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BUREAU OF THE CENSUS

SAM. L. ROGERS, DIRECTOR  
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FOURTEENTH CENSUS OF THE UNITED STATES  
TAKEN IN THE YEAR 1920

VOLUME IX

MANUFACTURES

1919

REPORTS FOR STATES, WITH STATISTICS FOR  
PRINCIPAL CITIES

PREPARED UNDER THE SUPERVISION OF EUGENE F. HARTLEY  
CHIEF STATISTICIAN FOR MANUFACTURES



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REPORTS OF THE FOURTEENTH CENSUS.

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- Volume III.—COMPOSITION AND CHARACTERISTICS OF THE POPULATION, BY STATES.
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- Volume IX.—REPORTS FOR STATES, WITH STATISTICS FOR PRINCIPAL CITIES.
- Volume X.—REPORTS FOR SELECTED INDUSTRIES.

MINING:

- Volume XI.—MINES AND QUARRIES—GENERAL REPORT AND ANALYTICAL TABLES, AND REPORTS FOR STATES AND SELECTED INDUSTRIES.

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ABSTRACT OF THE FOURTEENTH CENSUS.  
ABSTRACT OF THE CENSUS OF MANUFACTURES.

## LETTER OF TRANSMITTAL.

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DEPARTMENT OF COMMERCE,  
BUREAU OF THE CENSUS,  
*Washington, D. C., May 1, 1922.*

SIR:

I transmit herewith Volume IX of the Reports of the Fourteenth Decennial Census, relating to manufactures. The statistics were collected during the year 1920, but relate in general to the year ending December 31, 1919.

The report on manufactures consists of three volumes and an Abstract of Manufactures. Volume VIII contains a summarization of the statistics of manufactures as a whole, for the separate industries and for the states, counties, and principal cities. Volume IX, the present volume, contains a separate report on the manufactures of each state and Alaska, Hawaii, and Porto Rico, with special statistics for the leading industries in the state and territory, each report having been previously issued as a bulletin. Volume X contains special reports relating to the leading industries of the United States, which were also published as a series of bulletins.

The collection and compilation of the statistics and the preparation of the text were under the supervision of Eugene F. Hartley, chief statistician for manufactures, assisted by John F. Daly, William A. Ruff, William W. Sawyer, chiefs of divisions, Frank L. Sanford and Story B. Ladd, expert special agents, and Lucy Craycroft, statistical expert.

Respectfully,

W. M. STEUART,  
*Director of the Census.*

Hon. HERBERT HOOVER,  
*Secretary of Commerce.*

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# INTRODUCTION AND EXPLANATION OF TERMS.

## INTRODUCTION.

The statistics of manufactures for the different states and territories were published as separate bulletins as rapidly as the statistics were compiled. These bulletins are now collected in the present volume forming Volume IX of the reports of the Fourteenth Census. This volume contains the reports for the states and the District of Columbia in alphabetical order, followed by the reports for Alaska, Hawaii, and Porto Rico. Included with the reports for Hawaii and Porto Rico, as separate sections, are the statistics for the quarries in each of those territories for which reports were made (there being no mines reported as such). The figures in this volume in some unimportant details differ from those given in the bulletins, for the reason that certain minor errors discovered in the bulletins as first published have been corrected.

The text of the report for each state summarizes the general results of the census inquiry, presenting a series of special tables in which the most important figures shown in the general tables are given in convenient form for the state or territory as a whole and for important individual industries. It also presents tables in which the statistics for all manufacturing industries combined and for a few important industries

separately are classified by character of ownership, size of establishments, number of wage earners, and prevailing hours of labor, information which could not be presented for every industry without disclosing the operations of individual establishments.

At the end of the report for each state or territory are two general tables, a comparative summary for selected industries, and a detailed statement of all industries combined and specified industries.

The comparative summary gives, for 1919, 1914, and 1909, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products, for selected industries in the state or territory and in cities having 50,000 inhabitants or more; and for cities having from 10,000 to 50,000 inhabitants, similar data for all industries combined.

The detailed statement presents, for 1919, in the state or territory as a whole, and in cities with 50,000 inhabitants or more, statistics in detail for each industry that can be shown without the disclosure of individual operations; and for cities having from 10,000 to 50,000 inhabitants, similar data for all industries combined.

## EXPLANATION OF TERMS.

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

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

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

**The establishment.**—As a rule, the term "establishment" represents a single plant or factory, but in some

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

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

As a rule, the same designation is used for the industry wherever it appears, although all of the products indicated by this designation were not manufactured in the state or city for which these statistics are pre-

sented. 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 each state report give the principal facts separately for the industries of the state. A selection has been made of certain leading industries of the state for more detailed consideration. Sometimes an industry of great importance has to be omitted because it comprises so few establishments that a detailed presentation would reveal the operations of individual concerns.

**Comparisons with previous censuses.**—Owing to changes in industrial conditions it is not always possible to classify establishments by industries in such a way as to permit accurate comparison with preceding censuses. At the census of 1909 the figures for kindred industries were combined. This practice has been followed in compiling the statistics for 1919 and 1914 when placed in comparison with those for 1909 and prior years. The comparative summary for 1919, 1914, and 1909, therefore, does not show separately all the industries given for 1919 in the detailed statement for the state.

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

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

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

In the case of employees other than wage earners the number thus reported for the representative date

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

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

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

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

**Salaries and wages.**—Under these heads are given the total payments during the year for salaries and wages, respectively. The Census Bureau has not undertaken to calculate the average annual earnings of either salaried employees or wage earners. Such averages would possess little real value, because they would be based on the earnings of employees of both sexes, of all ages, and of widely varying degrees of skill. Furthermore, so far as wage earners are concerned, it would be impossible to calculate accurately even so simple an average as this, since the number

of wage earners fluctuates from month to month in every industry, and in some cases to a very great extent. The Census Bureau's figures for wage earners, as already explained, are averages based on the number employed on the 15th of each month, and while representing the number according to the pay rolls to whom wages were paid on that date, no doubt represent a larger number than would be required to perform the work in any industry if all were continuously employed during the year.

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

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

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

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

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

well as materials which form a constituent part of the product.

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

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

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

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

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

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

**Location of establishments.**—The Census Bureau has classified establishments by their location in cities. In interpreting these figures due consideration should be given to the fact that establishments are often located just outside the boundaries of cities, and are necessarily so classified, though locally they are looked upon as constituting a part of the manufacturing interests of the city.

**Laundries.**—The censuses of 1919 and 1909 were the only manufacturing canvasses to include statistics of power laundries. The data are presented separately

and are not included in the general total for manufacturing industries, since their inclusion would interfere with comparisons with other censuses.

**Custom sawmills and gristmills.**—In order to make the statistics for 1919 comparable with those for 1914, the data for these mills have been excluded from all the tables presenting general statistics. Data for such establishments are given in a separate table at the end of the special statistics for each state and territory, so far as this can be done without disclosing the operations of individual establishments.

# PORTO RICO.

## GENERAL STATISTICS.

General character of the territory.—Porto Rico contains 3,435 square miles. Its population in 1899 was 953,243; in 1910, 1,118,012; and in 1920, 1,299,809.

Comparative summary (Table 1).—This table summarizes the more important data relative to all classes of manufactures combined in the territory of Porto Rico for the censuses of 1919 and 1909.

In connection with the percentages of increase, due consideration must be given to the fact that increases in wages, in cost of materials used, and in value of products since 1909 reflect very largely industrial conditions brought about by the World War and the lessened purchasing power of the dollar.

Principal industries ranked by value of products (Table 2).—The ranking of industries by value of products is often misleading as to their true importance from a manufacturing standpoint. The coffee cleaning and polishing industry, for instance, which ranked second in value of products, ranked fourth by average number of wage earners and value added by manufacture.

Persons engaged in manufacturing industries (Table 3).—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 in 1919 was reported separately, but in 1909 was obtained in the same manner as the distribution by age. Figures for individual industries will be found in Table 19.

Average number of wage earners for selected industries (Table 4).—The industries included in this table embrace those having 100 or more wage earners in 1919, and for which statistics can be shown without the possibility of disclosing individual operations.

Average number of wage earners, by sex and age, and value of products, for cities of 10,000 inhabitants or more (Table 5).—The two leading manufacturing cities, San Juan and Ponce, show considerable increases in the number of females employed in 1919 over 1909, while the class "under 16 years of age" has been reduced from 135 to 3 in San Juan and from 88 to 3 in Ponce during the decade. The table shows large gains in the value of products for each city for which comparative data can be shown.

Wage earners employed, by months (Table 6).—The statistics for wage earners are intended to show the steadiness of employment, or the reverse, in accordance with the conditions as they existed for the two censuses. For the territory the variations between

the maximum and minimum are most noticeable in the months of June and July.

