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REPORT

ON

MANUFACTURING INDUSTRIES

IN

THE UNITED STATES

AT THE

ELEVENTH CENSUS: 1890.

PART II.

STATISTICS OF CITIES.



-WASHINGTON, D. C.:
GOVERNMENT PRINTING OFFICE.
1895.

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
WASHINGTON, D. C., October 31, 1894.

SIR:

I have the honor to transmit herewith the Report on Manufactures, Part II, consisting of statistics for 165 principal cities. The preparation of the schedules of inquiry and the collection of the data were conducted under the immediate supervision of Mr. Frank B. Williams, late expert special agent, and Mr. George S. Boudinot, late chief of the division of manufactures. The tabulation of the data and the preparation of the text and tables were conducted by Mr. William M. Steuart, chief of division.

I am, very respectfully, your obedient servant,

CARROLL D. WRIGHT,
Commissioner of Labor in charge.

Hon. HOKE SMITH,
Secretary of the Interior.

INTRODUCTION.

The statistics of the manufacturing and mechanical industries for the 165 cities in the United States having a population of 20,000 and over, according to the census of 1890, are presented in this volume by totals for the respective cities and for the different classes of industry. The statistics for the 100 cities published at the Tenth Census are also compared with similar statistics of the same cities for 1890. With the exception of mining and quarrying, which are shown in the Report on Mineral Industries for the Eleventh Census, the tables include every establishment of mechanical and manufacturing industry which was returned in these cities at the Eleventh Census as having a product valued at \$500 or more during the census year ending May 31, 1890.

In addition to the reports tabulated and presented, some returns were received for the industrial operations of the municipal governments of cities, also for the manufacturing operations of penal, reformatory, and charitable institutions. These manufacturing enterprises are conducted under conditions essentially different from those which prevail in the case of individuals or private corporations, and they are therefore omitted from the tables.

So far as practicable the operations of each establishment have been credited to the city in which the works were situated.

A special canvass to collect statistics of productive industry for the federal census was first attempted at the census of 1880, when 279 cities were withdrawn from the general enumeration and canvassed by agents appointed especially to collect the statistics of manufactures. It, however, was found practicable to publish separate reports for only 100 of the principal cities.

The act of Congress approved March 1, 1880, providing for taking the Eleventh Census, directs the Superintendent of Census to investigate and ascertain the statistics of the manufacturing industries of the country. Enumerators appointed under the provisions of that act were charged with the duty of personally visiting every establishment of productive industry in their respective districts (with certain exceptions hereafter noted) to obtain a distinct report from each establishment while engaged in the work of enumerating the population and the products of agriculture. The law required this work to be completed within 30 days.

By virtue of the authority conferred by section 18 of the same act, the collection of statistics of productive industry in certain localities was withdrawn from the enumerators and assigned to special agents, who entered upon duty as soon as practicable after the completion of the count of the people.

The instructions issued by this office to enumerators and special agents with respect to the collection of statistics of manufactures were in part as follows:

It shall be their duty to visit personally every establishment of productive industry in their respective districts (except as noted), and to obtain the required information in the case of each manufacturing establishment.

The term "establishment of productive industry" must be understood in its broadest sense, to embrace not only mills and factories, but also the operations of all small establishments and the mechanical trades.

Restaurants, saloons, barber shops, the compounding of individual prescriptions by druggists and apothecaries, the operation of mercantile establishments, transportation corporations and lines, and professional services (except mechanical dentistry) are not considered as coming within the meaning of the law in this connection.

Great care must be taken by special agents and enumerators to guard against the omission from their returns of any establishment that comes properly within the scope of this investigation. They should have their eyes open to every indication of the presence of productive industry, and should supplement personal observation by frequent and persistent inquiry.

A large number of reports were received from dentists. These returns purported to represent only the mechanical work, but in many cases operative dentistry had been included. This fact, combined with the strenuous objection on the part of the profession to give any information whatever of the character required by the census schedule,

on the ground that the census law did not seek to secure returns for professional services, caused the office to discontinue its efforts to obtain further reports. The statistics published are those which were secured prior to the objection referred to. It was found impracticable to make a complete canvass of the entire United States for the collection of statistics pertaining to the generation of electricity for lighting and power purposes. The data concerning this industry are therefore confined to the state of New York, the city of St. Louis, Mo., and the District of Columbia.

In some cases the office experienced difficulty in securing reports, and it was found necessary to close the canvass without obtaining returns from a few establishments. The establishments thus neglecting to comply with the requirements of the law, with but few exceptions, are unimportant. It is believed that the data presented herewith constitute a substantially correct presentation of the manufacturing industries of these cities during the census year of 1890. In cases where the totals for the respective cities show a decrease when compared with the reports of the Tenth Census a special investigation has been made to verify the accuracy of the canvass.

In comparing the industrial statistics of 1880 and 1890, it should be remembered that changes have been made in both the form and the scope of the inquiry used at the Eleventh Census as compared with that adopted at the census of 1880.

The great increase shown in the statistics for industries known as "hand trades" is largely due to the fact that no previous federal census obtained so complete a report regarding such industries as masonry, carpentering, blacksmithing, cooperage, painting, plumbing, and similar trades using machinery to a limited extent.

The census inquiry of 1880 omitted the following industries: bottling; cars and general shop construction and repairs by steam railroad companies; china, decorating; clothing, women's, dressmaking; coffins and burial cases, trimming and finishing; cotton, cleaning and rehandling; cotton, ginning; cotton, waste; drug grinding; druggists' preparations, not including prescriptions; gas, illuminating and heating; hay and straw, baling; millinery, custom work; and petroleum, refining. Petroleum refining formed part of a separate report at the census of 1880 and the statistics were not included in the report on manufactures. At the census of 1880 "Mixed textiles" appeared as a distinct classification, but the data were largely duplicated under other heads of textile manufacture. The inclusion of the above industries at the Eleventh Census renders it impracticable to use the aggregate for all industries as a basis of comparison with 1880, or to make correct computations of percentages of increase or decrease during the decade.

These statistics can not be taken as indicating the profit or earnings of capital, because many items of expense enter into the mercantile portion of the business, which branch is not within the scope of the census inquiry. The inquiry conducted by this office was intended to ascertain only the relations which capital, wages, cost of materials, and of miscellaneous expenses bear to the value at the works of the products of manufacturing industry.

The individual returns were classified at the census of 1890 according to the product of chief value, and some of the differences, which will appear upon comparison of these data with corresponding classes reported at the census of 1880, are due to changes in the classification. The classifications of industries in 1880 and in 1890 are not identical; some classes shown in 1880 were subdivided, some consolidated, and the phraseology of others changed in 1890.

Great care has been exercised in assigning the individual reports to the different classes, and copious cross references are made in the case of those general classes in which the minor products are common to each other. When different branches of the same industry follow immediately in alphabetical order these cross references have been omitted.

While there may appear a given number of establishments in a certain class of industry, it does not follow that the articles covered by that class are not manufactured by establishments included in other classes. The making of shirts, for instance, is shown as a separate branch of industry, but some establishments classed as "Furnishing goods, men's", and possibly "Clothing, men's, custom work and repairing", also make shirts. Some of the establishments classed as "Shirts" also manufacture articles classed as "Furnishing goods, men's". Therefore the figures given under the classification of "Shirts" can not be considered as representing all the shirts made in manufacturing establishments during the census year, nor should it be considered as consisting entirely of shirts as a product.

When 2 or more establishments owned by the same corporation, firm, or individual are located in the same city and engaged in the same industry they have been tabulated and counted as one establishment.

It is impossible to locate exactly the operations of establishments engaged in the manufacture of timber products classified as "Timber products not manufactured at mill", therefore this industry is credited to the place where the office of the establishment is located. When 3 or more establishments engaged in this industry are reported for a city they are not included in the total for the city, but the total for the establishments is shown separately in a footnote. When there are less than 3 establishments reported they are included in the total for the respective cities in order to avoid disclosing the operations of individual establishments.

The following comparative summary presents the totals for all classes of mechanical and manufacturing industries in the United States, in the 165 principal cities, and in the United States exclusive of these cities, under

the general heads of the inquiry used at the Eleventh Census; also the percentages the totals for the respective items in these cities are of the totals for the same items in the United States:

TOTALS FOR THE UNITED STATES, FOR 165 PRINCIPAL CITIES, AND THE UNITED STATES EXCLUSIVE OF THE CITIES; ALSO THE PERCENTAGE THE TOTAL FOR THE CITIES IS OF THE UNITED STATES TOTAL: 1890.

ITEMS.	The United States.	The 165 principal cities.	The United States exclusive of the 165 cities.	Percentage the total for cities is of the total for the United States.
Number of establishments reporting.....	355, 415	186, 147	109, 268	52.37
Capital, direct investment.....	\$6, 525, 156, 480	\$3, 990, 705, 734	\$2, 528, 450, 752	61.25
Miscellaneous expenses.....	\$631, 225, 035	\$454, 844, 850	\$176, 380, 185	72.06
Average number of employés (aggregate).....	4, 712, 022	2, 907, 832	1, 804, 740	61.70
Total wages.....	\$2, 283, 216, 529	\$1, 567, 444, 001	\$715, 772, 528	68.65
Officers, firm members, and clerks:				
Average number.....	461, 009	297, 223	163, 786	64.47
Total wages.....	\$391, 938, 208	\$284, 021, 487	\$107, 066, 721	72.69
All other employés:				
Average number.....	4, 251, 613	2, 610, 659	1, 640, 954	61.40
Total wages.....	\$1, 891, 228, 321	\$1, 282, 522, 514	\$608, 705, 807	67.81
Cost of materials used.....	\$5, 102, 044, 076	\$3, 303, 177, 034	\$1, 798, 867, 042	65.15
Value of products.....	\$9, 372, 437, 283	\$6, 278, 338, 476	\$3, 094, 098, 807	66.99

From this statement it appears that 52.37 per cent of the establishments and 61.25 per cent of the capital directly invested in manufactures were located in the 165 principal cities, and that the manufactures of these cities pay 68.65 per cent of the total wages and produce 66.99 per cent of the total value of all products. These percentages indicate the concentration of the manufacturing industries in the large cities. The relative size of the individual establishments in the cities and in the country at large is shown by the following statement:

AVERAGE CAPITAL, MISCELLANEOUS EXPENSES, EMPLOYÉS, WAGES, COST OF MATERIALS, AND VALUE OF PRODUCT PER ESTABLISHMENT, AND AVERAGE ANNUAL EARNINGS PER EMPLOYÉ, FOR THE UNITED STATES, THE 165 PRINCIPAL CITIES, AND THE UNITED STATES EXCLUSIVE OF THE 165 CITIES: 1890.

ITEMS.	The United States.	The 165 principal cities.	The United States exclusive of the 165 principal cities.
Average capital per establishment.....	\$18, 359.26	\$21, 470.70	\$14, 937.56
Average miscellaneous expenses per establishment.....	\$1, 776.02	\$2, 443.47	\$1, 042.02
Average number of employés per establishment.....	13.26	15.62	10.66
Average wages per establishment.....	\$6, 424.09	\$8, 420.46	\$4, 228.63
Average annual earnings per employé.....	\$484.49	\$539.03	\$396.61
Officers, firm members, and clerks:			
Average number per establishment.....	1.30	1.60	0.97
Average wages per establishment.....	\$1, 102.90	\$1, 530.63	\$632.53
Average annual earnings per employé.....	\$650.23	\$958.61	\$653.70
All other employés:			
Average number per establishment.....	11.00	14.02	9.69
Average wages per establishment.....	\$5, 321.18	\$6, 889.84	\$3, 596.11
Average annual earnings per employé.....	\$444.83	\$491.26	\$370.95
Average cost of materials used per establishment.....	\$14, 523.99	\$18, 067.32	\$10, 627.33
Average value of product per establishment.....	\$26, 370.40	\$33, 727.85	\$18, 279.20

From the above statement it appears that the average capital and value of product per establishment in the cities exceed that in the country exclusive of the cities by \$6,533.14 and \$15,448.56, respectively, while the average number of employés per establishment in the cities was 15.62 as compared with 10.66 in the country exclusive of the cities, and the average annual earnings of employés, exclusive of the officers, firm members, and clerks, was \$491.26 as compared with \$370.95 in the country exclusive of the cities. These figures indicate that the average establishment in the urban districts is about one-half larger than the establishment in the country, and that the employés in the cities receive higher wages.

Table 1 of this report, presenting the totals for 100 principal cities, published separately at the census of 1880, is the only general table in which the statistics for 1890 are placed in comparison with those published at previous censuses. In considering the totals presented in this table the differences in the scope of the inquiry previously referred to, and also the changes in the form of the questions respecting capital, employés and wages, materials and products, referred to in the pages following should be constantly borne in mind. This table can only be

MANUFACTURING INDUSTRIES.

considered as presenting the totals for all classes of mechanical and manufacturing industries as reported at the censuses of 1880 and 1890. For ready reference the totals shown are presented in the following summary:

TOTALS FOR 100 PRINCIPAL CITIES: 1880 AND 1890.

ITEMS.	1880 (a)	1890
Number of establishments reporting	78,033	167,844
Capital	\$1,384,879,147	^b \$3,524,334,525
Average number of employés	1,431,076	^c 2,581,237
Males above 16 years	1,008,196	1,900,332
Females above 15 years	330,059	538,491
Children	92,821	52,414
Total wages	\$555,748,845	\$1,400,882,018
Cost of materials used	\$1,910,811,178	\$2,692,724,848
Value of products	\$3,018,413,756	\$5,021,258,583

^a The difference between these figures and those published in the reports of the Tenth Census is caused by the elimination of data which were duplicated under the head of "Mixed textiles", such data having been also included in the totals of that census for the different branches of the textile industry.

^b Does not include the value of hired property.

^c Includes officers, firm members, and clerks, and their salaries; this class was not reported separately at the census of 1880.

The percentages of increase that may be obtained from the figures given in the above statement, or from any of the totals shown in Table 1, should not be considered as indicating the actual increase during the decade.

The differences in the form of the inquiry used at the census of 1890 as compared with that of 1880 occur principally in the items of "Capital", "Miscellaneous expenses", and "Employés and wages".

CAPITAL.

At the census of 1880 the question respecting capital used in the schedules, on which the most of the industries were reported, was as follows: "Capital (real and personal) invested in the business". The schedules for some selected industries, however, called for a separate statement as to the value of buildings and machinery. At the census of 1890 the following form of questions was used for all industries:

Capital invested (both owned and borrowed):

Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):	
Land.....	\$ _____
Buildings.....	\$ _____
Machinery, tools, and implements.....	\$ _____
Total.....	\$ _____
Live capital.....	
Raw materials on hand.....	\$ _____
Stock in process and finished products on hand.....	\$ _____
Cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items.....	\$ _____
Total.....	\$ _____
Average annual allowance since June 1, 1880, for depreciation of buildings and machinery (a).....	\$ _____

a The data furnished in the individual reports relating to depreciation of manufacturing plants were not sufficient to form a basis for correct computations, and therefore are omitted from this report.

While the questions do not indicate that the value of hired property was to be reported separately, the amount of rent paid for use of such property during the census year was required to be returned under the head of "Miscellaneous expenses", and the value of hired property is shown as a distinct item under "Capital" in the accompanying tables. The value of hired property is necessarily to some extent an estimate; the amount is frequently supplied by the manufacturer when preparing the report, and when not so reported it is estimated by this office on the basis of the information furnished by other returns, or by the agent who made the canvass. This class of capital was reported only partially, if at all, prior to the census of 1890, and it should be omitted in making comparisons.

It is believed these questions concerning capital comprehend all the property or assets strictly pertaining to a manufacturing business, whether such property be owned, borrowed, or hired.

Borrowed cash is included in the capital reported at the census of 1890, but it is impossible to state in which of the different items it is included, as the schedule of inquiry did not require such a statement. The amount can be estimated by a computation based on the interest reported under "Miscellaneous expenses". Considering 5 per cent as the average rate of interest, the figures indicate that cash to the amount of \$593,670,860, or 14.85 per cent of the direct investment, is borrowed. This amount represents an average of \$3,189 to each establishment reported.

The various subheads into which the general inquiry concerning capital is divided and the amounts reported under each head in the various cities and industries will be found in Tables 2 and 3.

The aggregate value of all classes of capital reported as invested in the manufacturing industries of the 165 cities shown in this report was \$4,829,878,742. Of this amount, \$833,173,008, or 17.25 per cent, is given as the value of hired property. The amount of capital classed as "Direct investment" is \$3,996,705,734, or 61.25 per cent of the total capital directly invested in all classes of manufactures in the entire United States.

The total capital "Direct investment" for the 165 cities is subdivided as follows: land, \$444,048,059, or 11.11 per cent of the total; buildings, \$505,787,051, or 12.66 per cent of the total; machinery, tools, and implements, \$912,509,634, or 22.83 per cent of the total. Live assets, including raw materials on hand to the value of \$464,402,249; stock in process and finished products on hand to the value of \$641,642,876; cash, bills and accounts receivable, and sundries not elsewhere reported, valued at \$1,028,315,865, amounted to \$2,134,360,990, or 53.40 per cent of the total capital.

The presentation of capital invested in the urban manufactures published at the census of 1880 was confined to the 100 principal cities. If no allowance is made for the increase that may be due to the administrative measures peculiar to the Eleventh Census, the capital reported for the 100 principal cities has increased from \$1,384,879,147 to \$3,524,334,525, or 154.49 per cent. The greatest amount of increase is shown for Chicago, Ill., the capital for that city increasing from \$68,831,885 to \$359,739,598, an increase of \$290,907,713, or 422.64 per cent, while the largest per cent of increase is shown in Omaha, Neb., the capital reported for that city increasing from \$1,835,800 to \$18,319,594, or 897.91 per cent.

While the inquiry used at the Tenth Census was intended to include all classes of capital, it is evident that it did not obtain a full report, especially of that class of capital reported as "Live assets" at the Eleventh Census. Therefore the increase shown is due, to some extent at least, to the change in the form of the inquiry and the

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inclusion of certain industries at the Eleventh Census that were omitted in 1880. Considering the capital reported for 50 of the principal cities that show the largest amount of capital for 1890, the following statement presents the number of establishments, the average capital per establishment, and the average amount of capital required to produce a product valued at \$100 at the censuses of 1880 and 1890. In this statement the cities are arranged according to their rank in amount of capital reported for 1890.

NUMBER OF ESTABLISHMENTS, TOTAL CAPITAL, AVERAGE CAPITAL PER ESTABLISHMENT, AND AVERAGE CAPITAL REQUIRED TO PRODUCE A PRODUCT OF \$100 IN 50 PRINCIPAL CITIES: 1880 AND 1890.

[The difference between the totals given in this statement for 1880 and those published in the reports of the Tenth Census is caused by the elimination of data which were duplicated in the Tenth Census under the head of "Mixed textiles".]

CITIES.	Year.	Number of establishments reporting.	Total capital direct investment.	Average capital per establishment.	Average amount of capital required to produce a product valued at \$100.	CITIES.	Year.	Number of establishments reporting.	Total capital direct investment.	Average capital per establishment.	Average amount of capital required to produce a product valued at \$100.
New York, N. Y.	1880	11,273	\$179,605,506	\$15,932.96	\$38.34	Worcester, Mass.	1880	638	\$11,247,104	\$17,628.60	\$42.10
	1890	25,403	426,118,272	16,774.33	54.83		1890	996	25,230,620	25,331.95	63.32
Philadelphia, Pa.	1880	8,481	178,765,206	21,078.32	57.77	Holyoke, Mass.	1880	122	8,793,903	71,835.27	65.09
	1890	18,166	375,249,715	20,656.71	65.01		1890	493	24,411,939	49,517.12	93.07
Chicago, Ill.	1880	3,518	68,831,885	19,565.03	27.64	Troy, N. Y.	1880	513	13,413,853	26,147.86	50.63
	1890	9,977	359,739,598	36,056.89	54.13		1890	840	24,030,753	28,608.04	82.10
Brooklyn, N. Y.	1880	5,195	61,423,249	11,823.53	34.70	Syracuse, N. Y.	1880	724	8,186,818	11,307.70	55.71
	1890	10,583	161,730,500	15,282.10	60.07		1890	1,246	22,853,424	18,341.43	78.01
St. Louis, Mo.	1880	2,024	66,832,885	17,884.71	44.46	St. Paul, Minn.	1880	593	3,738,791	6,304.88	36.35
	1890	6,148	141,872,380	23,076.19	61.61		1890	1,442	22,501,211	15,604.17	68.11
Boston, Mass.	1880	3,064	47,298,384	12,908.95	36.28	Manchester, N. H.	1880	121	15,149,153	125,190.61	107.16
	1890	7,942	118,198,539	14,882.72	56.04		1890	386	22,424,968	58,095.77	111.02
Pittsburg, Pa.	1880	1,112	52,645,010	47,342.63	69.35	Allegheny, Pa.	1880	424	8,451,059	19,931.74	61.54
	1890	1,420	108,368,838	76,816.08	85.42		1890	675	22,253,243	32,967.77	82.79
Cincinnati, Ohio	1880	3,275	50,531,900	15,429.59	48.01	Wilmington, Del.	1880	258	10,744,389	41,644.92	81.36
	1890	7,832	104,483,032	13,340.53	53.20		1890	590	20,585,646	34,890.93	83.79
Baltimore, Md.	1880	3,680	38,581,873	10,484.26	49.21	Cambridge, Mass.	1880	370	6,480,799	17,099.73	24.36
	1890	5,265	92,723,077	17,611.33	65.43		1890	1,232	20,331,585	16,502.91	56.52
San Francisco, Cal.	1880	2,969	35,358,030	11,909.28	45.45	New Bedford, Mass.	1880	330	7,681,022	23,276.01	78.09
	1890	4,059	74,834,361	18,436.63	55.18		1890	413	20,132,383	48,747.42	118.25
Buffalo, N. Y.	1880	1,183	26,847,937	22,694.79	62.53	Bridgeport, Conn.	1880	169	9,736,785	57,014.11	93.46
	1890	3,595	70,707,145	19,833.70	70.67		1890	559	19,780,572	35,396.37	88.83
Cleveland, Ohio.	1880	1,055	19,430,989	18,418.00	39.98	New Haven, Conn.	1880	587	9,703,737	16,531.07	40.36
	1890	2,307	69,732,761	30,226.60	61.58		1890	1,129	19,592,384	17,363.75	58.67
Milwaukee, Wis.	1880	844	18,706,914	22,235.68	43.17	Tronton, N. J.	1880	404	6,966,830	17,244.63	54.80
	1890	2,879	69,145,814	24,017.30	70.92		1890	885	19,278,041	21,783.10	75.22
Newark, N. J.	1880	1,818	25,575,315	19,404.64	37.04	Omaha, Neb.	1880	154	1,835,800	11,920.78	42.88
	1890	2,490	62,552,752	25,121.59	66.92		1890	675	18,319,594	27,140.14	43.27
Providence, R. I.	1880	1,205	27,177,006	22,553.53	63.80	Jersey city, N. J.	1880	584	11,899,915	20,376.57	19.68
	1890	1,934	61,133,698	31,609.93	78.92		1890	726	18,165,094	25,020.79	48.00
Rochester, N. Y.	1880	734	13,141,870	17,904.40	49.75	Lynn, Mass.	1880	343	5,894,575	17,185.35	21.97
	1890	1,892	46,301,058	24,472.02	71.13		1890	1,369	17,919,025	13,089.13	40.53
Detroit, Mich.	1880	919	15,594,470	16,968.97	51.67	Albany, N. Y.	1880	804	14,684,130	18,263.84	67.51
	1890	1,746	45,041,167	25,796.77	58.23		1890	1,365	17,270,705	13,234.26	67.64
Minneapolis, Minn.	1880	401	9,602,650	22,450.50	30.04	Denver, Colo.	1880	259	2,301,850	8,887.45	24.57
	1890	2,723	42,643,764	15,660.58	51.43		1890	762	16,811,868	22,092.82	57.49
Lowell, Mass.	1880	283	20,465,192	72,315.17	60.81	Richmond, Va.	1880	598	6,884,380	11,512.35	35.11
	1890	853	41,911,708	49,134.48	98.73		1890	966	16,785,242	17,376.03	60.39
Fall River, Mass.	1880	258	25,070,518	97,195.81	132.58	Scranton, Pa.	1880	216	4,470,631	20,697.37	52.22
	1890	307	37,199,470	93,701.44	114.99		1890	177	16,237,271	91,785.99	66.71
Louisville, Ky.	1880	1,105	21,357,013	19,327.61	61.43	Columbus, Ohio.	1880	316	5,379,401	17,023.42	55.76
	1890	1,700	39,086,985	21,227.64	66.20		1890	708	16,178,793	22,851.28	70.69
Lawrence, Mass.	1880	228	19,098,977	70,600.55	74.37	Grand Rapids, Mich.	1880	355	4,861,298	13,702.25	65.69
	1890	583	29,026,806	50,817.85	111.59		1890	869	15,945,947	18,349.77	80.33
Washington, D. C.	1880	971	5,552,529	5,718.36	46.73	Indianapolis, Ind.	1880	688	10,049,500	14,606.83	36.61
	1890	2,295	28,865,089	12,577.38	73.39		1890	1,189	15,266,685	12,839.94	41.91
Paterson, N. J.	1880	340	11,613,442	34,157.18	45.83	Camden, N. J.	1880	220	5,023,835	15,699.45	65.94
	1890	599	27,603,549	46,082.72	65.81		1890	658	15,244,506	23,167.94	72.69
New Orleans, La.	1880	915	8,565,803	9,300.99	45.54	Peoria, Ill.	1880	296	4,160,707	14,056.44	29.24
	1890	1,961	20,319,277	13,421.35	54.50		1890	556	15,085,892	27,132.85	27.16

The number of establishments reported for each of the cities shown in the above statement, with the exception of Scranton, Pa., has increased, and there has also been an increase in the average capital per establishment for all but 15 of the cities. The effect that the changes in the form of the inquiry and the inclusion of certain industries in 1890 that were omitted in 1880 have had on the total capital reported at the two censuses is indicated by this table. The changes in the form of the inquiry have tended to obtain a fuller report of the capital employed in manufactures, while the industries included in 1890, but omitted in 1880, were generally conducted in establishments reporting a small capital, and their inclusion has tended to reduce the average amount of capital per establishment. For instance, the average capital (direct investment) per establishment reported for Manchester, N. H., has decreased from \$125,199.61 in 1880 to \$58,095.77 in 1890. This decrease appears to be due entirely to the more thorough canvass in 1890 of the mechanical trades, such as "Blacksmithing" and "Boots and shoes, custom work and repairing", and the inclusion in 1890 of certain industries, such as "Clothing, women's, dressmaking", that were omitted in 1880. In Manchester there were 4 blacksmith shops and less than 3 boot and shoe shops reported in 1880. In 1890 there were 20 blacksmith and 35 boot and shoe, custom work and repairing, shops, with an average capital per establishment of \$452; there were also 100 establishments reported as "Clothing, women's, dressmaking", with an average capital of \$186. The manufacture of cotton goods is the principal industry in the city, and while the number of factories has decreased from 5 to 4, the average capital (direct investment) per establishment has increased from \$1,761,717 to \$3,461,326, but the increase in the average capital per establishment for industries of this character is more than counterbalanced by the inclusion in 1890 of a large number of establishments engaged in the mechanical trades enumerated above and for which a comparatively small amount of capital is reported.

