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FOURTEENTH CENSUS OF THE UNITED STATES
MANUFACTURES: 1919

OKLAHOMA

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EXPLANATION OF TERMS.

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

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

Period covered.—The returns relate to the calendar year 1910, or the business year which corresponded most nearly to that calendar year, and cover a year's operations, except for establishments which began or discontinued business during the year.

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

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

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

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

Comparisons with previous censuses.—Owing to changes in industrial conditions it is not always possible to classify establishments by industries in such a way as to permit accurate comparison with preceding censuses. At the census of 1909 the figures for kindred industries were combined. This practice has been followed in compiling the statistics for 1910 and 1914 when placed in comparison with those for 1909 and prior years. The comparative summary for 1910, 1914, and 1909, therefore, does not show separately all the industries given for 1910 in the detailed statement for the state.

Influence of increased prices.—In comparing figures for cost of materials, value of products, and value added by manufacture in 1910 with the corresponding figures for earlier censuses, account should be taken of the general increase in the prices of commodities during recent years. To the extent to which this factor has been influential the figures fail to afford an exact measure of the increase in the volume of business.

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

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

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

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

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

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

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

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

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

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

These instructions were identical with those employed at the censuses of 1914 and 1909. The data compiled in respect to capital, however, at both censuses, as well as at all preceding censuses of manufactures, have been so defective as to be of little value except as indicating very general conditions. In fact, it has been repeatedly recommended by the census authorities that this inquiry be omitted from the schedule. While there are some establishments whose accounting systems are such that an accurate return for capital could be made, this is not true of the great majority, and the figures therefore do not show the actual amount of capital invested.

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

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

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

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

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

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

Fuel.—Statistics of the quantity of fuel used are shown only for anthracite and bituminous coal, coke, fuel oils, gasoline and other volatile oils, and gas—natural and manufactured, and represent the quantity used during the year. As only the principal kinds of fuel are shown, comparison as to the total cost of all fuel is impracticable. A comparison, however, of the total quantities of the several kinds of fuel used in 1910 and 1914 is given.

OKLAHOMA.

GENERAL STATISTICS.

General character of the state.—Oklahoma has a gross area of 70,057 square miles, of which 69,414 represent land surface. The inhabitants of the state in 1900 numbered 790,391; in 1910, 1,657,155; and in 1920, 2,028,283. In total population Oklahoma ranked twenty-first among the states in 1920. The number of inhabitants per square mile in 1910 was 23.9, the corresponding figures for 1920 being 29.2.

In 1920 there were 12 cities in the state—Ardmore, Bartlesville, Chickasha, Enid, Guthrie, McAlester, Muskogee, Oklahoma City, Okmulgee, Sapulpa, Shawnee, and Tulsa—having more than 10,000 inhabitants. These 12 cities, the combined population of which in that year was 317,264, formed 15.6 per cent of the total for Oklahoma, and in 1919 reported 33.3 per cent of the value of the state's manufactured products.

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

Statistics for the state, by counties (Table 2).—Figures are not available for comparison of county totals for 1919 with those for prior censuses.

Principal industries, ranked by value of products (Table 3).—The ranking of industries by value of products is not always satisfactory as indicating their importance from a manufacturing standpoint. In some instances their ranking would change materially if based upon the average number of wage earners or value added by manufacture.

Persons engaged in manufacturing industries (Table 4).—The age classification of the average number of wage earners in this and other tables is an estimate obtained by the method described in the "Explanation of terms." The classification by sex for 1919 was reported separately, but for 1914 and 1909 was obtained in the same manner as the distribution by age. Figures for individual industries will be found in Table 26.

Average number of wage earners for selected industries (Table 5).—The industries covered by this table are those which employed more than 500 wage

earners in 1919, and for which statistics can be shown without the possibility of disclosing the operations of individual establishments.

Average number of wage earners, by sex and age, and value of products for cities of 10,000 inhabitants or more (Table 6).—In general, increases from 1914 to 1919 are shown in all of the details for the 12 cities included in this table.

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

Wage earners, by months, for selected industries and for cities (Table 8).—In addition to the number of wage earners employed by months, similar data are given for males and females for all industries combined, and also for each of the 12 cities having more than 10,000 inhabitants. There were a number of industries in the state in 1919 in which the number of female wage earners predominated. The 12 cities combined reported a somewhat larger proportion of female wage earners than the state as a whole, 11.2 per cent, as compared with 6.3 per cent for the state.

Prevailing hours of labor (Table 9).—Since 1914 there has been a marked shortening of the working-day in Oklahoma. In that year 25 per cent of the wage earners were included in the group "48 and under," as against 44.2 per cent in 1919. In 1914 the "60" and "over 60" groups constituted 45.1 per cent of the total wage earners, as compared with 25.4 per cent in 1919.

Size of establishments, by average number of wage earners, for selected industries and for cities (Table 10).—The predominance of the number of small establishments, when based on the number of wage earners employed, is evidenced in this table by the fact that of the total number of establishments in the state, 97.8 per cent were in the several classes having less than 101 wage earners, while such establishments employed but 48.9 per cent of the total number of wage earners. On the other hand, the establishments employing an average of more than 100 wage earners represented only 2.2 per cent of the total number of manufacturing establishments in the state, but reported 51.1 per cent of the total number of wage earners.

Size of establishments, by value of products (Table 11).—At the censuses of 1909 and 1914 establishments with products valued at "\$100,000 to \$1,000,000" constituted one group, but at the census of 1919 this

group was subdivided into "\$100,000 to \$500,000" and "\$500,000 to \$1,000,000." Separate figures for the number of establishments and value of products have been compiled, however, from the returns for 1914. The table, therefore, gives combined figures for these two groups in the case of all items for 1909, and in the case of average number of wage earners and value added by manufacture for 1914.

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

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

Character of ownership (Table 14).—The preponderance of corporate ownership is clearly brought out in this table. Although corporations owned but 29 per cent of the number of establishments in the state in 1919, they reported 85.6 per cent of the average number of wage earners and 91.6 per cent of the total value of products. During the five-year period 1914-1919, the average number of wage earners in corporations increased 12,230, or 93.8 per cent, and the value of products \$278,772,155, or 314.3 per cent.

Manufactures, by population groups, in cities of 10,000 inhabitants or more (Table 15).—This table shows that the combined number of establishments in the 12 cities in 1919 represented 30.5 per cent of

the total in the state. They reported in that year 38.8 per cent of the average number of wage earners and 33.3 per cent of the total value of products.

Principal industries in Oklahoma City and Tulsa, with per cent of total for the state (Table 16).—This table includes all industries in Oklahoma City and Tulsa having products of \$500,000 and over, the figures being given for those which can be shown without disclosing the operations of individual establishments.

It is deemed of first importance to present the statistics of the state as a whole for all industries which can be shown without disclosing the operations of individual establishments. In so doing, however, it sometimes happens that quite important industries can not be shown in the city, since to do so might disclose the operations of establishments located outside, by the simple deduction of the totals shown for the industry in the city from that given in the detailed state table.

Number and horsepower of types of prime movers (Table 17).—The total horsepower reported in 1919, as compared with that for 1914, shows an increase of 42,675 horsepower, or 43.9 per cent. This increase, however, is chiefly due to the gain of 25,595 horsepower, or 249.1 per cent, in rented power. The owned power increased 17,080 horsepower, or 19.6 per cent, during the five-year period.

Fuel consumed (Table 18).—This table shows the principal kinds of fuel used by the manufacturing plants in the state in 1919 and 1914, and gives separately for 1919 the amounts consumed by a number of important industries which use considerable quantities of fuel.

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

	MANUFACTURING INDUSTRIES.					PER CENT OF INCREASE. ¹			
	1919	1914	1909	1904	1899	1914-1919	1909-1914	1904-1909	1899-1904
Number of establishments.....	2,445	2,518	2,310	1,123	495	-2.9	9.0	105.7	128.9
Persons engaged.....	38,314	22,700	18,031	7,450	(2)	68.8	25.0	141.9	.....
Proprietors and firm members.....	2,320	2,464	2,036	1,137	(2)	-5.8	-8.7	127.3	.....
Salaried employees.....	6,491	2,793	2,193	813	260	132.4	27.4	169.7	247.2
Wage earners (average number).....	29,503	17,443	13,143	5,450	2,381	69.1	32.7	140.9	123.1
Primary horsepower.....	130,953	97,398	71,130	29,308	11,572	43.9	36.8	140.3	155.9
Capital.....	\$277,034,318	\$95,477,054	\$38,872,938	\$10,124,417	\$4,051,301	323.1	68.4	141.1	297.7
Salaries and wages.....	46,987,133	14,213,375	9,285,472	3,517,422	1,112,729	230.6	53.1	164.0	216.1
Salaries.....	11,961,191	3,202,332	2,015,205	718,420	218,602	273.5	50.6	184.7	228.5
Wages.....	35,025,942	11,011,043	7,240,177	2,799,002	894,037	218.1	52.1	158.6	213.1
Paid for contract work.....	475,181	307,845	373,954	91,140	(1)	51.3	-17.7	310.3	.....
Rent and taxes.....	5,008,944	909,729	562,037	188,848	(1)	516.0	61.7	.....	.....
Cost of materials.....	312,605,820	70,969,750	34,152,804	10,593,052	5,430,447	310.5	107.8	108.3	201.9
Value of products.....	401,362,899	102,005,693	53,092,405	21,469,107	8,133,936	293.5	90.0	119.5	201.7
Value added by manufacture.....	88,757,040	31,035,943	19,529,511	8,065,155	2,703,480	186.0	58.9	142.1	193.3

¹ A minus sign (-) denotes decrease.
² Figures not available.

³ Exclusive of internal revenue.
⁴ Value of products less cost of materials.

MANUFACTURES—OKLAHOMA.