Wage earners, by months, for selected industries and cities (Table 7).—In addition to the number employed by months, similar data are given for males and females for all industries combined and for the females for four industries which provided employment for a large number of that sex.

Prevailing hours of labor (Table 8).—In comparing the data for the two years reported a marked change is noted in the hours of labor per week for wage earners; about three-fourths, or 74.8 per cent, of the wage earners for 1919 worked more than 48 hours per week, as compared with 55 per cent of the number of wage earners who worked the same number of hours in 1909.

Size of establishments, by average number of wage earners, for selected industries and cities (Table 9).—The extent to which the small manufacturing establishments predominated in the territory is shown in this table. Only 12 establishments employed more than 250 wage earners.

Size of establishments, by value of products (Table 10).—In 1909 establishments with products valued at \$100,000 to \$1,000,000 formed one group, but in 1919 this group was subdivided, as follows: \$100,000 to \$500,000 and \$500,000 to \$1,000,000. The figures for these two groups separately are not available for 1909.

Size of establishments, by value of products, for selected industries (Table 11).—In the preparation of this table it was necessary in several instances to combine the establishments of one group with those of some other group 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 12).—This table shows that few of the establishments in the group, "1,000,000 and over," are located within the corporate limits of the cities.

Character of ownership, for selected industries and cities (Table 13).—The tendency of manufactures toward the corporate form of ownership is evidenced by the increase in the number of establishments under "corporations" in 1919 over 1909, while "individuals" and "all others" show large decreases during the decade.

Manufactures, by population groups (Table 14).—This table furnishes data for cities of 10,000 inhabitants or more arranged in two groups—"10,000 to 25,000" and "25,000 to 100,000."

Number and horsepower of types of prime movers (Table 15).—The use of steam and internal-combustion engines shows a marked increase in both the number of engines and in horsepower for 1919 as compared with 1909, the most noticeable being that of the number of internal-combustion engines, which increased 200 per cent.

Rented electric power increased 371.8 per cent in

number of motors and 381 per cent in horsepower during the ten-year period.

Fuel consumed, for selected industries and cities (Table 16).—The total quantities of the principal kinds of fuel used by the manufacturing plants in the territory, 1919 and 1909, are shown in this table, and also, for 1919, the amounts used by a number of industries which are large consumers of fuel.

TABLE 1.—COMPARATIVE SUMMARY: 1919 AND 1909.

	MANUFACTURING INDUSTRIES.		Per cent of increase, 1909-1919.		MANUFACTURING INDUSTRIES.		Per cent of increase, 1909-1919.
	1919	1909			1919	1909	
Number of establishments.....	619	939	-34.1	Salaries and wages.....	\$9,104,465	\$4,898,228	85.0
Persons engaged.....	18,454	18,122	1.8	Salaries.....	2,338,801	1,259,032	85.8
Proprietors and firm members.....	787	1,478	-46.8	Wages.....	6,765,664	3,639,196	85.0
Salaried employees.....	1,682	1,062	58.4	Paid for contract work.....	157,784	21,326	639.9
Wage earners (average number).....	15,985	15,582	2.6	Rent and taxes.....	2,194,740	2,941,202	-25.4
Primary horsepower.....	67,226	34,005	97.7	Cost of materials.....	59,827,274	21,470,292	178.5
Capital.....	\$84,151,310	\$25,544,385	229.4	Value of products.....	85,506,834	36,749,742	132.7
				Value added by manufacture <sup>2</sup> .....	25,679,590	15,270,450	68.2

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

<sup>2</sup> Value of products less cost of materials.

TABLE 2.—PRINCIPAL INDUSTRIES, RANKED BY VALUE OF PRODUCTS: 1919.

INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.		INDUSTRY.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
		Average number.	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.			Average number.	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.	Amount (expressed in thousands).	Per cent distribution.
All industries .....	619	15,985	100.0	\$85,507	100.0	\$25,680	100.0	Clothing, men's .....	5	179	1.1	\$262	0.3	\$112	0.4
Sugar, cane .....	55	7,490	46.8	56,412	66.0	16,350	63.7	Ice, manufactured .....	13	86	0.5	219	0.3	168	0.6
Coffee, cleaning and polishing .....	31	578	3.6	11,444	13.4	509	2.0	Boot and shoe shops .....	27	96	0.6	241	0.3	121	0.5
Tobacco, cigars and cigarettes .....	183	5,098	31.9	8,135	9.5	5,095	19.8	Printing and publishing, job .....	11	143	0.9	201	0.2	154	0.6
Bread and other bakery products .....	152	880	5.5	4,761	5.6	1,335	5.2	Bay rum .....	6	17	0.1	172	0.2	62	0.2
Foundry and machine-shop products .....	5	271	1.7	749	0.9	361	1.4	Mineral and soda waters .....	11	50	0.4	131	0.2	85	0.3
Printing and publishing, newspapers and periodicals .....	24	168	1.1	468	0.5	295	1.2	Flour-mill and gristmill products .....	10	11	0.1	116	0.1	33	0.1
Food preparations, not elsewhere specified .....	6	129	0.8	296	0.3	103	0.4	All other industries .....	80	783	4.0	1,861	2.2	902	3.5

TABLE 3.—PERSONS ENGAGED IN MANUFACTURING INDUSTRIES: 1919 AND 1909.

CLASS.	Cen- sus year.	Total.	Male.	Fe- male.	PER CENT OF TOTAL.		CLASS.	Cen- sus year.	Total.	Male.	Fe- male.	PER CENT OF TOTAL.	
					Male.	Fe- male.						Male.	Fe- male.
All classes.....	1919 1909	18,454 18,122	15,953 16,300	2,501 1,822	86.4 89.9	13.6 10.1	Clerks and other subordinate salaried employees.	1919 1909	891 754	820 737	71 17	92.0 97.7	8.0 2.3
Proprietors and officials.....	1919 1909	1,573 1,789	1,507 1,635	71 151	95.5 91.5	4.5 8.5							
Proprietors and firm members...	1919 1909	787 1,478	724 1,331	63 147	92.0 90.1	8.0 9.9	Wage earners (average number).....	1919 1909	15,985 15,582	13,626 13,028	2,359 1,664	85.2 89.4	14.8 10.6
Salaried officers of corporations...	1919 1909	132 44	129 44	3 .....	97.7 100.0	2.3 .....	16 years of age and over.....	1919 1909	15,881 14,824	13,531 13,208	2,350 1,556	85.2 89.5	14.8 10.5
Superintendents and managers...	1919 1909	659 261	654 260	5 4	99.2 98.5	0.8 1.5	Under 16 years of age.....	1919 1909	104 758	95 600	9 98	91.3 87.1	8.7 12.9

## MANUFACTURES—PORTO RICO.

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TABLE 4.—AVERAGE NUMBER OF WAGE EARNERS FOR SELECTED INDUSTRIES, WITH PER CENT, BY SEX AND AGE: 1919 AND 1909.

INDUSTRY.	Cen- sus year.	Wage earners (aver- age num- ber).	PER CENT OF TOTAL.			INDUSTRY.	Cen- sus year.	Wage earners (aver- age num- ber).	PER CENT OF TOTAL.		
			16 years of age and over.		Under 16 years of age.				16 years of age and over.		Under 16 years of age.
			Male.	Fe- male.					Male.	Fe- male.	
All industries .....	1919 1909	15,985 15,582	84.6 85.1	14.7 10.0	0.7 4.9	Printing and publishing, job .....	1919 1909	143 82	93.7 90.2	6.3 4.9	..... 4.9
Bread and other bakery products .....	1919 1909	880 1,197	99.0 98.3	0.6 .....	0.4 1.7	Printing and publishing, newspapers and periodicals.	1919 1909	168 271	97.0 89.7	2.4 3.3	0.6 7.0
Clothing, men's .....	1919	179	3.4	91.6	5.0	Sugar, cane .....	1919 1909	7,490 5,062	98.8 91.1	0.2 1.4	1.0 7.5
Coffee, cleaning and polishing .....	1919 1909	578 120	21.5 75.0	78.5 25.0	.....	Tobacco, cigars and cigarettes .....	1919 1909	5,098 7,025	70.2 78.9	29.7 17.9	0.1 3.2
Food preparations, not elsewhere specified ..	1919 1909	129 122	42.6 38.5	57.4 56.6	4.9	All other industries .....	1919 1909	1,049 1,515	88.5 86.9	10.6 7.7	1.0 5.4
Foundry and machine-shop products .....	1919 1909	271 188	100.0 88.3	..... .....	..... 11.7						

TABLE 5.—AVERAGE NUMBER OF WAGE EARNERS, BY SEX AND AGE, AND VALUE OF PRODUCTS, FOR CITIES OF 10,000 INHABITANTS OR MORE: 1919 AND 1909.