The average capital (direct investment) per establishment in Scranton, Pa., has increased from \$20,697.37 in 1880 to \$91,735.99 in 1890, or 343.23 per cent. This increase is due principally to the fact that the number of establishments reported for the city has decreased from 216 to 177, the decrease being found largely in industries such as bread and other bakery products, boots and shoes, and carpentering, where the small establishment predominates. On the other hand, while the number of establishments engaged in the manufacture of iron and steel has remained the same, the average capital per establishment has increased from \$573,500 to \$2,210,177; the number of establishments for foundry and machine shop products has increased but one, while the average capital has increased from \$225,500 to \$436,869.

Notwithstanding the decrease in the average capital per establishment in some cities, there has been an actual increase in the total capital shown for all the cities in the above statement.

There is an increase in the average amount of capital required for a product valued at \$100 in each city, with the exception of Fall River, Mass., Bridgeport, Conn., and Peoria, Ill. The largest increase, and the greatest average amount of capital required to produce a product valued at \$100 in 1890 is reported for New Bedford, Mass. This is due to the fact that the capital for the city has increased from \$7,681,082 to \$20,132,683, or 162.11 per cent, while the product has increased from \$9,835,955 to \$17,025,779, or only 73.10 per cent. The manufacture of cotton goods was the principal industry reported for New Bedford in both 1880 and 1890. The capital reported for the industry in 1880 was 60.20 and the product 32.77 per cent of the total for the city, while in 1890 the capital was 69.72 per cent and the product 48.08 per cent of the total. There were 2 cotton factories reported for New Bedford in 1880, with a capital of \$4,624,312 and a product of \$3,223,604. There were 9 cotton factories reported for 1890, with a capital of \$14,036,446 and a product of \$8,185,286, or an increase in capital of 203.54 per cent and in product of 153.92 per cent, the average capital required for a product valued at \$100 in 1880 being \$143.45, as compared with \$171.48 in 1890. The capital reported in 1880 for all but a few selected industries was given in reply to a single question, calling for all capital, real and personal, invested in the business. While this question was intended to cover all classes of capital it evidently did not secure a full report, especially of the items shown as "Live assets" at the census of 1890. Live assets to the value of \$4,210,735 is shown for the cotton industry of New Bedford in 1890. This amount is 30 per cent of the total capital and consists largely of items which it is believed were not fully reported as capital in 1880, and as the more complete report of live assets applies equally to other industries a fuller report of capital is shown in 1890 for the entire city. Another reason for the large increase in capital as compared with the product reported for New Bedford will be found in the fact that all but 2 of the 9 establishments reported as manufacturing cotton goods in 1890 have engaged in the industry since 1880, some of them being established during the years 1888 and 1889. It is therefore reasonable to presume that the product reported for the year 1890 does not represent the full capacity of all the establishments or the entire amount that can be earned for the capital invested. It must also be remembered that the totals for 1890 include some industries not reported in 1880.

Fall River, Mass., shows the greatest decrease in the average amount of capital required to produce a product valued at \$100, the decrease being from \$132.58 in 1880 to \$114.39 in 1890. The capital (direct investment) reported for the city has increased from \$25,076,518 to \$37,199,470, or 48.34 per cent, and the value of products from \$18,913,584 to \$32,519,281, or 71.94 per cent. As in New Bedford, the manufacture of cotton goods is the principal industry in Fall River. The capital for cotton goods formed 90.55 per cent and the product 76.72 per cent of the total for the city in 1880, and 86.30 per cent and 76.65 per cent, respectively, in 1890. The disproportion

in the increases of capital and product shown for the entire city appears in the totals for cotton goods, the capital for the industry having increased 41.38 per cent and the product 71.78 per cent. The average capital per establishment has increased from \$688,092.21 to \$783,027.00, and the average product from \$439,697.18 to \$607,945.46, the greater increase in production necessarily reducing the average capital required for a product of a given value. In 1880 a product valued at \$100 required \$156.49 of capital, and in 1890 \$128.80. The manufacture of cotton goods has been long established in Fall River. The full amount of capital appears to have been reported for the industry in 1880, which was an exception to the general report of capital at that census, but the mills were not run to their full capacity during that year, while the product reported for the census year 1890 was much larger in proportion to the capital invested. The effect that the change in the form of the inquiry may have had on the capital reported in 1890 for the other industries in Fall River, or the inclusion of additional industries in 1890, is not sufficient to counterbalance the conditions shown to have existed in the cotton industry for the city.

The least amount of capital, \$27.16, required to produce a product of \$100 is reported for Peoria, Ill. The capital reported for the city has increased from \$4,160,707 to \$15,085,862, or 262.58 per cent. The manufacture of distilled liquors was the principal industry reported for Peoria in both 1880 and 1890, the capital being 40.35 per cent, and the product 57.60 per cent of the total for the city in 1880, only \$29.24 being required for a product valued at \$100. A number of distilleries were reported as in operation in Peoria during the census year of 1890, but as they were all controlled by one corporation, they were counted as one establishment, and appear in the group of "All other industries" for the city. The small amount of capital required to produce \$100 of product in Peoria is due entirely to the conditions existing in this industry.

From the foregoing it appears that the total capital reported for a city at the census of 1890 including, as it does, industries omitted at 1880, as well as those for which a more thorough canvass was made at 1890, and those in which the amount of capital reported has been increased by changes in the form of the inquiry, can not be taken as an indication of the increase or decrease during the decade, nor can the capital reported for the same industry at the two censuses be used for this purpose without making due allowance for the more complete report of 1890.

Considering the total for all industries, the average amount of capital required for a product valued at \$100 in the United States was \$69.62, and in the 165 cities \$63.66; the amount shown for the United States exclusive of these cities being \$81.72, or \$18.06 in excess of that for the cities. In making this calculation, the value of hired property is not considered, and this accounts, in part, for the excess in the amount of capital required to produce \$100 of product in manufacturing operations outside these cities, as a larger proportion of the capital is owned by the manufacturers and returned as "direct investment". The value of hired property reported for the 165 cities is 17.25 per cent of the aggregate capital. The value of hired property is not shown for the country exclusive of the cities, but it is estimated to amount to \$323,052,047, or only 11.33 per cent of the aggregate. If the value of "direct investment" in the 165 cities bore the same ratio to the aggregate capital that it does outside of the cities, it would require about \$68.21 of capital in these cities to produce a product valued at \$100, as compared with \$81.72 in the country exclusive of these cities. Not only does the amount of capital required for a product of given value appear to be less in the 165 cities than in the country exclusive of these cities, but the cost of production is also less, the greatest difference appearing in the cost of materials used. In the 165 cities the materials constitute 53.57 per cent of the value of the product, wages 24.97 per cent, and miscellaneous expenses 7.24 per cent. In the United States exclusive of these cities the cost of materials is 58.14 per cent of the value of product, wages 23.13 per cent, and miscellaneous expenses 5.70 per cent; the total for these cities being 85.78 per cent as compared with 86.97 per cent in the country exclusive of the cities.

The preceding statement and comments are based on totals that include a large variety of industries, in many of which the conditions controlling the manufacture are essentially different, especially when the establishments are not situated in the same locality. Tables 4, 5, and 6 of this report present statistics for 50 industries selected because of their commercial and manufacturing importance. These tables show the totals for each industry in the 165 cities and the proportion of the total contributed by each city. A comparison of the capital and product for a few of these industries as reported for the 165 cities and in the United States exclusive of these cities will convey a more definite idea of the relation between capital and product than can be obtained by an examination of totals that include a number of different industries. The statement on the following page shows the average capital per establishment and the average amount of capital required to produce a product valued at \$100 in the 165 cities and the United States exclusive of these cities for 25 selected industries.

INTRODUCTION.

NUMBER OF ESTABLISHMENTS, AVERAGE CAPITAL PER ESTABLISHMENT, AND AVERAGE CAPITAL REQUIRED TO PRODUCE A PRODUCT VALUED AT \$100 IN THE 165 PRINCIPAL CITIES AND THE UNITED STATES EXCLUSIVE OF THESE CITIES FOR 25 SELECTED INDUSTRIES: 1890.

INDUSTRIES,	THE 165 PRINCIPAL CITIES.			THE UNITED STATES EXCLUSIVE OF 165 PRINCIPAL CITIES.		
	Number of establishments reporting.	Average capital per establishment.	Average amount of capital required for a product valued at \$100.	Number of establishments reporting.	Average capital per establishment.	Average amount of capital required for a product valued at \$100.
Agricultural implements	195	\$420,685	\$189.28	715	\$86,040	\$169.26
Boots and shoes, factory product	1,260	41,708	41.87	813	52,006	44.94
Brass castings and brass finishing	408	39,494	77.85	45	56,600	69.93
Chemicals	356	108,964	82.44	207	78,460	132.03
Clothing, men's, factory product	4,620	26,819	51.13	238	17,256	49.90
Clothing, women's, factory product	1,169	17,481	31.26	25	11,994	28.76
Cotton goods	375	495,571	123.38	530	317,324	130.49
Dyeing and finishing textiles	191	103,826	122.71	57	326,667	146.15
Flouring and grist mill products	608	92,628	34.46	17,862	8,518	43.40
Foundry and machine shop products	3,847	78,572	90.09	2,628	37,963	101.24
Furniture, factory product	1,058	47,209	60.63	521	31,537	82.00
Hosiery and knit goods	448	40,770	62.81	348	81,352	89.19
Ironwork, architectural and ornamental	639	26,810	50.43	85	56,890	65.50
Jewelry	666	27,225	61.26	117	35,166	79.66
Leather, tanned and curried	386	38,692	58.75	1,210	38,868	58.78
Liquors, malt	728	281,615	127.32	520	52,790	123.51
Lumber, planing mill products, including sash, doors, and blinds	1,434	51,305	60.96	2,236	20,836	74.14
Printing and publishing, book and job	8,491	18,348	71.14	607	5,095	88.21
Saddlery and harness	2,650	7,751	61.71	5,272	2,795	75.29
Silk and silk goods	302	86,191	54.88	110	180,050	65.05
Slaughtering and meat packing, wholesale	488	178,936	22.64	123	88,372	22.88
Soap and candles	423	55,366	57.19	155	9,041	52.84
Tobacco, chewing, smoking, and snuff	175	117,128	42.89	220	47,018	57.23
Tobacco, cigars and cigarettes	7,464	6,123	46.89	3,492	8,956	42.88
Woolen goods	220	175,227	88.40	1,091	84,730	102.70

In all but 7 of the 25 industries presented in the above statement the average amount of capital required for a product valued at \$100 is greatest in the districts outside the 165 cities. The largest average capital per establishment (\$495,571) in the cities is reported for "Cotton goods", while the largest for the districts outside these cities (\$326,667) is reported for "Dyeing and finishing textiles". The largest capital required for a product of \$100 both in and outside these cities is reported for "Agricultural implements".

MANUFACTURING INDUSTRIES.

MISCELLANEOUS EXPENSES.

Previous census reports show no items entering into the cost of manufacture other than the amount paid for wages and materials. The present inquiry was intended to cover as far as possible the entire cost of production. With this end in view a series of questions pertaining to miscellaneous expenses were included in the schedule. The different items embraced under this head are summarized for the 165 principal cities, as follows:

TOTALS OF MISCELLANEOUS EXPENSES FOR 165 PRINCIPAL CITIES: 1890.

Total.....	\$454,844,850
Rent paid for tenancy	70,723,452
Taxes, including internal revenue.....	112,597,927
Insurance	18,805,773
Repairs, ordinary, of buildings and machinery.....	34,144,332
Amount paid to contractors.....	27,287,929
Interest paid on cash used in the business.....	29,683,543
All sundries not elsewhere reported.....	161,601,894

The amounts reported as miscellaneous expenses in each city and for each industry in each city are shown in Tables 2 and 3, and it is believed they include all the expenses of manufacture not reported under wages and materials, except allowance for interest on capital and depreciation of plant.

The questions pertaining to miscellaneous expenses were generally answered, though in some cases, where a mercantile, mining, or other industry was conducted in connection with manufacturing, accurate reports were not obtained, the manufacturers claiming it was impossible to determine what part of the amount paid for taxes, interest on cash used in the business, and other sundry expenditures should be charged to each of the several branches of industry. Therefore the amounts reported for the different items by some establishments include not only the actual expenses connected with manufacturing, but also similar data properly chargeable to classes of industry not included in this report. The amount, \$454,844,850, shown as the total of miscellaneous expenses in the 165 cities represents 8.45 per cent of the total cost of manufacture, wages constituting 29.10 per cent and cost of materials 62.45 per cent.

The item, \$70,723,452, reported as paid for rent of tenancy, represents the cost for the use of the hired property given under the head of "Capital" as being valued at \$833,173,008, and is an average rental of about 8 per cent for all the cities. The amount reported as rent includes office rent, irrespective of whether the office is located in the same city as the works or elsewhere. The largest amounts paid for rent, and necessarily the largest amounts shown as the value of hired property, are reported for the 3 leading manufacturing cities, New York, N. Y.; Chicago, Ill., and Philadelphia, Pa. Property rented for manufacturing purposes in these cities is occupied largely by small establishments, in many cases a number of distinct establishments being in one building. The largest amounts paid as rent in these 3 cities appear for such classes of industry as: Clothing, men's, custom work and repairing; Clothing, men's, factory product; Printing and publishing, book and job; and Printing and publishing, newspapers and periodicals. The majority of the establishments engaged in these industries are comparatively small and only occupy a room or a portion of a building. The value of the hired property for each manufacturer represents the value of that portion of the building which he occupies.

The amount reported as taxes includes internal revenue, and it is probable that amounts paid as license or municipal tax on the business have also been reported under this head. The amount, \$112,597,927, therefore can not be considered as an indication of the rate of taxes paid on land and buildings. The inclusion of internal revenue accounts for the large amount of taxes reported for Chicago, Cincinnati, and Peoria, and other cities in which the manufacture of malt and distilled liquors is carried on extensively.

The \$18,805,773 reported as paid for insurance averages 1.33 per cent on the total value of buildings and machinery. These figures, however, should not be considered as an indication of the average rate of insurance paid on property used for manufacturing purposes, as many manufacturers insure only their buildings and machinery, while others include the raw materials, stock in process and finished products on hand, as well as office fixtures and possibly items not reported as capital invested in manufactures.

The \$34,144,332 reported as expended in the ordinary repairs of buildings and machinery is not supposed to include expenditures for new equipment or allowance for depreciation. The amount reported represents 2.41 per cent of the value of buildings and machinery.

The amount paid contractors to a large extent represents labor, but is included under the head of "Miscellaneous expenses" because it was impossible to ascertain the number of persons employed or the actual amount paid for labor, exclusive of the profits made by the contractor. Considering the full amount, \$27,287,929, as paid to employes engaged principally on piecework, and that the average annual earnings for pieceworkers is \$413 (which is the average obtained from the total for the 165 cities), the amount paid for contract work would represent 66,072 employes, increasing the aggregate number of employes for the 165 cities to 2,973,954. Boston,

Mass.; Chicago, Ill.; Haverhill, Mass.; New York, N. Y.; Philadelphia, Pa., and Rochester, N. Y., each report over a million dollars paid contractors, Philadelphia showing the largest amount, \$4,901,827. The principal industries in which amounts are reported as having been paid for contract work in the cities named are as follows:

- Boston, Mass.—Clothing, men's, \$2,317,002; carpentering, \$255,115; masonry, brick and stone, \$74,425.
- Chicago, Ill.—Clothing, men's, \$1,714,206; clothing, women's, \$438,500; foundry and machine shop products, \$40,000.
- Haverhill, Mass.—Boots and shoes, factory product, \$915,450; carpentering, \$125,685; masonry, brick and stone, \$20,980.
- New York, N. Y.—Clothing, men's, \$2,402,918; clothing, women's, \$842,360; fur goods, \$42,740; furnishing goods, men's, \$63,300; jewelry, \$46,663; millinery and lace goods, \$66,108; shirts, \$304,366; silk and silk goods, \$47,331.
- Philadelphia, Pa.—Carpentering, \$155,828; clothing, men's, \$2,254,648; clothing, women's, \$104,040; foundry and machine shop products, \$41,100; furnishing goods, men's, \$136,320; masonry, brick and stone, \$1,803,622; musical instruments and materials, not specified, \$30,000; musical instruments, pianos and materials, \$30,056; shirts, \$170,240; silk and silk goods, \$60,581; umbrellas and canes, \$51,245.
- Rochester, N. Y.—Clothing, men's, \$1,152,204; carpentering, \$21,600; foundry and machine shop products, \$11,178; furnishing goods, men's, \$7,500; masonry, brick and stone, \$9,000.

The amounts paid for contract work in the manufacture of clothing, men's, factory product, in the 165 cities aggregate \$10,712,601, and as the average annual earnings for pieceworkers in this industry in the same cities is about \$312, the amount represents wages for 34,335 employes, provided no allowance is made for the profits of the contractors. The number of employes engaged by contractors not having been returned, it is not advisable to include the estimate of the number in the totals for the respective cities. In this connection attention is called to the fact that employes engaged in the mechanical and manufacturing industries frequently live outside the corporate limits of the city in which the establishment is located.

"Interest paid on cash used in the business" amounts to \$29,683,543, but can not be considered as an exact indication of the amount of borrowed cash. The amount of borrowed cash, however, has been estimated and is presented in the remarks on capital.

The largest amount reported under "Miscellaneous expenses", \$161,601,894, is shown for "All sundries not elsewhere reported", and constitutes 35.53 per cent of the total miscellaneous expenses. As the schedule of inquiry was designed to obtain a report from each manufacturer that would cover all expenses incidental to the manufacture of the finished product this question was intended to cover expenses of an incidental character too numerous to specify, and that should not be charged as wages, materials, or to the items enumerated under "Miscellaneous expenses".

EMPLOYÉS AND WAGES.

The inquiry at the Eleventh Census respecting employes and wages called for the average number of males, females, and children, and the total wages paid, respectively, by classes: (1) officers or firm members; (2) clerks; (3) operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers); (4) watchmen, laborers, teamsters, and other unskilled workmen; (5) pieceworkers not included in the foregoing. The average number of males above 16 years, females above 15 years, and children (not including those reported on piecework), respectively, at specific weekly wages, were also requested, and the time the establishment was in operation during the year, with the number of hours constituting a day's labor.

The inquiry concerning employes and wages used at the Tenth Census was not uniform, the majority of the schedules called only for the "Greatest number of hands employed at any one time during the year", also the "Average number of hands employed, males above 16 years, females above 15 years, and children and youth, and the total wages paid", without designating the different classes of employes. The schedules for some selected industries, however, contained additional questions concerning the number of "Officers and clerks", "Operatives, mechanics, watchmen, and laborers". It is believed the questions adopted at the Eleventh Census have more fully developed the true average number of employes and the total amount paid in wages, and that they have obtained a more complete return of the officers, firm members, and clerks and their salaries than was reported at previous censuses. The number of this class of wage earners included in the reports of previous censuses, with the exception of two or three special inquiries at the census of 1880, were only those reported when the manufacturer considered they should be included in answer to a general question as to the number of his employes and the total amount of wages. The questions used in 1880 tended to obtain a number of employes that would be in excess of the true average, while it is believed the questions used in 1890 have obtained as nearly as possible the average number. The questions for 1890, however, also obtained a large amount of wages as compared with 1880, thus making a comparison of the average annual wages obtained from the reports of the two censuses impracticable, and the figures reported can not be used to ascertain the percentages of increase.

While the total wages or the number of employes reported at the Eleventh Census should not be used in comparison with similar statistics reported at the census of 1880 for the purpose of showing the exact increase or decrease during the decade, the total number of employes reported can be used to indicate the changes in the proportion of males, females, and children employed in manufactures.

MANUFACTURING INDUSTRIES.

Selecting 10 cities that show a large proportion of females at the census of 1880, the following statement presents the number of males above 16 years, females above 15 years, and children reported at both censuses, and the percentage each is of the total number of employes in the respective cities. In preparing this table the industries previously referred to as being included in the census of 1890, but not reported in 1880, have been omitted from the figures for 1890. At the Tenth census certain duplications occurred in the statistics of "Mixed textiles", the data for this industry being also included in the figures for other branches of the textile industry. These duplications have been eliminated from the data for 1880. The figures for each census therefore are, as nearly as possible, for the same industries, and furnish practically fair comparisons.

COMPARATIVE STATEMENT OF THE AVERAGE NUMBER OF MALES, FEMALES, AND CHILDREN, AND THE PERCENTAGE THAT EACH BEARS TO THE TOTAL NUMBER OF EMPLOYÉS, FOR 10 CITIES REPORTING A LARGE PROPORTION OF FEMALES IN 1880: 1880 AND 1890.