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

COUNTY.	Number of establishments.	WAGE EARNERS.		Rent and taxes.	Cost of materials.	Value of products.	Value added by manufacture.	Primary horse-power.
		Average number.	Wages.					
The state.....	2,445	29,508	\$35,025,942	\$5,003,944	\$312,005,820	\$401,362,839	\$38,767,040	130,983
Adair.....	17	87	92,893	3,561	163,456	338,092	172,600	225
Alfalfa.....	25	59	59,781	47,232	1,004,766	1,251,515	246,740	733
Atoka.....	20	32	64,968	5,860	91,589	234,759	143,170	338
Beaver.....	9	13	15,215	936	31,668	72,509	40,841	71
Beckham.....	21	43	40,267	13,639	673,027	820,451	140,824	1,061
Blaine.....	22	115	131,400	21,162	1,693,316	1,990,048	383,732	790
Bryan.....	33	88	85,049	14,892	902,590	1,170,548	207,968	887
Caddo.....	36	75	53,318	9,400	837,183	1,030,733	173,550	1,030
Canadian.....	27	534	748,127	201,804	10,393,269	12,221,827	1,828,528	3,336
Carter.....	49	484	463,942	128,052	7,824,150	10,590,960	2,772,381	2,033
Cherokee.....	8	14	10,586	2,615	111,017	147,049	36,023	239
Choctaw.....	35	497	509,075	56,103	1,446,648	2,551,527	1,101,879	2,894
Cleveland.....	13	49	57,263	13,140	370,276	519,157	148,831	524
Coal.....	5	7	7,086	1,718	11,476	29,988	18,512	103
Comanche.....	28	145	180,602	26,934	534,294	1,491,058	956,764	1,517
Cotton.....	15	19	17,848	2,740	68,500	126,704	58,204	168
Craig.....	20	238	354,476	30,581	7,463,350	8,709,450	1,241,100	887
Creek.....	84	1,456	1,645,212	100,653	6,855,974	9,070,940	3,114,906	4,266
Custer.....	84	88	83,496	65,280	2,113,923	2,016,070	502,147	1,424
Delaware.....	19	17	16,988	1,688	203,584	276,700	73,185	320
Dawey.....	7	4	3,096	855	5,289	23,193	17,904	21
Ellis.....	12	16	17,239	3,415	253,187	335,864	77,677	263
Garfield.....	73	566	704,038	126,745	11,799,246	14,259,300	2,490,054	2,799
Garvin.....	29	68	68,928	22,430	1,095,287	1,428,140	282,853	1,061
Grady.....	81	640	748,374	67,708	3,368,244	5,210,092	1,347,848	2,541
Grant.....	20	38	45,492	9,826	1,424,912	1,573,042	149,030	519
Groer.....	15	72	72,114	12,823	441,074	643,202	202,128	336
Harmon.....	8	13	10,938	4,787	125,313	195,110	60,300	265
Harpur.....	14	17	17,424	3,011	83,905	79,515	45,010	148
Haskell.....	11	72	40,978	6,701	220,485	318,000	88,575	385
Hughes.....	24	50	50,462	10,711	827,977	494,755	136,778	615
Jackson.....	20	120	130,140	26,710	1,045,904	1,431,917	493,013	1,111
Jefferson.....	14	105	129,037	32,942	825,810	1,130,027	274,217	593
Johnston.....	10	5	6,930	17,374	39,337	21,963	25	25
Kay.....	70	1,120	1,369,762	198,599	13,179,944	16,843,519	3,693,500	5,081
Kingfisher.....	17	64	50,638	41,332	1,504,008	1,706,829	262,321	690
Kiowa.....	30	81	74,490	11,052	472,570	693,475	199,360	1,242
Latimer.....	13	93	60,188	5,772	93,143	231,495	135,322	542
LeFlore.....	31	413	525,413	15,228	707,451	1,036,874	399,423	2,932
Lincoln.....	29	100	88,142	20,004	1,343,304	1,633,343	320,039	1,038
Logan.....	53	409	326,323	60,517	4,265,098	5,326,317	1,000,319	2,126
Love.....	4	5	4,790	2,498	17,949	35,704	17,755	42
McClain.....	13	33	36,536	5,732	550,519	649,330	98,511	461
McCurain.....	35	1,271	1,216,689	175,810	984,302	3,030,140	2,145,338	4,149
McIntosh.....	19	155	140,281	17,967	476,535	734,624	278,089	340
Major.....	12	19	17,606	3,314	75,389	134,593	59,294	142
Marshall.....	12	43	38,100	9,978	689,059	776,254	87,195	399
Mayes.....	23	15	12,708	3,256	68,155	133,263	55,108	287
Murray.....	12	109	50,533	12,790	85,710	243,311	158,191	579
Muskogee.....	96	1,595	1,612,385	156,906	6,463,360	10,108,049	3,645,269	5,568
Noble.....	19	49	92,253	9,932	1,331,635	1,544,914	213,279	394
Nowata.....	17	43	55,585	9,243	75,029	250,571	175,542	168
Oklfuskee.....	21	37	37,475	11,866	404,242	631,074	169,332	461
Oklahoma.....	251	5,822	6,498,625	1,410,683	37,587,959	101,688,647	14,120,938	16,312
Oklmulgee.....	65	1,630	2,220,689	242,704	11,128,009	15,156,854	4,028,346	3,249
Osage.....	51	214	209,601	42,363	1,049,507	1,700,427	710,330	1,080
Ottawa.....	55	228	259,527	38,786	1,810,017	2,504,964	694,947	1,377
Pawnee.....	25	102	109,462	19,083	1,782,252	2,230,089	407,337	204
Payne.....	67	931	1,019,636	222,230	27,583,699	30,431,653	2,947,984	3,009
Pittsburg.....	55	438	541,525	53,610	2,085,643	3,053,089	1,002,441	7,801
Pontotoc.....	34	493	597,827	75,495	2,672,408	4,510,079	1,337,581	1,857
Pottawatomie.....	60	1,171	1,517,773	61,994	4,245,782	6,538,205	2,322,483	3,051
Pushmataha.....	24	112	127,804	5,343	262,076	394,717	191,741	870
Roger Mills.....	3	2	1,134	297	10,282	15,413	6,130	39
Rogers.....	17	77	63,840	6,846	234,923	332,470	147,553	427
Beminole.....	12	7	6,501	1,678	16,575	38,989	22,414	100
Sequoyah.....	12	36	35,260	14,693	382,516	433,316	101,300	480
Stephens.....	15	27	28,349	5,750	131,209	221,618	90,409	210
Texas.....	16	22	24,098	3,696	52,317	110,283	57,466	168
Tillman.....	16	37	45,031	8,009	126,304	270,149	143,345	372
Tulsa.....	194	4,765	6,605,749	1,306,591	63,966,212	86,727,224	22,761,012	27,216
Wagoner.....	22	117	118,420	9,876	1,198,567	1,559,299	300,732	756
Washington.....	48	1,356	1,805,714	108,760	6,771,020	10,073,724	3,302,704	7,639
Washita.....	15	30	32,667	5,000	245,158	331,165	83,007	301
Woods.....	24	102	233,854	50,209	2,007,408	2,464,307	456,896	1,156
Woodward.....	24	49	45,021	7,951	335,421	459,209	123,848	646

MANUFACTURES—OKLAHOMA.

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

INDUSTRY.	WAGE EARNERS.			VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		INDUSTRY.	WAGE EARNERS.			VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
	Number of establishments.	Average number.	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.		Number of establishments.	Average number.	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.
All industries.....	2,445	29,503	100.0	\$401,363	100.0	\$58,757	100.0	Printing and publishing, book and job.....	97	505	1.7	\$2,507	0.6	\$1,650	1.9
Petroleum, refining.....	66	4,612	15.6	159,673	37.5	23,524	26.5	Coffee, roasting and grinding.....	7	168	0.6	2,402	0.6	434	0.5
Flour-mill and gristmill products.....	227	953	3.3	49,844	12.4	5,664	6.4	Confectionery, ice cream.....	45	187	0.6	2,246	0.6	921	1.0
Smelting and refining, zinc.....	11	2,272	7.7	19,518	4.9	4,968	5.6	Automobile repairing.....	129	455	1.5	2,108	0.5	1,206	1.4
Oil and cake, cottonseed.....	51	939	3.2	18,907	4.7	2,575	2.9	Brick and burnt-clay ballast.....	22	628	2.1	1,679	0.4	1,036	1.2
Foundry and machine-shop products.....	114	1,717	5.8	13,540	3.4	7,257	8.2	Confectionery.....	28	194	0.7	1,345	0.3	370	0.4
Bread and other bakery products.....	288	993	3.4	8,129	2.0	3,088	3.5	Mineral and carbonated waters.....	79	156	0.5	1,292	0.3	742	0.8
Butter.....	29	301	1.0	7,718	1.9	994	1.1	Explosives.....	9	70	0.3	1,063	0.3	515	0.6
Printing and publishing, newspapers and periodicals.....	410	1,415	4.8	7,705	1.9	5,522	6.2	Saddlery and harness.....	36	92	0.3	1,042	0.3	392	0.4
Cars and general shop construction and repairs by steam-railroad companies.....	12	2,687	9.1	6,149	1.5	4,094	4.6	Copper, tin, and sheet-iron work.....	75	187	0.6	984	0.2	552	0.6
Lumber and timber products.....	145	1,947	6.6	4,994	1.2	3,592	4.0	Mattresses and spring beds.....	13	99	0.3	700	0.2	322	0.4
Glass.....	16	1,692	5.7	4,751	1.2	2,839	3.2	Brooms, from broom corn.....	32	110	0.4	696	0.2	350	0.4
Ice, manufactured.....	115	831	2.8	3,574	0.9	2,539	2.9	Marble and stone work.....	48	117	0.4	688	0.2	383	0.4
Lumber, planing-mill products, not including planing mills connected with sawmills.....	56	546	1.9	3,159	0.8	1,548	1.7	Oil, mineral and composite.....	3	42	0.1	681	0.2	136	0.2
								Paving materials.....	13	295	1.0	579	0.1	414	0.5
								Shirts.....	4	69	0.2	573	0.1	188	0.2
								All other industries ¹	274	5,222	17.7	82,246	20.5	10,942	12.3

¹ Among the industries for which statistics can not be shown separately without the possibility of disclosing the operations of individual establishments are a number having products in excess of some for which figures are shown in the table. Of these industries the most important are the following: "Automobiles"; "cement"; "cordage and twine"; "slaughtering and meat packing"; and "smelting and refining, lead."

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

CLASS.	Census year.	Total.	Male.	Female.	PER CENT OF TOTAL.		CLASS.	Census year.	Total.	Male.	Female.	PER CENT OF TOTAL.	
					Male.	Female.						Male.	Female.
All classes.....	1919	38,314	35,134	3,180	91.7	8.3	Clerks and other subordinate salaried employees.....	1919	4,315	3,100	1,215	71.8	28.2
	1914	22,700	21,295	1,405	93.8	6.2		1914	1,688	1,353	335	80.2	19.8
	1909	18,034	17,071	963	94.7	5.3		1909	1,261	1,059	202	84.0	16.0
Proprietors and officials.....	1919	4,496	4,388	108	97.6	2.4	Wage earners (average number).....	1919	29,503	27,646	1,857	93.7	6.3
	1914	3,569	3,493	76	97.9	2.1		1914	17,443	16,449	994	94.3	5.7
	1909	3,630	3,547	83	97.7	2.3		1909	13,143	12,465	678	94.8	5.2
Proprietors and firm members.....	1919	2,320	2,244	76	96.7	3.3	16 years of age and over.....	1919	29,347	27,508	1,839	93.7	6.3
	1914	2,464	2,394	70	97.2	2.8		1914	17,300	16,320	980	94.3	5.7
	1909	2,698	2,628	70	97.4	2.6		1909	13,020	12,345	675	94.8	5.2
Salaried officers of corporations.....	1919	628	609	19	97.0	3.0	Under 16 years of age.....	1919	156	138	18	88.5	11.5
	1914	355	353	2	99.4	0.6		1914	134	120	14	90.3	9.7
	1909	294	278	16	97.9	2.1		1909	123	120	3	97.6	2.4
Superintendents and managers.....	1919	1,548	1,535	13	99.2	0.8							
	1914	750	746	4	99.5	0.5							
	1909	648	641	7	98.9	1.1							

MANUFACTURES—OKLAHOMA.