CITY.	AVERAGE NUMBER OF WAGE EARNERS IN MANUFACTURING INDUSTRIES.								VALUE OF PRODUCTS.	
	Total.		16 years of age and over.				Under 16 years of age.			
			Male.		Female.					
	1919	1909	1919	1909	1919	1909	1919	1909	1919	1909
Arecibo.....	400		400						\$2,300,062	
Bayamon.....	775		595		180				1,851,023	
Caguas.....	157	72	155	63		4	2	5	1,186,223	\$124,088
Mayaguez.....	691	479	623	406		70		3	3,396,698	2,255,520
Ponce.....	1,544	971	1,167	763	374	120	3	88	4,605,714	2,399,895
San Juan.....	2,696	2,750	1,902	2,260	791	355	8	135	6,712,723	3,242,820

TABLE 6.—WAGE EARNERS, BY MONTHS: 1919 AND 1909.

MONTH.	NUMBER. <sup>1</sup>		PER CENT OF MAXIMUM.		MONTH.	NUMBER. <sup>1</sup>		PER CENT OF MAXIMUM.	
	1919	1909	1919	1909		1919	1909	1919	1909
January.....	15,144	17,461	82.6	96.2	July.....	11,062	13,683	60.3	75.4
February.....	17,090	18,151	93.2	100.0	August.....	16,365	13,009	89.2	71.7
March.....	17,076	17,812	93.1	98.1	September.....	17,221	13,079	93.9	72.1
April.....	16,692	17,789	91.0	98.0	October.....	17,217	13,457	93.9	74.1
May.....	16,473	17,416	89.8	96.0	November.....	18,183	13,693	99.1	75.4
June.....	10,966	15,101	59.7	83.2	December.....	18,341	16,335	100.0	90.6

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

TABLE 7.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES AND 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.	Aver- age num- ber em- ployed during year.	NUMBER EMPLOYED ON 15TH DAY OF THE MONTH OR NEAREST REPRESENTATIVE DAY.												Per cent mini- mum is of maxi- mum.
		Janu- ary.	Febru- ary.	March.	April.	May.	June.	July.	August.	Sep- tember.	Octo- ber.	Novem- ber.	Decem- ber.	
All industries.....	15,985	15,144	17,090	17,076	16,692	16,473	10,966	11,062	16,365	17,221	17,217	18,183	18,341	59.7
Males.....	13,626	13,904	16,058	15,995	15,524	15,225	9,712	8,567	12,912	13,716	13,604	14,057	14,173	53.4
Females.....	2,359	1,180	1,032	1,081	1,168	1,248	1,244	2,495	3,453	3,505	3,613	4,126	4,168	24.8
Bread and other bakery products.....	880	855	857	867	868	862	870	883	886	880	899	906	921	92.8
Clothing, men's.....	179	142	142	142	191	191	191	191	192	191	191	192	192	74.0
Coffee, cleaning and polishing.....	578	826	728	761	781	745	805	161	45	62	253	875	894	5.0
Food preparations, not elsewhere specified.....	129	128	130	132	127	128	129	133	130	127	132	132	130	91.7
Foundry and machine-shop products.....	271	289	240	228	244	238	235	248	256	302	348	294	330	65.5

## MANUFACTURES—PORTO RICO.

TABLE 7.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES AND CITIES: 1919—Continued.

(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.	
Printing and publishing, job.....	143	<i>136</i>	<b>138</b>	140	144	144	145	146	143	145	144	145	146	93.2
Printing and publishing, newspapers and periodicals.....	168	<i>152</i>	<b>151</b>	157	157	157	161	162	162	188	189	189	191	79.1
Sugar, cane.....	7,490	10,312	12,524	12,484	11,970	11,585	6,086	3,626	3,983	4,227	4,106	4,415	4,553	29.0
Tobacco, cigars, and cigarettes.....	5,098	<b>1,354</b>	1,203	<i>1,188</i>	1,191	1,242	1,259	4,437	9,548	10,053	9,872	9,958	9,871	11.8
All other industries.....	1,049	<i>960</i>	<b>977</b>	977	1,010	1,181	1,075	1,075	1,020	1,040	1,083	1,087	1,113	80.4
<i>Industries showing large proportion of females.</i>														
Clothing, men's.....	173	<i>136</i>	<b>150</b>	136	185	185	185	185	<b>186</b>	185	185	<b>186</b>	186	73.1
Coffee, cleaning and polishing.....	454	649	579	625	650	637	688	120	.....	.....	130	675	695	17.3
Food preparations, not elsewhere specified.....	74	72	73	75	75	75	76	76	76	74	74	66	76	86.8
Tobacco, cigars and cigarettes.....	1,515	202	<i>122</i>	124	126	132	134	1,957	3,069	<b>3,110</b>	3,077	3,058	3,069	3.9
Total for cities.....	6,263	3,926	4,105	4,095	3,990	4,141	2,931	5,026	8,907	9,487	9,375	9,575	9,598	30.5
Males.....	4,850	3,562	3,798	3,785	3,624	3,686	2,629	3,328	6,353	6,897	6,798	6,940	6,933	30.4
Females.....	1,413	364	307	310	366	455	405	1,698	2,554	2,620	2,577	2,635	2,665	11.5
ARECIBO.....	400	572	632	605	546	484	167	269	253	294	293	330	375	24.8
Males.....	400	572	632	605	546	484	167	269	253	294	293	330	375	24.8
Females.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BAYAMON.....	775	677	629	657	545	510	48	458	1,121	1,182	1,157	1,163	1,153	4.1
Males.....	595	663	625	653	541	506	43	287	736	786	770	762	768	5.5
Females.....	180	14	4	4	4	4	5	171	385	396	387	401	385	1.0
CAGUAS.....	157	202	204	204	204	205	203	112	112	112	112	108	112	40.8
Males.....	157	202	204	204	204	205	203	112	112	112	112	108	112	40.8
Females.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MAYAGUEZ.....	691	722	761	765	769	956	797	627	531	555	557	621	631	55.5
Males.....	623	665	703	707	711	818	709	538	477	501	503	567	577	58.3
Females.....	68	57	58	58	58	138	88	89	54	54	54	54	54	39.1
PONCE.....	1,544	817	1,065	1,057	1,045	1,076	802	1,196	2,177	2,323	2,266	2,363	2,341	33.9
Males.....	1,170	661	923	914	897	921	648	791	1,573	1,696	1,645	1,745	1,626	37.1
Females.....	374	156	142	143	148	155	154	405	604	627	621	618	715	19.9
SAN JUAN.....	2,696	936	814	807	881	910	924	2,374	4,713	5,021	4,990	4,996	4,986	16.1
Males.....	1,905	799	711	708	725	752	766	1,341	3,202	3,478	3,475	3,434	3,475	20.2
Females.....	791	137	103	105	156	158	158	1,033	1,511	1,543	1,515	1,562	1,511	6.6

TABLE 8.—AVERAGE NUMBER OF WAGE EARNERS, BY PREVAILING HOURS OF LABOR PER WEEK FOR SELECTED INDUSTRIES AND CITIES: 1919 AND 1909.

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	15,985	409	60	3,565	377	4,236	695	1,105	5,448
	1909	15,582	( <sup>2</sup> )	( <sup>2</sup> )	7,007	197	1,938	336	1,290	4,814
Bread and other bakery products.....	1919	880	54	.....	201	21	.....	444	.....	100
	1909	1,197	( <sup>2</sup> )	( <sup>2</sup> )	258	84	9	274	.....	572
Clothing, men's <sup>2</sup> .....	1919	179	37	.....	142	.....	.....	.....	.....	.....
Coffee, cleaning and polishing.....	1919	578	.....	.....	368	.....	.....	.....	180	30
	1909	120	( <sup>2</sup> )	( <sup>2</sup> )	12	.....	19	7	34	48
Food preparations, not elsewhere specified.....	1919	129	.....	.....	121	.....	.....	8	.....	.....
	1909	122	( <sup>2</sup> )	( <sup>2</sup> )	91	.....	.....	.....	31	.....
Foundry and machine-shop products.....	1919	271	.....	.....	170	.....	101	.....	.....	.....
	1909	188	.....	.....	.....	.....	169	.....	19	.....
Printing and publishing, job <sup>2</sup> .....	1919	143	.....	.....	143	.....	.....	.....	.....	.....
Printing and publishing, newspapers and periodicals <sup>2</sup> .....	1919	168	2	4	148	.....	.....	14	.....	.....
Sugar, cane.....	1919	7,490	15	.....	793	334	.....	174	1,000	5,174
	1909	5,062	( <sup>2</sup> )	( <sup>2</sup> )	213	9	198	27	604	4,011
Tobacco, cigars and cigarettes.....	1919	5,098	69	47	961	8	4,009	.....	2	2
	1909	7,025	( <sup>2</sup> )	( <sup>2</sup> )	5,630	58	1,221	15	82	19
All other industries.....	1919	1,049	232	9	518	14	126	55	13	82
	1909	1,868	( <sup>2</sup> )	( <sup>2</sup> )	803	46	322	13	520	104
Total for cities.....	1919	6,263	51	55	1,323	320	3,276	335	188	715
ARECIBO.....	1919	400	5	.....	33	.....	.....	38	.....	324
BAYAMON.....	1919	775	11	.....	11	.....	517	17	.....	230
CAGUAS.....	1919	157	.....	.....	5	4	1	3	115	29
MAYAGUEZ.....	1919	691	9	9	431	.....	23	121	73	25
PONCE.....	1919	1,544	.....	.....	225	816	777	133	.....	92
SAN JUAN.....	1919	2,696	37	46	617	.....	1,958	28	.....	15

<sup>2</sup>Includes 48 and under for 1909.<sup>2</sup>Corresponding figures for 1909 not available.

