Galvanizing.....	1
Babbitt metal and solder.....	1	Electrical machinery, apparatus, and supplies.....	2	Glass, cutting, staining, and ornamenting.....	2
Bags, paper.....	1	Electroplating.....	1	Glue.....	2
Belting and hose, leather.....	1	Enameling and japanning.....	1	Grease and tallow.....	3
Bluing.....	1	Fancy articles, not elsewhere specified.....	1	Grindstones.....	1
Carpets, rag.....	2	Fertilizers.....	5	Hair work.....	2
Carriages and sleds, children's.....	1	Files.....	2	Hammocks.....	1
Charcoal.....	1	Fireworks.....	1	Hand stamps and stencils and brands.....	2
Chemicals.....	1	Flavoring extracts.....	9	Hats, fur-felt.....	1
Clothing, horse.....	1	Food preparations.....	6	Hones and whetstones.....	1
Coffee and spice, roasting and grinding.....	1	Foundry supplies.....	1	House-furnishing goods, not elsewhere specified.....	3
Cordage and twine and jute and linen goods.....	2	Fur goods.....	3	Iron and steel, steel works and rolling mills.....	1
Dyeing and finishing textiles.....	1	Furs, dressed.....	1	Kaolin and ground earths.....	1

MANUFACTURES—MAINE.