CITIES.	Year.	Average number of employés. (Aggregate)	MALES ABOVE 16 YEARS.		FEMALES ABOVE 15 YEARS.		CHILDREN.	
			Average number.	Per cent of total.	Average number.	Per cent of total.	Average number.	Per cent of total.
Total	1880	616,951	376,800	61.07	202,977	32.90	37,174	6.03
	1890	886,966	632,680	71.33	237,069	26.73	17,217	1.94
Baltimore, Md.....	1880	56,316	34,080	60.51	18,126	32.19	4,110	7.30
	1890	79,409	57,212	72.05	20,378	25.66	1,819	2.29
Boston, Mass.....	1880	59,690	39,790	67.34	18,070	30.58	1,230	2.08
	1890	85,243	65,572	76.92	19,358	22.71	313	0.37
Fall River, Mass.....	1880	17,035	8,232	48.18	6,723	39.35	2,130	12.47
	1890	23,315	12,641	54.22	9,448	40.52	1,226	5.26
Lawrence, Mass.....	1880	14,372	6,652	46.28	6,849	47.66	871	6.06
	1890	15,574	8,918	57.26	6,184	39.71	472	3.03
Lowell, Mass.....	1880	20,639	9,218	46.00	9,563	47.42	1,318	6.58
	1890	28,246	14,917	52.81	12,717	45.02	612	2.17
Manchester, N. H.....	1880	10,838	4,632	42.74	5,748	53.03	458	4.23
	1890	14,837	7,006	51.26	6,982	47.00	249	1.68
New York, N. Y.....	1880	223,073	144,020	64.96	69,240	31.04	8,813	4.00
	1890	340,482	252,176	74.06	89,275	25.34	2,931	0.86
Paterson, N. J.....	1880	18,755	9,868	52.62	6,145	32.76	2,742	14.62
	1890	24,012	15,425	64.24	7,720	32.15	867	3.61
Philadelphia, Pa.....	1880	174,952	109,071	62.34	51,459	29.41	14,422	8.25
	1890	251,182	187,286	74.56	54,458	21.68	9,438	3.76
Troy, N. Y.....	1880	23,431	10,337	46.68	11,114	49.55	980	4.37
	1890	24,666	10,927	44.30	13,549	54.93	190	0.77

Most of the cities given in the above statement are seats of the textile industries, and the majority of the females reported for both 1880 and 1890 are engaged in those industries. Of the 5,748 females reported for Manchester, N. H., in 1880, 4,569 are shown for cotton goods, and 5,355 of the 6,982 reported for 1890 are engaged in the same industry. The city of Troy, N. Y., is an exception to this rule, 10,253 of the 11,114 females reported for that city in 1880 being engaged in the manufacture of shirts and men's furnishings, while the same industries report 12,600 of the 13,549 females shown for 1890. While there is a decrease in the relative number of females for the total, and for each of the cities with the exception of Fall River, Mass., and Troy, N. Y., the actual number of females employed in each city except Lawrence, Mass., has increased. The relative decrease is due to the large actual and relative increase in the number of male employes; the percentage of increase in the total male employes for the 10 cities being 67.91 as compared with 16.80 per cent for the females. The number of children employed in each of the cities has decreased during the decade not only actually but relatively, there being a decrease of 19,957, or 53.69 per cent, in the total for the 10 cities.

The following summary presents the number of males, females, and children shown for the 10 cities reporting a relatively small number of females in 1880, with the percentage each class is of the totals for the respective cities:

COMPARATIVE STATEMENT OF THE AVERAGE NUMBER OF MALES, FEMALES, AND CHILDREN, AND THE PERCENTAGE THAT EACH BEARS TO THE TOTAL NUMBER OF EMPLOYÉS, FOR 10 CITIES REPORTING A SMALL PROPORTION OF FEMALES IN 1880: 1880 AND 1890.

CITIES.	Year.	Average number of employés. (Aggregate)	MALES ABOVE 16 YEARS.		FEMALES ABOVE 15 YEARS.		CHILDREN.	
			Average number.	Per cent of total.	Average number.	Per cent of total.	Average number.	Per cent of total.
Total	1880	193,894	160,912	82.99	20,312	10.48	12,670	6.53
	1890	432,760	380,236	87.86	43,932	10.15	8,592	1.99
Buffalo, N. Y.....	1880	18,021	15,033	83.42	1,795	9.96	1,193	6.62
	1890	45,196	38,056	84.20	6,134	13.55	1,016	2.25
Chicago, Ill.....	1880	79,391	62,421	78.63	12,173	15.33	4,797	6.04
	1890	199,197	174,127	87.41	22,541	11.32	2,529	1.27
Cleveland, Ohio	1880	21,724	18,018	82.94	2,286	10.52	1,420	6.54
	1890	47,020	41,349	87.94	4,613	9.82	1,053	2.24
Columbus, Ohio	1880	5,490	4,935	89.89	289	5.26	266	4.85
	1890	11,972	10,351	86.46	1,433	11.97	188	1.57
Grand Rapids, Mich.....	1880	5,172	4,509	87.18	295	5.70	368	7.12
	1890	12,869	11,365	91.88	723	5.85	281	2.27
Indianapolis, Ind.....	1880	10,000	8,671	86.71	830	8.30	499	4.99
	1890	16,104	13,089	81.28	2,464	15.30	551	3.42
Minneapolis, Minn.....	1880	5,344	4,702	87.99	457	8.55	185	3.46
	1890	25,565	23,685	92.65	1,653	6.46	227	0.89
Pittsburg, Pa.....	1880	38,930	32,011	86.68	1,681	4.55	3,238	8.77
	1890	55,592	50,118	90.15	3,342	6.01	2,132	3.84
Springfield, Ohio	1880	3,970	3,741	94.23	47	1.18	182	4.59
	1890	6,539	6,332	96.83	175	2.68	32	0.49
Wilmington, Del.....	1880	7,852	6,871	87.51	459	5.84	522	6.65
	1890	13,206	11,764	89.08	859	6.50	583	4.42

There is a relative increase shown in the number of females reported for all but 3 of the cities shown in this statement, Chicago, Ill.; Cleveland, Ohio, and Minneapolis, Minn., showing a relative decrease. The predominating industries, and those that show a large increase for the cities in this statement, especially those in which there is a decrease in the relative number of females, are such as flouring and grist mills, slaughtering and meat packing, the various iron and steel and other industries in which females are not likely to engage. It must also be considered that the proportion the number of females in these cities is of the total population is not so large as in the cities in which a large proportion of females are employed. The variation in the percentage of increase of males and that of females in the totals shown in this statement are not so marked as in the preceding statement, the males having increased 136.30 per cent and the females 116.29 per cent. The increase in number of females, however, was 23,620, as compared with 34,092 for the cities shown in the former statement. As in the cities showing a large proportion of females, there has been a decrease in the relative number of children employed in each of the cities and there has also been an actual decrease in the number of children reported in each city with the exception of Indianapolis, Ind.; Minneapolis, Minn., and Wilmington, Del. The total for the 10 cities shows a decrease of 4,078 in the number of children, or 32.19 per cent.

The inclusion at the census of 1890 of certain industries previously referred to that were omitted at the census of 1880, tends to abnormally increase the percentage of gain in the number of females employed in manufactures. These industries have been omitted from the figures for 1890 given in the two preceding statements, and it is found that the males employed in them form 3.44 per cent of the total males of the 20 cities, the females 9.34 per cent of the total females, and the children 2.18 per cent of the total children. Applying these percentages to the totals for 1890 of the 100 cities published separately at the Tenth Census, and deducting the amounts from the totals, the average number of employés for the 100 cities would be 2,461,332, males 1,921,865, females 488,196, and children 51,271. Computing the percentages of increase on these figures for 1890, it appears that all classes of employés in the 100 cities have increased 71.99 per cent, the males 90.62 per cent, the females 47.91 per cent, and the children decreased 44.76 per cent; also that the number of males employed for 1890 form 78.08 per cent of the total, females 19.84 per cent, and children 2.08 per cent. In the same cities in 1880 the male employés were 70.45 per cent of the total, the females 23.06 per cent, and the children 6.49 per cent. Considering the totals for the 165 cities in 1890, it appears that the males form 77.41 per cent of the total, the females 20.49 per cent, and the children 2.10 per cent. The reports for 1880 do not show separately the wages paid males, females, or children, therefore no comparisons can be made. A comparison of the average wages, however, for males, females, and children, as obtained from the reports in the Eleventh Census, is made in the following statement. This statement

INTRODUCTION.

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AVERAGE ANNUAL AND WEEKLY EARNINGS FOR MALES, FEMALES, AND CHILDREN, ETC.—Continued.

HOSIERY AND KNIT GOODS.

CITIES.	OPERATIVES AND SKILLED.						UNSKILLED.						PIECEWORKERS.		
	Males above 16 years.		Females above 15 years.		Children.		Males above 16 years.		Females above 15 years.		Children.		Average annual earnings.		
	Average weekly earnings.	Average annual earnings.	Males above 16 years.	Females above 15 years.	Children.										
New York, N. Y.	\$14.58	\$690	\$0.56	\$290	\$5.15	\$225	\$0.88	\$447	\$3.00	\$150			\$210	\$208	
Chicago, Ill.	10.46	432	5.78	280	3.17	119	9.99	499	6.00	300			263	263	
Philadelphia, Pa.	11.47	610	6.46	277	3.39	148	10.07	471	4.32	180	\$2.58	\$100	884	262	\$140
Brooklyn, N. Y.	11.24	543	3.59	167			7.57	339	2.98	149			428	67	
St. Louis, Mo.	5.28	264	5.54	247									217		
Boston, Mass.	10.72	521	8.08	386									723	216	
Baltimore, Md.	9.75	427											79		
San Francisco, Cal.															
Cincinnati, Ohio.	11.21	557	5.29	257	3.22	161	9.16	454	4.80	60				203	
Cleveland, Ohio.	12.66	611	4.32	216			4.94	242					194	156	

The lack of uniformity on the part of manufacturers in assigning the employes to the two classes of skilled and unskilled will account for some of the discrepancies between the average earnings of the skilled and unskilled employes shown in the above statement. Considering 52 weeks to a year, in most instances the average weekly earnings shown in this statement indicate that a greater amount was paid as wages during the year than is shown by the average annual earnings. This apparent inconsistency is due entirely to the fact that the weekly earnings are controlled by the time the individual establishments report as having been in operation during the census year, while the average annual earnings are obtained by dividing the total wages by the average number of employes. The highest average weekly and yearly earnings of skilled females shown in this statement, \$8.08 and \$386, respectively, are reported for "Hosiery and knit goods", in Boston, Mass. The highest average weekly and yearly earnings of skilled males, \$17.33 and \$880, respectively, are shown for "Furnishing goods, men's", in Chicago, Ill. The lowest average weekly earnings, \$3.56, shown for skilled females is reported for "Boxes, fancy and paper", in Baltimore, Md. The lowest average annual earnings for skilled females, \$167, is shown for "Hosiery and knit goods", in Brooklyn, N. Y., while the lowest average weekly and annual earnings for skilled males, \$5.28 and \$264, respectively, is given for "Hosiery and knit goods", in St. Louis, Mo.

There does not appear such a marked difference in the average wages paid skilled and unskilled females as is shown for the same classes of males. This comparative uniformity in the wages of the different classes of females is due to the fact that the work on which a large proportion of the females are engaged is of the character performed by employes usually classed as "Operatives and skilled", and in making reports to this office the majority of manufacturers have assigned the females to that class. Of the 187,111 skilled and unskilled females shown for the 50 selected industries presented in Table 6, 176,586, or 94.37 per cent, are classed as "Operatives and skilled", while 10,525, or 5.63 per cent, are reported as "Unskilled". Of the 665,071 skilled and unskilled males, 530,794, or 79.81 per cent, are reported as "Operatives and skilled", and 134,277, or 20.19 per cent, as "Unskilled". In some instances the only females reported as "Unskilled" are charwomen, packers, and those in similar occupations, all engaged in any manner in the manipulation of the materials being reported as "Operatives and skilled". The average earnings per employe for the males exceeds that of the females, not only in the different classes of employes working according to time, but for pieceworkers, excepting in the manufacture of "Boxes, fancy and paper"; "Hosiery and knit goods", and "Shirts". Certain branches of the work in these industries are especially adapted to women, and in the manufacture of fancy boxes the average annual earnings of female pieceworkers in a number of cities exceeds that of the males. The female pieceworkers in the 6 industries for the 10 cities shown in the above statement constitute 58.23 per cent of the total pieceworkers, while in the manufacture of "Boxes, fancy and paper"; "Hosiery and knit goods", and "Shirts", they are 85.11, 81.52, and 65.12 per cent of the totals, respectively.

The employment of females in the manufactures in cities appears to be more general than in the districts outside the cities. The percentages that the different classes are of the aggregate employes in the 165 cities are as follows: males above 16 years, 77.41 per cent; females above 15 years, 20.49 per cent, and children, 2.10 per cent. In the United States exclusive of the cities the males form 82.80 per cent of the aggregate, females 13.89 per cent, and children 3.31 per cent, the percentage of females in the cities exceeding those in the districts outside the cities by 6.60. In considering totals that comprise all classes of industries, the larger percentage of females in the cities is due, to some extent, to the fact that some industries peculiar to the cities, such as the manufacture of clothing, dressmaking, and millinery, employ a large proportion of females. The manufacture of cotton goods being conducted extensively in the 165 cities as well as in the districts outside the cities, is not open to this objection. In the 165 cities the males employed in this industry are 40.34 per cent of the aggregate employes, females 51.90 per cent,

and children 7.76 per cent, while in the country exclusive of the cities the males are 42.27 per cent of the aggregate, females 44.19 per cent, and children 13.54 per cent. In the manufacture of baskets and rattan and willow ware in the cities, the male employes are 83.68 per cent of the aggregate, females 11.57 per cent, and children 4.75 per cent. Outside of the cities the males are 66.75 per cent, the females 23.06 per cent, and children 10.19 per cent.

In this report the statistics concerning employes and wages will not be given in the detailed form reported at the Eleventh Census except in the case of selected industries. Tables 2 and 3 present these data in the form in which they will be shown for all industries. These tables show the average number of males above 16 years, females above 15 years, and children, respectively, and the total wages paid to each, by classes of "Officers, firm members, and clerks"; "Operatives, including skilled and unskilled workmen", and "Pieceworkers". Table 6 presents in detail the statistics of employes and wages for 50 selected industries; this table shows the average number of males above 16 years, females above 15 years, and children, and total wages, by classes, and gives the average weekly earnings per employe for each class, also the average number of employes at specified weekly rates of wages, and the average number of hours in an ordinary day of labor. In making comparisons of employes at specified weekly rates of wages, with the average weekly earnings per employe, it must be remembered that it is not practicable to obtain true average weekly earnings from a table of weekly rates, due, in part, to the fact that the term of employment varies for employes reported at the respective rates.

The method used to compute the average weekly earnings is as follows:

The number of weeks reported by individual establishments as their term of operation is multiplied by the average number of employes in each class; the product is the number of weeks required for 1 employe to perform the labor. The sum of these products of individual establishments divided into the sum of wages for the same establishments produces the true average weekly earnings per employe.

The average number of employes is the number necessary to be continually employed during the time the establishment is reported as being in operation in the census year to perform the work of a varying number.

Excluding officers, firm members, clerks, and pieceworkers at the census of 1890, wage earners proper are divided into two classes, namely: (1) "Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers)"; (2) "Watchmen, laborers, teamsters, and other unskilled workmen".

The first class was intended to include engineers, skilled artisans, overseers, and foremen or superintendents, and all employes engaged in the manipulation of the materials and operation of machines. The lack of uniformity, however, in distributing employes in answer to these questions renders a comparison of them in some cases misleading; for instance, "Slaughtering and meat packing, wholesale", in the city of Chicago, reports 3,801 operatives and skilled males, receiving average weekly earnings of \$17.35, and 11,074 unskilled males averaging \$10.13 per week, a difference of over \$7 in the average weekly earnings, the average weekly earnings for the skilled males being largely in excess of those in most of the other cities. This excess appears to be due almost entirely to the distribution of employes in the different classes. If the skilled and unskilled classes were consolidated and their average weekly earnings compared with a similar consolidation in other cities there would not be such a difference.

In "Clothing, men's, wholesale", of Chicago, there are 10,841 operatives and skilled males reported, with average earnings per week of \$7.60, while 13 unskilled males average \$10.54 per week, or \$2.94 more than the skilled workmen. This result frequently occurs in industries where a large proportion of the employes are operatives (including apprentices) and so reported, while the unskilled class apparently only includes watchmen, teamsters, and laborers, reported as receiving higher wages than a number of the ordinary operatives.

The industry, "Tobacco, chewing, smoking, and snuff", in Louisville, Ky., shows 472 operatives and skilled males, averaging \$6.22 per week; 37 females, \$2.89, and 82 children, \$1.48; while 238 unskilled males average \$6.55; 10 females, \$5.53, and 31 children, \$1.77 per week, the average for the unskilled being the highest in each instance. The result appears to be due to the fact that some establishments report only watchmen, teamsters, and laborers in the unskilled class, while some report as unskilled those classes of employes which are reported as skilled by others.

As a further explanation of the apparent inconsistencies in the average weekly earnings for the same class of employes in different industries, or for the same industry in different cities, attention is called to the following:

1. In the cities where the cost of living is high, such as Portland, Ore.; Seattle and Tacoma, Wash., and San Francisco, Cal., the average earnings are as a rule greater than those reported in other cities.

2. The character of the establishments and grades of product are varied. In one city the products of an industry may be of the highest possible grade, requiring the most competent workmen, commanding high wages, while another may manufacture a low or poor grade of product, requiring less skill on the part of the workman and necessarily lower wages.

3. An industry in some cities may be represented by small establishments in which the product consists almost entirely of custom work and repairing, and in which firm members represent the majority of the skilled workmen. In establishments of this character the firm member should be considered with the skilled and unskilled employes when compared with cities in which the industry is represented principally by large establishments.

4. The high or low average earnings is frequently due to the fact that a large number of employes are reported as working on piecework and represent either the cheapest or the highest paid labor, also to the greater proportion of adult employes in some industries than in others, and to the fact that for some industries a large number of apprentices are reported.

5. The average weekly earnings for a given class of employes in an industry, where there are but a comparatively few hands, may be higher than the earnings shown for the same class in the same industry in a city where a larger number of employes are reported. This is due to the fact that the range of wages in a large number is wider, and if the larger proportion of the employes received comparatively low wages the general average is reduced.

In certain industries in San Francisco, particularly the following: "Boots and shoes, factory product"; "Clothing, men's, factory product"; "Clothing, women's, factory product"; "Furnishing goods, men's"; "Shirts", and "Tobacco, cigars and cigarettes", a large number of the establishments are owned and operated by Chinese. In these establishments almost all the labor is performed by firm members, one establishment reporting as many as 40, and usually at low rates of wages.

The summary on the two following pages, taken from Table 6, presents, for 29 selected industries common to each of the 10 leading cities ranked according to population, the average number of operatives, skilled and unskilled, employed during the year, and the average weekly earnings of males, females, and children, respectively, of both classes, in each city.

MANUFACTURING INDUSTRIES.

AVERAGE WEEKLY EARNINGS OF MALES, FEMALES, AND CHILDREN, BY CLASSES OF OPERATIVES AND SKILLED RANKED ACCORDING

INDUSTRIES.	NEW YORK, N. Y.						CHICAGO, ILL.							
	Average number of operatives, skilled and unskilled.	Average weekly earnings.			Average weekly earnings.			Average number of operatives, skilled and unskilled.	Average weekly earnings.			Average weekly earnings.		
		Operatives and skilled.			Unskilled.				Operatives and skilled.			Unskilled.		
		Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.		Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.
1 Awnings, tents, and sails.....	553	\$15.92	\$7.70	.....	\$7.26	.....	210	\$14.00	\$6.69	\$2.50	\$7.35	\$5.81	.....
2 Bookbinding and blank-book making.....	3,581	13.32	6.22	\$3.09	7.98	\$0.23	845	11.46	6.53	3.64	7.01	.....	\$5.03	
3 Boots and shoes, factory product.....	1,740	12.91	7.78	3.00	7.75	5.54	3,002	11.35	6.43	3.24	8.68	5.26	2.89	
4 Boxes, fancy and paper.....	2,893	11.57	6.15	3.68	8.43	4.00	522	8.53	4.64	2.63	6.13	4.66	2.31	
5 Brass castings and brass finishing.....	602	12.24	5.02	3.96	7.36	.....	521	12.12	6.47	4.53	7.40	.....	2.50	
6 Brooms and brushes.....	514	10.22	5.63	2.62	9.89	3.00	230	10.75	5.73	4.55	8.03	4.40	3.83	
7 Clothing, men's, factory product.....	12,453	14.24	6.59	3.49	12.22	6.41	\$1.25	12,735	7.00	5.38	3.09	10.54	4.01	.....
8 Clothing, women's, factory product.....	13,403	14.05	7.49	3.39	8.52	5.63	3.02	2,070	12.73	6.68	2.92	13.00	10.00	.....
9 Cooperage.....	465	14.74	.....	4.00	11.13	.....	734	10.45	.....	4.80	8.90	.....	3.00	
10 Flouring and grist mill products.....	408	14.70	0.86	.....	9.17	3.00	252	13.54	5.09	.....	11.01	6.00	.....
11 Foundry and machine shop products.....	8,944	15.16	7.19	7.91	8.93	5.56	3.13	10,960	11.05	5.71	4.12	9.84	5.47	4.44
12 Furniture, factory product.....	5,655	14.39	8.44	4.10	9.70	6.65	.....	5,895	11.16	7.37	2.98	8.76	5.83	2.68
13 Hats and caps, not including wool hats.....	1,554	12.96	6.88	3.33	9.54	7.38	.....	93	14.31	6.28	4.00	.....	.....	.....
14 Ironwork, architectural and ornamental.....	2,752	13.40	0.00	.....	9.26	.....	3.17	2,222	13.48	.....	4.97	9.48	.....	4.16
15 Jewelry.....	1,469	14.21	7.48	.....	5.20	3.00	.....	288	15.65	6.50	4.00	.....	.....	.....
16 Liquors, malt.....	2,871	19.32	.....	.....	15.53	.....	3.33	1,865	14.28	.....	.....	13.24	4.62	.....
17 Lumber, planing mill products, including sash, doors, and blinds.....	2,573	15.30	.....	.....	10.40	.....	.....	7,398	11.97	5.71	1.71	9.02	3.85	3.57
18 Mattresses and spring beds.....	496	13.82	7.45	.....	8.35	3.50	.....	357	12.22	8.68	1.50	9.21	4.75	2.75
19 Musical instruments and materials, not specified.....	164	12.20	5.99	.....	7.49	.....	.....	150	9.92	.....	3.00	.....	6.41	.....
20 Patent medicines and compounds.....	591	13.06	6.94	4.09	8.89	6.67	.....	215	12.52	6.29	3.56	10.72	3.76	3.61
21 Printing and publishing, book and job.....	9,152	13.31	7.01	4.25	6.60	5.10	4.10	5,585	12.85	6.48	4.23	8.16	9.38	3.46
22 Saddlery and harness.....	604	13.53	6.78	5.00	7.52	.....	.....	553	11.10	6.12	4.76	9.71	.....	5.88
23 Shirts.....	1,932	13.78	7.12	3.30	7.69	4.77	.....	1,001	10.96	6.44	3.00	7.88	3.61	.....
24 Soap and candles.....	659	13.29	5.28	.....	9.77	3.24	.....	904	13.62	6.80	4.67	7.04	4.08	4.18
25 Tobacco, cigars and cigarettes.....	5,475	11.53	7.20	3.16	8.08	5.92	2.94	710	11.31	6.05	3.54	4.88	4.94	3.83
26 Trunks and valises.....	487	12.67	6.01	.....	7.15	6.00	.....	231	10.83	5.77	2.88	12.81	.....	.....
27 Umbrellas and canes.....	1,793	12.01	6.70	2.25	8.59	4.81	.....	12	10.91	5.52	.....	.....	.....	.....
28 Wirework, including wire rope and cable.....	475	12.42	4.11	4.59	8.79	4.44	.....	272	11.49	6.22	3.93	10.71	.....	3.85
29 Wood, turned and carved.....	473	12.60	6.73	1.92	6.92	.....	.....	236	10.60	.....	3.17	8.18	.....	3.00

INDUSTRIES.	BOSTON, MASS.						BALTIMORE, MD.							
	Average number of operatives, skilled and unskilled.	Average weekly earnings.			Average weekly earnings.			Average number of operatives, skilled and unskilled.	Average weekly earnings.			Average weekly earnings.		
		Operatives and skilled.			Unskilled.				Operatives and skilled.			Unskilled.		
		Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.		Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.
1 Awnings, tents, and sails.....	146	\$16.19	\$7.28	.....	\$6.00	\$7.98	.....	107	\$14.79	\$4.55	.....	.....	.....	.....
2 Bookbinding and blank-book making.....	875	10.98	6.14	\$2.47	8.06	6.02	\$4.50	138	10.67	4.37	.....	\$4.92	\$3.23	\$2.50
3 Boots and shoes, factory product.....	240	10.48	7.51	3.46	7.69	8.00	.....	566	8.88	4.08	\$2.23	3.00	.....	.....
4 Boxes, fancy and paper.....	274	11.21	5.48	.....	9.23	6.17	.....	230	8.64	3.56	4.25	4.41	4.56	2.50
5 Brass castings and brass finishing.....	543	11.92	.....	.....	8.60	.....	.....	1,133	10.18	4.81	2.00	4.06	.....	.....
6 Brooms and brushes.....	325	9.58	3.95	3.00	5.60	4.14	.....	238	7.13	4.72	3.22	4.48	.....	.....
7 Clothing, men's, factory product.....	2,810	13.67	6.94	6.00	9.72	8.30	.....	4,311	11.28	6.58	1.95	7.54	4.43	2.50
8 Clothing, women's, factory product.....	516	10.39	7.06	1.92	.....	.....	3.00	187	15.19	5.17	3.85	9.92	.....	.....
9 Cooperage.....	171	11.81	.....	.....	9.95	.....	.....	265	9.52	.....	.....	7.44	.....	.....
10 Flouring and grist mill products.....	30	12.57	.....	.....	10.54	.....	.....	172	14.19	.....	.....	8.64	.....	.....
11 Foundry and machine shop products.....	4,127	12.95	5.94	5.77	9.01	2.60	3.00	2,836	11.32	.....	2.00	7.32	.....	4.14
12 Furniture, factory product.....	1,613	12.18	7.81	.....	7.35	6.92	.....	778	9.24	5.00	1.45	7.99	.....	.....
13 Hats and caps, not including wool hats.....	210	18.85	6.60	.....	5.92	.....	.....	269	11.18	6.48	2.61	6.86	6.54	.....
14 Ironwork, architectural and ornamental.....	473	12.44	10.00	3.00	9.04	.....	.....	85	11.15	.....	.....	6.83	.....	.....
15 Jewelry.....	355	11.45	6.88	2.01	14.42	.....	.....	67	11.92	4.81	3.00	.....	.....	.....
16 Liquors, malt.....	666	16.40	.....	.....	13.68	.....	.....	531	14.03	.....	5.00	13.35	.....	.....
17 Lumber, planing mill products, including sash, doors, and blinds.....	1,251	13.01	.....	.....	10.65	.....	3.50	803	11.36	.....	2.95	8.76	.....	.....
18 Mattresses and spring beds.....	350	11.60	5.30	2.95	7.94	.....	.....	61	8.33	5.02	3.00	4.65	.....	.....
19 Musical instruments and materials, not specified.....	99	13.06	10.10	3.00	4.13	.....	.....	5	7.20	.....	.....	.....	.....	.....
20 Patent medicines and compounds.....	155	13.11	6.17	.....	7.73	6.33	.....	601	11.24	4.38	4.36	7.74	2.12	.....
21 Printing and publishing, book and job.....	2,164	12.56	7.60	3.53	5.68	5.04	2.98	701	8.69	4.16	3.15	3.69	.....	2.99
22 Saddlery and harness.....	256	12.01	6.78	.....	5.84	.....	2.88	418	6.87	3.65	2.88	5.29	.....	.....
23 Shirts.....	439	14.14	6.74	3.00	.....	4.81	.....	637	8.75	4.63	1.08	6.73	3.00	1.91
24 Soap and candles.....	241	10.89	4.38	.....	8.94	.....	.....	134	9.87	.....	.....	8.94	.....	3.40
25 Tobacco, cigars and cigarettes.....	372	12.33	6.85	.....	4.92	4.35	.....	520	8.08	4.70	3.08	5.23	5.22	3.26
26 Trunks and valises.....	147	11.96	4.85	.....	9.58	.....	.....	50	7.76	.....	1.00	5.00	.....	.....
27 Umbrellas and canes.....	92	11.11	6.70	3.50	.....	.....	.....	30	10.38	3.99	.....	.....	.....	.....
28 Wirework, including wire rope and cable.....	111	10.09	6.41	4.00	5.03	.....	.....	55	10.75	.....	.....	.....	.....	.....
29 Wood, turned and carved.....	163	12.83	.....	.....	7.44	.....	.....	40	7.62	.....	1.00	4.00	.....	.....