TABLE 9.—SIZE OF ESTABLISHMENTS, BY AVERAGE NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES AND CITIES: 1919.

INDUSTRY AND CITY.	TOTAL.		ESTABLISHMENTS EMPLOYING—																
	Establishments.	Wage earners (average number).	No wage earners.	1 to 5 wage earners, inclusive.		6 to 20 wage earners, inclusive.		21 to 50 wage earners, inclusive.		51 to 100 wage earners, inclusive.		101 to 250 wage earners, inclusive.		251 to 500 wage earners, inclusive.		501 to 1,000 wage earners, inclusive.		Over 1,000 wage earners.	
				Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
All industries.....	619	15,985	22	372	992	143	1,503	29	986	19	1,389	22	3,479	6	1,944	5	3,861	1	1,831
Bread and other bakery products.....	152	880	1	97	309	51	446	2	55	1	70								
Clothing, men's.....	5	179		1	2			3	104	1	73								
Coffee, cleaning and polishing.....	31	578	1	16	38	7	86	2	75	5	379								
Food preparations, not elsewhere specified.....	6	129	1	1	3	1	8	2	59	1	59								
Foundry and machine-shop products.....	5	271		1	2			2	64	1	80	1	125						
Printing and publishing, job.....	11	143	3	5	14	2	26					1	103						
Printing and publishing, newspapers and periodicals.....	24	108	3	11	33	9	111	1	24										
Sugar, cane.....	55	7,490		8	8	7	105	4	133	10	728	18	2,861	6	1,944	2	1,711		
Tobacco, cigars and cigarettes.....	183	5,098	6	128	349	40	411	4	157			1	200			3	2,150	1	1,831
All other industries.....	147	1,049	7	104	234	26	310	9	315			1	190						
Total for cities.....	176	6,263	7	90	260	50	558	13	444	5	392	6	888	2	616	2	1,274	1	1,831
ARECIBO.....	18	400	1	9	29	7	71							1	300				
BAYAMON.....	10	775		8	28							1	229			1	518		
CAGUAS.....	11	157		6	17	4	25					1	115						
MAYAGUEZ.....	52	691	2	33	84	10	98	4	121	1	73	2	315						
PONCE.....	38	1,544		19	66	12	146	1	21	3	239			1	316	1	756		
SAN JUAN.....	47	2,696	3	15	36	17	218	8	302	1	80	2	229					1	1,831

TABLE 10.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS: 1919 AND 1909.

VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.		AVERAGE NUMBER OF WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
	1919	1909	1919	1909	1919	1909	1919	1909
	619	939	15,985	15,582	\$85,506,834	\$36,749,742	\$25,679,560	\$15,270,450
All classes.....	619	939	15,985	15,582	\$85,506,834	\$36,749,742	\$25,679,560	\$15,270,450
Less than \$5,000.....	226	574	493	1,824	562,048	1,104,697	384,923	577,073
\$5,000 to \$20,000.....	159	216	781	1,925	1,622,693	2,065,216	813,984	887,803
\$20,000 to \$100,000.....	150	77	1,819	2,748	7,327,465	3,839,985	2,342,555	1,724,835
\$100,000 to \$500,000.....	40	66	{ 1,840	{ 4,790	{ 10,253,489	{ 20,160,343	{ 2,159,163	{ 7,279,773
\$500,000 to \$1,000,000.....	21	6	{ 3,030	{ 4,300	{ 15,202,959	{ 9,579,501	{ 3,503,147	{ 4,800,966
\$1,000,000 and over.....	23	6	{ 8,217	{ 4,300	{ 50,538,180	{ 9,579,501	{ 16,475,788	{ 4,800,966
PER CENT DISTRIBUTION.								
All classes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than \$5,000.....	36.5	61.1	3.1	11.7	0.7	3.0	1.5	3.8
\$5,000 to \$20,000.....	25.7	23.0	4.9	12.4	1.9	5.6	3.2	5.8
\$20,000 to \$100,000.....	24.2	8.2	11.4	17.6	8.6	10.4	9.1	11.3
\$100,000 to \$500,000.....	6.5	7.0	{ 10.2	{ 30.7	{ 12.0	{ 54.9	{ 8.4	{ 47.7
\$500,000 to \$1,000,000.....	3.4	0.6	{ 19.0	{ 27.6	{ 17.8	{ 26.1	{ 13.6	{ 31.4
\$1,000,000 and over.....	3.7	0.6	51.4	27.6	59.1	.....	64.2	.....

TABLE 11.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS, FOR SELECTED INDUSTRIES: 1919 AND 1909.

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.		AVERAGE NUMBER OF WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
	1919	1909	1919	1909	1919	1909	1919	1909
BREAD AND OTHER BAKERY PRODUCTS.....	152	258	100.0	100.0	\$4,761,192	\$1,729,888	\$1,335,172	\$556,450
Less than \$5,000.....	11	131	7.2	50.8	34,615	350,174	15,711	111,184
\$5,000 to \$20,000.....	49	117	32.2	45.3	594,470	1,087,359	186,088	346,493
\$20,000 to \$100,000.....	89	10	58.6	3.9	3,596,906	292,353	1,000,712	98,773
\$100,000 to \$500,000.....	3	.....	2.0	.....	535,201	.....	132,661	.....
COFFEE, CLEANING AND POLISHING.....	31	37	100.0	100.0	11,443,636	5,052,599	508,794	288,339
Less than \$5,000.....	3	7	9.7	18.9	17,900	80,963	2,682	9,632
\$5,000 to \$20,000.....	4	13	12.9	35.1	275,000	767,539	20,157	55,723
\$20,000 to \$100,000.....	10	17	51.6	45.9	4,593,293	4,195,097	140,455	222,684
\$100,000 to \$500,000.....	5	.....	16.1	.....	3,420,843	.....	190,500	.....
\$500,000 to \$1,000,000.....	3	.....	9.7	.....	3,166,000	.....	155,000	.....
\$1,000,000 and over.....	.....	.....	.....	.....	.....	.....	.....	.....

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

## MANUFACTURES—PORTO RICO.

TABLE 11.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS, FOR SELECTED INDUSTRIES: 1919 AND 1909—Continued.