457

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.			
\$202,259,592	\$154,821,250	\$3,540,765	\$2,255,749	\$37,632,284	\$4,887,240	\$92,213,984	\$900,915	\$1,157,339	\$2,562,345	\$9,670,629	\$176,029,393	\$78,928,169	
1													
2	448,622	204,987	12,104	14,098	78,350	11,003	73,260	700	2,510		12,053	226,308	142,036
3	43,510	57,365	4,200	510	31,211	257	17,013	609	197		2,378	70,120	61,950
4	18,149	9,134			4,845	242	3,533	145	59		310	14,893	11,118
5	11,109	8,707	900	820	509	221	3,600	504	28		2,026	8,051	4,821
6	7,284,376	14,706,825	257,262	435,580	3,210,048	68,363	0,872,142	11,748	18,025	4,737	828,020	15,508,771	5,568,260
7	251,773	252,539	14,195	5,376	91,934	4,639	110,061	2,337	1,351	500	12,240	303,778	179,178
8	12,208	14,065	882	312	6,561	1,000	4,784	755			421	14,169	8,385
9	660,714	1,905,061	12,788	20,088	302,877	41,518	1,380,179	35,212	4,190		94,833	2,234,718	807,021
10	528,785	800,432	14,090	4,475	150,142	97,560	7,444	1,830	3,453	5,861	14,737	390,107	285,163
11	28,665	30,750	1,248	413	6,041	327	25,893	826	122	340	1,540	40,182	22,062
12	40,950	41,185	1,050	400	14,860	304	22,557	614	165		1,175	46,462	23,541
13	424,405	1,209,521	17,518	0,083	47,624	14,269	1,083,741	2,868	2,210		208	34,991	203,017
14	5,113,760	6,996,964	265,362	55,380	1,137,879	97,483	5,027,435	23,297	27,317	4,901	357,841	7,688,833	2,568,915
15	1,003,664	718,346	15,550	7,069	257,293	16,097	381,061	8,701	5,440	5,813	20,407	966,003	568,035
16	1,690,088	2,048,194	35,293	17,067	702,040	45,577	1,163,375		12,334		21,008	2,048,104	849,242
17	297,175	201,426	2,441	2,522	99,060	1,787	83,662		3,017		8,037	201,426	115,077
18	690,145	1,088,694	45,560	19,820	332,770	9,977	587,093	9,759	2,100	22,304	50,272	1,163,693	566,713
19	388,201	618,653	13,892	30,882	183,571	4,239	333,330	7,718	873		44,148	686,320	348,760
20	165,673	136,800	2,600	2,242	31,106	1,105	80,598	1,502	741		7,966	104,455	73,752
21	435,404	501,417	13,363	18,107	76,041	6,777	320,240	5,401	1,022		50,590	711,391	375,368
22	876,161	695,919	15,994	6,800	163,939	5,180	430,063	6,581	5,440	6,168	55,756	842,439	407,200
23	5,512,627	1,610,307	26,510	47,035	189,956	16,511	1,001,252	6,857	2,933	2,318	310,935	1,688,685	671,222
24	25,653,059	18,014,436	288,205	98,540	5,717,776	341,762	11,049,717	600	267,037	271,753	910,097	21,932,225	10,541,740
25	231,167	124,193	9,328	3,112	38,237	6,548	55,573	1,320	1,477	179	8,419	158,177	90,050
26	1,916,415	4,217,880	15,065	14,108	101,817	33,575	3,993,541	11,286	10,519	358	37,421	4,507,216	480,100
27	6,818,373	4,513,940	190,591	77,880	1,511,500	103,183	2,240,739	14,569	28,500	3,276	343,522	5,236,752	2,892,830
28	25,733	43,625	780		6,007	539	20,576	302	120	3,000	3,295	56,164	20,049
29	354,631	347,681	20,280	10,318	115,950	4,248	193,830	2,714	1,789		25,915	368,134	200,050
30	2,664,690	450,309	31,006	27,003	120,172	133,260	78,699		10,983	5,146	35,040	548,691	336,732
31	890,337	507,450	2,330		67,815	20,983	447,050		4,723	820	16,829	686,666	211,673
32	128,593	65,357	2,500	4,090	14,021	2,078	30,467	300	353	8,019	2,110	78,586	46,041
33	10,978	10,745	2,000	572	3,730	116	8,114	705	53		855	20,507	12,277
34	787,569	624,255	16,380	20,039	150,288	14,121	376,742	4,377	2,485	62	24,761	674,701	283,838
35	1,728,823	1,791,076	20,782	3,800	297,860	33,556	1,418,047	17	5,141	311	100,053	1,905,372	453,169
36	1,959,345	1,940,401	40,436	7,107	197,206	228,860	499,843	5,077	14,218	7,720	39,124	1,214,703	480,000
37	26,535,890	22,769,838	470,719	185,022	7,163,269	32,441	10,897,734	55,682	190,335	1,893,547	1,880,480	26,124,640	15,104,465
38	4,279,952	2,292,720	85,809	36,083	1,531,052	80,608	409,232	6,407	10,974	6,994	84,911	2,565,024	2,075,184
39	127,736	138,443	3,014	2,494	39,386	1,127	93,358	1,500	510		5,154	148,243	53,758
40	5,828	4,352			2,028	156	1,640	173	38		308	8,971	7,160
41	85,496	37,800	1,872	1,728	10,283	381	18,368	228	199		4,741	43,274	24,525
42	83,149	129,789	7,940	4,024	10,491	1,097	98,340	2,510	320		4,107	140,097	39,760
43	65,133,247	20,289,896	650,926	369,018	5,266,656	2,028,561	17,876,652	525,124	282,020	84,873	1,008,066	33,950,230	13,440,017
44	724,580	508,923	27,400	15,545	49,040	2,072	103,032	3,787	2,536	1,350	213,352	756,873	558,074
45	2,610,054	2,825,984	187,878	195,489	778,041	41,143	1,090,477	51,126	14,110	33,737	462,463	3,437,812	2,330,102
46	2,303,770	2,527,170	80,458	31,299	992,328	47,404	1,121,629	6,792	9,395	104,872	132,933	3,061,635	1,892,542
47	196,648	889,119	12,500	8,838	57,034	6,452	778,595	2,472	1,370	750	20,436	956,955	171,908
48	412,148	303,146	30,500	21,203	113,330	6,857	90,863		2,005		37,608	329,499	231,779
49	202,310	385,440	5,000	6,270	146,100	1,073	167,495	9,158	34,322		15,116	463,917	204,449
50	2,083,089	1,052,034	49,092	19,174	571,861	4,360	894,706	2,707	9,840	13,210	86,388	1,870,363	971,327
51	19,833,908	16,664,758	313,749	110,442	3,869,785	397,760	10,063,837	12,750	90,907	23,704	871,764	18,490,120	7,128,523
52	9,121,709	8,419,683	227,999	270,439	1,657,246	259,063	5,118,639	50,188	46,818	41,858	746,833	9,904,787	4,586,485

\*All other industries embrace—Continued.