INTRODUCTION.

AND UNSKILLED EMPLOYÉS, FOR 29 SELECTED INDUSTRIES COMMON TO EACH OF THE 10 PRINCIPAL CITIES TO POPULATION: 1890.

PHILADELPHIA, PA.							BROOKLYN, N. Y.							ST. LOUIS, MO.							
Average number of operatives, skilled and unskilled.	Average weekly earnings.						Average number of operatives, skilled and unskilled.	Average weekly earnings.						Average number of operatives, skilled and unskilled.	Average weekly earnings.						
	Operatives and skilled.			Unskilled.				Operatives and skilled.			Unskilled.				Operatives and skilled.			Unskilled.			
	Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.		Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.		Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.	
148	\$14.76	\$0.64	\$3.10	\$6.37	.....	.....	68	\$12.75	\$0.52	.....	\$6.00	.....	.....	162	\$11.70	\$4.25	.....	\$8.73	.....	\$3.85	1
1,062	10.70	5.87	3.76	6.79	.....	\$4.36	578	10.41	8.20	\$2.88	10.20	\$6.00	.....	335	10.00	5.95	\$4.37	9.64	.....	2.87	2
2,237	10.45	6.22	2.66	9.52	\$2.00	3.15	967	11.10	6.15	4.16	8.77	6.07	.....	2,215	10.68	5.73	3.62	9.58	\$3.42	1.07	3
837	8.86	3.87	2.02	8.78	7.00	2.80	806	10.19	4.77	3.20	8.81	4.85	.....	104	6.86	3.86	5.00	5.31	1.92	.....	4
587	11.56	8.18	4.71	9.07	.....	.....	220	11.70	.....	2.77	2.33	.....	.....	247	12.24	.....	.....	8.68	.....	3.00	5
269	8.79	4.06	2.67	5.17	.....	3.37	122	10.94	4.92	.....	6.77	.....	.....	183	9.67	5.00	2.82	9.11	.....	.....	6
3,253	14.14	6.29	3.15	9.04	3.29	4.09	3,879	10.01	6.34	2.76	4.49	3.22	\$2.67	1,990	10.84	5.85	1.80	10.07	.....	2.55	7
848	13.47	6.95	3.28	7.22	.....	3.02	403	12.82	5.09	.....	5.25	3.44	2.88	159	10.26	7.09	.....	.....	.....	2.46	8
756	10.06	.....	4.61	9.36	.....	4.00	1,250	9.88	.....	.....	11.41	.....	.....	653	10.31	.....	4.39	8.78	.....	.....	9
104	11.19	6.00	.....	9.55	.....	.....	143	16.69	.....	.....	11.08	.....	.....	651	15.03	.....	.....	10.69	.....	5.42	10
14,868	12.86	7.61	3.64	8.25	5.74	3.16	6,435	13.49	4.20	3.94	9.70	4.00	.....	5,027	11.56	5.45	3.31	8.04	.....	3.40	11
2,108	11.87	6.98	3.22	9.50	5.77	.....	760	13.98	17.31	.....	9.20	.....	.....	1,166	10.83	5.56	4.15	9.46	6.09	3.45	12
1,074	11.82	7.31	2.64	4.68	.....	1.94	808	14.46	6.24	3.33	9.39	3.64	.....	28	13.25	5.46	2.46	.....	.....	4.63	13
857	11.95	.....	3.63	8.24	.....	3.12	815	12.68	.....	.....	11.08	.....	4.00	874	14.15	10.26	4.40	8.72	.....	3.25	14
744	13.25	6.51	4.12	5.68	10.00	3.65	243	13.72	5.47	.....	8.24	.....	.....	160	14.15	7.98	3.10	.....	.....	.....	15
1,680	14.07	.....	.....	13.25	.....	3.73	1,536	18.09	.....	.....	15.19	.....	.....	2,632	15.25	.....	3.51	11.12	.....	5.77	16
1,894	13.10	.....	1.15	7.40	.....	2.96	2,431	12.59	.....	4.81	9.10	7.69	.....	1,424	13.07	9.62	3.48	8.23	.....	3.21	17
224	10.27	5.75	2.77	9.51	.....	.....	105	11.25	6.29	.....	7.29	5.00	.....	203	7.94	6.07	3.05	7.23	5.00	5.00	18
132	12.48	4.81	3.46	7.47	.....	.....	87	9.77	3.22	4.87	5.13	.....	.....	4	7.35	.....	.....	.....	.....	2.50	19
385	13.23	5.47	3.00	8.63	4.59	3.50	73	10.37	5.87	3.00	6.75	5.00	.....	391	11.75	4.90	3.52	9.57	5.39	3.99	20
4,123	11.56	5.33	3.69	7.99	5.10	2.66	849	11.57	6.26	3.32	8.90	4.20	3.13	2,310	11.54	5.80	3.45	6.47	2.99	3.05	21
959	11.24	2.51	3.14	8.51	.....	2.75	173	10.94	.....	4.18	7.68	8.00	.....	517	11.43	4.12	2.85	7.27	.....	2.31	22
537	11.08	6.09	2.82	8.32	.....	3.44	394	12.54	3.58	.....	2.77	2.41	.....	164	10.87	5.00	.....	8.03	.....	4.23	23
476	10.50	9.10	3.42	10.23	.....	.....	128	11.97	7.40	.....	7.43	2.88	.....	198	12.60	.....	3.75	9.55	4.53	1.12	24
1,304	9.89	6.04	3.03	6.00	4.54	3.23	498	10.31	5.48	3.85	5.15	5.64	.....	382	9.26	5.21	2.96	7.72	3.00	2.78	25
160	9.98	5.50	2.90	7.77	.....	2.46	39	10.14	.....	.....	8.88	.....	.....	100	11.58	.....	3.00	7.49	.....	.....	26
1,492	9.20	6.29	4.25	10.03	6.09	.....	123	11.16	5.38	5.13	4.62	.....	.....	19	10.32	4.66	1.44	.....	.....	3.50	27
156	10.21	6.13	4.00	5.93	.....	3.50	153	11.85	6.75	3.00	8.71	.....	3.03	192	9.88	6.00	4.54	11.33	.....	3.85	28
327	10.22	.....	2.03	8.60	.....	4.28	180	12.85	8.00	4.00	8.60	.....	.....	142	12.83	.....	3.13	7.45	.....	.....	29

SAN FRANCISCO, CAL.							CINCINNATI, OHIO.							CLEVELAND, OHIO.							
Average number of operatives, skilled and unskilled.	Average weekly earnings.						Average number of operatives, skilled and unskilled.	Average weekly earnings.						Average number of operatives, skilled and unskilled.	Average weekly earnings.						
	Operatives and skilled.			Unskilled.				Operatives and skilled.			Unskilled.				Operatives and skilled.			Unskilled.			
	Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.		Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.		Males above 16 years.	Females above 15 years.	Children.	Males above 16 years.	Females above 15 years.	Children.	
71	\$21.08	\$7.16	\$4.00	.....	.....	.....	49	\$10.70	\$4.66	\$2.03	.....	.....	.....	66	\$13.05	\$6.16	.....	\$13.70	.....	.....	1
221	15.70	5.07	3.00	\$6.58	\$3.20	\$8.60	100	9.83	5.30	3.75	\$5.00	.....	.....	60	10.69	4.36	\$2.88	3.40	.....	\$3.46	2
1,187	9.74	8.09	4.33	10.58	.....	3.33	2,953	10.18	6.96	2.17	10.90	\$4.00	.....	124	11.27	6.32	3.69	11.71	.....	.....	3
92	12.02	6.29	5.25	6.30	.....	.....	230	9.26	4.09	2.88	7.00	.....	.....	88	12.10	4.75	.....	8.70	\$3.85	2.31	4
102	16.30	.....	3.65	12.50	.....	2.41	702	10.06	4.93	2.83	7.56	6.55	.....	198	12.11	.....	3.65	4.65	.....	.....	5
36	5.30	6.59	1.21	7.50	.....	3.49	136	10.13	1.92	2.50	6.78	.....	.....	62	12.09	3.50	5.77	6.58	4.12	4.81	6
279	10.33	7.04	.....	10.26	4.52	.....	3,092	13.95	4.60	2.67	10.13	3.07	\$3.83	162	14.08	5.16	.....	6.09	2.47	.....	7
621	8.06	7.21	4.92	10.26	4.52	.....	1,129	10.31	7.11	1.92	8.20	3.01	.....	104	13.24	7.46	.....	7.42	.....	.....	8
127	15.64	.....	5.77	10.28	.....	5.15	658	9.68	.....	.....	7.80	.....	.....	168	10.47	.....	4.33	8.47	.....	4.26	9
182	17.05	5.45	3.91	14.10	5.77	.....	81	13.27	5.03	.....	8.78	.....	.....	105	12.52	4.20	.....	9.40	4.20	.....	10
2,570	17.19	5.96	5.12	12.07	3.00	3.00	4,894	11.34	7.00	2.92	7.66	.....	4.67	5,097	10.58	3.93	4.02	8.30	3.37	3.69	11
455	14.20	8.50	.....	9.49	.....	4.50	2,590	10.23	5.22	3.30	8.85	.....	2.10	281	10.90	5.19	3.74	6.33	3.85	2.88	12
37	17.68	6.98	4.16	5.07	.....	.....	50	8.40	5.24	3.00	4.00	.....	.....	70	12.17	5.67	.....	3.61	.....	1.50	13
254	16.18	.....	4.54	10.79	.....	2.88	520	12.01	.....	.....	9.06	.....	.....	123	13.78	.....	.....	9.01	.....	2.88	14
218	17.23	.....	3.69	5.00	.....	.....	274	11.69	6.02	3.33	9.26	.....	.....	83	13.59	4.81	2.88	4.58	.....	3.37	15
481	21.61	.....	.....	16.57	6.17	5.33	1,576	16.06	.....	5.02	12.40	.....	2.80	440	15.79	.....	.....	14.20	.....	.....	16
786	15.59	.....	5.00	9.84	.....	5.43	1,183	13.69	.....	3.85	8.84	.....	3.35	821	12.07	.....	5.77	7.55	.....	4.09	17
95	12.18	8.57	.....	5.77	9.64	.....	75	8.45	5.37	3.11	4.00	.....	3.60	98	9.98	5.76	.....	8.68	6.92	.....	18
3	11.21	.....	.....	.....	.....	.....	2	7.83	.....	.....	.....	.....	.....	3	11.37	.....	.....	.....	.....	.....	19
54	13.80	7.84	2.60	8.24	4.00	.....	95	13.16	4.33	2.75	15.49	.....	4.00	55	9.86	3.02	5.10	.....	2.10	2.04	20
795	13.34	6.70	3.77	9.44	.....	4.21	1,263	12.01	5.53	3.26	7.15	4.42	3.36	434	10.92	6.52	2.88	4.28	5.01	4.81	21
322	11.43	5.60	4.17	6.61	.....	3.50	726	10.75	5.00	2.77	8.34	.....	.....	266	9.62	6.56	2.04	3.46	.....	.....	22
579	12.30	6.60	3.46	5.64	.....	4.00	63	13.69	4.89	.....	1.92	3.29	.....	32	15.71	7.33	.....	4.50	.....	.....	23
167	13.57	4.99	4.04	11.07	5.73	3.50	650	10.52	1.85	.....	6.48	3.88	3.00	15	11.31	.....	.....	8.04	.....	.....	24
195	9.52	6.08	4.21	5.53	5.36	3.45	625	9.13	6.86	2.83	6.71	4.91	2.63	148	8.71	4.73	2.78	.....	.....	5.29	25
114	12.67	7.57	4.62	21.38	.....	5.38	176	10.65													

As previously explained, the average weekly earnings per employé for the different classes are obtained by using the time required for 1 employé in a class to perform the work of all the employés reported for that class as a divisor of the total wages paid that class. The time used in making this calculation is the time the entire establishment reports as having been in operation during the year, and not the actual time each employé reported for each class was engaged. In the comparison of the average weekly earnings of males, females, and children in the two classes of employés in the different cities the number of employés reported for each class has been omitted from the above statement and only the total of the average number reported for the two classes shown. In making a critical analysis of the weekly earnings or in endeavoring to explain apparent inconsistencies, the number of employés should be considered, also the numerous contingencies referred to above that affect the averages. The number of employés can be readily obtained from Table 6.

Considerable range is shown in the average weekly earnings for the different industries in the same city. For instance, the highest weekly wages paid skilled male operatives, \$19.32, in the city of New York, appears for the manufacture of "Liquors, malt", while the lowest, \$10.22, is given for "Brooms and brushes". The highest weekly wages paid skilled females in the same city, \$9.86, is shown for "Flouring and grist mill products", while the lowest, \$4.11, is given for "Wirework, including wire rope and cable". The highest average weekly earnings for skilled male operatives in any of the cities or industries shown in the above statement is \$21.61, reported for "Liquors, malt", in the city of San Francisco, Cal., while the lowest, \$5.30, is given in the same city for the manufacture of "Brooms and brushes". The highest weekly earnings of skilled females, \$17.31, is reported for "Furniture, factory product", in Brooklyn, N. Y., while the lowest, \$1.85, is shown for "Soap and candles", in Cincinnati, Ohio.

In the manufacture of "Liquors, malt", in New York city, the industry referred to as paying the highest weekly wages to skilled employés, there are 3,344 employés reported as receiving \$3,589,548 as wages during the census year, or annual average earnings per employé of \$1,073.43, but this average can not be considered in any sense as indicating the average annual earnings or wages of employés in this industry. The total amount of wages includes \$1,134,436 paid as salaries to 473 officers, firm members, and clerks. The average annual earnings for this class of employés being \$2,398.38. Subtracting the amount paid officers, firm members, and clerks from the total wages, there remains \$2,455,112 as wages for 2,871 employés, or annual earnings per employé of \$855.14; but in accepting this amount or a similar amount as the average annual earnings of employés in any industry that may be selected, it must be remembered that it includes the wages of males and females, apprentices, young persons, and adults, employés working the entire year, and those engaged for short periods, also pieceworkers, and that the average is affected by the difference in the proportions of these different classes of employés, as well as by the conditions prevailing in the different industries and in different localities, some industries requiring a larger proportion of skilled and high-paid employés than others, and the cost of living in some localities being high the wages are necessarily higher than in others. A further examination of the figures given in Table 6 for "Liquors, malt", in New York city shows that the average weekly earnings of officers and firm members was \$98.14; of male clerks, \$30.86; and of female clerks, \$28.85; of skilled operatives, \$19.32, as compared with \$15.53 for the unskilled workmen, and that the 9 children reported receive on an average \$3.33 per week. There are no pieceworkers reported for the industry, and the only female is employed as a clerk. There are 2,871 persons reported as skilled or unskilled employés; of this number 829 are assigned to the skilled and 2,042 to the unskilled, the proportion of the skilled to the unskilled being smaller than in the same industry in the majority of the cities. This fact may account, in part at least, for the high average wages shown for the skilled employés, as only those persons receiving high wages were considered and classed by the establishments reporting as skilled workmen. Table 6 exhibits the entire number of employés, classed as males, females, and children, excluding pieceworkers, reported at different specified weekly rates of wages. Of the total number of male employés shown for the manufacture of "Liquors, malt", in New York city, 2,087, or 62.60 per cent, are reported as receiving \$15 and over but under \$20 per week; while but 46 out of the 3,334 received less than \$10 per week. The 1 female reported is rated as receiving \$25 and over per week. Eight of the 9 children receive less than \$5 per week, 1 being reported as receiving \$5 and over but under \$6.

The average number of employés at specified weekly rates of wages conveys a more definite idea of the actual wages paid than can be obtained from general averages. Table 6 presents, for 50 selected industries in each of the 165 cities, the average number of males, females, and children, respectively, reported at specified weekly rates of wages. All classes of employés receiving wages according to time are included in this presentation, pieceworkers only being omitted. Officers, firm members, and clerks are included; therefore the table must not be considered as showing only the number of skilled and unskilled workmen receiving the different rates of pay.

The summary on the following page presents the aggregate number of males, females, and children, including officers, firm members, and clerks, but not pieceworkers, reported at specified weekly rates of wages in the 50 selected industries of the 165 cities.

INTRODUCTION.

AVERAGE NUMBER OF EMPLOYÉS, INCLUDING OFFICERS, FIRM MEMBERS, AND CLERKS, BUT NOT PIECEWORKERS,
REPORTED AT SPECIFIED WEEKLY WAGES: 1890.

WEEKLY WAGES.	Total.	Males above 16 years.	Females above 15 years.	Children.
Total	976,516	757,875	192,345	26,296
Under \$5	121,174	41,840	54,986	24,348
\$5 and over but under \$6	68,460	27,641	39,315	1,504
\$6 and over but under \$7	84,786	45,251	39,188	347
\$7 and over but under \$8	76,180	51,977	24,106	97
\$8 and over but under \$9	70,924	54,213	16,711	.....
\$9 and over but under \$10	86,989	79,117	7,872	.....
\$10 and over but under \$12	113,560	107,654	5,906	.....
\$12 and over but under \$15	142,738	140,214	2,524	.....
\$15 and over but under \$20	133,237	136,918	1,319	.....
\$20 and over but under \$25	37,241	36,986	255	.....
\$25 and over	36,227	36,064	163	.....

The 976,516 employés shown in this statement are obtained from the reports of 44,224 establishments. Excluding pieceworkers, there were 3,953,038 employés reported for the mechanical and manufacturing industries in the entire United States and the number given in this statement represents 24.70 per cent of the total.

The largest number of employés, 142,738, or 14.62 per cent of the total, are reported as receiving \$12 and over but under \$15 a week; the largest number of males, 140,214, or 18.50 per cent of the total males, are reported for the same class. The largest number of females, 54,986, or 28.59 per cent of the total females, are reported as receiving less than \$5 a week, and the largest number of children are reported at the same rate.

MATERIALS USED.

The cost of materials is the cost at the place of consumption of all materials used during the year. With the exception of the schedules on which a few selected industries were reported at the census of 1880, the question concerning materials was as follows: "Value of materials used (including mill supplies and fuel)". At the census of 1890 the schedule contained separate questions as to the kind, quantity, and cost of the "Principal materials", cost of "Mill supplies"; "Fuel", and "All other materials". The amounts paid for rent of power and heat are also shown under this head in 1890. It is probable that some of the items included in the cost of materials at the census of 1880 are included in "Miscellaneous expenses" in the inquiry of 1890, as miscellaneous expenses were not reported in 1880. This is especially true of the item of internal revenue taxes reported for industries such as liquors and tobacco. This item was reported under "Miscellaneous expenses" in 1890. The cost of materials therefore is correspondingly decreased as compared with the cost of materials reported at the Tenth Census. The propriety of including as materials the amounts expended for mill supplies, fuel, and for rent of power and heat in some industries, may be questioned. These articles are so closely allied with other materials in many industries that it is impossible to make a separation, especially in view of the manner in which the information was reported by the manufacturers. For instance, fuel in the manufacture of gas, brick, iron, and steel enters directly into the product as a material. Mill supplies, including machine oil, batting, belting, and other articles consumed in the running of machinery are frequently classed by manufacturers as "All other materials".

For a number of industries in the different cities, returns were received in which it was stated that the materials were furnished by the persons for whom the work was performed, and therefore no cost was reported. In such cases the value of the product is the amount received for labor performed. In cities where a large number of reports of this character were obtained in industries such as the manufacture of clothing, fur goods, jewelry, and shirts the data are shown separately under the subclassification of "Materials furnished".

The following summary shows the different items forming the total cost of materials for the 165 cities, with the percentage each item is of the total:

TOTALS OF MATERIALS FOR 165 CITIES, WITH PERCENTAGE EACH ITEM IS OF TOTAL: 1890.

ITEMS.	Amount.	Per cent of total.
Materials, total cost	\$3,363,177,034	100.00
Principal materials	3,087,202,847	91.81
Fuel	67,850,730	2.02
Rent of power and heat	4,213,812	0.12
Mill supplies	13,351,546	0.40
All other materials	189,958,099	5.65

MANUFACTURING INDUSTRIES.

In some reports the cost of the "Principal materials" and "All other material" was not separated, and in some the cost of "Mill supplies" was included in "All other materials". Therefore the amounts given for the respective items shown under the head of "Materials" should not be considered as exact statements of the value of each of the different classes of materials.

VALUE OF PRODUCTS.

The value stated under the head of "Products" is the reported value at the factory, not including any allowance for commissions or expenses of selling. With the exception of the schedules on which a few selected industries were reported at the census of 1880 the question concerning the value of products was as follows: "Value of products (including jobbing and repairing)". The question used at the Eleventh Census required a separate statement as to the quantity and value of the "Principal product" and the value of "All other products, including amounts received from custom work and repairing".