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.				AVERAGE NUMBER OF WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.			
	1919	1909	Percent distribution.		1919	1909	Percent distribution.		1919	1909	Percent distribution.		1919	1909	Percent distribution.	
			1919	1909			1919	1909			1919	1909			1919	1909
PRINTING AND PUBLISHING, NEWSPAPERS AND PERIODICALS.....	24	32	100.0	100.0	168	271	100.0	100.0	\$467,542	\$237,681	100.0	100.0	\$294,500	\$177,912	100.0	100.0
Less than \$5,000.....	7	20	29.2	62.5	16	29	9.5	10.7	21,613	39,894	4.6	16.8	10,544	35,104	5.6	19.7
\$5,000 to \$20,000.....	10	12	41.7	37.5	60	1242	35.7	89.3	94,677	197,787	20.2	83.2	68,170	142,808	23.1	80.3
\$20,000 to \$100,000.....	7		29.2		92		54.8		351,252		75.1		209,780		71.2	
SUGAR, CANE.....	55	108	100.0	100.0	7,490	5,062	100.0	100.0	56,411,932	20,569,348	100.0	100.0	16,360,196	8,295,793	100.0	100.0
Less than \$5,000.....		48		44.4		201		4.0		78,344		0.4		37,363		0.5
\$5,000 to \$20,000.....	8	12	14.5	11.1	9	120	0.1	2.4	29,114	115,558	0.1	0.6	10,692	44,946	0.1	0.5
\$20,000 to \$100,000.....	5	8	9.1	7.4	212	223	2.8	4.4	1,225,152	440,007	2.1	2.1	194,603	158,678	1.2	1.9
\$100,000 to \$500,000.....	10	37	18.2	34.3	430	3,122	5.7	61.7	2,710,330	13,651,857	4.8	66.4	743,034	5,390,587	4.5	65.1
\$500,000 to \$1,000,000.....	14		25.5		1,553		20.7		10,283,047		18.2		2,605,352		15.9	
\$1,000,000 and over.....	18	3	32.7	2.8	5,286	1,396	70.6	27.6	42,164,289	6,283,582	74.7	80.5	12,796,015	2,668,229	78.3	32.0
TOBACCO, CIGARS AND CIGARETTES.....	183	282	100.0	100.0	5,098	7,025	100.0	100.0	8,134,534	6,060,393	100.0	100.0	5,094,993	4,002,848	100.0	100.0
Less than \$5,000.....	130	231	71.0	81.9	343	850	6.7	12.1	306,571	370,544	3.8	6.1	226,459	251,526	4.4	6.3
\$5,000 to \$20,000.....	35	27	19.1	9.6	274	500	5.4	7.1	325,282	245,669	4.0	4.1	220,088	106,300	4.3	4.2
\$20,000 to \$100,000.....	12	14	6.6	5.0	281	1,312	5.5	18.7	388,561	855,957	4.8	14.1	227,879	616,045	4.5	15.4
\$100,000 to \$500,000.....	6	7	3.3	2.5	4,200	1,459	82.4	20.8	7,114,120	1,292,304	87.4	21.3	4,420,587	826,240	86.8	20.6
\$1,000,000 and over.....		3		1.1		2,004		41.3		3,295,919		54.4		2,142,737		53.5

<sup>1</sup> Includes the group "\$20,000 to \$100,000."<sup>2</sup> Includes the group "Less than \$5,000."<sup>3</sup> Includes the group "\$500,000 to \$1,000,000."<sup>4</sup> Includes the groups "\$500,000 to \$1,000,000" and "\$1,000,000 and over."

TABLE 12.—SIZE OF ESTABLISHMENTS, BY VALUE OF PRODUCTS, FOR CITIES OF 10,000 INHABITANTS OR MORE: 1919.

CITY AND VALUE OF PRODUCT.	Number of establishments.	WAGE EARNERS.		VALUE OF PRODUCTS.		VALUE ADDED BY MANUFACTURE.	
		Average number.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.
ARECIBO.....	18	400	100.0	\$2,300,062	100.0	\$589,606	100.0
Less than \$5,000.....	4	7	1.8	7,466	0.3	5,598	0.9
\$5,000 to \$20,000.....	5	19	4.8	51,288	2.2	18,430	3.1
\$20,000 to \$100,000.....	5	40	10.0	158,870	6.9	37,235	6.3
\$100,000 and over.....	4	334	83.5	2,082,448	90.5	528,334	89.6
BAYAMON.....	10	775	100.0	1,851,023	100.0	550,798	100.0
Less than \$20,000.....	3	11	1.4	25,404	1.4	10,014	2.0
\$20,000 and over.....	7	764	98.6	1,825,629	98.6	539,884	98.0
CAGUAS.....	11	157	100.0	1,186,223	100.0	356,880	100.0
Less than \$5,000.....	3	10	6.4	8,618	0.7	5,232	1.5
\$5,000 to \$20,000.....	3	8	5.1	25,079	2.1	12,701	3.6
\$20,000 and over.....	5	139	88.5	1,152,526	97.2	338,947	95.0
MAYAGUEZ.....	52	691	100.0	3,396,698	100.0	921,304	100.0
Less than \$5,000.....	19	45	6.5	55,247	1.6	41,426	4.5
\$5,000 to \$20,000.....	13	50	7.2	128,748	3.8	60,514	7.2
\$20,000 to \$100,000.....	13	148	21.4	450,035	13.3	200,040	22.4
\$100,000 to \$500,000.....	4	256	37.0	840,681	24.7	242,950	26.4
\$500,000 to \$1,000,000.....	3	192	27.8	1,921,337	56.6	303,855	30.5
PONCE.....	38	1,544	100.0	4,605,714	100.0	1,522,273	100.0
Less than \$5,000.....	12	32	2.1	38,595	0.8	24,912	1.6
\$5,000 to \$20,000.....	11	79	5.1	104,345	2.3	61,282	4.0
\$20,000 to \$100,000.....	10	122	7.9	479,996	10.4	158,286	10.4
\$100,000 and over.....	5	1,311	84.9	3,982,778	86.5	1,277,793	83.9
SAN JUAN.....	47	2,696	100.0	9,712,723	100.0	4,210,905	100.0
Less than \$5,000.....	9	16	0.6	24,844	0.4	17,651	0.4
\$5,000 to \$20,000.....	12	110	4.1	123,377	1.8	81,276	1.9
\$20,000 to \$100,000.....	19	362	13.4	1,035,766	15.4	401,376	11.7
\$100,000 and over.....	7	2,208	81.9	5,528,736	52.4	3,620,602	86.0

## MANUFACTURES—PORTO RICO.

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TABLE 13.—CHARACTER OF OWNERSHIP, FOR SELECTED INDUSTRIES AND CITIES: 1919 AND 1909.

INDUSTRY AND CITY.	Cen- sus year.	NUMBER OF ESTABLISHMENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.						
		Indi- vid- uals.	Cor- pora- tions.	All oth- ers.	Total.	In establishments owned by—			Per cent of total.			Total.	Of establishments owned by—			Per cent of total.				
						Indi- vid- uals.	Cor- pora- tions.	All oth- ers.	Indi- vid- uals.	Cor- pora- tions.	All oth- ers.		Indi- vid- uals.	Corpora- tions.	All others.	Indi- vid- uals.	Corpora- tions.	All oth- ers.		
All industries.....	1919	431	80	108	15,985	2,816	10,713	2,456	17.6	67.0	15.4	<i>Dollars.</i> 85,506,834	<i>Dollars.</i> 10,449,452	<i>Dollars.</i> 55,094,026	<i>Dollars.</i> 19,963,356	12.2	64.4	23.3		
	1909	672	63	204	15,582	3,652	8,608	3,322	23.4	55.2	21.3	86,749,742	4,781,300	18,977,267	12,491,175	13.0	61.6	35.4		
Bread and other bakery products.	1919	124	1	27	880	673	.....	<sup>1</sup> 207	76.5	.....	23.5	4,761,192	3,371,622	.....	<sup>1</sup> 1,389,570	70.8	.....	29.2		
	1909	217	<sup>2</sup> 5	36	1,197	973	<sup>4</sup> 45	179	81.3	3.8	15.0	1,729,886	1,390,367	<sup>2</sup> 61,073	278,446	80.4	3.5	16.1		
Coffee, cleaning and polishing.	1919	6	.....	25	578	91	.....	487	15.7	.....	84.3	11,443,636	1,675,800	.....	9,767,836	14.6	.....	85.4		
	1909	7	.....	30	120	13	.....	107	10.8	.....	89.2	5,052,599	582,585	.....	4,470,014	11.5	.....	88.5		
Printing and publishing, newspapers and periodicals.	1919	12	10	2	168	55	<sup>3</sup> 113	.....	32.7	67.3	.....	467,542	69,442	<sup>3</sup> 398,100	.....	14.9	85.1	.....		
	1909	20	1	11	271	111	.....	<sup>1</sup> 160	41.0	.....	59.0	237,681	112,625	.....	125,056	47.4	.....	52.6		
Sugar, cane.....	1919	12	33	10	7,490	644	5,779	1,067	8.6	77.2	14.2	56,411,932	3,333,521	45,925,205	7,153,206	5.9	81.4	12.7		
	1909	51	23	34	5,062	546	3,067	1,449	10.8	60.6	28.6	20,569,348	1,328,800	13,129,453	6,111,086	6.5	63.8	29.7		
Tobacco, cigars and cigarettes.	1919	169	6	8	5,098	809	4,042	247	15.9	79.3	4.8	8,134,534	861,331	6,894,934	378,269	10.6	84.8	4.6		
	1909	240	14	28	7,025	1,386	4,764	875	19.7	67.8	12.5	6,060,393	728,839	4,793,641	537,913	12.0	79.1	8.9		
Total for cities.....	1919	112	28	36	6,268	1,269	2,709	2,285	20.3	43.2	36.5	20,052,443	5,022,039	7,595,304	7,435,100	25.0	37.9	37.1		
ARECIBO.....	1919	11	3	4	400	61	320	19	15.2	80.0	4.8	2,300,062	204,901	1,609,958	485,203	8.9	70.0	21.1		
BAYAMON.....	1919	5	2	3	775	18	.....	<sup>1</sup> 757	2.3	.....	97.7	1,851,023	119,445	.....	<sup>1</sup> 1,731,578	6.5	.....	93.5		
CAGUAS.....	1919	10	1	.....	157	<sup>1</sup> 157	.....	.....	100.0	.....	.....	1,186,223	<sup>1</sup> 1,186,223	.....	.....	100.0	.....	.....		
MAYAGUEZ.....	1919	37	6	9	691	255	170	266	36.9	24.6	38.5	3,396,698	1,286,487	745,765	1,364,446	37.8	22.0	40.2		
PONCE.....	1919	29	1	8	1,644	579	.....	<sup>1</sup> 965	37.5	.....	62.5	4,605,714	1,870,187	.....	2,735,527	40.6	.....	59.4		
SAN JUAN.....	1919	20	15	12	2,696	199	2,219	278	7.4	82.3	10.3	6,712,723	354,796	5,239,581	1,118,346	5.3	78.0	16.7		

<sup>1</sup> Includes the group "Corporations."<sup>2</sup> Included the group "Other" in 1909.<sup>3</sup> Includes the group "All others."