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

INDUSTRY AND CITY.	Census year.	Total.	IN ESTABLISHMENTS WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—							
			44 and under.	Between 44 and 48.	48. ¹	Between 48 and 54.	54.	Between 54 and 60.	60.	Over 60.
All industries.....	1919	29,503	917	915	11,197	717	3,342	4,913	4,326	3,176
	1914	17,443	(2)	(2)	4,369	2,247	2,277	687	3,996	3,867
	1909	13,143	(2)	(2)	2,965	303	1,949	526	4,711	2,689
Bread and other bakery products.....	1919	693	5	275	100	55	296	10	159	63
	1914	697	(2)	(2)	83	5	283	22	220	84
Brick and burnt-clay ballast.....	1919	628		15	110		27	19	339	118
	1914	402					49		353	
Cars and general shop construction and repairs by steam-railroad companies.....	1919	2,687		383	1,205		29	1,070		642
	1914	1,718	(2)	(2)	748		314	14		
Flour-mill and gristmill products.....	1919	958	1		331	1	31	7	214	373
	1914	700	(2)	(2)	27	3	30		252	388
Foundry and machine-shop products ²	1919	1,737	51	64	153	109	985	10	335	
	1914	785	(2)	(2)	56		215	29	485	
Glass.....	1919	1,692	258	126	1,241	67				
	1914	1,270	(2)	(2)	856	156	258			
Ice, manufactured.....	1919	831			27	18	126	149	53	458
	1914	528	(2)	(2)	7		10	16	41	454
Lumber and timber products.....	1919	1,947	99	9	53	56	18		1,712	
	1914	2,245	(2)	(2)	62	17	215	210	1,335	400
Lumber, planing-mill products, not including planing mills connected with saw mills.....	1919	546	8		40	22	415		61	
	1914	372	(2)	(2)	62		166		134	10
Oil and cake, cottonseed.....	1919	630			66				67	797
	1914	851					2		8	841
Petroleum, refining.....	1919	4,612			2,006		112	1,766	314	414
	1914	516	(2)	(2)	1		76	14	64	361
Printing and publishing, book and job.....	1919	505	3		493		9			
	1914	292	(2)	(2)	280		12			
Printing and publishing, newspapers and periodicals.....	1919	1,415	7	3	1,109	31	113	138	13	1
	1914	1,318	(2)	(2)	889	50	281	22	68	8
Smelting and refining, zinc.....	1919	2,272	160		677			1,435		
	1914	1,641				1,359		282		
All other industries.....	1919	7,750	325	40	3,616	358	1,181	309	999	922
	1914	4,168	(2)	(2)	1,298	657	366	78	1,036	673
Total for cities.....	1919	11,433	310	806	4,943	529	2,088	1,255	802	700
	1914	6,153	(2)	(2)	2,117	798	1,056	100	943	1,139
ARDMORE.....	1919	305	5	22	116		43	48	34	37
BARTLESVILLE.....	1919	246			63		44	14	92	33
CHICKASHA.....	1919	548		383	54		48	2	16	45
	1914	337	(2)	(2)	225		2		41	69
ENID.....	1919	478			72		128	25	135	118
	1914	283	(2)	(2)	35	16	39	28	106	59
GUTHRIE.....	1919	244			163	27	15		23	16
	1914	185	(2)	(2)	96	8	12		9	60
MCALISTER.....	1919	149	3		24		56	7	30	29
	1914	171	(2)	(2)	56		25	9	16	65
MUSKOGEE.....	1919	1,218		2	584	48	140	357	21	66
	1914	828	(2)	(2)	157	6	370	12	63	220
OKLAHOMA CITY.....	1919	4,375	188	272	2,504	339	594	173	182	132
	1914	2,226	(2)	(2)	600	603	521	34	256	212
OKMULGEE.....	1919	455	1		137		106	145	66	
SAPULPA.....	1919	552	3	126	68	38		299	14	4
	1914	438	(2)	(2)	46	74	6		29	278
SHAWNEE.....	1919	1,114	56	1	908		44		15	90
	1914	845	(2)	(2)	725	5	18	8	9	80
TULSA.....	1919	1,749	54		250	86	870	185	174	130
	1914	845	(2)	(2)	177	86	63	9	414	96

¹ Includes 48 and under for 1914 and 1909.

² Corresponding figures not available.

³ Includes "iron and steel, welding."

MANUFACTURES—OKLAHOMA.

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

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

INDUSTRY AND CITY.	Average number employed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
All industries.....	29,503	23,270	23,209	23,518	27,897	23,236	23,020	23,648	30,096	30,810	31,482	31,582	32,259	86.5
Males.....	27,646	22,556	22,522	22,825	26,808	22,470	22,217	22,933	28,284	28,827	29,347	29,443	30,120	87.0
Females.....	1,857	1,723	1,687	1,693	1,089	1,766	1,803	1,715	1,812	1,983	2,135	2,139	2,139	78.9
Bread and other bakery products.....	993	837	807	917	910	955	1,019	951	980	1,058	1,074	1,126	1,142	77.7
Brick and burnt-clay ballast.....	628	340	502	543	618	710	689	708	758	711	670	641	633	45.6
Cars and general shop construction and repairs by steam-railroad companies.....	2,687	2,677	2,688	2,676	2,472	2,477	2,491	2,588	2,638	2,649	2,801	2,985	3,012	82.1
Flour-mill and grist-mill products.....	958	911	896	876	856	768	772	989	1,098	1,092	1,070	1,084	1,089	69.6
Foundry and machine-shop products.....	1,717	1,462	1,417	1,525	1,550	1,631	1,688	1,768	1,865	1,941	1,930	1,933	1,894	73.0
Glass.....	1,692	1,303	2,142	2,235	2,297	1,971	1,400	987	1,033	1,502	1,713	1,853	2,068	43.0
Ice, manufactured.....	831	459	487	559	712	895	1,081	1,294	1,338	1,172	827	590	548	35.1
Lumber and timber products.....	1,947	1,883	1,889	1,892	1,927	1,884	1,602	1,786	1,900	1,929	2,132	2,207	2,309	67.8
Lumber, planing-mill products, not including planing mills connected with sawmills.....	546	394	403	454	454	486	600	623	644	665	615	598	616	59.2
Oil and cake, cottonseed.....	930	1,379	986	801	329	237	366	424	519	964	1,072	1,733	1,700	16.6
Petroleum, refining.....	4,612	4,482	4,380	4,421	4,464	4,500	4,573	4,677	4,823	4,770	4,699	4,714	4,781	90.8
Printing and publishing, book and job.....	505	481	492	499	516	497	492	503	510	514	513	511	528	91.4
Printing and publishing, newspapers and periodicals.....	1,415	1,348	1,335	1,343	1,370	1,378	1,387	1,411	1,440	1,436	1,503	1,492	1,487	68.8
Smelting and refining, zinc.....	2,272	2,968	2,769	2,457	2,057	2,038	2,000	1,972	2,149	2,082	2,021	2,812	2,631	96.7
All other industries.....	7,770	7,301	6,926	7,320	7,365	7,734	7,896	7,969	8,335	8,325	8,143	8,003	7,923	63.1
<i>Industries showing large proportion of females.</i>														
Bread and other bakery products.....	301	272	278	285	278	305	330	278	278	298	324	346	340	78.6
Glass.....	179	166	181	202	192	189	193	177	128	149	201	194	241	48.5
Printing and publishing, book and job.....	123	128	123	128	135	127	129	120	136	123	127	127	135	90.4
Printing and publishing, newspapers and periodicals.....	214	205	209	204	213	207	211	213	217	218	219	226	223	90.3
Total for cities.....	11,433	10,581	10,511	10,770	10,560	10,897	11,288	11,689	11,901	12,053	12,417	12,315	12,384	83.0
Males.....	10,150	9,398	9,149	9,681	9,370	9,659	10,050	10,425	10,613	10,718	10,981	10,891	10,863	83.3
Females.....	1,283	1,183	1,162	1,189	1,190	1,238	1,238	1,264	1,288	1,335	1,436	1,424	1,521	80.9
ARDMORE.....	305	296	250	230	277	269	328	348	365	380	343	364	364	60.5
Males.....	280	269	202	206	254	247	307	325	342	352	313	335	335	57.4
Females.....	25	27	28	24	23	22	21	23	23	28	30	29	29	70.0
BARTLESVILLE.....	246	203	199	213	222	240	263	269	274	271	262	270	270	72.6
Males.....	236	193	189	202	211	220	251	255	260	257	252	259	259	70.8
Females.....	10	10	10	11	11	11	12	11	9	7	7	10	11	58.3
CHICKASHA.....	548	545	555	566	502	478	506	531	545	540	627	583	593	76.2
Males.....	537	537	546	557	492	466	494	519	533	528	615	576	581	75.8
Females.....	11	8	9	9	10	12	12	12	12	12	12	12	12	66.7
END.....	478	388	394	397	425	447	455	455	540	576	500	548	512	67.4
Males.....	414	345	351	354	372	393	401	422	459	483	462	480	445	71.4
Females.....	64	43	43	43	53	54	54	63	81	93	107	68	66	40.2
GUTHRIE.....	244	245	234	242	243	197	200	226	278	271	274	268	252	70.9
Males.....	182	187	175	180	177	137	140	161	210	205	212	209	174	64.6
Females.....	62	58	59	62	66	60	60	65	68	66	62	60	68	85.3
MCALISTER.....	140	150	94	91	108	130	151	172	187	182	178	169	168	46.2
Males.....	140	141	88	83	99	121	143	164	187	172	168	156	158	44.4
Females.....	9	9	6	8	9	9	8	8	10	10	8	13	10	46.2
MUSKOGEE.....	1,218	1,124	1,192	1,171	1,176	1,176	1,179	1,207	1,203	1,215	1,303	1,317	1,353	83.1
Males.....	1,129	1,046	1,115	1,089	1,089	1,090	1,094	1,123	1,110	1,115	1,203	1,217	1,257	83.2
Females.....	89	78	77	82	87	86	85	84	93	100	100	100	96	77.0
OKLAHOMA CITY.....	4,375	4,107	3,983	4,270	4,129	4,220	4,370	4,358	4,505	4,599	4,652	4,645	4,662	85.4
Males.....	3,619	3,396	3,290	3,582	3,453	3,505	3,645	3,627	3,777	3,788	3,799	3,786	3,810	86.4
Females.....	756	711	693	688	676	715	725	731	728	811	853	859	852	78.7
OKMULGEE.....	455	378	409	449	455	472	402	500	486	458	445	461	485	75.6
Males.....	434	363	390	416	429	449	441	476	462	447	430	444	481	76.3
Females.....	21	15	19	33	26	23	21	24	24	11	15	17	24	33.3
SAPULPA.....	552	501	523	556	554	618	602	599	503	505	579	519	565	61.1
Males.....	517	470	485	518	516	579	564	555	470	477	544	493	533	61.2
Females.....	35	31	38	38	38	39	38	44	33	28	35	26	32	59.1
SHAWNEE.....	1,114	1,177	1,065	1,062	939	955	1,013	1,110	1,131	1,157	1,222	1,298	1,263	72.0
Males.....	1,032	1,114	993	990	866	893	944	1,030	1,040	1,066	1,127	1,193	1,158	72.3
Females.....	82	63	72	72	73	70	69	80	91	91	95	103	105	60.0
FULSA.....	1,749	1,487	1,433	1,523	1,577	1,709	1,818	1,907	1,896	1,941	1,919	1,901	1,897	73.8
Males.....	1,630	1,367	1,325	1,404	1,458	1,573	1,686	1,780	1,780	1,828	1,805	1,775	1,773	72.5
Females.....	119	100	108	119	119	136	132	121	116	113	114	126	124	73.5

MANUFACTURES—OKLAHOMA.

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

INDUSTRY AND CITY.	Census year.	Total.	IN ESTABLISHMENTS WHERE THE PREVAILING HOURS OF LABOR PER WEEK WERE—							
			44 and under.	Between 44 and 48.	48. ¹	Between 48 and 54.	54.	Between 54 and 60.	60.	Over 60.
All Industries.....	1919	29,503	917	915	11,197	717	3,342	4,913	4,326	3,176
	1914	17,443	(²)	(²)	4,809	2,247	2,277	687	3,996	3,867
	1909	13,143	(²)	(²)	2,965	903	1,949	526	4,711	2,689
Bread and other bakery products.....	1919	993	5	275	100	55	299	17	159	93
	1914	607	(²)	(²)	83	5	283	22	220	84
Brick and burnt-clay ballast.....	1919	628		15	110		27	19	339	118
	1914	402					49		353	
Cars and general shop construction and repairs by steam-railroad companies.....	1919	2,687		383	1,205		29	1,070		
	1914	1,718	(²)	(²)	748		314	14		642
Flour-mill and gristmill products.....	1919	958	1		331	1	31	7	214	373
	1914	700	(²)	(²)	27	3	30		252	388
Foundry and machine-shop products ³	1919	1,737	51	64	133	109	985	10	375	
	1914	785	(²)	(²)	56		215	29	485	
Glass.....	1919	1,692	258	126	241	67				
	1914	1,270	(²)	(²)	856	156	258			
Ice, manufactured.....	1919	381			27	18	126	149	53	458
	1914	528	(²)	(²)	7		10	16	41	454
Lumber and timber products.....	1919	1,947	99	9	53	56	18		1,712	
	1914	2,245	(²)	(²)	62	17	215	210	1,335	406
Lumber, planing-mill products, not including planing mills connected with saw mills.....	1919	540	8		40	22	415		61	
	1914	372	(²)	(²)	62		166		134	10
Oil and cake, cottonseed.....	1919	930			66				67	797
	1914	851					2		8	841
Petroleum, refining.....	1919	4,612			2,006		112	1,766	314	414
	1914	516	(²)	(²)	1		76	14	64	361
Printing and publishing, book and job.....	1919	505	3		493		9			
	1914	292	(²)	(²)	280		12			
Printing and publishing, newspapers and periodicals.....	1919	1,415	7	3	1,109	31	113	138	13	1
	1914	1,818	(²)	(²)	889	50	281	22	68	8
Smelting and refining, zinc.....	1919	2,272	160		677			1,435		
	1914	1,641				1,359		282		
All other industries.....	1919	7,750	325	40	3,616	358	1,151	309	999	922
	1914	4,108	(²)	(²)	1,298	657	306	78	1,036	673
Total for cities.....	1919	11,433	310	803	4,943	520	2,088	1,255	802	700
	1914	6,153	(²)	(²)	2,117	758	1,056	100	943	1,139
ARDMORE.....	1919	305	5	22	116		43	48	34	37
BARTLESVILLE.....	1919	246			68		44	14	92	33
CHICKASAW.....	1919	543		383	54		48	2	10	45
	1914	337	(²)	(²)	225		2		41	69
ENID.....	1919	478			72		128	25	135	118
	1914	283	(²)	(²)	35	16	39	28	100	59
GUTHRIE.....	1919	244			163	27	15		23	16
	1914	185	(²)	(²)	96	8	12		9	60
MCALESTER.....	1919	149	3		24		56	7	30	29
	1914	171	(²)	(²)	56		25	9	16	65
MUSKOGEE.....	1919	1,218		2	524	48	140	357	21	66
	1914	828	(²)	(²)	157	6	370	12	63	220
OKLAHOMA CITY.....	1919	4,375	188	272	2,504	330	594	173	182	132
	1914	2,226	(²)	(²)	650	603	521	34	256	212
OKMULGEE.....	1919	455	1		137		106	145	66	
SAPULPA.....	1919	552	8	126	68	38		299	14	4
	1914	433	(²)	(²)	46	74	6		20	278
SHAWNEE.....	1919	1,114	56	1	638		44		15	90
	1914	845	(²)	(²)	725	5	18	8	9	80
TULSA.....	1919	1,749	54		250	86	870	185	174	130
	1914	845	(²)	(²)	177	86	63	9	414	96