The value of products for the 165 cities amounts to \$6,278,338,476, but this amount should not be considered as the added value to the original cost of the raw materials by manufacturing processes. Raw materials, in the sense used in this report, means the materials in the condition they enter each establishment. For example, the ore as delivered from the mines is the raw material of the blast furnace. The finished product of the blast furnace becomes the material for the rolling mill or steel works. The product of the rolling mill may be the material for the nail factory or machine shop. Thus the original price of the material as delivered to the first manufacturer by the miner, agriculturist, or lumberman is duplicated many times, but with an added value each time, before it reaches a finished state and is sold to a consumer. This duplication is unavoidable, and is statistically correct. It is impossible to arrive at the exact extent of the duplication, but the added value to the cost of the materials as they first entered a factory is more nearly indicated by deducting from the value of product given above the total cost of materials, which amounts to \$3,363,177,034. This will leave \$2,915,161,442 as the value of product, which may be designated as the "Net value". This net value will appear larger in cities where the predominating industries are of the character in which labor forms a larger proportion of the cost of manufacture than materials than it will in the cities where most of the industries report the cost of materials in excess of that of labor. Neither capital, cost of materials, nor gross value of product alone are fair indications of industrial enterprise. A city may have the greater capital and gross product, but as the predominating industries may be of the character that consume an exceptionally large proportion of materials, the net product, number of employes, and wages may be less than the city having a smaller capital and product. The following statement shows the gross and net value of the product for the 100 cities published separately at the census of 1880. In this statement the cities are arranged according to the gross value of product reported for 1880. The statement shows, first, the relative rank in and value of the gross product for each city in 1880 and 1890; second, the relative rank in and value of net product for each city in 1880 and 1890.

In considering the rank of the respective cities in this statement it must be remembered that internal revenue taxes were in many instances included in the cost of materials in 1880, while they are reported as miscellaneous expenses in 1890, and not included under "Cost of materials".

ONE HUNDRED CITIES ARRANGED ACCORDING TO THEIR RANK BY GROSS VALUE OF PRODUCT IN 1880: THEIR RANK IN AND VALUE OF GROSS AND NET VALUE OF PRODUCT IN 1880 AND 1890. (a)

CITIES.	Year.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.		CITIES.	Year.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.	
		Rank.	Value.	Rank.	Value.			Rank.	Value.	Rank.	Value.
New York, N. Y.	1880	1	\$468,443,248	1	\$182,175,474	San Francisco, Cal.	1880	9	\$77,801,949	10	\$29,885,272
	1890	1	777,222,721	1	410,799,099		1890	9	135,025,754	9	56,969,284
Philadelphia, Pa.	1880	2	309,424,156	2	118,972,780	Pittsburg, Pa.	1880	10	75,915,033	8	33,805,256
	1890	3	577,234,440	2	265,583,642		1890	10	126,859,657	10	56,967,492
Chicago, Ill.	1880	3	248,995,848	3	69,800,923	Newark, N. J.	1880	11	69,051,075	11	24,516,660
	1890	2	664,567,923	3	255,074,896		1890	14	93,476,652	12	47,456,116
Brooklyn, N. Y.	1880	4	177,022,308	5	48,056,227	Jersey city, N. J.	1880	12	60,478,905	21	10,734,920
	1890	4	239,244,147	4	118,183,437		1890	28	37,376,322	30	14,169,488
Boston, Mass.	1880	5	130,366,993	4	48,758,473	Cleveland, Ohio.	1880	13	48,604,050	14	16,974,313
	1890	6	210,936,616	6	105,334,047		1890	11	113,240,115	11	47,594,466
St. Louis, Mo.	1880	6	114,333,375	7	38,953,598	Milwaukee, Wis.	1880	14	43,473,812	16	14,497,940
	1890	5	229,157,343	5	106,940,773		1890	13	97,503,951	15	41,683,466
Cincinnati, Ohio.	1880	7	105,255,165	6	42,880,505	Buffalo, N. Y.	1880	15	42,937,701	15	15,885,615
	1890	7	196,063,983	7	103,518,732		1890	12	100,052,208	13	46,931,597
Baltimore, Md.	1880	8	78,297,064	9	30,430,017	Providence, R. I.	1880	16	42,697,512	12	19,803,285
	1890	8	141,723,699	8	67,953,598		1890	16	77,407,283	16	37,673,042

aThe difference between the totals stated in the table for 1880 and those published in the reports of the Tenth Census is caused by the elimination of data which were duplicated in the Tenth Census under the head of "Mixed textiles", such data having been also included in the totals of that census for the different branches of the textile industry.

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ONE HUNDRED CITIES ARRANGED ACCORDING TO THEIR RANK BY GROSS VALUE OF PRODUCT IN 1880: THEIR RANK IN AND VALUE OF GROSS AND NET VALUE OF PRODUCT IN 1880 AND 1890—Continued.

CITIES.	Year.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.		CITIES.	Year.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.	
		Rank.	Value.	Rank.	Value.			Rank.	Value.	Rank.	Value.
Louisville, Ky	1880	17	\$34,768,874	17	\$14,008,884	Portland, Me	1880	51	\$9,832,931	62	\$3,018,969
	1890	20	54,515,220	20	26,481,380		1890	67	11,371,487	71	5,085,049
Lowell, Mass	1880	18	33,935,777	13	17,620,715	Columbus, Ohio	1880	52	9,616,079	49	4,112,183
	1890	23	42,450,509	25	19,464,371		1890	46	22,887,586	44	11,703,876
Detroit, Mich	1880	19	30,181,416	19	12,030,421	Denver, Colo	1880	53	9,967,749	56	3,652,534
	1890	17	77,351,510	17	35,991,488		1890	37	29,240,747	34	15,024,198
Minneapolis, Minn	1880	20	29,973,476	37	5,698,853	Wheeling, W. Va	1880	54	9,259,844	50	4,055,913
	1890	15	82,922,974	19	28,330,764		1890	63	13,022,589	63	5,040,649
Indianapolis, Ind	1880	21	27,453,089	30	8,254,987	Terre Haute, Ind	1880	55	9,185,246	70	2,441,527
	1890	20	36,426,974	33	15,179,858		1890	60	13,720,529	60	6,934,913
Lynn, Mass	1880	22	26,828,023	26	9,394,568	Utica, N. Y	1880	56	8,873,306	54	3,002,708
	1890	22	44,223,845	22	21,183,858		1890	58	15,015,715	56	7,824,040
Worcester, Mass	1880	23	26,712,093	22	10,487,774	Nashville, Tenn	1880	57	8,597,278	59	3,284,751
	1890	26	39,538,809	27	18,324,975		1890	59	14,590,823	62	6,596,072
Cambridge, Mass	1880	24	26,605,688	33	6,504,339	Scranton, Pa	1880	58	8,561,850	74	1,890,371
	1890	30	35,975,089	30	15,706,555		1890	45	24,341,745	58	7,418,092
Troy, N. Y	1880	25	26,492,363	18	13,050,144	Springfield, Ohio	1880	59	8,462,443	53	3,011,874
	1890	36	29,248,750	29	16,098,591		1890	69	10,760,965	64	6,008,903
Rochester, N. Y	1880	26	26,418,266	23	10,003,751	Quincy, Ill	1880	60	8,103,277	63	3,013,397
	1890	18	65,091,156	18	31,770,758		1890	73	10,395,102	73	4,693,129
Paterson, N. J	1880	27	25,330,300	20	11,347,067	Evansville, Ind	1880	61	7,941,914	61	3,049,224
	1890	25	42,263,531	24	19,782,804		1890	64	12,899,334	66	5,933,759
New Haven, Conn	1880	28	24,040,225	25	9,558,062	Auburn, N. Y	1880	62	7,719,409	55	3,686,663
	1890	31	33,396,311	26	18,905,673		1890	77	9,034,785	67	5,850,814
Albany, N. Y	1880	29	21,751,009	27	9,241,617	Erie, Pa	1880	63	7,683,350	64	2,804,037
	1890	43	25,531,480	38	13,758,245		1890	65	12,765,798	61	6,620,088
Lawrence, Mass	1880	30	21,616,857	24	9,666,509	Harrisburg, Pa	1880	64	7,603,416	65	2,688,140
	1890	40	29,550,725	46	11,404,874		1890	70	10,538,444	70	5,106,141
Richmond, Va	1880	31	20,790,106	28	8,648,654	Taunton, Mass	1880	65	7,618,053	58	3,346,502
	1890	38	27,792,672	37	13,778,598		1890	75	9,936,829	69	5,187,542
Fall River, Mass	1880	32	18,913,584	29	8,361,392	Camden, N. J	1880	66	7,918,705	60	3,281,420
	1890	33	32,519,281	35	14,833,010		1890	50	21,145,637	50	9,329,486
New Orleans, La	1880	33	18,803,096	31	8,036,204	Grand Rapids, Mich	1880	67	7,405,607	57	3,448,344
	1890	21	48,205,449	23	20,024,004		1890	53	10,851,181	48	10,450,566
Syracuse, N. Y	1880	34	14,095,674	35	6,151,238	Elizabeth, N. J	1880	68	6,828,027	52	3,912,176
	1890	35	29,297,241	32	15,192,737		1890	71	10,439,364	65	5,977,738
Peoria, Ill	1880	35	14,228,134	40	4,671,658	Kansas city, Mo	1880	69	6,382,681	67	2,658,765
	1890	19	55,535,023	14	45,538,044		1890	34	31,936,366	31	15,576,182
Manchester, N. H	1880	36	14,136,305	34	6,235,230	Dubuque, Iowa	1880	70	6,328,889	68	2,491,043
	1890	52	20,187,295	55	8,315,006		1890	70	9,894,800	82	3,010,429
Allegheny, Pa	1880	37	13,731,792	44	4,913,639	Covington, Ky	1880	71	5,864,530	73	1,928,803
	1890	39	26,878,979	41	12,647,221		1890	57	15,090,575	57	7,771,496
Holyoke, Mass	1880	38	13,226,047	36	5,343,474	Somerville, Mass	1880	72	5,852,525	87	1,244,343
	1890	41	26,060,315	42	12,485,327		1890	89	7,397,522	93	2,887,394
Wilmington, Del	1880	39	13,205,370	40	5,320,523	Fort Wayne, Ind	1880	73	5,810,024	76	1,898,969
	1890	44	24,568,125	45	11,517,973		1890	78	9,361,946	77	4,233,361
Reading, Pa	1880	40	13,168,695	45	4,814,285	Bay city, Mich	1880	74	5,533,621	80	1,682,068
	1890	51	20,855,165	53	8,845,833		1890	81	9,069,342	81	4,025,755
Springfield, Mass	1880	41	12,891,826	42	5,165,707	Lancaster, Pa	1880	75	5,404,937	69	2,462,625
	1890	55	17,040,692	51	9,223,158		1890	68	11,361,535	72	5,055,040
Trenton, N. J	1880	42	12,712,762	41	5,291,863	Oswego, N. Y	1880	76	5,287,966	75	1,864,584
	1890	42	23,023,223	40	13,002,323		1890	88	7,432,378	94	2,878,282
Dayton, Ohio	1880	43	11,985,483	39	5,551,258	St. Joseph, Mo	1880	77	5,143,585	72	1,933,505
	1890	47	22,446,572	47	10,790,423		1890	69	11,919,141	89	4,007,788
Washington, D. C	1880	44	11,882,316	32	6,516,916	Atlanta, Ga	1880	78	4,861,727	79	1,702,460
	1890	27	39,331,437	21	22,136,770		1890	62	13,074,037	59	7,159,406
Hartford, Conn	1880	45	11,437,200	43	4,969,740	Elmira, N. Y	1880	79	4,857,783	78	1,743,371
	1890	54	17,164,318	52	9,199,382		1890	83	8,844,936	79	4,251,695
Toledo, Ohio	1880	46	10,600,074	48	4,244,075	Petersburg, Va	1880	80	4,643,015	85	1,352,899
	1890	49	21,651,574	49	9,461,650		1890	00	7,167,004	95	2,782,542
Bridgeport, Conn	1880	47	10,418,212	38	5,012,873	Davenport, Iowa	1880	81	4,468,973	82	1,508,310
	1890	48	22,274,635	43	11,845,648		1890	74	10,367,232	76	4,258,883
St. Paul, Minn	1880	48	10,286,363	47	4,597,296	Memphis, Tenn	1880	82	4,413,422	71	1,964,061
	1890	32	33,035,073	28	17,167,500		1890	61	13,244,538	63	6,154,348
Salem, Mass	1880	49	9,926,564	66	2,662,117	Poughkeepsie, N. Y	1880	83	4,392,900	81	1,611,011
	1890	84	8,522,751	84	3,784,108		1890	05	6,254,132	91	3,053,539
New Bedford, Mass	1880	50	9,835,955	51	3,928,081	Omaha, Neb	1880	84	4,280,866	77	1,753,390
	1890	56	17,025,779	54	8,444,406		1890	24	42,339,321	89	13,079,218

MANUFACTURING INDUSTRIES.

ONE HUNDRED CITIES ARRANGED ACCORDING TO THEIR RANK BY GROSS VALUE OF PRODUCT IN 1880: THEIR RANK IN AND VALUE OF GROSS AND NET VALUE OF PRODUCT IN 1880 AND 1890—Continued.

CITIES.	Year.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.		CITIES.	Year.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.	
		Rank.	Value.	Rank.	Value.			Rank.	Value.	Rank.	Value.
Des Moines, Iowa.....	1880	85	\$4,220,709	84	\$1,410,313	Charleston, S. C.....	1880	93	\$2,732,590	86	\$1,264,215
	1890	86	7,931,272	88	3,522,895		1890	82	9,005,421	78	4,252,025
Springfield, Ill.....	1880	86	4,123,883	92	967,604	Galveston, Tex.....	1880	94	2,975,965	91	1,092,719
	1890	93	6,562,470	96	2,771,716		1890	96	5,724,545	99	2,471,467
Sacramento, Cal.....	1880	87	4,093,934	88	1,182,045	Salt Lake, Utah.....	1880	95	1,610,133	95	797,397
	1890	72	10,424,582	75	4,391,265		1890	99	4,624,419	97	2,657,601
Newport, Ky.....	1880	88	3,996,995	83	1,470,059	Norfolk, Va.....	1880	96	1,455,987	96	594,961
	1890	92	6,687,987	86	3,615,674		1890	98	5,100,408	98	2,557,018
Chelsea, Mass.....	1880	89	3,846,250	90	1,154,339	Mobile, Ala.....	1880	97	1,335,579	97	504,618
	1890	85	8,153,207	89	3,476,916		1890	100	3,820,399	100	2,011,936
Savannah, Ga.....	1880	90	3,396,297	93	938,601	Wilkesbarre, Pa.....	1880	98	1,133,344	98	472,695
	1890	94	6,310,066	92	3,021,262		1890	87	7,746,371	85	3,719,792
Oakland, Cal.....	1880	91	3,181,066	89	1,108,371	Hoboken, N. J.....	1880	99	1,046,136	99	459,390
	1890	60	9,112,778	74	4,425,079		1890	91	7,151,391	87	3,665,470
Augusta, Ga.....	1880	92	3,139,029	94	891,364	San Antonio, Tex.....	1880	100	642,412	100	313,936
	1890	79	9,244,850	83	3,813,979		1890	97	5,623,612	90	3,235,628

The fact that the value of the gross product for a given city may exceed that for other cities, while the net product, number of employes, and amount paid as wages is less, is further illustrated by the following statement. In this statement the 165 principal cities are ranked according to the value of the gross product. The statement also shows for each city the relative rank in value of net product, the relative rank in number of employes, also the relative rank in amount of wages paid.

THE 165 PRINCIPAL CITIES ARRANGED ACCORDING TO RANK BY GROSS VALUE OF PRODUCT, AND RANKED BY NET VALUE OF PRODUCT, BY AVERAGE NUMBER OF EMPLOYÉS, AND BY TOTAL WAGES PAID: 1890.

CITIES.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.		AVERAGE NUMBER OF EMPLOYÉS.		TOTAL WAGES.	
	Rank.	Value.	Rank.	Value.	Rank.	Number.	Rank.	Wages.
New York, N. Y.....	1	\$777,222,721	1	\$410,799,999	1	354,291	1	\$230,102,167
Chicago, Ill.....	2	664,567,023	3	255,074,896	3	210,360	3	123,955,001
Philadelphia, Pa.....	3	577,234,446	2	265,583,642	2	260,261	2	135,917,021
Brooklyn, N. Y.....	4	269,244,147	4	118,183,437	4	109,292	4	65,217,119
St. Louis, Mo.....	5	220,157,343	5	106,940,773	6	94,051	6	53,394,630
Boston, Mass.....	6	210,936,616	6	105,334,047	7	90,805	5	55,125,872
Cincinnati, Ohio.....	7	196,063,983	7	103,518,752	5	96,689	7	47,091,392
Baltimore, Md.....	8	141,723,599	8	67,953,598	8	83,745	8	35,914,854
San Francisco, Cal.....	9	135,625,754	9	56,969,284	12	48,440	10	30,979,374
Pittsburg, Pa.....	10	126,859,657	10	56,967,462	9	56,438	9	33,898,152
Cleveland, Ohio.....	11	113,240,115	11	47,594,466	11	50,074	11	28,355,505
Buffalo, N. Y.....	12	100,052,208	13	45,931,597	10	51,433	13	25,495,833
Milwaukee, Wis.....	13	97,503,951	15	41,688,466	14	43,423	15	20,616,717
Newark, N. J.....	14	93,476,652	12	47,456,116	13	46,848	12	26,857,170
Minneapolis, Minn.....	15	82,922,974	10	28,310,764	19	27,792	18	15,254,175
Providence, R. I.....	16	77,467,283	16	37,073,042	15	42,124	14	20,793,399
Detroit, Mich.....	17	77,351,546	17	35,991,488	16	88,176	16	18,900,309
Rochester, N. Y.....	18	65,091,156	18	31,770,758	17	32,720	17	16,819,566
Peoria, Ill.....	19	55,515,023	14	45,538,044	68	7,766	61	4,344,012
Louisville, Ky.....	20	54,515,226	20	26,481,386	20	27,198	21	12,372,871
New Orleans, La.....	21	48,295,449	23	20,024,004	21	25,221	25	10,887,584
Lynn, Mass.....	22	44,223,845	22	21,183,858	26	22,452	20	12,777,174
Kansas city, Kan.....	23	44,079,869	53	9,842,752	73	7,393	66	4,107,373
Lowell, Mass.....	24	42,450,509	25	19,451,871	18	29,155	24	11,243,392
Omaha, Neb.....	25	42,330,921	39	13,070,210	61	0,414	49	6,115,294
Paterson, N. J.....	26	42,263,531	24	19,782,804	23	24,232	23	11,578,082
Worcester, Mass.....	27	39,533,860	27	18,324,905	27	21,730	22	11,604,121
Washington, D. C.....	28	39,331,437	21	22,136,770	25	23,404	19	14,622,261
Jersey city, N. J.....	29	37,376,322	36	14,169,488	47	12,860	36	7,808,270
Indianapolis, Ind.....	30	36,426,974	33	15,179,858	30	18,061	30	8,854,812
Cambridge, Mass.....	31	35,975,089	30	15,706,555	40	14,258	37	7,759,813
New Haven, Conn.....	32	33,896,911	26	18,995,678	31	17,864	27	10,096,820
St. Paul, Minn.....	33	33,035,073	28	17,167,500	28	18,558	26	10,373,396
Fall River, Mass.....	34	32,519,281	35	14,833,610	24	23,542	31	8,775,722
Kansas city, Mo.....	35	31,936,366	31	15,575,182	38	14,757	29	9,448,660
Syracuse, N. Y.....	36	29,297,241	32	15,192,737	32	17,518	32	8,520,677
Troy, N. Y.....	37	29,248,750	29	16,098,594	22	25,157	28	9,544,762
Denver, Colo.....	38	29,240,747	34	15,024,198	53	10,613	33	8,377,530
Richmond, Va.....	39	27,792,672	37	13,778,456	29	18,512	41	7,192,640
Allegheny, Pa.....	40	26,878,979	41	12,647,221	45	13,063	42	7,081,529
Lawrence, Mass.....	41	26,550,725	48	11,404,874	33	16,276	45	6,723,883
Holyoke, Mass.....	42	26,060,315	43	12,485,527	43	19,139	48	6,197,923
Trenton, N. J.....	43	25,628,223	40	13,002,823	37	14,984	35	7,908,894
Albany, N. Y.....	44	25,531,486	38	13,758,245	36	15,041	34	7,930,878
Portland, Ore.....	45	25,427,603	42	12,620,497	59	9,731	39	7,502,920

INTRODUCTION.

THE 165 PRINCIPAL CITIES ARRANGED ACCORDING TO RANK BY GROSS VALUE OF PRODUCT, ETC.—Continued.

CITIES.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.		AVERAGE NUMBER OF EMPLOYEES.		TOTAL WAGES.	
	Rank.	Value.	Rank.	Value.	Rank.	Number.	Rank.	Wages.
Haverhill, Mass.....	46	\$25,394,590	45	\$11,758,561	35	15,201	43	\$6,922,630
Wilmington, Del.....	47	24,568,125	47	11,517,973	39	14,377	38	7,664,143
Scranton, Pa.....	48	24,311,745	64	7,418,992	62	9,123	63	4,273,012
Columbus, Ohio.....	49	22,887,586	46	11,703,876	41	13,421	44	6,865,988
Dayton, Ohio.....	50	22,446,572	49	10,700,423	49	12,047	51	5,900,719
Bridgeport, Conn.....	51	22,274,635	44	11,845,048	44	13,131	40	7,566,918
Toledo, Ohio.....	52	21,651,574	54	9,461,650	56	10,313	58	5,214,443
Yonkers, N. Y.....	53	21,319,017	51	10,323,318	51	11,303	52	5,877,145
Camden, N. J.....	54	21,145,637	55	9,329,486	54	10,362	55	5,557,589
Brookton, Mass.....	55	21,070,099	53	9,858,688	52	11,192	46	6,609,165
Reading, Pa.....	56	20,855,165	59	8,845,833	40	12,966	57	5,461,293
Manchester, N. H.....	57	20,187,295	61	8,315,003	34	15,351	50	5,950,234
Grand Rapids, Mich.....	58	19,851,181	50	10,459,566	42	13,282	47	6,519,749
Johans town, Pa.....	59	18,422,980	84	5,235,658	96	5,645	87	3,131,591
Waterbury, Conn.....	60	17,712,829	58	8,990,908	55	10,354	54	5,938,654
McKeesport, Pa.....	61	17,432,721	71	6,815,383	84	6,292	76	3,436,539
Hartford, Conn.....	62	17,164,318	57	9,199,382	63	9,021	56	5,524,518
Springfield, Mass.....	63	17,040,092	56	9,223,153	57	10,259	53	5,868,894
New Bedford, Mass.....	64	17,025,779	60	8,444,409	50	11,422	59	4,985,016
Pawtucket, R. I.....	65	16,363,729	70	6,888,075	60	9,508	67	4,079,579
Long Island city, N. Y.....	66	16,200,226	76	6,005,506	119	4,691	90	3,066,132
Covington, Ky.....	67	15,999,575	63	7,771,496	70	7,692	64	4,232,019
Utica, N. Y.....	68	15,615,715	62	7,824,940	48	12,598	62	4,326,711
Binghamton, N. Y.....	69	15,040,152	65	7,381,145	58	10,191	60	4,349,162
Youngstown, Ohio.....	70	14,667,260	83	5,286,331	91	5,843	74	3,697,659
Nashville, Tenn.....	71	14,560,823	73	6,536,072	67	8,122	71	3,728,956
Sioux city, Iowa.....	72	14,119,843	116	3,824,653	144	3,008	132	1,871,425
Terre Haute, Ind.....	73	13,720,529	68	6,934,013	102	5,205	110	2,154,001
Memphis, Tenn.....	74	13,244,538	74	6,154,348	87	6,118	84	3,158,675
Atlanta, Ga.....	75	13,074,037	66	7,159,466	65	8,684	69	3,869,455
Wheeling, W. Va.....	76	13,022,589	80	5,640,649	77	6,850	81	3,037,727
Evansville, Ind.....	77	12,895,334	78	5,933,759	71	7,435	81	3,197,928
Eric, Pa.....	78	12,765,768	72	6,620,088	75	7,029	68	3,829,438
Joliet, Ill.....	79	12,732,933	115	3,848,249	140	3,183	127	1,982,558
Akron, Ohio.....	80	12,550,638	81	5,622,167	82	6,390	80	3,206,314
Meriden, Conn.....	81	11,962,172	67	7,061,578	60	7,670	65	4,202,602
St. Joseph, Mo.....	82	11,916,141	111	4,067,788	106	5,626	111	2,351,691
Canton, Ohio.....	83	11,881,810	69	6,033,302	74	7,052	70	3,780,753
Chester, Pa.....	84	11,864,890	94	5,020,074	77	6,850	83	3,104,049
Portland, Mo.....	85	11,371,487	92	5,085,049	85	6,260	83	3,160,132
Lancaster, Pa.....	86	11,361,535	93	5,055,040	66	8,179	96	2,710,292
Saginaw, Mich.....	87	11,303,000	97	4,715,243	95	5,716	100	2,653,135
Fitchburg, Mass.....	88	11,225,086	96	4,810,931	99	5,497	94	2,779,544
Williamsport, Pa.....	89	11,107,037	88	5,187,753	88	6,113	98	2,677,579
Cohoes, N. Y.....	90	10,836,260	91	5,096,273	64	8,939	85	3,156,950
Springfield, Ohio.....	91	10,760,065	75	6,008,903	78	6,693	82	3,195,441
Harrisburg, Pa.....	92	10,538,444	90	5,106,141	76	6,898	78	3,907,941
Albion, Pa.....	93	10,497,010	103	4,363,797	79	6,561	73	3,684,096
Elizabeth, N. J.....	94	10,489,364	77	5,977,733	79	6,561	72	3,727,472
Tacoma, Wash.....	95	10,432,955	80	5,261,297	124	4,007	79	3,289,820
Sacramento, Cal.....	96	10,424,582	102	4,391,265	110	4,510	92	2,967,954
Quincy, Ill.....	97	10,305,162	99	4,693,129	105	5,110	103	2,429,534
Davenport, Iowa.....	98	10,357,232	104	4,258,883	104	5,136	115	2,214,092
Chattanooga, Tenn.....	99	10,216,169	85	5,278,207	94	5,741	95	2,746,857
Seattle, Wash.....	100	10,203,007	82	5,424,623	125	4,048	77	3,465,623
Taunton, Mass.....	101	9,936,820	89	5,137,542	80	6,466	86	3,141,273
Dubuque, Iowa.....	102	9,894,860	114	3,910,429	114	4,657	117	2,133,850
Los Angeles, Cal.....	103	9,893,835	115	4,879,801	107	4,957	75	3,463,693
South Bend, Ind.....	104	9,812,513	87	5,294,797	89	6,688	93	2,842,104
Auburn, N. Y.....	105	9,634,785	79	5,850,814	66	6,166	101	2,623,465
Woonsocket, R. I.....	106	9,618,264	110	4,080,978	81	6,417	110	2,361,617
Malden, Mass.....	107	9,592,501	121	3,699,634	111	4,769	109	2,381,177
Fort Wayne, Ind.....	108	9,501,946	105	4,253,361	90	6,011	99	2,676,310
Augusta, Ga.....	109	9,244,850	117	3,813,079	83	6,294	122	2,063,180
Lacrosse, Wis.....	110	9,157,501	139	3,185,929	121	4,127	138	1,657,725
Oakland, Cal.....	111	9,112,778	101	4,425,079	118	4,438	89	3,090,007
Lowiston, Mo.....	112	9,073,856	106	4,245,146	72	7,273	97	2,686,189
Bay city, Mich.....	113	9,069,342	112	4,025,755	112	4,696	125	3,066,052
Dallas, Tex.....	114	9,054,766	98	4,699,907	123	4,082	102	2,520,639
Charleston, S. C.....	115	9,005,421	106	4,252,025	98	5,604	112	2,326,078
Rockford, Ill.....	116	8,888,904	100	4,640,903	101	5,223	104	2,474,703
Allentown, Pa.....	117	8,876,685	119	3,773,654	92	5,833	113	2,313,508
Elmhurst, N. Y.....	118	8,844,936	107	4,251,695	103	5,171	103	2,504,606
Duluth, Minn.....	119	8,811,723	130	3,376,069	128	3,752	118	2,068,093
Oshkosh, Wis.....	120	8,620,626	113	3,951,783	100	5,883	124	2,019,626
Salem, Mass.....	121	8,522,751	118	3,784,108	93	5,798	105	2,446,076
Racine, Wis.....	122	8,462,859	109	4,122,051	109	4,872	108	2,418,498
Muskogon, Mich.....	123	8,278,160	126	3,482,909	120	4,264	130	1,915,980
Chelsea, Mass.....	124	8,158,207	127	3,476,916	132	3,470	131	1,884,092
Des Moines, Iowa.....	125	7,931,272	125	3,522,895	126	3,935	131	2,063,359
Wilkesbarre, Pa.....	126	7,746,371	120	3,719,792	110	4,405	123	2,053,978
Oswego, N. Y.....	127	7,482,378	140	2,878,282	134	3,415	143	1,593,643
Somerville, Mass.....	128	7,367,522	139	2,897,304	137	3,285	135	1,783,979
Petersburg, Va.....	129	7,167,094	142	2,782,542	97	5,625	149	1,867,414
Hoboken, N. J.....	130	7,151,891	123	3,565,470	136	3,847	114	2,264,286