TABLE 14.—MANUFACTURES, BY POPULATION GROUPS, IN CITIES OF 10,000 INHABITANTS OR MORE: 1919 AND 1909.

	Cen- sus year.	Aggregate.	CITIES HAVING A POPULATION OF 10,000 OR OVER.						THE TERRITORY OUT- SIDE OF CITIES HAV- ING A POPULATION OF 10,000 OR OVER.		
			Total.		10,000 to 25,000.		25,000 to 100,000.		Number or amount.	Per cent of aggre- gate.	
			Number or amount.	Per cent of aggre- gate.	Number or amount.	Per cent of aggre- gate.	Number or amount.	Per cent of aggre- gate.			
Number of places.....	1919 1909		6 4		4 2		2 2				
Population <sup>1</sup> .....	1920 1910	1,297,772 1,118,012	163,941 110,660	12.6 9.9	51,673 26,917	4.0 2.4	112,268 83,743	8.6 7.5	1,133,831 1,007,352	87.4 90.1	
Number of establishments.....	1919 1909	619 939	176 178	28.4 19.0	91 71	14.7 7.6	85 107	13.7 11.4	443 761	71.6 81.0	
Average number of wage earners.....	1919 1909	15,985 15,582	6,263 4,272	39.2 27.4	2,023 551	12.7 3.5	4,240 3,721	26.5 23.9	9,722 11,310	60.8 72.6	
Value of products.....	1919 1909	\$85,506,834 36,749,742	\$20,052,443 8,022,273	23.5 21.8	\$8,734,006 2,379,558	10.2 6.5	\$11,318,437 5,642,715	13.2 15.4	\$65,454,391 28,727,469	76.5 78.2	
Value added by manufacture.....	1919 1909	25,679,560 15,270,450	8,151,856 3,418,479	31.7 22.4	2,418,678 582,487	9.4 3.8	5,733,178 2,835,992	22.3 18.6	17,527,704 11,851,971	68.3 77.6	

<sup>1</sup> Population of 1920, as of Jan. 1, 1920; 1910, as of Apr. 15, 1910.

TABLE 15.—NUMBER AND HORSEPOWER OF TYPES OF PRIME MOVERS: 1919 AND 1909.

POWER.	NUMBER OF ENGINES OR MOTORS.		HORSEPOWER.			
	1919	1909	Amount.		Per cent distribution.	
			1919	1909	1919	1909
Primary power, total.....	1,257	662	67,226	34,005	100.0	100.0
Owned.....	856	577	65,105	33,564	96.8	98.7
Steam <sup>1</sup> .....	695	506	63,911	32,527	95.1	95.7
Engines.....	685	( <sup>2</sup> )	61,612	( <sup>2</sup> )	91.6	
Turbines.....	10	( <sup>2</sup> )	2,299	( <sup>2</sup> )	3.4	
Internal-combustion engines.....	159	53	1,172	842	1.7	2.5
Water.....	2	18	22	195	( <sup>3</sup> )	0.5
Water wheels and turbines.....	2	17	22	183	( <sup>3</sup> )	0.5
Water motors.....		1		12	( <sup>3</sup> )	( <sup>3</sup> )
Rented—Electric.....	401	85	2,121	441	3.2	1.3
Electric.....	637	115	8,137	1,385	100.0	100.0
Rented.....	401	85	2,121	441	26.1	31.8
Generated by establishments reported.....	236	30	6,016	944	73.9	68.2

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

TABLE 16.—FUEL CONSUMED, FOR SELECTED INDUSTRIES AND CITIES: 1919.

INDUSTRY AND CITY.	COAL.		Coke (tons, 2,000 pounds).	Fuel oils (barrels).	Gasoline and other volatile oils (barrels).	Gas (1,000 cubic feet).
	Anthracite (tons, 2,240 pounds).	Bituminous (tons, 2,000 pounds).				
All industries.....1919.....	2,100	16,808	2,296	98,134	3,265	27,602
.....1909.....	946	41,988	368	1,036	( <sup>1</sup> )	
Per cent of increase <sup>2</sup> .....	122.0	-60.0	523.9			
Bread and other bakery products.....	150		32	174	1,036	
Cars and general shop construction and repairs by steam railroad companies.....			12	1,184	440	708
Coffee, cleaning and polishing.....		890		810	2	
Foundry and machine-shop products.....	50	170	716	108	72	25,000
Ice, manufactured.....		190		11,680	1	
Lime.....	515					
Liquors, distilled.....				3,487		
Liquors, malt.....				6,552		
Sugar, cane.....	1,381	15,515	875	72,628	1,488	
Tobacco, cigars and cigarettes.....			50	1,015		
All other industries.....	4	48	611	96	226	1,894
Total for cities.....	675	3,660	846	30,898	341	26,894
ARECIBO.....		1,190	5	3,525		
BAYAMON.....		800	6	249	50	
CAGUAS.....		400		2,000	24	
MAYAGUEZ.....	150		202	2,382	232	
PONCE.....	475	1,110	110	6,640	20	
SAN JUAN.....	50	160	523	16,093	15	20,894

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

## SPECIAL STATISTICS.

For a number of important industries the Census Bureau collects, by means of special schedules, certain details which do not appear in the general schedule.

**Sugar and molasses.**—In 1919 there were reported 686,037,703 pounds of raw sugar, 122,668,473 pounds of clarified sugar, 10,342,600 pounds of brown sugar, and 18,783,172 gallons of molasses, as compared with 566,445,203 pounds of raw sugar and 17,874,097 gallons of molasses in 1909. The total value of all kinds of sugar was \$55,607,202, of molasses \$637,799, and of all other products \$166,931, or an aggregate value of products of \$56,411,932 in 1919, as compared with \$20,164,887 for raw sugar, \$397,008 for molasses, and \$7,453 for all other products in 1909. As already stated, sugar is the leading manufacturing industry of the island. The modern methods and machinery installed in recent years have increased the production of sugar, but the quantity of molasses produced has remained about stationary. In 1909 there were no refineries in Porto Rico, and all the sugar used and exported was raw brown sugar.

**Tobacco manufactures.**—The quantity of cigarettes and the value of cigars and cigarettes can not be published separately without disclosing the operations of individual establishments, but a total of 171,184,749 cigars was reported as manufactured during 1919, as compared with 217,792,000 manufactured during

1909. The total value of all tobacco products for 1919 was \$8,134,534, as compared with \$6,060,393 for 1909. While the tobacco plant is indigenous to the island, its cultivation was, prior to 1870, confined to small plantings for domestic consumption.

**Coffee, cleaning and polishing.**—The coffee tree is not native to the island, but was introduced there in the first half of the eighteenth century. Practically all of the coffee raised goes through a complete or partial process of cleaning, hulling, polishing, and grading to prepare it for the market. The total quantity of cleaned and polished coffee reported in 1919 was 50,252,820 pounds, as compared with 44,350,435 pounds in 1909. All but 3 of the 31 coffee mills reported the process of polishing the coffee. The modern wet process is superseding the older dry method, but requires a larger investment than the small planters can afford. The result is that the business of preparing the coffee for market is being transferred from the plantation to the large custom mills. The total value of products for 1919 was \$11,443,636, as compared with \$5,052,599 for 1909.

The following statement shows the number of coffee cleaning and polishing establishments engaged in merchant and in custom work, together with the value of products of the several classes of establishments in 1919 and 1909:

	1919	1909
Total number of mills.....	31	37
Merchant.....	18	23
Custom.....	13	7
Merchant and custom.....		4
Total value of products.....	\$11,443,836	\$5,052,599
Merchant milled.....	7,775,631	2,899,491
Custom milled.....	3,668,005	2,153,108

**Laundries.**—Statistics for power laundries are not included in the general tables nor in the totals for manufacturing industries. Table 17, however, summarizes the statistics for such laundries in the territory for 1919.