Lapidary work.....	3	Photo-engraving.....	2	Steam packing.....	2
Lests.....	2	Pottery, terra-cotta, and fire-clay products.....	2	Stereotyping and electrotyping.....	1
Liquors, malt.....	2	Pulp goods.....	1	Surgical appliances and artificial limbs.....	1
Looking-glass and picture frames.....	1	Pumps, not including steam pumps.....	1	Toys and games.....	1
Matches.....	1	Sand and emery paper and cloth.....	1	Typewriters and supplies.....	1
Millinery and lace goods.....	1	Saws.....	2	Upholstering materials.....	3
Mineral and soda waters.....	45	Show cases.....	1	Vault lights and ventilators.....	1
Musical instruments and materials, not specified.....	1	Show glass.....	2	Vinegar and cider.....	14
Oil, not elsewhere specified.....	1	Silk and silk goods, including throwsters.....	1	Wall plaster.....	1
Oilcloth and linoleum.....	2	Silverware and plated ware.....	2	Waste.....	1
Optical goods.....	1	Soup.....	1	Wirework, including wire rope and cable.....	1
Paper goods, not elsewhere specified.....	2	Spotting and athletic goods.....	10	Wool pulling.....	2
Paving materials.....	1				

MANUFACTURES—MAINE.

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

INDUSTRY AND CITY.	Number of establishments	PERSONS ENGAGED IN INDUSTRY.										WAGE EARNERS—NUMBER DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Primary horse-power.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks.		Wage earners (average number).			Total.	16 and over.		Under 16.				
					Male.	Female.	Total.	Male.	Female.		Under 16.	Male.	Female.				
														Male.	Female.	Male.	
1 All industries .....	271	5,891	193	275	291	230	4,902	3,649	1,222	31	5,209	3,833	1,343	24	9	7,849	
2 Bread and other bakery products.....	27	178	28	6	4	4	130	106	27	3	149	116	30	2	1	42	
3 Brick and tile.....	3	50	3	1	1	1	45	45	.....	.....	34	34	.....	.....	.....	180	
4 Canning and preserving.....	7	96	4	7	4	3	78	35	43	.....	132	60	72	.....	.....	71	
5 Carriages and wagons and materials.....	4	67	2	5	1	2	57	57	.....	.....	49	49	.....	.....	.....	85	
6 Clothing, women's.....	3	421	.....	9	15	1	396	42	351	3	422	45	374	.....	3	64	
7 Confectionery.....	12	190	9	5	15	6	155	40	109	.....	168	50	118	.....	.....	166	
8 Copper, tin, and sheet-iron products.....	9	153	8	8	8	5	124	117	.....	7	119	112	.....	5	2	94	
9 Flour-mill and gristmill products.....	6	24	3	4	2	2	13	13	.....	.....	13	13	.....	.....	.....	1,023	
10 Foundry and machine-shop products.....	21	590	11	37	28	31	483	482	.....	1	510	509	.....	1	.....	1,269	
11 Lumber and timber products.....	11	723	1	26	33	56	607	595	10	2	595	583	10	1	1	1,590	
12 Marble and stone work.....	9	68	10	3	1	1	53	53	.....	.....	50	50	.....	.....	.....	55	
13 Patent medicines and compounds and druggists' preparations.....	13	89	12	9	12	3	53	17	35	1	61	20	40	1	.....	33	
14 Printing and publishing.....	43	792	31	44	51	47	619	418	199	2	695	469	224	2	.....	480	
15 All other industries <sup>1</sup> .....	103	2,450	71	111	117	68	2,083	1,623	448	12	2,212	1,723	475	12	2	2,691	

<sup>1</sup> All other industries embrace: Agricultural implements, 1; artificial stone, 2; awnings, tents, and sails, 5; babbit metal and solder, 1; blacking and cleansing and polishing preparations, 1; boots and shoes, including cut stock and findings, 4; boxes, fancy and paper, 2; brooms, 1; brushes, 1; butter, cheese, and condensed milk, 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, 1; clothing, men's, including shirts, 3; coffins, burial cases, and undertakers' goods, 1; cooperage and wooden goods, not elsewhere specified, 4; cutlery and tools, not elsewhere specified, 1; electrical machinery, apparatus, and supplies, 1; files, 1; flavoring extracts, 5; food preparations, 2; fur goods, 1; furniture and refrigerators, 5; gas, illuminating and heating, 2; glass, cutting, staining, and ornamenting, 2; grease and tallow, 2; grindstones, 1; hand stamps and stencils and brands, 1; hats, fur-felt, 1; house-furnishing goods, not

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

1 AUBURN .....	83	3,778	73	80	109	64	3,452	2,292	1,070	90	3,776	2,508	1,170	65	33	3,445
2 AUGUSTA .....	40	2,431	30	48	44	213	2,096	1,300	763	33	2,176	1,348	793	16	19	5,360
3 BANGOR .....	122	1,672	117	75	101	52	1,327	1,113	211	3	1,508	1,265	240	3	.....	2,441
4 BIDDEFORD .....	43	5,178	45	21	28	8	5,070	3,335	1,568	173	5,257	3,454	1,626	35	62	17,038
5 LEWISTON .....	83	7,050	76	88	79	19	6,788	3,435	3,102	251	6,887	3,482	3,151	122	132	19,438
6 WATERVILLE.....	33	1,907	17	32	30	16	1,812	958	609	245	1,925	1,018	647	182	78	3,184

MANUFACTURES—MAINE.