THE 165 PRINCIPAL CITIES ARRANGED ACCORDING TO RANK BY GROSS VALUE OF PRODUCT, ETC.—Continued.

CITIES.	GROSS VALUE OF PRODUCT.		NET VALUE OF PRODUCT.		AVERAGE NUMBER OF EMPLOYÉS.		TOTAL WAGES.	
	Rank.	Value.	Rank.	Value.	Rank.	Number.	Rank.	Wages.
Birmingham, Ala.....	131	\$7,034,248	124	\$3,525,060	131	3,614	126	\$2,007,000
Newburg, N. Y.....	132	6,964,287	123	3,443,209	115	4,516	120	2,089,795
Houston, Tex.....	133	6,832,943	132	3,194,738	143	3,009	139	1,647,478
Fort Worth, Tex.....	134	6,826,083	129	3,390,037	147	2,743	129	1,947,148
Topeka, Kan.....	135	6,732,449	135	3,082,343	135	3,390	133	1,851,633
Newport, Ky.....	136	6,687,987	122	3,615,674	110	4,848	107	2,426,080
New Albany, Ind.....	137	6,031,924	134	3,101,432	117	4,506	119	2,007,831
Springfield, Ill.....	138	6,562,470	143	2,771,716	138	3,209	136	1,745,158
Savannah, Ga.....	139	6,319,006	137	3,021,262	146	2,760	150	1,392,120
Poughkeepsie, N. Y.....	140	6,254,132	136	3,053,539	127	3,772	134	1,837,650
Zanesville, Ohio.....	141	6,053,484	144	2,721,858	129	3,687	142	1,500,933
York, Pa.....	142	5,968,223	141	2,797,383	122	4,120	141	1,609,456
Lincoln, E. I.....	143	5,900,140	138	2,919,150	108	4,921	128	1,659,665
Galveston, Tex.....	144	5,724,546	150	2,471,457	153	3,422	153	1,241,299
San Antonio, Tex.....	145	5,623,612	131	3,235,628	150	2,441	140	1,634,300
Burlington, Iowa.....	146	5,413,138	151	2,313,938	139	3,264	145	1,424,178
Jackson, Mich.....	147	5,376,347	146	2,593,707	130	3,630	140	1,415,169
Macon, Ga.....	148	5,171,530	149	2,507,032	133	3,417	152	1,242,082
Norfolk, Va.....	149	5,100,408	147	2,557,618	145	2,948	148	1,368,195
Wichita, Kan.....	150	5,074,013	158	1,694,435	157	1,686	157	907,931
Knoxville, Tenn.....	151	4,920,116	148	2,555,202	141	3,113	137	1,602,501
Gloucester, Mass.....	152	4,851,495	159	1,630,804	156	1,719	158	864,514
Salt Lake city, Utah.....	153	4,624,419	145	2,657,601	152	2,287	144	1,409,412
Newton, Mass.....	154	4,335,764	154	2,160,515	148	2,624	147	1,408,275
Bloomington, Ill.....	155	4,081,001	155	2,055,052	149	2,524	151	1,261,045
Kingston, N. Y.....	156	4,009,574	152	2,278,937	151	2,430	150	1,106,678
Mobile, Ala.....	157	3,826,309	156	2,011,936	142	3,013	154	1,169,353
Lincoln, Neb.....	158	3,710,138	153	2,175,515	154	1,921	155	1,101,746
Montgomery, Ala.....	159	3,234,962	160	1,481,706	155	1,806	162	787,259
Little Rock, Ark.....	160	3,120,677	157	1,723,904	160	1,534	159	830,857
Springfield, Mo.....	161	3,062,095	162	1,404,218	162	1,422	164	677,146
Lexington, Ky.....	162	2,708,445	161	1,451,706	159	1,545	161	816,692
Council Bluffs, Iowa.....	163	2,627,388	164	1,254,442	158	1,614	160	822,682
Pueblo, Colo.....	164	2,374,631	163	1,374,665	163	1,071	163	769,346
Wilmington, N. C.....	165	1,904,147	165	889,763	161	1,499	165	549,868

In this statement New York city ranks first in all of the items. Chicago ranks second in the gross value of product, but third in each of the other items, Philadelphia taking the second place. The gross value of product for Chicago is largely increased by the existence in that city of the slaughtering and meat packing industry. The cost of the materials reported for this industry constitutes a large proportion of the value of the product; the gross value of product therefore is increased and the net value decreased for the cities in which it is carried on extensively. For instance, in the city of Chicago the cost of materials reported for slaughtering and meat packing amounts to \$173,568,365, as compared with a product of \$203,606,402, the materials being 85.25 per cent of the product. The materials and product for this industry constitute 42.39 per cent and 30.64 per cent, respectively, of the total material and product for the city. The gross value of product reported for Kansas city, Kan., is largely increased by the inclusion of slaughtering and meat packing. This city ranks number 23 in gross value of product, but drops to number 53 in net product, 73 in number of employés, and 66 in amount of wages. The slaughtering and meat packing for the city reports cost of materials \$32,284,123 and products \$39,927,192, or 94.30 per cent of the total materials and 90.58 per cent of the total product for the city. Excluding slaughtering and meat packing, the city would rank number 154 instead of 23 in gross product, and number 153 instead of 53 in net product.

The inclusion of "Liquors, distilled", in Peoria, Ill., largely increases both the gross and net value of product for the city. This is due to the fact that the internal revenue tax, which is included in the value of the product, is reported as a miscellaneous expense, and therefore is not deducted in computing the net value.

The rank of the different cities in the gross and net value of product for selected industries is indicated by the following statement, which shows the rank in the gross and net value of product of 7 principal cities for each of 10 selected industries. The industries presented in this statement are the 10 that show the largest total gross value of product of the totals for the respective industries in the 25 cities reporting the largest gross value of product. The cities shown are those of the 25 reporting the largest gross value of product that rank highest in either the gross or net product for each of the 10 industries. It therefore does not follow that the industries are the leading industries in any one of the cities; they are the principal industries for a group of cities.

INTRODUCTION.

RANK OF 7 PRINCIPAL CITIES IN THE 10 LEADING INDUSTRIES SHOWING GREATEST GROSS VALUE OF PRODUCT: 1890.

INDUSTRIES.	FIRST PLACE.		SECOND PLACE.	
	According to gross value of product.	According to net value of product.	According to gross value of product.	According to net value of product.
Slaughtering and meat packing, wholesale.....	Chicago, Ill.....	Chicago, Ill.....	Kansas city, Kan.....	Kansas city, Kan.
Clothing, men's, factory product.....	New York, N. Y.....	do.....	Chicago, Ill.....	New York, N. Y.
Foundry and machine shop products.....	Chicago, Ill.....	Philadelphia, Pa.....	Philadelphia, Pa.....	Chicago, Ill.
Liquors, malt.....	New York, N. Y.....	New York, N. Y.....	St. Louis, Mo.....	St. Louis, Mo.
Carpentering.....	Philadelphia, Pa.....	Philadelphia, Pa.....	New York, N. Y.....	New York, N. Y.
Masonry, brick and stone.....	do.....	do.....	Chicago, Ill.....	Chicago, Ill.
Printing and publishing, newspapers and periodicals.....	New York, N. Y.....	New York, N. Y.....	Philadelphia, Pa.....	Brooklyn, N. Y.
Slaughtering, wholesale, not including meat packing.....	do.....	do.....	Chicago, Ill.....	San Francisco, Cal.
Bread and other bakery products.....	do.....	do.....	Philadelphia, Pa.....	Philadelphia, Pa.
Clothing, men's, custom work and repairing.....	do.....	do.....	Chicago, Ill.....	Chicago, Ill.
INDUSTRIES.	THIRD PLACE.		FOURTH PLACE.	
	According to gross value of product.	According to net value of product.	According to gross value of product.	According to net value of product.
Slaughtering and meat packing, wholesale.....	New York, N. Y.....	New York, N. Y.....	Philadelphia, Pa.....	Philadelphia, Pa.
Clothing, men's, factory product.....	Philadelphia, Pa.....	Philadelphia, Pa.....	Boston, Mass.....	Cincinnati, Ohio.
Foundry and machine shop products.....	New York, N. Y.....	New York, N. Y.....	Brooklyn, N. Y.....	Brooklyn, N. Y.
Liquors, malt.....	Brooklyn, N. Y.....	Brooklyn, N. Y.....	Milwaukee, Wis.....	Milwaukee, Wis.
Carpentering.....	Chicago, Ill.....	Chicago, Ill.....	St. Louis, Mo.....	Boston, Mass.
Masonry, brick and stone.....	Baltimore, Md.....	Baltimore, Md.....	do.....	St. Louis, Mo.
Printing and publishing, newspapers and periodicals.....	Chicago, Ill.....	Chicago, Ill.....	Boston, Mass.....	Boston, Mass.
Slaughtering, wholesale, not including meat packing.....	Philadelphia, Pa.....	St. Louis, Mo.....	Brooklyn, N. Y.....	Philadelphia, Pa.
Bread and other bakery products.....	Brooklyn, N. Y.....	Brooklyn, N. Y.....	St. Louis, Mo.....	Chicago, Ill.
Clothing, men's, custom work and repairing.....	Philadelphia, Pa.....	Philadelphia, Pa.....	Boston, Mass.....	Boston, Mass.
INDUSTRIES.	FIFTH PLACE.		SIXTH PLACE.	
	According to gross value of product.	According to net value of product.	According to gross value of product.	According to net value of product.
Slaughtering and meat packing, wholesale.....	St. Louis, Mo.....	St. Louis, Mo.....	Milwaukee, Wis.....	Buffalo, N. Y.
Clothing, men's, factory product.....	Cincinnati, Ohio.....	Boston, Mass.....	Baltimore, Md.....	Baltimore, Md.
Foundry and machine shop products.....	St. Louis, Mo.....	St. Louis, Mo.....	Cleveland, Ohio.....	Cleveland, Ohio.
Liquors, malt.....	Philadelphia, Pa.....	Philadelphia, Pa.....	Chicago, Ill.....	Chicago, Ill.
Carpentering.....	Boston, Mass.....	Brooklyn, N. Y.....	Brooklyn, N. Y.....	St. Louis, Mo.
Masonry, brick and stone.....	do.....	Boston, Mass.....	Cincinnati, Ohio.....	Cincinnati, Ohio.
Printing and publishing, newspapers and periodicals.....	St. Louis, Mo.....	St. Louis, Mo.....	San Francisco, Cal.....	San Francisco, Cal.
Slaughtering, wholesale, not including meat packing.....	San Francisco, Cal.....	Chicago, Ill.....	St. Louis, Mo.....	Brooklyn, N. Y.
Bread and other bakery products.....	Boston, Mass.....	Boston, Mass.....	Baltimore, Md.....	Cincinnati, Ohio.
Clothing, men's, custom work and repairing.....	Brooklyn, N. Y.....	Cincinnati, Ohio.....	Cincinnati, Ohio.....	Brooklyn, N. Y.
INDUSTRIES.	SEVENTH PLACE.			
	According to gross value of product.	According to net value of product.		
Slaughtering and meat packing, wholesale.....	Buffalo, N. Y.....	Cincinnati, Ohio.		
Clothing, men's, factory product.....	Rochester, N. Y.....	Rochester, N. Y.		
Foundry and machine shop products.....	Pittsburg, Pa.....	Cincinnati, Ohio.		
Liquors, malt.....	Cincinnati, Ohio.....	do.		
Carpentering.....	Minneapolis, Minn.....	Minneapolis, Minn.		
Masonry, brick and stone.....	Brooklyn, N. Y.....	Brooklyn, N. Y.		
Printing and publishing, newspapers and periodicals.....	Cincinnati, Ohio.....	Cincinnati, Ohio.		
Slaughtering, wholesale, not including meat packing.....	Boston, Mass.....	do.		
Bread and other bakery products.....	San Francisco, Cal.....	St. Louis, Mo.		
Clothing, men's, custom work and repairing.....	do.....	San Francisco, Cal.		

Considering the cities assigned to the first place in the above statement, it appears that with the exception of New York in "Clothing, men's, factory product", and Chicago in "Foundry and machine shop products", the same cities hold the highest rank in both gross and net product for all the industries. Changes occur in the respective rank of the cities in the gross and net product for each of the 10 industries except "Liquors, malt", and "Masonry, brick and stone". These changes in the rank of a city as to the gross and net value of product indicate that the relative proportion the cost of materials is of the value of products differs in the same industry in different cities. In Chicago the cost of materials in "Foundry and machine shop products" forms a larger proportion of the value of the product than in Philadelphia, Chicago ranking first in gross and Philadelphia first in net value of product in this industry. The cost of materials for this industry in Chicago is 45.90 per cent of the product and 40.51 per cent in Philadelphia. The amount paid as wages in this industry in Philadelphia is 37.67 per cent of the product, and miscellaneous expenses 6.27 per cent as compared with 25.80 per cent for wages and 6.07 per cent for miscellaneous expenses in Chicago. The cost of a product valued at \$100 in Philadelphia being \$84.45 and in Chicago \$77.77, the excess in Philadelphia is due almost entirely to the larger per cent paid as wages.

The rank in gross and net value of product of the 6 leading industries in each of the 25 cities that show the largest gross value of product is presented in the statement on the two following pages.

MANUFACTURING INDUSTRIES.

THE 6 PRINCIPAL INDUSTRIES, ACCORDING TO GROSS AND NET VALUE OF PRODUCT,

CITIES.		Gross value of product.			
1	New York, N. Y.	Clothing, men's, factory product	Clothing, women's, factory product	Printing and publishing, newspapers and periodicals.	
2	Chicago, Ill.	Slaughtering and meat packing, wholesale.	Clothing, men's, factory product	Foundry and machine shop products.	
3	Philadelphia, Pa.	Sugar and molasses, refining	Foundry and machine shop products	Clothing, men's, factory product.	
4	Brooklyn, N. Y.	do.	do.	Petroleum, refining	
5	St. Louis, Mo.	Liquors, malt	Tobacco, chewing, smoking, and snuff	Flouring and grist mill products	
6	Boston, Mass.	Clothing, men's, factory product	Sugar and molasses, refining.	Masonry, brick and stone.	
7	Cincinnati, Ohio.	do.	Liquors, distilled	Foundry and machine shop products	
8	Baltimore, Md.	do.	Masonry, brick and stone.	Fruits and vegetables, canning and preserving.	
9	San Francisco, Cal.	Sugar and molasses, refining	Foundry and machine shop products	Slaughtering, wholesale, not including meat packing.	
10	Pittsburg, Pa.	Iron and steel	do.	Glass	
11	Cleveland, Ohio	do.	do.	Petroleum, refining	
12	Buffalo, N. Y.	Slaughtering and meat packing, wholesale.	do.	Carpentering	
13	Milwaukee, Wis.	Liquors, malt	Leather, tanned and curried	Slaughtering and meat packing, wholesale.	
14	Newark, N. J.	do.	Leather, patent and enamelled	Jewelry	
15	Minneapolis, Minn.	Flouring and grist mill products	Lumber and other mill products from logs or bolts.	Carpentering	
16	Providence, R. I.	Worsted goods.	Foundry and machine shop products	Jewelry	
17	Detroit, Mich.	Cars, steam railroad, not including operations of railroad companies.	do.	Tobacco, chewing, smoking, and snuff.	
18	Rochester, N. Y.	Clothing, men's, factory product	Boots and shoes, factory product	Flouring and grist mill products	
19	Peoria, Ill.	Liquors, distilled	Glucose	Carpentering	
20	Louisville, Ky.	Tobacco, chewing, smoking, and snuff	Foundry and machine shop products	Leather, tanned and curried.	
21	New Orleans, La.	Sugar and molasses, refining	Rice, cleaning and polishing.	Clothing, men's, factory product.	
22	Lynn, Mass.	Boots and shoes, factory product	Boot and shoe cut stock.	Electrical apparatus and supplies	
23	Kansas city, Kan.	Slaughtering and meat packing, wholesale.	Foundry and machine shop products	Carpentering	
24	Lowell, Mass.	Cotton goods.	do.	Woolen goods	
25	Omaha, Neb.	Smelting and refining	Liquors, distilled	Patent medicines and compounds.	

CITIES.		Net value of product.			
1	New York, N. Y.	Clothing, men's, factory product	Printing and publishing, newspapers and periodicals.	Clothing, women's, factory product	
2	Chicago, Ill.	Slaughtering and meat packing, wholesale.	Foundry and machine shop products	Clothing, men's, factory product	
3	Philadelphia, Pa.	Foundry and machine shop products	Masonry, brick and stone	do.	
4	Brooklyn, N. Y.	do.	Liquors, malt	Carpentering	
5	St. Louis, Mo.	Liquors, malt	Foundry and machine shop products	Tobacco, chewing, smoking, and snuff.	
6	Boston, Mass.	Clothing, men's, factory product	Printing and publishing, newspapers and periodicals.	Foundry and machine shop products	
7	Cincinnati, Ohio	do.	Liquors, distilled	do.	
8	Baltimore, Md.	do.	Masonry, brick and stone	do.	
9	San Francisco, Cal.	Foundry and machine shop products	Printing and publishing, newspapers and periodicals.	Clothing, men's, custom work and repairing.	
10	Pittsburg, Pa.	Iron and steel	Foundry and machine shop products	Glass	
11	Cleveland, Ohio	Foundry and machine shop products	Iron and steel	Petroleum, refining	
12	Buffalo, N. Y.	do.	Carpentering	Masonry, brick and stone	
13	Milwaukee, Wis.	Liquors, malt	Foundry and machine shop products	Leather, tanned and curried	
14	Newark, N. J.	do.	Carpentering	Jewelry	
15	Minneapolis, Minn.	Carpentering	Flouring and grist mill products	Lumber and other mill products from logs or bolts.	
16	Providence, R. I.	Worsted goods.	Foundry and machine shop products	Jewelry	
17	Detroit, Mich.	Foundry and machine shop products	Cars, steam railroad, not including operations of railroad companies.	Tobacco, chewing, smoking, and snuff.	
18	Rochester, N. Y.	Clothing, men's, factory product	Boots and shoes, factory product	Liquors, malt	
19	Peoria, Ill.	Liquors, distilled	Glucose	Carpentering	
20	Louisville, Ky.	Tobacco, chewing, smoking, and snuff.	Foundry and machine shop products	Liquors, distilled	
21	New Orleans, La.	Liquors, malt	Sugar and molasses, refining	Foundry and machine shop products	
22	Lynn, Mass.	Boots and shoes, factory product	Electrical apparatus and supplies	Leather, morocco	
23	Kansas city, Kan.	Slaughtering and meat packing, wholesale.	Foundry and machine shop products	Masonry, brick and stone	
24	Lowell, Mass.	Cotton goods	do.	Patent medicines and compounds	
25	Omaha, Neb.	Liquors, distilled	Smelting and refining	Printing and publishing, newspapers and periodicals.	

INTRODUCTION.

IN EACH OF THE 25 CITIES REPORTING THE LARGEST GROSS VALUE OF PRODUCT: 1890.