TABLE 17.—POWER LAUNDRIES: 1919.

	Number or amount.
Number of establishments.....	3
Persons engaged.....	68
Proprietors and firm members.....	2
Salaried employees.....	6
Wage earners (average number).....	60
Primary horsepower.....	68
Capital.....	\$61,536
Salaries and wages.....	24,880
Salaries.....	4,052
Wages.....	20,828
Paid for contract work.....	785
Rent and taxes.....	4,828
Cost of materials.....	13,150
Amount received for work done.....	75,469

## GENERAL TABLES.

Table 18 gives the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products for all industries combined and for selected industries in the territory, 1919 and 1909. Certain kindred

industries are combined in some instances for comparison with 1909. Table 19 presents, for 1919, statistics in detail for the territory as a whole and for each industry that can be shown without the disclosure of individual operations.

TABLE 18.—COMPARATIVE SUMMARY FOR SELECTED INDUSTRIES AND CITIES: 1919 AND 1909.

INDUSTRY.	Cen- sus year.	Num- ber of estab- lish- ments.	Wage earn- ers (aver- age num- ber).	Pri- mary horse- power.	Wages.	Cost of mate- rials.	Value of prod- ucts.	INDUSTRY.	Cen- sus year.	Num- ber of estab- lish- ments.	Wage earn- ers (aver- age num- ber).	Pri- mary horse- power.	Wages.	Cost of mate- rials.	Value of prod- ucts.
					Expressed in thousands.								Expressed in thousands.		
All industries.....	1919 1909	619 939	15,985 15,582	67,226 34,005	\$6,766 3,639	\$59,827 21,479	\$85,507 36,750	Lime.....	1919 1909	19 12	62 28	..... .....	\$19 3	\$21 8	\$58 14
Bay rum.....	1919 1909	6 6	17 6	3 .....	7 1	110 9	172 16	Printing and publishing.....	1919 1909	35 43	311 353	144 89	187 98	224 136	672 371
Boot and shoe shops.....	1919 1909	27 59	96 303	2 3	44 55	120 98	241 190	Sugar, cane.....	1919 1909	55 108	7,490 5,062	62,150 31,055	2,832 1,228	40,062 12,274	56,412 20,569
Bread and other bakery pro- ducts.	1919 1909	152 258	880 1,197	630 45	514 366	3,426 1,173	4,761 1,730	Tobacco, cigars and cigarettes..	1919 1909	183 282	5,068 7,025	55 150	2,267 1,480	3,040 2,058	8,135 6,060
Brick and tile.....	1919 1909	4 25	16 66	..... .....	5 12	3 7	15 31	All other industries.....	1919 1909	72 81	1,052 1,138	1,253 1,047	423 277	1,325 837	2,462 2,383
Carriages and wagons, includ- ing repairs.	1919 1909	7 11	17 54	..... 25	7 12	4 19	21 43	CITY.							
Coffee, cleaning and polishing...	1919 1909	31 37	578 120	1,575 1,085	227 32	10,935 4,764	11,444 5,053	SAN JUAN.....	1919 1909	47 70	2,696 2,750	954 748	1,398 673	2,502 1,209	6,713 3,243
Flour-mill and gristmill pro- ducts.	1919 1909	10 5	11 4	155 30	5 1	83 9	118 12	ARECIBO.....	1919	18	400	3,287	136	1,711	2,300
Foundry and machine-shop products.	1919 1909	5 6	271 188	303 239	193 64	388 58	749 178	BAYAMON.....	1919	10	775	1,634	304	1,300	1,851
Ice, manufactured.....	1919 1909	13 6	86 38	956 237	36 10	86 29	249 100	CAGUAS.....	1919 1909	11 15	157 72	1,075 30	92 16	829 47	1,186 124
								MAYAGUEZ.....	1919 1909	52 56	691 479	2,502 484	325 119	2,475 1,760	3,397 2,258
								PONCE.....	1919 1909	38 37	1,544 971	3,312 2,886	649 252	3,083 1,693	4,606 2,400

TABLE 19.—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.	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 TERRITORY—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

																Dollars.
1	All industries.....	619	18,454	787	701	820	71	15,985	De 18,341	Je 10,956	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	84,151,310
2	Bay rum.....	6	27	6	3	1	.....	17	Se 19	Ja 15	18	17	1	.....	.....	40,030
3	Boot and shoe shops.....	27	132	32	2	2	.....	96	De 100	Jy 93	90	98	1	.....	.....	50,498
4	Bread and other bakery products.....	152	1,236	191	48	116	1	880	De 921	Ja 855	919	913	1	5	.....	748,617
5	Brick and tile.....	4	28	7	.....	.....	.....	16	Oc 20	Ja 13	21	21	.....	.....	.....	11,181
6	Carriages and wagons, including repairs.....	7	26	9	.....	.....	.....	17	Fe 18	Jy 16	17	17	.....	.....	.....	11,775
7	Clothing, men's.....	5	198	8	3	6	2	179	An 192	Ja 142	192	6	176	.....	10	159,977
8	Coffee, cleaning and polishing.....	31	701	98	6	19	.....	578	De 894	Au 45	893	198	698	.....	.....	711,172
9	Flour-mill and gristmill products.....	10	29	15	.....	3	.....	11	Je 13	Jy 9	16	16	.....	.....	.....	10,006
10	Food preparations, not elsewhere specified.....	6	142	6	5	2	.....	129	Jy 133	No 122	130	54	79	.....	.....	209,279
11	Foundry and machine-shop products.....	5	304	12	1	19	1	271	Oc 348	Mh 228	329	329	.....	.....	.....	941,781
12	Ice, manufactured.....	13	123	16	11	10	1	86	( <sup>b</sup> ) 86	( <sup>b</sup> ) 86	86	80	.....	6	.....	338,850
13	Lime.....	19	79	15	2	.....	.....	62	De 84	Mh 50	112	112	.....	.....	.....	26,350
14	Marble and stone work.....	4	11	5	1	.....	.....	5	Oc 11	Ap 4	11	11	.....	.....	.....	6,083
15	Mattresses and spring beds.....	3	23	4	5	1	.....	18	No 26	Ap 14	21	21	.....	.....	.....	54,382
16	Mineral and soda waters.....	11	101	32	7	6	.....	56	Oc 98	Ja 30	58	47	9	2	.....	124,856
17	Oil, essential.....	3	9	7	.....	.....	.....	2	De 4	Ja 1	5	5	.....	.....	.....	4,800
18	Patent medicines and compounds.....	4	16	6	3	3	1	3	Se 6	Ja 2	4	4	.....	.....	.....	7,033
19	Printing and publishing, book and job: Job printing.....	11	183	18	5	14	3	143	Jy 146	Ja 136	147	138	9	.....	.....	206,020
20	Printing and publishing, newspapers and periodicals.....	24	270	15	36	32	19	168	.....	.....	192	185	0	1	.....	347,261
21	Printing, publishing, and job printing.....	21	259	14	29	30	18	168	De 191	Fe 151	192	185	6	1	.....	336,911
22	Publishing without printing.....	3	11	1	7	2	1	.....	.....	.....	.....	.....	.....	.....	.....	10,350
23	Sugar, cane.....	55	8,466	64	422	464	26	7,490	Fe 12,524	Jy 3,626	11,824	11,682	27	113	2	60,328,767
24	Tobacco, cigars and cigarettes.....	183	5,583	189	196	88	12	5,098	Se 10,053	Mh 1,188	9,874	6,792	3,077	5	.....	12,488,188
25	Trunks and valises.....	4	52	4	1	1	2	44	Je 40	Ja 42	45	82	13	.....	.....	43,671
26	All other industries*.....	32	715	29	34	33	3	616	.....	.....	.....	.....	.....	.....	.....	1,175,745

\*All other industries embrace—  
Canning and preserving, fruits..... 2  
Cars and general shop construction and repairs by electric-railroad companies..... 1

Cars and general shop construction and repairs by steam-railroad companies..... 2  
Chocolate and cocoa products..... 3  
Clothing, women's..... 1

Copper, tin, and sheet-iron work..... 2  
Fertilizers..... 1  
Furniture..... 2  
Hand stamps..... 1