¹ Includes 48 and under for 1914 and 1909.

² Corresponding figures not available.

³ Includes "iron and steel, welding."

MANUFACTURES—OKLAHOMA.

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

INDUSTRY AND CITY.	TOTAL.		ESTABLISHMENTS EMPLOYING—																	
	Establishments.	Wage earners (average number).	No wage earners.		1 to 5 wage earners, inclusive.		6 to 20 wage earners, inclusive.		21 to 50 wage earners, inclusive.		51 to 100 wage earners, inclusive.		101 to 250 wage earners, inclusive.		251 to 500 wage earners, inclusive.		501 to 1,000 wage earners, inclusive.		Over 1,000 wage earners.	
			Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
All industries.....	2,445	20,503	427	1,400	2,356	374	4,009	136	4,205	46	3,168	37	6,209	11	3,323	1	818	4	4,725	
Bread and other bakery products.....	288	993	52	208	436	24	195	3	90	3	218	1	272	1	272					
Brick and burnt-clay ballast.....	22	328		3	10	9	155	7	245											
Cars and general shop construction and repairs by steam-railroad companies.....	12	2,687						4	148	1	83	2	312	4	1,326	1	818			
Flour-mill and gristmill products.....	227	958	92	99	175	26	205	0	212	4	306									
Foundry and machine-shop products.....	114	1,717	7	52	148	31	350	15	471	8	552	1	196							
Glass.....	16	1,692		1	4			1	29	6	424	8	1,235							
Ice, manufactured.....	115	831		68	180	39	388	0	152	2	111									
Lumber and timber products.....	145	1,947	3	123	223	12	139	3	123	2	104			1	291			1	1,087	
Lumber, planing-mill products, not including planing-mills connected with sawmills.....	56	546	3	30	67	17	190	4	100	2	180									
Oil and cake, cottonseed.....	51	930		8	31	19	240	24	669											
Petroleum, refining.....	66	4,612		7	22	24	275	18	651	5	394	10	1,776	1	291			1	1,203	
Printing and publishing, book and job.....	97	505	23	53	137	14	150	7	218											
Printing and publishing, newspapers and periodicals.....	410	1,415	138	227	432	38	387	3	113	1	59	3	424	4	1,148					
Smelting and refining, zinc.....	11	2,272		1	14							6	1,115	4	1,148					
All other industries.....	815	7,770	100	530	1,091	120	1,291	35	1,075	12	737	7	1,151					2	2,455	
Total for cities.....	745	11,433	80	371	911	192	2,077	62	1,891	24	1,648	10	1,518	4	1,299	1	818	1	1,271	
ARDMORE.....	35	305	2	20	46	9	94	3	94	1	71									
BARTLESVILLE.....	32	246	2	18	43	9	109	3	94											
CHICKASHA.....	24	548	1	15	35	5	75	2	56					1	382					
ENID.....	51	478	7	22	63	18	192	3	100			1	123							
GUTHRIE.....	36	244	7	19	42	8	62	1	26	1	84									
MCALESTER.....	20	149	2	9	21	7	79	2	49											
MUSKOGEE.....	82	1,218	9	45	109	19	171	4	117	2	147	2	318	1	356					
OKLAHOMA CITY.....	227	4,375	34	101	297	49	544	30	934	8	562	3	525	1	272			1	1,271	
OKMULGEE.....	29	455	1	15	32	8	61	2	64	2	155	1	113							
SADULPA.....	29	552	3	17	39	0	70	1	28			1	126	1	289					
SHAWNEE.....	45	1,114	4	23	54	8	60	3	117	1	56					1	818			
TULSA.....	135	1,749	8	62	160	45	491	8	212	9	573	2	313							

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

VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.			AVERAGE NUMBER OF WAGE EARNERS.			VALUE OF PRODUCTS.			VALUE ADDED BY MANUFACTURE.		
	1919	1914	1909	1919	1914	1909	1919	1914	1909	1919	1914	1909
All classes.....	2,445	2,518	2,310	20,503	17,443	13,143	\$401,362,860	\$102,005,693	\$53,682,405	\$88,757,040	\$31,035,943	\$19,529,511
Less than \$5,000.....	710	1,403	1,182	387	1,018	1,668	1,846,360	3,168,934	2,675,697	1,151,348	2,012,535	1,702,600
\$5,000 to \$20,000.....	848	707	727	1,825	2,578	2,883	8,819,984	6,824,096	7,194,008	4,893,614	3,783,033	4,142,194
\$20,000 to \$100,000.....	541	256	295	4,217	3,065	3,908	24,158,638	10,885,671	13,057,308	11,360,680	4,718,895	5,877,865
\$100,000 to \$500,000.....	215	121	102	0,087	7,233	4,406	47,539,096	25,811,975	25,870,592	16,810,315	11,361,582	7,001,117
\$500,000 to \$1,000,000.....	69	17	4	3,904			40,090,378	11,972,863		10,968,092		
\$1,000,000 and over.....	72	14	4	13,073	2,951	298	278,908,413	43,342,654	4,884,270	43,573,032	9,159,028	716,775
PER CENT DISTRIBUTION.												
All classes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than \$5,000.....	29.0	55.7	51.2	1.3	0.3	12.7	0.5	3.1	5.0	1.3	6.5	9.2
\$5,000 to \$20,000.....	34.7	28.1	31.5	6.2	14.8	21.8	2.2	6.7	13.4	5.5	12.2	21.2
\$20,000 to \$100,000.....	22.1	10.2	12.8	14.3	17.6	29.7	6.0	10.7	24.3	12.8	15.3	30.
\$100,000 to \$500,000.....	8.8	4.8		20.0			11.8	25.3		18.9		36.8
\$500,000 to \$1,000,000.....	2.4	0.7	4.4	13.2	41.5	33.5	10.0	11.7	48.2	12.4		
\$1,000,000 and over.....	3.0	0.6	0.2	44.4	16.9	2.3	69.5	42.5	9.1	49.1	20.5	3.7

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

Main table showing size of establishments, by value of products, for selected industries (Bread, Flour-mill, Foundry, Ice, Oil, Petroleum, Printing) in 1919 and 1914. Includes columns for Number of Establishments, Average Number of Wage Earners, and Value of Products.

* Includes the group "\$100,000 to \$500,000."

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

* Includes "iron and steel, welding."

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

Main table showing size of establishments, by value of products, for cities of 10,000 inhabitants or more (Ardmore, Bartlesville, Chickasha, Guthrie, McAlester, Muskogee, Oklahoma City) in 1919. Includes columns for Number of Establishments, Wage Earners, Value of Products, and Value Added by Manufacture.

MANUFACTURES—OKLAHOMA.

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

CITY AND VALUE OF PRODUCT.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		CITY AND VALUE OF PRODUCT.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
		Average number.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.			Average number.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.
ORMULGEE.....	29	455	100.0	\$3,991,231	100.0	\$986,131	100.0	SHAWNEE.....	45	1,114	100.0	\$5,742,944	100.0	\$2,188,948	100.0
Less than \$5,000.....	6	4	0.0	18,888	0.5	12,074	1.2	Less than \$5,000.....	12	9	0.8	33,223	0.6	17,640	0.8
\$5,000 to \$20,000.....	7	15	3.3	97,828	2.5	52,974	5.4	\$5,000 to \$20,000.....	19	45	4.0	197,100	3.4	110,989	5.1
\$20,000 to \$100,000.....	7	79	17.4	355,062	8.9	171,874	17.4	\$20,000 to \$100,000.....	9	95	8.5	467,979	8.1	288,349	13.2
\$100,000 and over.....	8	357	78.5	3,519,455	88.2	749,209	76.0	\$100,000 and over.....	5	965	86.6	5,044,642	87.8	1,772,015	81.0
SAPULPA.....	29	552	100.0	2,197,083	100.0	1,116,038	100.0	TULSA.....	135	1,749	100.0	14,050,073	100.0	7,393,008	100.0
Less than \$5,000.....	3	1	0.2	12,530	0.6	8,874	0.8	Less than \$5,000.....	18	12	0.7	48,477	0.3	33,575	0.5
\$5,000 to \$20,000.....	13	25	4.5	143,678	6.5	87,400	7.8	\$5,000 to \$20,000.....	37	81	4.6	415,429	3.0	299,209	4.1
\$20,000 to \$100,000.....	9	71	12.9	435,342	19.8	245,859	22.0	\$20,000 to \$100,000.....	49	393	22.5	2,300,775	16.4	1,199,142	16.2
\$100,000 to \$1,000,000.....	4	455	82.4	1,005,533	73.1	774,405	69.4	\$100,000 to \$500,000.....	23	649	37.1	4,402,995	31.3	2,211,328	29.9
								\$500,000 and over.....	8	611	35.1	6,882,397	49.0	3,708,753	50.2