Gross value of product--Continued.			
Tobacco, cigars and cigarettes.....	Slaughtering, wholesale, not including meat packing.	Liquors, malt.....	1
Iron and steel	Lumber, planing mill products, including sash, doors, and blinds.	Cars, steam railroad, not including operations of railroad companies.	2
Masonry, brick and stone.....	Carpets and rugs, other than rag.....	Woolen goods.....	3
Coffee and spice, roasting and grinding.....	Liquors, malt.....	Bread and other bakery products.....	4
Foundry and machine shop products.....	Carpentering.....	Masonry, brick and stone.....	5
Carpentering.....	Foundry and machine shop products.....	Printing and publishing, newspapers and periodicals.	6
Carriages and wagons, including custom work and repairing.	Liquors, malt.....	Slaughtering and meat packing, wholesale.....	7
Tinsmithing, coppersmithing, and sheet-iron working.	Foundry and machine shop products.....	Cars, and general shop construction and repairs by steam railroad companies.	8
Printing and publishing, newspapers and periodicals.	Clothing, men's, custom work and repairing.....	Flouring and grist mill products.....	9
Iron and steel, pipe, wrought.....	Coffee and spice, roasting and grinding.....	Iron and steel, nails and spikes, cut and wrought, including wire nails.	10
Slaughtering and meat packing, wholesale.....	Carpentering.....	Liquors, malt.....	11
Lumber, planing mill products, including sash, doors, and blinds.	Masonry, brick and stone.....	Flouring and grist mill products.....	12
Foundry and machine shop products.....	Iron and steel.....	do.....	13
Carpentering.....	Hats and caps, not including wool hats.....	Foundry and machine shop products.....	14
Masonry, brick and stone.....	Lumber, planing mill products, including sash, doors, and blinds.	Clothing, women's, dressmaking.....	15
Boots and shoes, rubber.....	Cotton goods.....	Silverware.....	16
Chemicals.....	Slaughtering and meat packing, wholesale.....	Iron and steel.....	17
Carpentering.....	Masonry, brick and stone.....	Liquors, malt.....	18
Cooperage.....	Flouring and grist mill products.....	Agricultural implements.....	19
Slaughtering and meat packing, wholesale.....	Liquors, distilled.....	Liquors, malt.....	20
Bread and other bakery products.....	Foundry and machine shop products.....	do.....	21
Leather, morocco.....	Carpentering.....	Masonry, brick and stone.....	22
Cooperage.....	Masonry, brick and stone.....	Paving and paving materials.....	23
Carpets and rugs, other than rag.....	Patent medicines and compounds.....	Worsted goods.....	24
Carpentering.....	Printing and publishing, newspapers and periodicals.	Cars and general shop construction and repairs by steam railroad companies.	25

Net value of product--Continued.			
Tobacco, cigars, and cigarettes.....	Liquors, malt.....	Printing and publishing, book and job.....	1
Printing and publishing, newspapers and periodicals.	Printing and publishing, book and job.....	Furniture, factory product.....	2
do.....	Carpentering.....	Carpets and rugs, other than rag.....	3
Bread and other bakery products.....	Clothing, men's, factory product.....	Painting and paper hanging.....	4
Carpentering.....	Masonry, brick and stone.....	Printing and publishing, newspapers and periodicals.	5
do.....	do.....	Sugar and molasses, refining.....	6
Liquors, malt.....	Carriages and wagons, including custom work and repairing.	Masonry, brick and stone.....	7
do.....	Fruits and vegetables, canning and preserving.....	Tinsmithing, coppersmithing, and sheet-iron working.	8
do.....	Tobacco, cigars and cigarettes.....	Sugar and molasses, refining.....	9
Iron and steel, pipe, wrought.....	Liquors, malt.....	Printing and publishing, newspapers and periodicals.	10
Carpentering.....	do.....	do.....	11
Liquors, malt.....	Lumber, planing mill products, including sash, doors, and blinds.	Cars, and general shop construction and repairs by steam railroad companies.	12
Carpentering.....	Clothing, men's, factory product.....	Iron and steel.....	13
Leather, patent and enameled.....	Hats and caps, not including wool hats.....	Foundry and machine shop products.....	14
Masonry, brick and stone.....	Lumber, planing mill products, including sash, doors, and blinds.	do.....	15
Boots and shoes, rubber.....	Cotton goods.....	Silverware.....	16
Chemicals.....	Printing and publishing, newspapers and periodicals.	Tobacco, cigars and cigarettes.....	17
Foundry and machine shop products.....	Carpentering.....	Masonry, brick and stone.....	18
Cooperage.....	Liquors, malt.....	Agricultural implements.....	19
Liquors, malt.....	Printing and publishing, newspapers and periodicals.	Leather, tanned and curried.....	20
Printing and publishing, newspapers and periodicals.	Tobacco, cigars and cigarettes.....	Cotton, compressing.....	21
Boot and shoe cut stock.....	Carpentering.....	Masonry, brick and stone.....	22
Carpentering.....	Cooperage.....	Brick and tile.....	23
Woolen goods.....	Carpets and rugs, other than rag.....	Worsted goods.....	24
Cars, and general shop construction and repairs by steam railroad companies.	Liquors, malt.....	Carpentering.....	25

MANUFACTURING INDUSTRIES.

The above statement indicates the general relation that the cost of material bears to the value of product in the different industries in the same city. The 6 industries shown for New York city, as the principal industries according to gross value of product, with but one exception, appear as the leading industries according to net value of product. The relative rank, however, of all but 2 of the industries is changed. "Clothing, women's, factory product" is the second leading industry according to gross value, but has the third place according to net value, "Printing and publishing, newspapers and periodicals" taking the second place; the percentage that the cost of materials is of the value of product being greater in the former than in the latter industry. The cost of materials is 52.45 per cent of the value of product in "Clothing, women's, factory product" and only 21.83 per cent in "Printing and publishing, newspapers and periodicals".

The relative size of the establishments in the respective cities is indicated by the following statement. This statement shows, for the 50 cities reporting the largest gross value of product, the average capital, number of employes, and product for each establishment; also the average capital and gross and net value of product per employe, and the average annual earnings per employe. The cities are arranged according to the largest gross value of product.

AVERAGE CAPITAL, NUMBER OF EMPLOYEES, AND GROSS VALUE OF PRODUCT PER ESTABLISHMENT; ALSO AVERAGE CAPITAL, GROSS AND NET PRODUCT PER EMPLOYEE, AND AVERAGE EARNINGS PER EMPLOYEE FOR THE 50 CITIES THAT HAVE THE LARGEST GROSS VALUE OF PRODUCT: 1890.

CITIES.	Number of establishments reporting.	Average capital per establishment.	Average number of employes per establishment exclusive of officers, firm members, and clerks.	Average gross value of product per establishment.	AVERAGE CAPITAL PER EMPLOYEE.		AVERAGE GROSS VALUE OF PRODUCT PER EMPLOYEE.		AVERAGE NET VALUE OF PRODUCT PER EMPLOYEE. (a)		Average annual earnings per employe excluding officers, firm members, and clerks. (a)
					Excluding officers, firm members, and clerks.	Including officers, firm members, and clerks.	Excluding officers, firm members, and clerks.	Including officers, firm members, and clerks.	Excluding officers, firm members, and clerks.	Including officers, firm members, and clerks.	
New York, N. Y.	25,403	\$13,774	12	\$30,596	\$1,378	\$1,203	\$2,514	\$2,194	\$1,320	\$1,150	\$577
Chicago, Ill.	9,979	30,057	19	60,610	1,887	1,710	3,486	3,159	1,338	1,213	546
Philadelphia, Pa.	18,166	20,057	13	31,770	1,599	1,442	2,400	2,218	1,132	1,020	483
Brooklyn, N. Y.	10,583	15,282	9	25,441	1,717	1,480	2,858	2,464	1,255	1,081	542
St. Louis, Mo.	6,148	23,076	13	37,273	1,711	1,508	2,764	2,437	1,290	1,187	504
Boston, Mass.	7,942	14,883	10	26,580	1,506	1,302	2,688	2,323	1,342	1,160	500
Cincinnati, Ohio	7,832	13,541	11	25,034	1,241	1,081	2,329	2,028	1,230	1,071	436
Baltimore, Md.	5,265	17,611	15	26,918	1,212	1,107	1,853	1,692	888	811	391
San Francisco, Cal.	4,059	18,487	10	33,414	1,792	1,545	3,247	2,800	1,304	1,176	589
Pittsburg, Pa.	1,420	76,316	37	89,338	2,046	1,920	2,395	2,248	1,076	1,009	504
Cleveland, Ohio	2,307	30,227	20	49,085	1,519	1,376	2,466	2,285	1,037	930	512
Buffalo, N. Y.	3,505	19,834	13	28,065	1,540	1,375	2,179	1,945	1,000	893	448
Milwaukee, Wis.	2,879	24,017	13	33,807	1,780	1,592	2,510	2,245	1,073	960	431
Newark, N. J.	2,490	25,122	17	37,541	1,464	1,335	2,188	1,995	1,111	1,013	518
Minneapolis, Minn.	2,723	15,661	9	30,453	1,709	1,534	3,498	2,984	1,195	1,100	493
Providence, R. I.	1,934	31,610	20	40,055	1,568	1,451	1,987	1,830	966	894	454
Detroit, Mich.	1,746	25,797	20	44,302	1,904	1,180	2,240	2,026	1,042	943	449
Rochester, N. Y.	1,892	24,472	15	34,403	1,599	1,415	2,247	1,989	1,007	971	454
Peoria, Ill.	856	27,133	12	99,883	2,213	1,958	8,148	7,207	6,681	5,910	519
Louisville, Ky.	1,700	21,228	14	32,066	1,494	1,327	2,257	2,004	1,096	974	407
New Orleans, La.	1,961	13,421	11	24,628	1,178	1,044	2,162	1,915	896	794	370
Lynn, Mass.	1,369	13,089	15	32,304	882	798	2,177	1,970	1,043	944	543
Kansas city, Kan.	234	49,700	29	188,373	1,607	1,536	6,430	6,011	1,436	1,342	535
Lowell, Mass.	853	49,134	33	49,706	1,509	1,438	1,628	1,456	700	607	362
Omaha, Neb.	675	27,140	12	62,725	2,228	1,946	5,149	4,497	1,591	1,389	591
Paterson, N. J.	599	46,083	39	70,557	1,190	1,139	1,822	1,744	853	816	450
Worcester, Mass.	996	25,332	20	39,693	1,243	1,161	1,953	1,819	905	843	500
Washington, D. C.	2,295	12,577	9	17,138	1,415	1,233	1,927	1,681	1,085	946	601
Jersey city, N. J.	726	25,021	16	51,483	1,592	1,412	3,275	2,904	1,242	1,101	547
Indianapolis, Ind.	1,189	12,840	13	30,637	953	845	2,273	2,017	947	840	441
Cambridge, Mass.	1,232	10,503	10	29,201	1,016	1,426	2,650	2,523	1,248	1,102	516
New Haven, Conn.	1,129	17,354	14	29,580	1,232	1,007	2,100	1,869	1,194	1,063	515
St. Paul, Minn.	1,442	15,604	11	22,909	1,382	1,212	2,029	1,780	1,055	925	516
Fall River, Mass.	397	93,701	58	81,913	1,618	1,580	1,415	1,381	645	630	357
Kansas city, Mo.	1,478	9,543	9	21,608	1,118	956	2,532	2,164	1,235	1,055	530
Syracuse, N. Y.	1,246	18,341	12	23,513	1,468	1,305	1,882	1,672	976	807	432
Troy, N. Y.	840	28,608	28	34,820	1,005	955	1,224	1,163	674	640	347
Denver, Colo.	702	22,063	12	38,374	1,811	1,584	3,150	2,755	1,618	1,416	717
Richmond, Va.	966	17,370	17	28,771	994	907	1,645	1,501	810	744	341
Allegheny, Pa.	675	32,968	18	39,821	1,877	1,704	2,207	2,058	1,067	908	499
Lawrence, Mass.	583	50,818	27	45,542	1,903	1,820	1,705	1,631	733	701	391
Holyoke, Mass.	493	49,517	25	52,861	1,984	1,858	2,118	1,933	1,015	950	433
Trenton, N. J.	885	21,783	16	28,958	1,401	1,287	1,802	1,710	945	898	407
Albany, N. Y.	1,305	13,234	10	19,564	1,327	1,148	1,062	1,007	1,057	915	476
Portland, Ore.	569	29,637	15	44,688	1,949	1,733	2,939	2,613	1,450	1,297	719
Haverhill, Mass.	734	11,014	19	34,597	572	532	1,796	1,671	832	774	431
Wilmington, Del.	590	34,891	23	41,641	1,540	1,432	1,838	1,700	861	801	502
Scranton, Pa.	177	91,736	50	137,524	1,840	1,780	2,758	2,608	841	813	445
Columbus, Ohio.	708	22,851	17	32,227	1,342	1,205	1,899	1,705	971	872	469
Dayton, Ohio.	937	14,376	11	23,956	1,260	1,118	2,115	1,863	1,014	893	446

a In obtaining "Net product" miscellaneous expenses are not considered, for this and other reasons given in the text the difference between the average value of product per employe and average annual earnings can not be considered as profit.

The inclusion of industries in which a large number of comparatively small establishments are engaged tends to reduce the average capital and number of employes per establishment in the large cities. New York city, with a total product valued at \$777,222,721, shows \$16,774 as the average capital and 12 as the average number of employes per establishment, while for Fall River, Mass., where the total product is but \$32,519,281, the average capital per establishment is \$93,701 and the average number of employes 58, the averages being far in excess of those for New York city. The high averages for Fall River are due to the existence in that city of large cotton factories and the comparatively small number of establishments reporting a capital of less value than the average.

All classes of establishments are included in the totals on which the averages shown in the above statement are based. In many of the establishments no employes other than officers and firm members are reported, and no labor except that of this class of employes enters into the value of the product. Therefore in a large proportion of the establishments the officers, firm members, and clerks should be considered in computing the average capital and gross and net product per employe. To meet any objection to this method, the averages are presented, first, by including officers, firm members, and clerks in the total employes used as a divisor; and, second, by excluding these classes of employes. In computing the average annual earnings per employe, the officers, firm members, and clerks have been excluded in every instance. In considering the average annual earnings per employe reference should be made to the remarks under "Employes and wages" concerning averages of this character. The totals for the 165 principal cities show an average capital per establishment of \$21,471, average number of employes (all classes) 16, and average gross value of product \$33,728. In the district outside the cities the average capital per establishment is \$14,938, average number of employes (all classes) 11, and average gross value of product \$18,279.

The following statement indicates the relative size of the average establishment for selected industries in the cities as compared with those in the districts outside the cities. This statement shows for 50 selected industries the number of establishments reporting and the average capital, number of employes, and gross value of product per establishment for the 165 cities and the districts outside the cities.

NUMBER OF ESTABLISHMENTS, AVERAGE CAPITAL, EMPLOYES, AND PRODUCT PER ESTABLISHMENT FOR 50 SELECTED INDUSTRIES AS REPORTED FOR 165 PRINCIPAL CITIES AND THE UNITED STATES EXCLUSIVE OF THESE CITIES: 1890.

INDUSTRIES.	Number of establishments reporting.	CAPITAL (DIRECT INVESTMENT).		AVERAGE NUMBER OF EMPLOYES (ALL CLASSES).		VALUE OF PRODUCT.	
		Total.	Average per establishment.	Number.	Average per establishment.	Total.	Average per establishment.
Agricultural implements:							
In 165 cities.....	105	\$83,788,622	\$429,685	21,586	111	\$44,266,906	\$227,010
United States exclusive of 165 cities.....	715	61,525,375	89,049	20,958	29	37,004,745	51,755
Awnings, tents, and sails:							
In 165 cities.....	498	2,849,710	5,722	3,584	7	7,403,097	14,867
United States exclusive of 165 cities.....	83	213,299	2,570	288	3	425,006	5,121
Bags, other than paper:							
In 165 cities.....	56	5,091,060	101,926	3,550	63	15,400,032	275,161
United States exclusive of 165 cities.....	8	824,625	40,578	219	27	916,333	113,292
Baskets and rattan and willow ware:							
In 165 cities.....	294	833,054	2,836	1,642	6	1,738,319	5,913
United States exclusive of 165 cities.....	109	1,809,059	17,147	2,090	19	1,895,273	17,368
Bookbinding and blank-book making:							
In 165 cities.....	680	9,562,982	14,063	13,158	19	16,414,882	24,140
United States exclusive of 165 cities.....	125	499,082	3,992	657	5	632,898	5,223
Boots and shoes, factory product:							
In 165 cities.....	1,269	52,928,032	41,708	79,459	63	120,407,390	99,612
United States exclusive of 165 cities.....	813	42,351,279	62,090	69,874	74	94,291,962	115,919
Boxes, fancy and paper:							
In 165 cities.....	440	8,038,249	18,269	17,062	39	16,261,065	36,957
United States exclusive of 165 cities.....	148	1,239,724	8,377	2,892	20	2,544,265	17,191
Brass castings and brass finishing:							
In 165 cities.....	408	16,113,574	39,494	10,449	26	20,698,193	50,791
United States exclusive of 165 cities.....	45	2,549,712	56,680	1,454	32	3,646,241	81,028
Brooms and brushes:							
In 165 cities.....	684	5,686,347	8,313	7,707	11	10,356,273	15,141
United States exclusive of 165 cities.....	551	2,057,485	3,734	3,277	6	3,800,111	6,897
Chemicals:							
In 165 cities.....	356	38,791,239	108,964	12,059	34	47,056,215	132,180
United States exclusive of 165 cities.....	207	16,241,213	73,469	4,893	24	12,296,333	59,403
Clothing, men's, factory product:							
In 165 cities.....	4,620	124,146,554	26,819	144,976	31	242,788,506	52,449
United States exclusive of 165 cities.....	238	4,106,993	17,256	11,365	48	8,231,103	34,584
Clothing, women's, factory product:							
In 165 cities.....	1,199	20,959,675	17,481	40,948	34	67,043,517	55,916
United States exclusive of 165 cities.....	25	290,853	11,994	1,060	42	1,120,502	44,820
Cooperage:							
In 165 cities.....	1,125	12,798,036	11,349	15,706	14	26,747,399	23,775
United States exclusive of 165 cities.....	1,527	5,038,518	3,300	8,946	6	11,870,557	7,774
Cotton goods:							
In 165 cities.....	375	185,839,239	495,571	113,751	303	144,760,899	386,029
United States exclusive of 165 cities.....	580	168,181,004	317,324	107,834	203	123,220,825	232,492
Cutlery and edge tools:							
In 165 cities.....	800	4,240,257	14,134	3,732	12	4,488,405	14,961
United States exclusive of 165 cities.....	174	7,842,881	45,071	5,765	33	6,622,209	36,059
Dyeing and finishing textiles:							
In 165 cities.....	191	19,830,754	103,826	11,133	58	16,160,092	84,607
United States exclusive of 165 cities.....	57	18,020,046	326,667	9,134	160	12,740,523	223,518
Flouring and grist mill products:							
In 165 cities.....	608	56,317,552	92,623	11,232	18	163,414,453	268,774
United States exclusive of 165 cities.....	17,862	152,155,948	8,518	52,249	3	350,557,021	19,026

MANUFACTURING INDUSTRIES.

NUMBER OF ESTABLISHMENTS, AVERAGE CAPITAL, EMPLOYÉS, AND PRODUCT, ETC.—Continued.

INDUSTRIES.	Number of establishments reporting.	CAPITAL (DIRECT INVESTMENT).		AVERAGE NUMBER OF EMPLOYÉS (ALL CLASSES).		VALUE OF PRODUCT.	
		Total.	Average per establishment.	Number.	Average per establishment.	Total.	Average per establishment.
Foundry and machine shop products:							
In 165 cities.....	3,847	\$283,031,478	\$73,572	181,812	47	\$314,159,600	\$81,664
United States exclusive of 165 cities.....	2,028	99,766,859	37,963	65,942	25	98,512,266	37,497
Furnishing goods, men's:							
In 165 cities.....	548	11,330,591	20,676	20,817	38	23,064,304	51,212
United States exclusive of 165 cities.....	38	968,420	25,485	1,394	37	1,806,642	47,543
Furniture, chairs:							
In 165 cities.....	139	6,156,778	44,203	6,240	45	8,325,027	60,802
United States exclusive of 165 cities.....	201	8,230,297	40,947	7,597	38	8,541,331	42,404
Furniture, factory product:							
In 165 cities.....	1,058	49,047,274	47,209	47,289	45	74,066,537	70,867
United States exclusive of 165 cities.....	621	16,446,590	31,567	16,657	32	19,910,165	38,215
Hardware:							
In 165 cities.....	230	13,363,165	56,624	11,628	40	16,295,298	69,047
United States exclusive of 165 cities.....	114	12,908,975	113,234	8,043	71	10,431,265	91,502
Hat and caps, not including wool hats:							
In 165 cities.....	663	8,720,902	14,463	15,386	26	22,481,857	37,287
United States exclusive of 165 cities.....	102	5,003,100	49,050	11,807	116	14,827,742	146,370
Hosiery and knit goods:							
In 165 cities.....	448	22,297,147	49,770	32,289	72	35,499,930	79,241
United States exclusive of 165 cities.....	348	28,310,591	81,352	28,920	83	31,741,083	91,210
Ironwork, architectural and ornamental:							
In 165 cities.....	639	17,131,798	26,810	15,251	24	30,961,584	47,514
United States exclusive of 165 cities.....	85	4,830,370	56,899	3,421	40	7,383,710	86,867
Jewelry:							
In 165 cities.....	666	13,363,165	27,225	12,166	18	29,506,171	44,439
United States exclusive of 165 cities.....	117	4,114,450	35,166	3,595	31	5,165,287	44,148
Leather, tanned and curried:							
In 165 cities.....	888	34,231,381	88,682	13,586	35	58,268,152	150,954
United States exclusive of 165 cities.....	1,210	47,030,315	38,808	20,762	17	80,013,852	66,127
Liquors, malt:							
In 165 cities.....	728	205,015,679	281,615	29,442	40	161,029,213	221,194
United States exclusive of 165 cities.....	520	27,453,611	52,799	5,368	10	21,702,409	41,735
Lithographing and engraving:							
In 165 cities.....	217	15,185,627	69,980	10,401	48	17,758,157	81,835
United States exclusive of 165 cities.....	2	304,500	152,250	189	95	230,000	115,000
Lumber, planing mill products, including sash, doors, and blinds:							
In 165 cities.....	1,434	79,571,332	51,365	55,738	39	120,690,347	84,168
United States exclusive of 165 cities.....	2,236	46,700,108	20,886	31,150	14	62,985,265	28,169
Mattresses and spring beds:							
In 165 cities.....	495	5,587,441	11,288	6,127	12	13,738,921	27,856
United States exclusive of 165 cities.....	201	1,075,488	6,351	1,210	6	1,895,011	9,428
Musical instruments and materials, not specified:							
In 165 cities.....	271	1,113,230	4,108	1,148	4	1,626,836	6,063
United States exclusive of 165 cities.....	22	210,099	9,823	234	11	2,101,777	11,890
Musical instruments, organs and materials:							
In 165 cities.....	101	7,005,135	69,358	3,530	35	6,769,350	67,023
United States exclusive of 165 cities.....	44	2,885,153	65,572	1,459	33	2,443,838	55,542
Musical instruments, pianos and materials:							
In 165 cities.....	201	15,761,810	78,417	11,108	55	22,659,718	112,735
United States exclusive of 165 cities.....	35	2,069,056	76,259	1,940	56	3,100,050	88,761
Patent medicines and compounds:							
In 165 cities.....	865	14,907,970	17,339	7,385	9	27,274,702	31,531
United States exclusive of 165 cities.....	262	3,598,853	13,736	2,065	8	5,345,480	20,403
Printing and publishing, book and job:							
In 165 cities.....	3,491	64,053,816	18,348	55,206	16	90,034,844	25,791
United States exclusive of 165 cities.....	607	3,032,629	5,095	2,933	5	3,605,987	6,776
Rubber and elastic goods:							
In 165 cities.....	94	7,699,355	81,008	5,217	56	10,966,928	116,069
United States exclusive of 165 cities.....	45	6,004,432	133,432	4,585	102	7,741,989	172,044
Saddlery and harness:							
In 165 cities.....	2,659	20,610,825	7,751	17,315	7	33,298,106	12,560
United States exclusive of 165 cities.....	5,272	14,736,795	2,795	13,011	2	19,572,695	3,713
Shirts:							
In 165 cities.....	783	13,212,608	15,597	26,746	34	28,429,841	36,309
United States exclusive of 165 cities.....	86	2,061,003	23,965	6,004	70	5,208,762	60,567
Silk and silk goods:							
In 165 cities.....	362	31,201,065	86,191	33,644	93	56,851,309	157,048
United States exclusive of 165 cities.....	110	19,806,472	180,059	17,269	157	30,447,055	276,791
Slaughtering and meat packing, wholesale:							
In 165 cities.....	488	87,320,978	178,936	35,500	73	385,750,191	790,472
United States exclusive of 165 cities.....	123	10,869,788	88,372	4,909	40	47,502,124	386,196
Soap and candles:							
In 165 cities.....	423	23,419,766	55,366	8,415	20	40,948,130	96,804
United States exclusive of 165 cities.....	155	1,401,303	9,041	890	6	2,652,165	17,111
Steam fittings and heating apparatus:							
In 165 cities.....	176	15,531,707	88,248	10,869	62	21,428,612	121,753
United States exclusive of 165 cities.....	41	1,485,667	36,236	910	22	1,718,822	41,022
Tobacco, chewing, smoking, and snuff:							
In 165 cities.....	175	20,497,340	117,128	17,531	100	47,780,160	273,004
United States exclusive of 165 cities.....	220	10,343,976	47,018	13,736	62	18,057,427	82,079
Tobacco, cigars and cigarettes:							
In 165 cities.....	7,464	45,702,855	6,123	71,066	10	97,473,307	13,059
United States exclusive of 165 cities.....	3,492	13,814,972	3,956	27,150	8	32,219,068	9,227
Trunks and valises:							
In 165 cities.....	358	6,353,908	17,748	6,463	18	10,223,189	28,536
United States exclusive of 165 cities.....	37	546,848	14,780	322	9	698,432	16,174
Umbrellas and canes:							
In 165 cities.....	420	5,490,881	13,074	6,520	16	13,358,869	31,807
United States exclusive of 165 cities.....	15	155,408	10,361	343	23	413,058	27,537
Wirework, including wire rope and cable:							
In 165 cities.....	362	8,308,711	22,952	6,632	17	11,565,886	31,350
United States exclusive of 165 cities.....	207	3,449,191	16,663	1,885	9	3,986,971	19,261
Wood, turned and carved:							
In 165 cities.....	560	4,267,417	7,620	5,078	9	6,787,480	12,007
United States exclusive of 165 cities.....	312	3,558,251	11,405	3,352	11	4,132,167	13,404
Woolen goods:							
In 165 cities.....	220	38,549,988	175,227	25,524	116	43,565,305	198,024
United States exclusive of 165 cities.....	1,091	92,439,952	84,730	53,827	49	90,012,672	82,505

In addition to indicating the relative size of establishments located in the 165 principal cities and in the districts outside of these cities engaged in the same industry, the above statement shows the volume of the respective industries controlled by the establishments in the cities and in the rural districts. The establishments located in the 165 cities produced 96.72 per cent of the total product reported for "Clothing, men's, factory product", 98.36 per cent of the product for "Clothing, women's, factory product", 79.28 per cent of the product for "Chemicals", and 76.12 per cent of the product for "Foundry and machine shop products".