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.

PORTLAND.

	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	\$9,596,987	\$10,697,469	\$413,423	\$356,110	\$2,507,643	\$256,536	\$5,752,501	\$106,713	\$64,304	\$31,872	\$1,208,358	\$11,950,307	\$5,941,830
2	116,999	475,076	8,700	4,300	70,908	7,840	365,273	7,378	673	.....	0,038	531,470	158,351
3	80,340	51,522	720	1,000	20,660	16,775	1,140	1,100	432	.....	3,089	70,828	52,013
4	278,073	213,870	14,710	4,710	20,900	4,017	137,419	4,370	2,524	.....	16,154	220,638	85,202
5	107,319	112,574	4,327	936	34,227	2,587	63,450	2,984	600	800	.....	2,663	60,383
6	302,350	469,791	0,892	22,332	136,697	2,567	258,494	5,800	764	.....	33,245	503,752	242,091
7	348,057	394,037	11,863	15,327	53,108	4,710	260,277	2,183	1,610	.....	44,644	574,017	309,021
8	233,992	254,625	10,200	7,481	49,988	2,164	103,342	2,420	831	2,318	16,776	245,154	79,648
9	61,685	177,130	1,560	740	3,238	2,463	106,817	1,223	398	.....	691	189,501	20,221
10	1,615,058	1,122,935	58,099	30,303	260,244	28,897	584,144	7,793	7,402	3,140	127,007	1,200,162	587,121
11	1,556,799	1,656,783	46,192	47,115	365,700	5,271	914,880	12,028	7,179	.....	267,809	1,837,927	917,776
12	83,219	79,554	3,450	1,020	34,660	1,517	32,000	2,091	344	500	3,066	92,017	58,500
13	171,116	263,870	8,000	0,439	19,143	1,278	125,198	2,602	1,092	.....	95,717	460,800	334,324
14	785,278	809,080	60,858	60,286	298,589	13,796	280,106	21,202	3,966	13,037	147,210	1,069,108	715,296
15	3,906,672	4,526,622	172,953	142,139	1,118,434	162,639	2,390,901	32,933	35,973	12,041	440,540	4,882,573	2,319,973

elsewhere specified, 1; jewelry, 2; leather goods, 4; leather, tanned, curried, and finished, 1; liquors, malt, 2; looking-glass and picture frames, 1; matches, 1; mattresses and spring beds, 3; mineral and soda waters, 4; models and patterns, not including paper patterns, 2; musical instruments, pianos and organs and materials, 1; oil, not elsewhere specified, 1; paint and varnish, 1; photo-engraving, 2; pottery, terra-cotta, and fire-clay products, 1; saws, 1; shipbuilding, including boat building, 4; show cases, 2; silverware and plated ware, 2; slaughtering and meat packing, 3; steam packing, 2; stoves and furnaces, including gas and oil stoves, 1; tobacco manufactures, 3; toys and games, 1; vinegar and cider, 1.

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

1	\$4,084,993	\$8,323,573	\$140,887	\$157,604	\$1,747,806	\$64,173	\$5,725,064	\$16,939	\$20,269	\$8,082	\$442,549	\$8,842,020	\$3,052,792
2	3,414,469	4,290,622	110,363	121,388	1,159,051	55,714	2,428,471	14,306	43,854	9,031	348,444	4,662,174	2,177,980
3	3,565,142	3,067,556	114,052	88,826	734,027	69,338	1,777,875	31,864	27,640	23,975	198,153	3,345,717	1,498,504
4	7,172,156	7,682,113	98,209	24,090	1,093,494	102,903	4,704,559	5,314	97,064	207,715	358,759	6,011,606	4,114,144
5	12,689,103	6,017,809	193,108	114,907	2,740,695	230,563	5,044,330	13,654	111,833	80,397	482,342	10,475,374	5,200,491
6	4,761,557	2,756,957	58,904	29,820	804,051	40,070	1,730,326	3,763	32,643	804	55,200	3,178,980	1,407,984