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

INDUSTRY AND CITY.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.								
		NUMBER OF ESTABLISHMENTS OWNED BY—			Total.	In establishments owned by—			Per cent of total.	Total.	Of establishments owned by—			Per cent of total.					
		Individuals.	Corporations.	All others.		Individuals.	Corporations.	All others.			Individuals.	Corporations.	All others.						
All industries.....	1919	1,264	708	473	29,503	2,891	25,267	1,345	9.8	85.6	4.6	\$401,362,869	\$22,749,408	\$367,401,271	\$11,152,190	5.7	91.6	2.8	
	1914	1,533	540	436	17,443	3,008	13,037	1,398	17.2	74.7	8.0	102,005,093	8,048,451	88,689,116	5,268,126	7.9	86.9	5.2	
	1909	1,267	501	552	13,143	3,113	8,225	1,805	23.7	62.6	13.7	53,682,405	7,069,080	39,390,339	6,592,986	14.3	73.4	12.3	
Bread and other bakery products.	1919	225	12	51	993	464	412	117	46.7	41.6	11.3	8,128,682	4,206,377	2,819,655	1,102,600	51.7	34.7	13.6	
	1914	280	5	57	697	366	213	118	52.5	30.6	16.9	2,773,811	1,648,706	539,469	585,636	59.4	19.4	21.1	
Flour-mill and gristmill products.	1919	93	70	58	958	57	832	69	5.9	86.8	7.2	49,843,800	1,937,989	44,485,782	3,360,029	4.0	89.3	6.7	
	1914	117	60	70	700	97	598	95	13.9	72.6	13.6	16,688,690	1,086,923	14,022,694	1,579,073	6.5	84.0	9.5	
Foundry and machine-shop products. ¹	1919	48	56	20	1,737	279	1,399	68	13.1	80.0	3.9	13,668,577	2,132,111	11,108,731	367,735	15.7	81.0	2.7	
	1914	48	32	19	785	199	492	94	25.3	62.7	12.0	6,874,347	687,347	1,954,053	214,571	24.1	68.4	7.5	
Ice, manufactured.....	1919	15	79	21	881	30	736	65	3.6	88.6	7.8	3,574,431	111,862	3,191,482	271,087	3.1	89.3	7.6	
	1914	10	99	18	528	25	435	68	4.7	82.4	12.9	1,604,146	76,958	1,336,356	190,832	4.8	83.3	11.9	
Oil and cake, cottonseed.....	1919	1	45	5	930		873	* 57		93.9	6.1	18,997,312		17,805,814	* 1,101,498		94.2	* 5.8	
	1914	5	52	3	851	21	823	7	2.5	96.7	0.8	7,589,185	95,079	7,494,185	32,549	1.3	98.3	0.4	
Petroleum, refining.....	1919	1	65		4,612		4,612			100.0		150,673,458		150,673,458			100.0		
	1914		23		516		516			100.0		13,014,372		13,014,372			100.0		
Printing and publishing, newspapers and periodicals.	1919	273	60	77	1,415	386	385	144	27.3	92.5	10.2	7,794,823	1,627,982	5,314,538	792,303	21.1	99.0	9.9	
	1914	398	74	72	1,318	541	642	135	41.0	48.7	10.2	3,237,734	1,096,261	1,808,350	333,123	53.9	65.8	10.3	
Total for cities.....	1919	321	295	129	11,433	1,188	9,815	430	10.4	85.8	3.8	133,758,571	11,110,880	119,382,901	3,258,810	8.3	89.3	2.4	
	1914	281	201	109	6,153	1,746	5,003	404	12.1	81.3	6.6	30,308,575	2,366,804	32,396,701	1,555,070	6.5	89.2	4.3	
ARDMORE.....	1919	17	11	7	305	70	215	20	23.0	70.5	6.6	4,965,622	353,489	4,434,204	177,920	7.1	89.3	3.6	
BARTLESVILLE.....	1919	17	10	5	246	102	131	13	41.5	53.3	5.3	1,905,575	848,907	922,678	132,990	44.5	48.4	7.0	
CHICKASHA.....	1919	9	11	4	548	30	510	8	5.5	93.1	1.5	4,598,073	110,903	4,418,830	69,240	2.4	96.1	1.5	
	1914	15	8	6	337	19	263	25	5.6	86.9	7.4	1,719,676	63,059	1,592,330	64,287	3.7	92.6	3.7	
ENID.....	1919	21	22	8	478	103	358	17	21.5	74.9	3.6	13,073,672	4,162,940	8,848,585	62,147	31.8	67.7	0.5	
	1914	16	20	9	283	34	225	24	12.0	79.5	8.5	2,610,533	106,015	2,412,498	92,020	4.1	92.4	3.5	
GUTHRIE.....	1919	22	5	9	244		* 244			100.0		3,330,365		* 3,330,365			100.0		
	1914	19	6	5	185	43	128	14	23.2	69.2	7.6	853,485	110,715	705,639	37,131	13.0	82.7	4.4	
MCALISTER.....	1919	7	10	3	149	11	125	13	7.4	83.9	8.7	1,529,357	117,063	1,327,198	85,096	7.7	90.8	5.6	
	1914	16	11	6	171	26	120	25	15.2	70.2	14.6	578,511	72,657	410,347	90,507	12.7	71.5	15.8	
MUSKOGEE.....	1919	34	30	18	1,218	105	1,072	41	8.6	88.0	3.4	8,402,838	605,832	7,390,868	406,188	7.2	88.0	4.6	
	1914	34	33	13	828	92	694	42	11.1	83.8	5.1	2,754,811	227,467	2,345,000	182,344	8.3	85.1	6.6	
OKLAHOMA CITY.....	1919	79	109	30	4,375	277	3,929	169	6.3	89.8	3.9	69,970,788	1,789,793	66,994,880	1,186,105	2.6	95.7	1.7	
	1914	86	76	33	2,226	202	1,861	163	9.1	83.6	7.3	20,725,811	730,011	19,492,821	533,590	3.5	93.9	2.6	
ORMULGEE.....	1919	14	10	5	455	33	402	20	7.3	88.4	4.4	3,991,231	231,272	3,636,040	123,919	5.3	91.1	3.1	
SAPULPA.....	1919	16	7	6	552	55	479	18	10.0	86.8	3.3	2,197,083	272,275	1,755,204	169,604	12.4	79.9	7.7	
	1914	16	7	7	433	45	369	19	10.4	85.2	4.4	604,457	102,387	410,467	85,603	16.9	68.9	14.2	
SHAWNEE.....	1919	23	14	8	1,114	47	1,038	29	4.2	93.2	2.6	5,742,944	191,727	5,364,571	186,046	3.3	93.4	3.3	
	1914	27	11	8	845	82	760	13	9.7	88.8	1.5	2,597,955	182,719	2,334,728	80,518	7.0	89.4	3.1	
TULSA.....	1919	62	59	17	1,749	355	1,312	82	20.3	75.0	4.7	14,050,073	2,432,659	10,959,408	637,946	17.3	78.0	4.7	
	1914	52	29	22	846	203	563	79	24.0	66.6	8.3	3,868,326	771,774	2,707,461	389,091	20.0	70.0	10.0	

¹ Includes "iron and steel, welding."

² Includes the group "Individuals."

³ Includes the groups "Individuals" and "All others."

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

	Census year.	Aggregate.	CITIES HAVING A POPULATION OF 10,000 OR OVER.				THE STATE OUTSIDE OF CITIES HAVING A POPULATION OF 10,000 OR OVER.			
			Total.		10,000 to 25,000.		25,000 to 100,000.		Number or amount.	Per cent of aggregate.
			Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.	Number or amount.	Per cent of aggregate.		
Number of places.....	1919		12		9		3			
	1914		9		0		3			
	1909		8		0		2			
Population.....	1920	2,028,289	317,264	15.0	123,617	6.1	193,047	9.5	1,711,019	84.4
	1915	2,026,534	237,094	11.7	88,452	4.4	148,042	7.3	1,789,440	88.3
	1910	1,657,155	108,866	10.2	79,383	4.8	89,483	5.4	1,488,289	80.8
Number of establishments.....	1919	2,445	745	30.5	301	12.3	444	18.2	1,700	69.5
	1914	2,518	591	23.5	213	8.5	378	15.0	1,927	76.5
	1909	2,310	480	21.0	251	10.9	285	10.2	1,824	79.0
Average number of wage earners.....	1919	29,503	11,433	38.8	4,691	13.9	7,342	24.9	18,070	61.2
	1914	17,443	6,153	35.3	2,254	12.9	3,859	22.4	11,280	64.7
	1909	13,143	4,176	31.8	2,397	18.2	1,779	13.5	8,967	68.2
Value of products.....	1919	\$401,362,869	\$133,758,571	33.3	\$41,334,522	10.3	\$92,423,749	23.0	\$237,604,298	60.7
	1914	102,005,693	36,308,575	35.6	8,059,627	8.8	27,848,948	26.8	65,697,118	64.4
	1909	53,682,405	19,864,676	37.0	9,717,641	18.1	10,147,035	18.9	33,817,729	63.0
Value added by manufacture.....	1919	88,757,040	32,901,559	37.1	11,154,025	12.6	21,746,934	24.5	55,855,481	62.9
	1914	31,035,943	10,106,225	32.6	2,731,838	8.8	7,374,387	23.5	20,929,718	67.4
	1909	19,520,511	6,969,793	35.7	3,443,467	17.6	3,553,296	18.0	12,532,748	64.3

¹ Population of 1920, as of Jan. 1, 1920; 1915, estimated population as of July 1, 1914 (per reports census of manufactures, 1914); 1910, as of Apr. 15, 1910.

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

CITY AND INDUSTRY.	VALUE OF PRODUCTS.				CITY AND INDUSTRY.	VALUE OF PRODUCTS.			
	Amount, 1919.	Per cent of total for the state.	Increase over 1914.			Amount, 1919.	Per cent of total for the state.	Increase over 1914.	
			Amount.	Per cent.				Amount.	Per cent.
OKLAHOMA CITY.				TULSA.					
Flour-mill and gristmill products.....	\$8,752,640	17.6	\$3,007,013	218.8	Foundry and machine-shop products.....	\$6,669,577	49.4	\$5,251,034	370.2
Bread and other bakery products.....	2,845,186	36.0	1,993,710	235.3	Printing and publishing, newspapers and periodicals.....	1,377,209	17.9	1,080,682	303.5
Printing and publishing, newspapers and periodicals.....	2,362,773	30.7	1,551,329	191.2	Lumber, planing-mill products, not including planing mills connected with saw-mills.....	844,744	26.8	552,214	188.8
Printing and publishing, book and job.....	1,409,474	58.2	902,470	215.3	Bread and other bakery products.....	700,805	8.6	509,705	206.8
Confectionery and ice cream.....	1,154,844	32.2	839,585	236.3	Printing and publishing, book and job....	503,220	20.1	440,255	589.6
Lumber, planing-mill products, not including planing mills connected with saw-mills.....	809,724	25.7	594,522	276.3	Flour-mill and gristmill products.....	(¹)	(¹)	(¹)	(¹)
Automobiles.....									
Rubber.....									
Coffee, roasting and grinding.....									
Druggists' preparations.....									
Oil and cake, cottonseed.....	(¹)	(¹)	(¹)	(¹)					
Petroleum, refining.....									
Saddlery and harness.....									
Slaughtering and meat packing.....									

¹ Relative rank can not be shown without disclosing individual operations.

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

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
	1919	1914	1909	Amount.			Per cent distribution.		
				1919	1914	1909	1919	1914	1909
Primary power, total.....	5,822	3,254	2,235	139,983	97,308	71,130	100.0	100.0	100.0
Owned.....	1,846	1,535	1,437	104,115	87,635	65,701	74.4	89.4	92.5
Steam.....	1,080	842	832	79,707	70,803	56,043	56.9	72.8	79.6
Engines.....	1,941	(¹)	(¹)	72,723	(¹)	(¹)	32.0		
Turbines.....	39	(¹)	(¹)	6,981	(¹)	(¹)	5.0		
Internal-combustion engines.....	744	685	539	24,133	15,976	8,676	17.2	16.4	12.2
Water.....	22	11	6	275	256	472	0.2	0.3	0.7
Water wheels and turbines.....	11	8	5	259	253	470	0.2	0.3	0.7
Water motors.....	11	3	1	16	3	2	(²)	(²)	(²)
Rented.....	3,976	1,719	858	35,868	10,273	5,348	25.6	10.6	7.5
Electric.....	4,976	1,719	858	35,435	10,068	5,281	25.3	10.3	7.4
Other.....				433	205	67	0.3	0.2	0.1
Electric.....	4,957	2,324	985	54,605	23,760	7,887	100.0	100.0	100.0
Rented.....	3,976	1,719	858	35,435	10,068	5,281	64.9	42.4	67.0
Generated by establishments reporting.....	981	605	127	19,170	13,692	2,606	35.1	57.6	33.0

¹ Not reported separately.

² Less than one-tenth of 1 per cent.

TABLE 18.—FUEL CONSUMED, FOR SELECTED INDUSTRIES AND FOR CITIES: 1910.