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

1	SAN JUAN—All industries.....	47	3,039	51	133	129	30	2,096	Se 5,021	Mh 807	4,974	3,454	1,517	3	.....	7,696,276
2	Bread and other bakery products.....	3	42	6	3	16	.....	17	No 22	Ja 16	23	23	.....	.....	.....	21,100
3	Printing and publishing, book and job: Job printing.....	4	158	5	4	14	3	132	Jy 135	Ja 125	136	128	8	.....	.....	287,755
4	Printing and publishing, newspapers and periodicals.....	12	190	5	30	29	17	109	.....	.....	117	110	0	1	.....	293,722
5	Printing, publishing, and job printing.....	9	179	4	23	27	16	109	No 117	Fe 101	117	110	0	1	.....	283,372
6	Publishing without printing.....	3	11	1	7	2	1	.....	.....	.....	.....	.....	.....	.....	.....	10,350
7	Tobacco, cigars and cigarettes.....	11	2,059	8	83	38	5	1,925	Se 4,200	Ap 124	4,109	2,733	1,376	.....	.....	5,670,094
8	All other industries*.....	17	590	27	13	32	5	513	.....	.....	589	400	127	2	.....	1,423,605

\*All other industries embrace—  
Boot and shoe shops..... 1

Cars and general shop construction and repairs by electric-railroad companies..... 1

Clothing, men's..... 3  
Coffee, cleaning and polishing..... 2

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

1	ARECIBO.....	18	469	37	18	13	1	400	Fe 632	Je 157	571	571	.....	.....	.....	4,031,206
2	BAYAMON.....	10	859	11	35	35	3	775	Se 1,182	Je 48	1,618	1,233	385	.....	.....	2,575,362
3	CAGUAS.....	11	181	11	8	4	1	157	My 205	No 102	203	201	.....	.....	.....	1,202,476
4	MAYAGUEZ.....	52	813	60	34	26	2	691	My 956	Au 531	811	677	134	.....	.....	1,580,570
5	PONCE.....	38	1,739	47	103	41	4	1,544	No 2,363	Je 802	2,609	1,973	720	0	.....	9,152,074

<sup>1</sup>Includes water wheels and turbines (irrespective of ownership of water supply).

<sup>2</sup>Chiefly electric motors operated by rented (or purchased) current; other power included (chiefly shaft-belt or transmitted power from neighboring power plants).

# MANUFACTURES—PORTO RICO.

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COMBINED AND FOR SPECIFIED INDUSTRIES: 1919.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.						
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.						
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, Federal, insular, and local.	Principal materials.	Fuel and rent of power.			Total.	Owned.			Rent- ed. <sup>2</sup>	Elec- tric horse- power gen- erated in estab- lish- ments report- ing.	
											Steam engines (not tur- bines).	Steam tur- bines.	Inter- nal- com- bus- tion en- gines.			Water pow- er. <sup>1</sup>

## THE TERRITORY—ALL INDUSTRIES COMBINED AND SPECIFIED INDUSTRIES.

Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.								
1,553,119	785,742	6,765,604	157,784	405,024	1,789,716	53,720,395	1,106,879	85,506,834	25,679,560	67,226	61,612	2,299	1,172	22	2,121	6,016	1
3,525	75	6,583	167	795	8,553	108,930	1,064	172,375	62,381	3					3		2
2,136	1,164	43,944		2,696	616	119,523	480	240,789	120,786	2					2		3
53,214	71,942	514,140	30	47,379	10,632	3,249,766	176,254	4,761,192	1,335,172	630			367		263		4
		4,921			160	2,546	570	15,308	12,192								5
		6,848		72	82	3,905	577	21,210	16,728								6
4,420	7,560	55,234	7,500	3,600	4,296	148,564	1,405	262,456	112,487	15					15		7
5,676	16,156	227,125		884	7,439	10,884,990	49,852	11,443,636	508,794	1,575	1,270		3	22	280		8
	1,900	5,085	1,550	180	312	78,593	4,415	115,916	32,908	155			53		102		9
8,472	1,788	29,578	280		2,372	188,540	7,731	296,015	102,744	76	39		10		27		10
3,000	26,006	192,610		3,720	19,363	352,456	35,621	749,268	361,191	303					272		11
17,461	15,321	35,882	500	240	4,351	33,289	52,323	248,889	163,277	956	775		31		130		12
300	416	19,074		900	231	10,014	11,145	58,014	36,855								13
	244	1,850		1,560	61	2,126		14,755	12,629								14
3,959	360	4,507		360	235	19,970	1,135	38,755	17,650	30							15
7,767	4,063	20,739	554	2,464	830	46,227	2,866	134,402	85,309	43			22		8		16
		987			103	4,508	1,438	12,900	6,954	2			25		18		17
2,433	410	750		1,096	305	6,318		20,806	14,488								18
12,060	7,744	70,071		14,068	4,943	45,931	4,645	204,045	153,669	37					37		19
43,579	33,135	117,029	37,120	14,673	4,242	167,258	5,784	467,542	294,600	107			8		99		20
33,179	31,155	117,029		13,833	4,242	167,258	5,784	427,642	254,600	107			8		99		21
10,400	1,980		37,120	840				39,900	39,900								22
1,112,944	477,663	2,832,022	77,623	254,641	1,309,384	39,362,735	698,998	56,411,932	16,350,198	62,150	53,917	2,299	477		457	5,947	23
216,210	86,134	2,267,204		41,391	342,205	3,033,820	5,721	8,134,534	5,094,993	55					55		24
1,200	744	23,611		2,600	477	65,695	180	85,806	19,631	9					9		25
54,703	32,857	285,810	32,460	11,705	68,524	787,688	44,775	1,596,289	793,826	1,078	609		125		344	69	26
Knit goods.....																	1
Leather, tanned, curried, and finished.....																	2
Liquors, distilled.....																	1
Liquors, malt.....																	1
Lumber, planing-mill products, not including planing mills connected with sawmills.....																	2
Millinery and lace goods.....																	2
Perfumery and cosmetics.....																	1
Pickles, preserves, and sauces.....																	1
Pottery.....																	2
Salt.....																	2
Sand-lime brick.....																	1
Tobacco, plug or chewing.....																	1

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

179,150	136,233	1,397,631	50,580	57,820	162,510	2,409,718	92,100	6,712,723	4,210,905	954	265				689	69	1
4,200	7,180	15,000		3,620	471	82,902	6,028	135,937	47,007	6					6		2
11,700	7,744	66,717		13,264	4,848	40,591	4,520	181,505	136,394	35					35		3
39,755	31,678	84,447	37,120	11,473	3,864	147,067	5,204	377,924	225,653	85					85		4
29,355	29,698	84,447		10,633	3,864	147,067	5,204	338,024	185,753	85					85		5
10,400	1,980		37,120	840				39,900	39,900								6
96,930	30,629	922,896		14,899	74,014	1,291,545	2,828	4,414,622	3,120,249	29					29		7
26,565	53,002	308,571	13,460	14,564	79,313	847,013	73,520	1,602,735	681,602	799	265				534	69	8
Copper, tin, and sheet-iron work.....																	1
Foundry and machine-shop products.....																	1
Ice, manufactured.....																	2
Liquors, malt.....																	1
Lumber, planing-mill products, not including planing mills connected with sawmills.....																	1
Mattresses and spring beds.....																	1
Mineral and soda waters.....																	1
Trunks and valises.....																	2

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

38,814	12,403	135,579		2,680	39,687	1,658,705	52,751	2,300,062	589,606	3,287	3,225		42		20	250	1
45,879	33,196	304,167	1,040	6,412	35,968	1,291,911	8,314	1,851,023	550,798	1,634	1,200	400			34	218	2
17,120	6,100	92,014	554	2,640	16,703	800,633	28,710	1,186,223	356,880	1,075	1,000				75	268	3
52,142	21,429	325,208	319	12,162	29,051	2,435,024	40,280	3,396,698	921,394	2,502	2,358		125		19	5	4
149,955	39,472	649,015	79,463	17,316	91,014	3,024,480	58,961	4,605,714	1,522,273	3,312	2,975		30		307	73	5

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

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

\* Same number reported throughout the year.

## MINES AND QUARRIES.

The gross value of products of all quarries (there being no mines reported as such) in Porto Rico in 1919 amounted to \$158,157. It is of interest to note that

while the number of quarries decreased 7.1 per cent during the decennial period, capital increased 143.2 per cent and value of products 2,797.2 per cent.

TABLE 20.—MINES AND QUARRIES—COMPARATIVE SUMMARY OF PRINCIPAL STATISTICS FOR PORTO RICO: 1919 AND 1909.

	1919	1909		1919	1909
Number of operators.....	13	14	Expenses (selected items):		
Number of quarries.....	13	14	Salaries.....	\$9,583	
Number of persons employed:			Wages.....	56,279	\$3,851
Salaried employees.....	26		Materials and supplies.....	10,653	390
Wage earners (average number).....	183	158	Fuel and power purchased.....	5,557	
Primary power.....	35	25	Rent and royalties.....	8,789	257
Capital.....	\$84,173	\$34,605	Taxes.....	1,343	(*)
			Value of products.....	158,157	5,450

\* Number employed Dec. 15, 1909.

\* Not available.