INDUSTRY AND CITY.	COAL.		Coke (tons, 2,000 pounds).	Fuel oils (barrels).	Gasoline and other volatile oils (barrels).	Gas (1,000 cubic feet).	
	Anthracite ¹ (tons, 2,240 pounds).	Bituminous (tons, 2,000 pounds).					
All industries.....	1910.. 1914..	44,433 1,032	478,734 429,745	37,409 29,870	3,163,152 224,575	0,108 (2)	49,523,914 24,078,701
Per cent of increase.....		11.4	11.4	25.2	1312.6	(2)	68.3
Brick and burnt-clay ballast.....		1	27,587	94	11,138		1,064,706
Cars and general shop construction and repairs by steam-railroad companies.....		1	9,374		47,030		2,160,043
Cement.....			86,156		5,413		2,900,000
Coke, not including gas-house coke.....			17,848				
Flour-mill and gristmill products.....		50	23,504		54,952	1,192	269,682
Foundry and machine-shop products.....		113	923	4,703	12,817	904	400,901
Glass.....			10		3,042		187
Ice, manufactured.....		992	33,460		69,916		343
Oil and cake, cottonseed.....		1,566	46,372		32,454	2,082	1,536,013
Petroleum, refining.....			91,738	482	2,632,184	573	11,847,807
Slaughtering and meat packing.....			5,238		241,362	24	512,686
Smelting and refining, zinc.....		41,228	102,005	31,353		110	15,629,310
All other industries.....		483	34,420	777	52,844	3,653	1,962,144
Total for cities.....		111	26,367	8,524	534,836	1,816	3,670,612
ARDMORE.....		30	302	125	60,632	615	142,404
BARTLESVILLE.....		24	180	126			503,374
CHICKASHA.....		4	3,244		35,116	139	1,711
ENID.....			2,563	134	82,788	201	160,174
GUTHRIE.....			4		7,450	10	81,236
MCALISTER.....			2,875				20,460
MUSKOGEE.....			6,669	342	103,272	91	325,353
OKLAHOMA CITY.....		13	6,892	675	167,922	202	885,420
OKMULGEE.....		26	3	360	44,356	125	642,443
SAPULPA.....						17	232,819
SHAWNEE.....		4	2,118	214	7,634	13	198,585
TULSA.....		10	1,526	1,548	25,068	403	447,634

¹ Includes some semianthracite coal.² Included in figures for fuel oils.

SPECIAL STATISTICS.

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

Petroleum, refining (Table 19).—Measured by value of products, this industry, which in 1909 was eleventh in the state, and third in 1914, now holds first rank, with products constituting in value 37.5 per cent of the total for all manufacturing industries. Among the states it ranks fifth, being exceeded only by New Jersey, Texas, California, and Pennsylvania, in the order named. In 1914 the state ranked eighth in the petroleum refining industry. Table 19 gives the statistics in detail for 1919 in comparison with 1914 and 1909.

The total production of refined oils in 1919, the same including gasoline and naphthas, fuel oils, illumi-

nating oils, and lubricating oils, was 33,200,145 barrels of 50 gallons as compared with 8,610,533 barrels in 1914, and 792,682 in 1909.

The figures show a quantity increase from 1914 to 1919 of 286 per cent. The ratio increase from 1909 to 1914 was somewhat higher on account of the relatively small production in 1909. Of the total production of refined oils in 1919, fuel oils constituted 49.1 per cent, gasoline and naphthas 33.4 per cent, illuminating oils 15.8 per cent, and lubricating oils 1.7 per cent. In 1914 the distribution percentages were fuel oils 55.1, gasoline and naphthas 23.5, illuminating oils 20.4, and lubricating oils 1 per cent, whereas in 1909 the percentages were, respectively, 51.6, 15.8, 30.9, and 1.7. Although all classes of refined oils have increased, the distribution percentages show progressive increases for gasoline and naphthas, with decreases for illuminating oils, and for the last semidecade in fuel oils,

TABLE 19.—PETROLEUM, REFINING: 1919, 1914, AND 1909.

	1919	1914	1909		1919	1914	1909
MATERIALS.				PRODUCTS—continued.			
Total cost.....	\$127, 149, 722	\$9, 500, 737	\$575, 473	Lubricating oils:			
Crude petroleum:				Gallons.....	28, 394, 810	4, 379, 550	655, 500
Barrels (42 gallons).....	42, 430, 815	9, 966, 173	1, 078, 289	Value.....	\$1, 317, 900	\$341, 256	\$33, 396
Cost.....	\$108, 744, 915	\$8, 740, 159	\$180, 552	Liquid asphaltic road oils:			
Distillates purchased and rerun:				Gallons.....	3, 042, 000	7, 075, 400	2, 190, 200
Barrels.....	125, 270	(¹)	(¹)	Value.....	\$137, 557	\$85, 489	\$23, 110
Cost.....	\$177, 622			Partly refined oils sold for re-refining:			
Casing-head gasoline purchased:				Gallons.....	13, 575, 730	(¹)	(¹)
Barrels.....	657, 744	(¹)	(¹)	Value.....	\$902, 950		
Cost.....	\$7, 230, 675			Lubricating greases:			
Sulphuric acid:				Gallons.....	399, 700	10, 750	
Tons (net).....	17, 541			Value.....	\$88, 225	\$3, 251	
Cost.....	\$433, 205			Paraffin wax:			
Caustic soda:		\$104, 500	\$22, 000	Gallons.....	4, 073, 190	820, 000	\$35, 710
Pounds.....	4, 593, 850			Value.....	\$1, 061, 785		
Cost.....	\$218, 273			Other special products, value.....	\$135, 723		
Other chemicals, cost.....	\$91, 460			All other products, value.....	\$95, 759	\$327, 054	
Fuller's earth:				EQUIPMENT (CAPACITY, GALLONS).			
Tons.....	5, 702	(¹)	(¹)	Stills:			
Cost.....	\$181, 423	(¹)	(¹)	Steam—			
Other filtering material, cost.....	\$12, 103	(¹)	(¹)	Number.....	233	56	10
Containers and materials therefor, cost.....	\$250, 695	\$34, 032	\$8, 185	Capacity.....	3, 113, 100	1, 023, 300	121, 600
All other materials, cost.....	\$9, 794, 950	\$705, 146	\$35, 670	Fire—			
PRODUCTS.				Number.....	491	125	20
Total value.....	\$150, 673, 453	\$13, 014, 372	\$1, 055, 011	Capacity.....	10, 438, 400	2, 411, 800	279, 300
Naphthas and lighter products:				Pressure—			
Gasoline—				Number.....	76	(¹)	(¹)
Gallons.....	515, 904, 850	31, 099, 000		Capacity.....	1, 355, 800		
Value.....	\$90, 213, 435	\$5, 824, 332		Agitators:			
Naphtha—				Number.....	138	47	12
Gallons.....	10, 353, 450		6, 258, 050	Capacity.....	4, 060, 000		
Value.....	\$2, 954, 039		\$350, 137	Chilling houses for paraffin:			
Benzine, etc.—		20, 071, 700		Number.....	8	(¹)	(¹)
Gallons.....	18, 878, 860	\$1, 074, 237		Capacity.....	274, 000		
Value.....	\$2, 015, 000			Filter houses:			
Illuminating oils:				Number.....	10	(¹)	(¹)
Gallons.....	202, 455, 270	87, 734, 150	12, 255, 450	Capacity.....	413, 200		
Value.....	\$22, 130, 742	\$2, 238, 898	\$269, 602	Hydraulic or other presses:			
Fuel oils:				Number.....	33	(¹)	(¹)
Distillates—				Capacity.....	190, 700		
Gallons.....	24, 521, 840	10, 152, 000		Storage tanks for:			
Value.....	\$1, 755, 051	\$522, 159		Crude petroleum—			
Gas oils—				Number.....	217	61	33
Gallons.....	110, 833, 350	0, 701, 350	20, 404, 200	Capacity.....	150, 541, 000	28, 826, 000	1, 704, 900
Value.....	\$5, 096, 896	\$151, 608	\$242, 937	Refined petroleum—			
Residual fuel oils—				Number.....	1, 673	412	112
Gallons.....	873, 005, 070	208, 256, 800		Capacity.....	216, 154, 000	48, 791, 000	5, 477, 000
Value.....	\$19, 771, 750	\$2, 350, 808		Fuel oil—			
				Number.....	380	70	(¹)
				Capacity.....	88, 735, 000	30, 000, 000	
				Other storage tanks:			
				Number.....	348	138	(¹)
				Capacity.....	30, 207, 000	1, 598, 000	

¹Included with "All other materials."

²Residuum or tar.

³Figures not available.

Flour-mill and gristmill products (Table 20).—This table shows the kind, quantity, and value of the flour-mill and gristmill products for 1919, 1914, and 1909.

Wheat flour was the product of chief value in 1919 as it was in 1914, forming 74.3 per cent and 58.9 per cent, respectively, of the total value of all products of the industry in the state. The total value of products for the industry increased \$33,155,110, or 198.7 per cent, during the five-year period, and the value of wheat flour \$27,216,114, or 276.8 per cent. There was a comparatively smaller increase, however, in the number of barrels of wheat flour, this being 1,392,049, or 67.1 per cent.

TABLE 20.—FLOUR-MILL AND GRISTMILL PRODUCTS (MERCHANT MILLS): 1919, 1914, AND 1909.

	1919	1914	1909
Total value.....	\$10, 843, 800	\$10, 688, 660	\$19, 144, 475
Wheat flour:			
Barrels.....	3, 464, 289	2, 672, 240	2, 225, 089
Value.....	\$37, 048, 315	\$9, 832, 201	\$10, 959, 367
Corn meal and corn flour:			
Barrels.....	293, 803	206, 284	352, 721
Value.....	\$2, 310, 596	\$904, 438	\$1, 124, 244
Bran and middlings:			
Tons.....	132, 036	83, 282	286, 005
Value.....	\$5, 908, 371	\$1, 660, 005	\$6, 760, 825

TABLE 20.—FLOUR-MILL AND GRISTMILL PRODUCTS (MERCHANT MILLS): 1919, 1914, AND 1909—Continued.

	1919	1914	1909
Feed and offal:			
Tons.....	72, 526	141, 419	288, 005
Value.....	\$1, 148, 441	\$3, 803, 072	\$6, 700, 825
All other cereal products, value.....	\$116, 327	\$10, 533	\$993
All other products, value.....	\$8, 750	\$118, 391	\$209, 641

Printing and publishing (Table 21).—This table gives the number and aggregate circulation per issue of the various classes of publications reported in Oklahoma in 1919, 1914, and 1909:

TABLE 21.—PRINTING AND PUBLISHING: 1919, 1914, AND 1909.

PERIOD OF ISSUE.	NUMBER OF PUBLICATIONS.			AGGREGATE CIRCULATION PER ISSUE.		
	1919	1914	1909	1919	1914	1909
Total.....	430	506	593	1, 020, 130	1, 081, 633	857, 059
Daily.....	62	59	67	347, 673	242, 305	185, 470
Sunday.....	20	12	11	187, 009	117, 158	77, 526
Weekly.....	382	500	500	352, 255	604, 595	513, 979
Monthly.....	16	25	15	133, 003	217, 875	84, 175

¹ Includes, in 1919, 5 semi-weeklies and 1 tri-weekly; in 1914, 3 semi-weeklies; in 1909, 1 semi-weekly.
² Includes, in 1919, 1 semi-monthly and 1 quarterly; in 1914, 1 quarterly and 4 semi-monthlies, and in 1909, 3 semi-monthlies.

The increase in circulation of daily newspapers for the five-year period from 1914 to 1919 was 105,368, or 43.5 per cent. Fifty-one of the dailies were published in the afternoon. Their circulation was 217,264, which is 62.5 per cent of the total daily circulation, and an increase of 53,512, or 32.7 per cent, over the afternoon circulation reported for 1914.

The circulation of the Sunday newspapers increased 70,041, or 59.8 per cent, during the five-year period from 1914 to 1919, and they were also more numerous than in 1914.

The disappearance of a number of weekly newspapers and monthly publications and the decreased circulation reported for certain semimonthlies are the causes of the decreases in number and circulation of all publications.

All publications were printed in English with the exception of two German weeklies.

Laundries (Table 22).—Statistics for power laundries are not included in the general tables nor in the totals for manufacturing industries. Table 22, however, summarizes the statistics for such laundries in the state of Oklahoma for 1919 and 1914.

TABLE 22.—POWER LAUNDRIES: 1919 AND 1914.

	NUMBER OR AMOUNT.		Per cent of increase, ¹ 1914-1919.
	1919	1914	
Number of establishments.....	99	101	-2.0
Persons engaged.....	2,355	1,632	44.3
Proprietors and firm members.....	117	115	1.7
Salaried employees.....	244	101	141.6
Wage earners (average number).....	1,994	1,416	40.8
Primary horsepower.....	2,191	1,786	24.1
Capital.....	\$2,157,041	\$980,074	118.8
Salaries and wages.....	1,707,624	783,997	126.5
Salaries.....	376,873	100,677	274.3
Wages.....	1,330,751	683,320	103.7
Paid for contract work.....	250	674	-62.9
Rent and taxes.....	79,240	53,506	48.1
Cost of materials.....	875,092	359,743	143.3
Amount received for work done.....	3,561,059	1,669,721	113.3

¹ A minus sign (-) denotes decrease.

Dyeing and cleaning (Table 23).—Statistics for dyeing and cleaning establishments that were operated by mechanical power in 1919 are presented in this table.

TABLE 23.—DYEING AND CLEANING: 1919.

	Number or amount.
Number of establishments.....	50
Persons engaged.....	363
Proprietors and firm members.....	73
Salaried employees.....	85
Wage earners (average number).....	255
Primary horsepower.....	258
Capital.....	\$425,037
Salaries and wages.....	341,552
Salaries.....	43,129
Wages.....	298,423
Paid for contract work.....	5,472
Rent and taxes.....	38,270
Cost of materials.....	152,201
Amount received for work done.....	844,662

Data for dyeing and cleaning establishments are not included in the general tables nor in the totals for manufacturing industries for censuses since 1900. This presentation is the first of its kind that has been made since the census statistics were confined to manufacturing industries as distinguished from the hand trades, household industries, etc.

Custom sawmills and custom gristmills (Table 24).—This table shows, for 1919 and 1909, a summary for custom sawmills and custom gristmills. Statistics for these custom mills are not included in the general tables nor in the totals for manufacturing industries, but are presented by totals in this table.

TABLE 24.—CUSTOM SAWMILLS AND GRISTMILLS: 1919 AND 1909.

	CUSTOM SAWMILLS.			CUSTOM GRISTMILLS.		
	1919	1909	Per cent of increase, ¹ 1909-1919.	1919	1909	Per cent of increase, ¹ 1909-1919.
Number of establishments.....	7	4	—	96	147	-34.7
Persons engaged.....	11	12	—	120	323	-62.8
Proprietors and firm members.....	8	5	—	114	182	-37.4
Salaried employees.....	—	—	—	—	4	—
Wage earners (average number).....	3	7	—	6	137	-95.6
Primary horsepower.....	218	118	84.7	1,510	4,123	-63.4
Capital.....	\$13,869	\$5,325	100.4	\$185,028	\$180,518	2.5
Salaries and wages.....	2,454	1,908	28.6	5,826	12,006	-54.9
Salaries.....	—	—	—	—	426	—
Wages.....	2,454	1,908	28.6	5,826	12,480	-53.3
Rent and taxes.....	31	(3)	—	4,113	(4)	—
Cost of materials.....	910	65	—	350,847	369,140	-5.0
Value of products.....	0,833	4,725	103.1	431,360	465,348	-7.3

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

² Figures not available.

³ Includes estimates of all grain ground. Value of products for custom sawmills represents the amount charged for work performed.

GENERAL TABLES.

Table 25 gives, for 1919, 1914, and 1909, for selected industries in the state and in Oklahoma City, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products; and for the 8 other cities of 10,000 inhabitants or more for which figures are available, similar data for all industries combined.

Table 26 presents, for 1919, for the state as a whole and for Oklahoma City and Tulsa, statistics in detail for each industry for which figures can be shown without disclosing the operations of individual establishments; and for the 10 cities having from 10,000 to 50,000 inhabitants, similar data for all industries combined.

MANUFACTURES—OKLAHOMA.

TABLE 26.—DETAILED STATEMENT OF ALL INDUSTRIES

Table header detailing industry categories, persons engaged (Total, Male, Female, Average number), wage earners (Number, Maximum month, Minimum month), wage earners by sex and age (16 and over, Under 16), and Capital.

THE STATE—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

Main data table listing industries such as All industries, Artificial stone products, Automobile bodies and parts, etc. with columns for Number of establishments, Total persons, Male/Female counts, Average number, Wage earners, Wage dates, Wage earners by sex/age, and Dollars.

1 Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).
2 Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

MANUFACTURES—OKLAHOMA.

TABLE 26.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY AND CITY.	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY.							WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.		
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total	16 and over.			Under 16.	
					Male.	Female.	Average number.	Number, 15th day of—			Male.	Female.		Male.	Female.
								Maximum month.	Minimum month.						

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

1	Rubber tires, tubes, and rubber goods, not elsewhere specified.	8	67	9	25	7	26	Oc	71	Ja ^a	8	65	36	20			Dollars.
2	Saddlery and harness.	36	153	41	11	6	3	92	Se	115	Fe	67	111	107	3	1	418,163
3	Shirts.	4	89	2	4	11	3	69	No	111	Ja	52	104	6	85	3	129,431
4	Signs, other than electric.	3	10	1	2			7	Je ^a	10	Ja	3	6	6		10	12,402
5	Smelting and refining, zinc.	11	2,410		47	66	25	2,272	Ja	2,956	Jy	1,972	2,446	2,445	1		12,045,470
6	Tobacco, cigars.	18	111	21	2	1		87	De	104	Ap	73	106	36	70		73,783
7	Wirework.	3	7	3				4	Jy	6	Ja ^a	2	3	3			7,386
8	All other industries*	101	5,418	63	192	433	169	4,561									27,001,108

*All other industries embrace—	Boxes, set-up paper boxes.	1	Charcoal, not including production in the lumber and wood distillation industries.	3	Cordials and flavoring sirups.	1
Agricultural implements.	Boxes, wooden packing, except cigar boxes.	2	Chemicals.	2	Druggists' preparations.	4
Artificial limbs.	Buttons.	1	Clothing, men's.	2	Electroplating.	1
Automobiles.	Canning and preserving, fruits.	1	Coffins, burial cases, and undertakers' goods.	1	Engines, steam, gas, and water.	1
Bags, other than paper, not including bags made in textile mills.	Carpets, rag.	2	Coke, not including gas-house coke.	1	Engraving, steel and copperplate, including plate printing.	1
Baking powders.	Carriage and wagon materials.	1	Cooperage, hogsheads and barrels.	1	Gas and electric fixtures.	1
Bone and carbon black.	Cars, steam-railroad, not including operations of railroad companies.	1	Cordage and twine.	1	Gas, illuminating and heating.	2
Bookbinding and blank-book making.	Cement.	2			Gas machines.	1
Boots and shoes.					Glass, cutting, staining, and ornamenting.	1

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

	227	5,806	159	292	707	273	4,375	De	4,662	Fe	3,983	4,670	3,804	862	3	1	20,371,247
1 OKLAHOMA CITY—All industries.																	
2 Automobile bodies and parts.	7	66	6	3	4	2	51	Se	58	Ja	39	46	44	2			55,478
3 Automobile repairing.	3	43	1	4	3	2	35	Au	41	Mh	34	38	38				45,180
4 Bread and other bakery products.	16	496	18	9	43	26	400	De	472	Jy	345	470	271	199			1,005,054
5 Brooms, from broom corn.	4	85	7	4	7	2	65	Se	73	Mh	47	68	63	5			110,740
6 Confectionery and ice cream.	9	166	5	12	18	2	129	Se	189	Ja	74	153	77	76			917,242
7 Copper, tin, and sheet-iron work.	7	55	10	5	1	1	38	Ap ^a	42	No ^a	34	35	35				82,444
8 Flour-mill and gristmill products.	6	228	1	24	24	9	170	No	197	My	146	187	187				3,839,812
9 Food preparations, not elsewhere specified.	6	29	3	2	3	3	18	Se	24	No	10	22	12	10			44,200
10 Foundry and machine-shop products.	11	132	6	17	4	4	101	Se	132	Fe	76	121	121				371,183
11 Ice, manufactured.	4	76		6	12	3	55	Au	71	Ja ^a	44	64	64				589,295
12 Lumber, planing-mill products, not including planing mills connected with sawmills.	7	210	2	22	16	8	162	Se	188	Ja	116	187	187				740,430
13 Mattresses and spring beds.	4	70		10	3	2	55	De	67	Ja	45	67	59	8			218,942
14 Mineral and carbonated waters.	5	25	4	2	3		16	Jy ^a	24	Ja	10	9	9				122,052
15 Patent medicines and compounds.	9	68	10	3	6	4	45	De	63	Ja ^a	41	68	7	56			117,195
16 Printing and publishing, book and job.	34	401	30	34	48	25	264	Ap ^a	271	Ja	255	264	194	70			607,979
17 Printing and publishing, newspapers and periodicals.	18	551	9	26	172	54	290	Oc ^a	323	Mh	259	311	272	38	1		1,286,071
18 All other industries*	78	3,100	47	109	340	126	2,478					2,665	2,164	398	2	1	19,218,901

*All other industries embrace—	Bookbinding and blank-book making.	1	Chemicals.	2	Electroplating.	1
Agricultural implements.	Boxes, set-up paper boxes.	1	Cleausing preparations.	2	Engraving, steel and copperplate, including plate printing.	1
Artificial limbs.	Boxes, wooden packing, except cigar boxes.	1	Clothing, men's.	1	Furniture, store and office fixtures.	2
Artificial stone products.	Buttons.	2	Coffee, roasting and grinding.	3	Gas, illuminating and heating.	1
Automobiles.	Butter.	1	Coffins, burial cases, and undertakers' goods.	1	Gas machines.	1
Awnings, tents, and sails.	Carriage and general shop construction and repairs by electric-railroad companies.	1	Cooperage, hogsheads and barrels.	1	Hand stamps.	1
Bags, other than paper, not including bags made in textile mills.			Cordials and flavoring sirups.	1	Hardware, builders'.	1
Baking powders.			Druggists' preparations.	2		

^a Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).
^b Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

MANUFACTURES—OKLAHOMA.

COMBINED AND SPECIFIED INDUSTRIES: 1919—Continued.

EXPENSES.							POWER.							
Salaries and wages.			For contract work.	Rent and taxes.		For materials.		Value of products.	Value added by manufacture.	Primary horsepower.				
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.				Electric horsepower generated in establishments reporting.
									Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power. ¹	Rent-ed. ²	

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

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.						
9,916	18,205	26,543		2,503	5,182	104,833	1,427	207,725	105,461	164	125	23	13		1
34,142	9,979	133,085		15,478	7,218	647,182	2,747	1,342,107	392,178	50		2	48		2
12,757	38,757	39,935		3,140	8,623	384,555	534	572,757	187,767	19			19		3
2,765		13,822		1,507	2,440	5,934	200	31,376	25,242	3		2	1		4
167,882	133,530	3,174,488		242,101	12,743,825	1,803,153	19,517,593	4,087,588	120,711	6,952	3,945	5	1,315	1,087	2,545
2,700	2,030	63,482		2,488	24,034	143,782	1,590	285,053	12,885	2				2	6
		3,839		225	255	9,004	81	21,970	12,885	1				1	7
504,388	795,843	5,333,183	4,138	26,890	951,120	68,501,710	1,309,838	78,128,557	9,316,973	20,245	7,998	4,575	7,672	9,029	8

Grease and tallow, not including lubricating greases.....	1	Mirrors, framed and unframed, not elsewhere specified.....	1	Poultry, killing and dressing, not done in slaughtering and meat-packing establishments.....	3	Structural ironwork, not made in steel works or rolling mills.....	2
Hardware, builders.....	2	Models and patterns, not including paper patterns.....	2	Pumps, steam and other power.....	2	Sulphuric, nitric, and mixed acids.....	1
Hardware, saddlery.....	2	Musical instruments and materials, not elsewhere specified.....	1	Roofing materials.....	2	Vinegar.....	1
House-furnishing goods, feather pillows.....	1	Optical goods.....	1	Show cases.....	1	Wall plaster and composition flooring.....	4
Jewelry.....	1	Paints.....	2	Slaughtering and meat packing.....	5	Washing machines and clothes wringers.....	1
Lime.....	2	Peanuts, grading, roasting, cleaning, and shelling.....	2	Stoves and ranges.....	1	Window and door screens and weather strips.....	1
Looking-glass and picture frames.....	1	Photographic apparatus.....	1	Stoves, gas and oil.....	2	Wood preserving.....	1
Minerals and earths, ground or otherwise treated.....	2					Wood, turned and carved.....	1

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

920,316	1,372,101	4,895,192	93,941	162,390	1,119,800	58,023,514	620,400	69,970,788	11,326,614	12,453	6,835	100	144	5,374	3,108
3,948	5,308	60,065		6,490	2,242	57,770	1,324	157,901	98,298	29				29	
7,540	5,490	49,643		4,725	524	39,729	1,222	128,429	87,478	25				25	
16,910	107,320	333,690	820	8,150	46,774	1,608,007	30,475	2,845,186	1,206,704	332	30			302	
10,690	16,277	66,937		2,493	2,131	183,304	1,103	365,526	181,119	30				30	
45,479	30,078	117,497		4,535	19,042	647,603	41,057	1,154,844	465,354	916	765			151	70
8,842	2,224	58,590		2,455	1,171	87,492	453	184,182	96,237	9				9	
75,013	48,969	102,131		690	115,418	7,812,488	54,555	8,752,040	885,596	1,350	950			400	163
3,160	7,700	10,869		2,210	188	82,140	1,363	115,058	35,146	16				16	
41,775	7,637	125,414		6,032	4,011	177,848	10,488	440,637	252,801	265			35	230	
15,200	8,770	60,740		8,150	39,403	89,403	75,703	264,342	149,236	1,545	1,360	100		85	125
60,214	32,351	185,461		3,595	39,484	383,828	6,541	809,724	414,355	432	180			252	280
18,004	10,538	53,716		4,770	10,616	181,607	2,416	370,776	186,753	104			40	64	
5,068	5,400	21,750		856	7,865	121,345	2,530	216,185	92,310	36				36	
8,207	32,555	22,110		2,369	5,151	90,273	559	191,288	100,456	11				11	
138,530	291,416	329,891	27,090	32,727	10,191	495,078	12,189	1,409,474	902,207	267				267	
113,461	193,816	367,935	61,535	36,810	14,291	745,023	10,629	2,362,773	1,607,121	466				466	
352,434	566,282	2,808,838	3,590	42,901	831,642	45,265,658	366,613	50,198,214	4,585,943	6,020	3,550		69	3,001	2,453

House-furnishing goods, feather pillows.....	1	Musical instruments and materials, not elsewhere specified.....	1	Petroleum, refining.....	2	Slaughtering and meat packing.....	1
Jewelry.....	1	Oil and cake, cottonseed.....	1	Photo-engraving.....	2	Stoves, gas and oil.....	1
Marble and stone work.....	3	Optical goods.....	2	Rubber tires, tubes, and rubber goods, not elsewhere specified.....	6	Structural iron work, not made in steel works or rolling mills.....	1
Mirrors, framed and unframed, not elsewhere specified.....	1	Paints.....	1	Saddlery and harness.....	1	Vinegar.....	1
Models and patterns, not including paper patterns.....	1	Perfumery and cosmetics.....	2	Shirts.....	1	Window and door screens and weather strips.....	1
				Show cases.....	1	Wire work.....	2
				Signs, other than electric.....	2		

¹Same number reported for one or more other months.

MANUFACTURES—OKLAHOMA.

TABLE 26.—DETAILED STATEMENT OF ALL INDUSTRIES

INDUSTRY.	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY.							WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.				Capital.		
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clarks, etc.		Average number.	Wage earners.		Total.	10 and over.			Under 10.	
					Male.	Female.		Number, 15th day of—			Male.	Female.		Male.	Female.
								Maximum month.	Minimum month.						

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

1	TULSA—All industries	135	2,454	99	181	338	87	1,749	Se 1,941	Fe 1,433	2,900	1,868	120	4	10	Dollars. 12,620,791.
2	Artificial stone products	0	32	9	3	1	19	So ³ 22	Fe ³ 10	23	23					42,990
3	Automobile bodies and parts	6	42	5	3	2	32	Mh ³ 33	Ja 28	33	29	4				67,927
4	Automobile repairing	9	95	11	5	2	77	Se 69	Ju 70	78	78					38,178
5	Bread and other bakery products	8	110	5	8	22	69	De 85	Fe 54	88	79	9				485,999
6	Confectionery and ice cream	8	77	9	7	6	45	Je 68	Ja 38	62	36	26				397,997
7	Copper, tin, and sheet-iron work	7	52	12	3	1	2	34	Jy ³ 40	Fe 26	39	37	2			124,061
8	Foundry and machine-shop products	18	763	3	59	58	13	630	No 761	Fe 331	764	764				8,029,470
9	Ice, manufactured	3	152		11	6	1	134	Au 214	Ja ³ 73	146	145	1			712,828
10	Lumber, planing-mill products, not including planing mills connected with sawmills.	8	221	3	14	26	3	175	Au 233	Ja 125	199	169				434,308
11	Marble and stone work	4	26	4	2		20	Se 30	Fe 14	22	22					44,464
12	Mineral and carbonated waters	5	28	4	3	4	17	Je ³ 25	Ja ³ 10	14	14					90,107
13	Printing and publishing, book and job.	10	123	12	13	7	3	38	De 102	Ja ³ 83	95	78	17			323,841
14	Printing and publishing, newspapers and periodicals.	7	424	5	22	155	44	198	My 211	Se ³ 191	193	158	35			743,726
15	All other industries*	27	309	17	28	50	13	201			244	204	20	4	10	1,120,671

*All other industries embrace—
 Awnings, tents, and sails..... 3 Cars and general shop construction and repairs by electric-railroad companies..... 2
 Brooms, from broom corn..... 1 Cleansing preparations..... 1
 Coffee, roasting and grinding..... 1
 Engines, steam, gas, and water..... 1 Flour-mill and gristmill products..... 2
 Furniture, store and office fixtures..... 1
 Glass, cutting, staining, and ornamenting..... 1

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

1	ARDMORE	35	476	38	51	67	15	305	Oc 380	Fe ³ 230	354	326	27	1		5,017,216
2	BARTLESVILLE	32	327	32	24	17	8	246	Se 274	Fe 199	270	259	11			1,087,327
3	CHICKASHA	24	625	18	34	15	10	548	Oc 627	My 478	589	574	12	3		1,960,427
4	ENID	51	654	33	53	58	32	478	Se 576	Ja 388	510	445	65			5,197,830
5	GUTHRIE	36	341	38	19	20	20	244	Au 278	My 197	254	195	58	1		806,008
6	MCALISTER	20	207	13	21	16	8	149	Au 197	Mh 91	178	167	10	1		676,222
7	MUSKOGEE	82	1,560	72	62	142	60	1,218	De 1,353	Ja 1,124	1,355	1,260	94	1		5,301,814
8	OKMULGEE	29	577	24	30	48	20	455	Jy 500	Ja 378	504	475	26			8,464,128
9	SAPULPA	29	644	30	28	18	16	552	My 618	Ja 501	597	564	32	1		1,449,600
10	SEAWNEE	45	1,287	39	57	57	20	1,114	No 1,296	My 633	1,285	1,175	105	6		2,121,484

¹ Includes water wheels and turbines (irrespective of ownership of water supply), and water motors (operated by water from city mains).
² Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-bolt or transmitted power from neighboring power plants).

COMBINED AND SPECIFIED INDUSTRIES: 1919—Continued.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.				
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.				
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, state, county, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.			Rent- ¹	Electric horse power generated in establishments reporting.
								Steam engines (not turbines).	Steam turbines.	Internal-combustion engines.	Water power. ¹			

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

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.							
545,704	471,876	2,316,844	59,885	90,184	419,495	6,372,475	284,590	14,050,073	7,393,008	5,207	1,205	894	3,108	151		
5,400	300	19,249	.....	1,600	329	40,679	1,043	96,804	54,582	29	.....	6	.....	23	.....	2
8,400	1,745	41,807	.....	4,020	2,140	70,449	1,057	100,724	95,218	32	.....	.....	.....	32	.....	3
26,600	3,000	73,293	.....	6,780	746	70,386	3,217	224,402	144,799	72	.....	3	.....	69	.....	4
9,751	39,155	79,361	46,289	11,519	4,577	426,011	11,013	700,895	263,781	187	.....	.....	.....	187	.....	5
14,973	7,841	53,454	.....	8,039	4,344	304,481	4,199	445,510	136,830	118	.....	.....	.....	118	.....	6
6,207	2,822	52,113	.....	2,385	1,538	73,291	510	196,892	123,091	2	.....	.....	.....	2	.....	7
241,719	105,511	904,933	.....	8,418	312,629	2,795,582	130,547	6,069,577	3,743,448	2,185	120	422	1,043	80	.....	8
26,824	8,628	132,351	.....	.....	20,062	32,875	85,562	495,725	377,288	1,233	720	410	103	61	.....	9
42,628	52,679	216,295	.....	1,775	17,991	430,581	14,177	844,744	399,986	400	.....	25	375	.....	.....	10
4,731	.....	33,247	.....	885	250	73,727	357	154,376	80,292	32	.....	.....	32	8	.....	11
6,240	4,800	19,147	.....	2,050	7,399	65,952	1,542	108,078	41,484	75	15	3	52	.....	.....	12
38,974	12,743	131,070	2,619	19,078	3,819	169,120	5,356	503,226	328,750	85	.....	.....	85	.....	.....	13
40,225	145,030	340,174	10,980	7,568	15,668	482,822	7,742	1,377,200	880,645	181	.....	.....	181	.....	.....	14
67,032	87,614	215,404	.....	15,167	19,093	1,331,419	18,268	2,006,501	716,814	591	350	25	206	2	.....	15

Hand stamps.....	2	Mattresses and spring beds.....	1	Photo-engraving.....	1	Shirts.....	1
Iron and steel, welding.....	1	Oil and cake, cottonseed.....	1	Pumps, steam and other power.....	1	Stoves and ranges.....	1
Looking-glass and picture frames....	1	Patent medicines and compounds....	2	Saddlery and harness.....	1	Wirework.....	1

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

101,620	62,344	350,136	5,475	14,705	87,489	3,465,096	102,334	4,965,622	1,397,682	1,298	865	85	4	344	25	1
87,985	23,035	335,506	1,930	7,840	39,759	838,775	43,932	1,805,575	1,022,868	752	215	35	.....	502	.....	2
77,858	24,002	693,495	678	8,062	53,738	3,299,588	80,307	4,598,973	1,223,018	1,847	1,025	693	.....	129	230	3
137,895	112,165	577,527	2,837	23,309	90,550	10,071,709	178,874	13,073,072	2,223,020	2,247	1,370	114	.....	783	.....	4
40,092	61,676	178,510	4,400	7,445	18,416	2,754,913	48,074	3,330,365	527,378	970	800	8	.....	108	108	5
45,530	35,532	167,861	.....	6,240	28,029	1,034,345	25,474	1,529,557	400,538	1,053	820	4	.....	229	.....	6
165,962	190,975	1,538,744	10,400	33,280	112,588	5,104,887	271,180	8,402,858	3,027,312	3,807	2,192	218	.....	1,397	.....	7
81,454	103,742	554,189	.....	7,199	69,752	2,887,368	117,742	3,661,231	980,131	816	95	158	.....	563	36	8
77,232	45,238	640,076	3,069	8,462	37,504	1,009,508	71,137	2,197,083	1,110,038	1,531	545	175	.....	811	.....	9
152,128	84,044	1,407,075	62	13,000	41,534	3,450,216	67,785	5,742,944	2,188,943	2,055	395	651	.....	1,009	.....	10

¹ Same number reported for one or more other months.