The largest product per establishment (\$790,472) and the greatest excess (\$404,276) in the average value of a product in the cities as compared with the districts outside of the cities appears for "Slaughtering and meat packing, wholesale". The greatest average number of employes per establishment, both within and outside of the cities, is reported for the manufacture of "Cotton goods". The smallest average number of employes is shown for "Saddlery and harness".

The census inquiry was designed to obtain from each establishment a statement showing the full value of capital, whether owned, borrowed, or hired, the total cost of the product manufactured during the census year (excluding allowance for depreciation of plant and interest on capital), and the value placed on the product at the shop or factory. The selling price of the product was not required except in the case of "Gas manufacture", nor were any expenses incidental to the mercantile portion of the business reported. The figures therefore can not be considered as indicating the profit or return to capital. They show only the cost of manufacture and the proportion each item of cost is of the total cost.

The following statement shows the cost of manufacturing a product valued at \$100, as computed from the totals of the 50 cities that show the largest value of product, the cities being arranged according to their rank in value of product:

COST OF MANUFACTURING A PRODUCT VALUED AT \$100 IN 50 CITIES THAT SHOW THE LARGEST GROSS VALUE OF PRODUCT: 1890.

CITIES.	Total cost. (a)	Miscellaneous expenses.	Wages.	Materials.	CITIES.	Total cost.	Miscellaneous expenses.	Wages.	Materials.
New York, N. Y.	\$84.48	\$7.72	\$29.61	\$47.15	Paterson, N. J.	\$85.05	\$5.07	\$27.30	\$52.10
Chicago, Ill.	86.78	6.51	18.05	61.62	Worcester, Mass.	87.85	4.62	29.58	53.65
Philadelphia, Pa.	81.40	6.86	23.55	53.99	Washington, D. C.	84.94	4.04	37.18	43.72
Brooklyn, N. Y.	86.19	5.85	24.23	56.11	Jersey city, N. J.	88.05	5.07	20.80	62.09
St. Louis, Mo.	81.37	7.74	23.30	53.33	Indianapolis, Ind.	88.35	5.71	21.31	56.33
Boston, Mass.	86.40	10.21	26.13	50.06	Cambridge, Mass.	84.60	6.50	21.57	56.54
Cincinnati, Ohio.	81.69	10.17	24.32	47.20	New Haven, Conn.	81.42	8.07	30.23	43.12
Baltimore, Md.	83.58	6.19	25.34	52.05	St. Paul, Minn.	84.70	5.27	31.40	48.03
San Francisco, Cal.	86.98	6.14	22.84	58.00	Fall River, Mass.	87.73	6.35	26.90	54.30
Pittsburg, Pa.	87.77	5.96	26.72	55.09	Kansas city, Mo.	86.77	5.05	29.59	51.23
Cleveland, Ohio.	87.34	4.33	25.04	57.97	Syracuse, N. Y.	86.40	9.18	29.08	48.14
Buffalo, N. Y.	87.06	7.49	25.43	54.09	Troy, N. Y.	87.29	9.70	32.03	44.06
Milwaukee, Wis.	86.92	8.50	21.18	57.24	Denver, Colo.	81.86	4.60	25.65	49.62
Newark, N. J.	84.30	6.54	23.73	40.23	Richmond, Va.	83.14	11.84	25.88	50.42
Minneapolis, Minn.	88.67	4.44	18.40	65.83	Allegheny, Pa.	85.73	6.43	26.35	52.95
Providence, R. I.	84.77	6.56	26.84	51.37	Lawrence, Mass.	89.74	7.98	25.32	57.04
Detroit, Mich.	85.50	7.60	24.43	53.47	Holyoke, Mass.	82.33	6.46	23.78	52.09
Rochester, N. Y.	85.65	8.62	25.84	51.19	Trenton, N. J.	85.50	5.15	31.00	49.26
Peoria, Ill.	69.89	44.07	7.82	18.00	Albany, N. Y.	84.85	7.48	31.26	46.11
Louisville, Ky.	85.50	11.47	22.70	51.42	Portland, Ore.	85.03	4.80	29.86	50.37
New Orleans, La.	87.00	6.82	22.54	58.54	Haverhill, Mass.	88.00	7.00	27.30	53.70
Lynn, Mass.	85.62	4.63	28.80	52.10	Wilmington, Del.	83.93	4.61	31.20	53.12
Kansas city, Kan.	94.35	7.36	9.32	77.67	Scranton, Pa.	90.66	3.59	17.55	69.52
Lowell, Mass.	90.44	9.78	26.40	54.17	Columbus, Ohio.	86.35	7.49	30.00	48.86
Omaha, Neb.	92.23	8.68	14.44	69.11	Dayton, Ohio.	84.85	6.50	26.20	52.06

a The difference between the cost of manufacture and the value of product at the place of production does not show the true average profit or earnings for capital, because the cost reported does not include cost for depreciation of plant or mercantile risks.

The cost of materials is the largest item of expense reported for all of the cities shown in the above statement except Peoria, Ill. The miscellaneous expenses in Peoria are \$44.67, as compared with \$13 for materials. This showing for Peoria, also the fact that the total cost of production is lower than in other cities, is due entirely to the manufacture of distilled liquors. In this industry the internal revenue tax is reported as a miscellaneous expense, correspondingly increasing the total miscellaneous expenses for the city, while the relative cost of materials and wages, as reported, is less than in other industries, thus reducing the cost of manufacture.

For further explanation of some of the apparent inconsistencies appearing in the above statement attention is called to the following:

The proportional cost of materials and the total cost of manufacture in Kansas city, Kan., is higher than that for any of the other cities. This is due to "Slaughtering and meat packing, wholesale", which is the predominating industry in that city, the cost of materials for this industry being 80.86 per cent of the value of product and 94.30 per cent of the total cost of materials for the city. The statistics for the industry control the totals for the city and cause the apparent inconsistency referred to. With the exception of Peoria, Ill., the proportional cost of materials appears to be lowest in New Haven, Conn. In some of the largest industries in New Haven, such as

“Carriages and wagons”, “Foundry and machine shop products”, “Hardware”, and “Ammunition”, the amount expended for wages is the principal item of cost, the proportional cost of materials being less than in other industries. Therefore the total cost of materials for the city is reduced while the cost for wages is increased. In the 4 industries enumerated above as reported for New Haven, the cost of materials in a product valued at \$100 is only \$29.35. Omitting these industries from the total for the city the cost of material in a product valued at \$100 appears to be \$48.58, being nearer the average shown for other cities.

The wage cost of a product valued at \$100 is largest in Washington, D. C. This is caused by the inclusion of the operations of the United States Government Printing Office, and the Bureau of Engraving and Printing, the former under the classification of “Printing and publishing, book and job”, and the latter under “Engraving, steel, including plate printing”. The wage cost for \$100 of product for these industries as reported for Washington, D. C., is \$63.72 and \$82.17, respectively, being far in excess of that for any of the cities shown in the above statement. Omitting these industries, the wage cost for the city is reduced to \$32.80. The lowest wage cost, \$7.82, for a product valued at \$100 is shown for Peoria, Ill., and has been previously referred to.

The cost of a product valued at \$100, as obtained from the total for the 165 cities, is as follows: miscellaneous expenses, \$7.24; materials, \$53.57, and wages, \$24.97. In the United States, miscellaneous expenses amount to \$6.73; materials, \$55.08, and wages, \$24.36. In the United States, exclusive of the cities, miscellaneous expenses are \$5.70, materials \$58.14, and wages \$23.13, the total cost for the cities being \$85.78, as compared with \$86.17 in the United States and \$86.97 in the United States exclusive of the cities.

The totals on which these computations are based include a large variety of industries, conducted by numerous establishments situated in different localities. Frequently the conditions governing the manufacture in the different industries and establishments are essentially different. The figures therefore should not be considered as indicating that the cost of manufacturing a product of a given value in the same industry, or in all industries in a selected city, is less than in the district immediately outside the corporate limits of the city.

The cost of manufacturing a product valued at \$100 in 25 selected industries as reported for the 165 cities and the districts outside the cities, is indicated by the following statement:

COST OF MANUFACTURING A PRODUCT VALUED AT \$100 IN 25 SELECTED INDUSTRIES IN THE 165 CITIES AND IN THE UNITED STATES EXCLUSIVE OF THE CITIES: 1890.

INDUSTRIES.	Total cost. (a)	Miscellaneous expenses.	Wages.	Materials.	INDUSTRIES.	Total cost.	Miscellaneous expenses.	Wages.	Materials.
Agricultural implements:					Jewelry:				
In 165 cities.....	\$78.43	\$14.05	\$25.02	\$39.36	In 165 cities.....	\$80.31	\$3.68	\$27.79	\$48.84
In the United States exclusive of 165 cities.....	80.60	13.27	29.01	38.32	In the United States exclusive of 165 cities.....	79.51	7.84	39.60	32.07
Boots and shoes, factory product:					Leather, tanned and curried:				
In 165 cities.....	87.12	4.63	30.79	51.70	In 165 cities.....	90.35	2.81	13.44	74.10
In the United States exclusive of 165 cities.....	89.40	3.57	29.13	56.70	In the United States exclusive of 165 cities.....	86.99	3.34	12.49	71.16
Brass castings and brass finishing:					Liquors, malt:				
In 165 cities.....	82.60	5.27	30.19	47.14	In 165 cities.....	76.90	26.43	15.40	35.07
In the United States exclusive of 165 cities.....	90.42	3.02	18.45	68.35	In the United States exclusive of 165 cities.....	77.57	28.35	16.55	34.67
Chemicals:					Lumber, planing mill products, including sash, doors, and blinds:				
In 165 cities.....	80.71	7.57	14.82	58.32	In 165 cities.....	87.98	3.71	28.18	55.49
In the United States exclusive of 165 cities.....	79.88	6.92	22.12	50.84	In the United States exclusive of 165 cities.....	87.37	3.95	23.75	60.27
Clothing, men's, factory product:					Printing and publishing, book and job:				
In 165 cities.....	84.22	8.20	24.74	51.28	In 165 cities.....	81.45	11.73	38.34	31.38
In the United States exclusive of 165 cities.....	86.83	6.80	27.20	52.83	In the United States exclusive of 165 cities.....	79.44	8.30	38.74	32.40
Clothing, women's, factory product:					Saddlery and harness:				
In 165 cities.....	83.15	5.33	27.58	50.24	In 165 cities.....	82.28	5.03	30.08	47.17
In the United States exclusive of 165 cities.....	86.08	4.17	28.91	52.08	In the United States exclusive of 165 cities.....	81.18	5.03	30.57	45.58
Cotton goods:					Silk and silk goods:				
In 165 cities.....	89.45	6.42	26.18	56.85	In 165 cities.....	84.05	4.99	24.24	54.82
In the United States exclusive of 165 cities.....	90.00	6.03	25.04	58.93	In the United States exclusive of 165 cities.....	89.20	4.67	19.37	65.16
Dyeing and finishing textiles:					Slaughtering and meat packing, wholesale:				
In 165 cities.....	85.00	0.32	34.08	42.20	In 165 cities.....	93.01	3.13	5.42	84.46
In the United States exclusive of 165 cities.....	89.47	12.75	33.04	43.68	In the United States exclusive of 165 cities.....	94.49	2.38	5.42	86.69
Flouring and grist mill products:					Soap and candles:				
In 165 cities.....	93.70	2.67	4.43	86.66	In 165 cities.....	85.06	7.60	11.18	66.33
In the United States exclusive of 165 cities.....	91.61	2.51	5.65	83.45	In the United States exclusive of 165 cities.....	81.48	9.11	14.86	57.51
Foundry and machine shop products:					Tobacco, chewing, smoking, and snuff:				
In 165 cities.....	82.90	6.05	35.58	41.30	In 165 cities.....	86.72	29.20	12.40	45.03
In the United States exclusive of 165 cities.....	84.68	5.72	37.15	41.81	In the United States exclusive of 165 cities.....	87.41	30.28	14.63	42.50
Furniture, factory product:					Tobacco, cigars and cigarettes:				
In 165 cities.....	82.82	5.34	36.35	41.13	In 165 cities.....	87.39	13.52	34.40	39.38
In the United States exclusive of 165 cities.....	83.16	6.88	36.28	40.00	In the United States exclusive of 165 cities.....	85.53	13.94	34.61	36.98
Hosiery and knit goods:					Woolen goods:				
In 165 cities.....	85.03	4.97	27.14	52.92	In 165 cities.....	87.70	5.61	21.00	61.09
In the United States exclusive of 165 cities.....	86.84	5.87	27.18	53.79	In the United States exclusive of 165 cities.....	89.03	6.62	21.48	61.33
Ironwork, architectural and ornamental:									
In 165 cities.....	84.66	3.84	33.10	47.53					
In the United States exclusive of 165 cities.....	84.56	2.44	25.38	56.74					

a The difference between the cost of manufacture and the value of product at the place of production does not show the true average profit or earnings for capital, because the cost reported does not include cost for depreciation of plant or mercantile risks.

With the exception of 10 industries, the cost of production in each of the 25 selected industries presented in the above statement appears to be larger in the districts outside of the cities than it is in the cities.

In addition to indicating the relative cost of production in the cities and in the districts outside the cities, this statement also shows the principal items of expense in manufacture for different industries. The amount expended for wages in "Printing and publishing, book and job", is comparatively large, while in "Flouring and grist mill products" it is small. The cost of materials in "Slaughtering and meat packing, wholesale", forms a large proportion of the total cost and a small proportion in "Printing and publishing, book and job".

The computations presented in the preceding statement are also based on totals for a large number of establishments situated in widely separated localities.

There were 65,840 establishments reported for the state of New York, with an average capital and value of product per establishment of \$17,165 and \$25,996, respectively; the average number of employes for each establishment was 13. In the 7 principal cities of the state there were 44,834 establishments, with an average capital of \$17,152, an average product of \$23,900; the average number of employes was 14. In the state, exclusive of the cities, there were 21,006 establishments reported, with an average capital of \$17,193, an average product of \$19,799; the average number of employes was 12. In ascertaining the average capital per establishment the value of hired property is not considered, and, as previously explained, this may account for the comparatively large average amount of capital shown for the districts outside of the cities. While the average number of employes reported for each establishment in the cities is but 2 in excess of the average shown for the state exclusive of the cities, the average value of products exceeds that for the districts outside of the cities by \$9,101.

The following statement shows the cost of a product valued at \$100 as obtained from the totals of the 7 principal cities in the state of New York and in the state exclusive of the cities:

COST OF MANUFACTURING A PRODUCT VALUED AT \$100 IN 7 PRINCIPAL CITIES OF THE STATE OF NEW YORK AND IN THE STATE EXCLUSIVE OF THE CITIES: 1890.

CITIES.	Total cost. (a)	Miscellaneous expenses.	Wages.	Materials.
State exclusive of 7 cities.....	\$85.06	\$6.20	\$24.80	\$54.06
Total for 7 cities.....	85.20	7.43	28.07	49.70
New York.....	84.48	7.72	29.01	47.15
Brooklyn.....	86.19	5.85	24.23	56.11
Buffalo.....	87.06	7.49	25.48	54.09
Rochester.....	85.05	8.02	25.84	51.19
Albany.....	84.85	7.48	31.26	46.11
Syracuse.....	86.40	9.18	29.08	48.14
Troy.....	87.29	9.70	32.63	44.96

^aThe difference between the cost of manufacture and the value of product at the place of production does not show the true average profit or earnings for capital, because the cost reported does not include cost for depreciation of plant or mercantile risks.

A comparison of the cost of a product valued at \$100 for the cities and the state of New York exclusive of the cities, shown in the above statement, with similar computations based on the totals for the 165 principal cities in the United States and the states exclusive of the cities, confirms the accuracy of both computations. The proportional cost of materials in the United States exclusive of the 165 cities exceeds that for the cities by \$4.57, and a similar comparison for 7 cities and the state of New York exclusive of the cities shows an excess of \$4.96. The principal difference appears in the wage cost. The proportion expended for wages in the 165 cities exceeds that in the districts outside of the cities by \$1.84, while the 7 cities for the state of New York show an excess of \$3.27. A comparison of the proportional cost of miscellaneous expenses for the United States shows an excess in favor of the 165 cities of \$1.54, and in the state of New York outside these principal cities the excess for those cities is \$1.23. The total cost of a product valued at \$100 in the districts outside of the 165 cities exceeds that for the cities by \$1.19. For the state of New York the excess in favor of the districts outside of the 7 principal cities is only \$0.46.

The proportional cost of wages in the 7 cities of the state of New York is greater than the wage cost shown for the 165 cities. This increases the total cost of production for the 7 cities; therefore there is not such a marked difference between the total cost for the 7 cities and the total cost for the state exclusive of the cities as appears for the total cost in the 165 cities and the United States exclusive of the cities.

MANUFACTURING INDUSTRIES.

The following statement shows the cost of manufacturing a product valued at \$100 as computed from the totals for 12 selected industries in the state of New York, the data being presented for the 7 principal cities in the state and the state exclusive of the cities:

COST OF MANUFACTURING A PRODUCT VALUED AT \$100 IN 12 SELECTED INDUSTRIES IN 7 PRINCIPAL CITIES OF NEW YORK STATE AND IN THE STATE EXCLUSIVE OF THE CITIES: 1890.

INDUSTRIES.	Total cost. (a)	Miscellaneous expenses.	Wages.	Materials.	INDUSTRIES.	Total cost.	Miscellaneous expenses.	Wages.	Materials.
Agricultural implements:					Cotton goods:				
In 7 cities	\$80.44	\$15.20	\$28.90	\$36.34	In 7 cities	\$87.92	\$3.13	\$18.89	\$65.90
In the state exclusive of the cities	78.38	20.01	26.97	31.40	In the state exclusive of the cities	90.97	8.11	27.43	55.43
Boots and shoes, factory product:					Flouring and grist mill products:				
In 7 cities	87.32	3.24	33.80	50.28	In 7 cities	92.41	2.44	3.95	66.02
In the state exclusive of the cities	86.65	3.88	27.69	57.08	In the state exclusive of the cities	92.98	2.87	5.13	84.08
Carriages and wagons, including custom work and repairing:					Foundry and machine shop products:				
In 7 cities	85.69	6.50	42.86	36.24	In 7 cities	80.46	6.45	37.88	36.13
In the state exclusive of the cities	84.45	4.76	34.61	45.08	In the state exclusive of the cities	85.65	6.39	37.19	42.07
Chemicals:					Hosiery and knit goods:				
In 7 cities	83.59	9.55	15.02	59.02	In 7 cities	82.97	4.16	28.08	50.73
In the state exclusive of the cities	80.40	10.42	20.94	49.04	In the state exclusive of the cities	87.44	5.87	25.01	55.90
Clothing, men's, factory product:					Leather, tanned and curried:				
In 7 cities	85.17	7.29	31.19	46.69	In 7 cities	88.54	3.78	12.95	71.81
In the state exclusive of the cities	85.42	5.20	23.38	56.05	In the state exclusive of the cities	86.43	3.59	14.18	68.75
Clothing, women's, factory product:					Lumber, planing mill products, including sash, doors, and blinds:				
In 7 cities	83.50	4.93	29.63	48.94	In 7 cities	87.27	4.36	30.29	52.62
In the state exclusive of the cities	82.48	6.03	28.01	48.44	In the state exclusive of the cities	90.95	3.46	21.57	66.12

a The difference between the cost of manufacture and the value of product at the place of production does not show the true average profit or earnings for capital, because the cost reported does not include cost for depreciation of plant or mercantile risks.

Eleven of the industries shown in the above statement may be compared with similar computations based on totals for selected industries as reported for the 165 principal cities in the United States and in the United States exclusive of the 165 cities. In 7 of the 11 industries the total cost appears to be greater in the districts outside of the cities both in the United States and in the state of New York.

DESCRIPTION OF GENERAL TABLES.

Table 1 is a comparative statement, presenting the totals for all classes of mechanical and manufacturing industries for 1880 and 1890 in the 100 cities published separately at the census of 1880. This table presents the statistics as reported at the respective censuses under the general heads of the inquiry used in 1880, with the exception that certain duplications appearing in the data for "Mixed textiles" for 1880 have been eliminated. Owing to changes in the form of inquiry and the inclusion of certain industries in 1890 that were omitted in 1880, the figures presented in this table should not be considered as indicating the actual increase or decrease during the decade.

Table 2 is a summary for the 165 cities having a population of 20,000 and over. This table presents the totals for all classes of mechanical and manufacturing industries in the respective cities. The statistics, with the exception of those pertaining to employes and wages, are presented in the detailed form of the inquiry, respecting all industries, used at the Eleventh Census. Statistics in detail concerning employes and wages in selected industries are shown in Table 6.

Table 3 presents totals for each industry in each of the 165 principal cities for which 3 or more establishments are reported. Industries in which there are less than 3 establishments have been grouped in order to avoid disclosing the operations of individual establishments, and are presented for each city as "All other industries".

Table 4 is a summary for 50 selected industries in the 165 principal cities. This table shows the aggregate for each of the 50 industries as obtained from the totals of the respective cities.

Table 5 presents the totals for each of the 50 selected industries in each city. Cities in which there are less than 3 establishments reported for any industry are grouped as "All other cities".

Table 6 presents the statistics of employes and wages for the 50 selected industries. This tables shows for each of the 50 industries in the respective cities the average number of males above 16 years, females above 15 years, and children, distributed into the following classes: (1) officers and firm members actively engaged in the industry or in supervision; (2) clerks; (3) operatives and skilled; (4) unskilled; (5) pieceworkers. The average weekly earnings per employe and the total wages are shown for males, females, and children of each class excepting pieceworkers. The average number of males, females, and children are also shown at specified weekly rates of wages. This table also shows the average number of hours in an ordinary day of labor. The statement for pieceworkers gives only the total number and total wages. The method of computing the average weekly earnings is explained under the caption of "Employes and wages" in the preceding text.

TABLE 1.

COMPARATIVE STATEMENT BY TOTALS FOR 1880 AND 1890 OF 100 CITIES
REPORTED SEPARATELY IN 1880.

COMPARATIVE STATEMENT.

TABLE 1.—COMPARATIVE STATEMENT BY TOTALS FOR 1880 AND 1890 OF 100 CITIES REPORTED SEPARATELY IN 1880.

[In the following table the value of hired property is not included in the capital reported in 1890, because it was not included in the report of 1880.]

CITIES.	Year.	Number of establishments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES. (a)					Cost of materials used.	Value of products, including receipts from custom work and repairing.
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.		
				Average number.	Total wages.					
Total	1880 1890	278,033 167,844	\$1,364,879,147 3,524,334,525	1,481,076 2,581,237	\$555,748,845 1,400,882,018	1,008,196 1,990,332	330,059 538,431	92,821 52,414	\$1,910,811,178 2,902,724,848	\$3,018,413,750 5,021,258,583
Albany, N. Y.	1880 1890	804 1,305	14,684,130 17,270,705	11,785 15,041	4,506,424 7,980,378	9,829 11,959	1,523 2,948	428 134	12,500,302 11,773,241	21,751,009 25,531,486
Allegheny, Pa.	1880 1890	424 675	8,451,050 22,253,243	6,471 13,063	2,052,774 7,081,529	5,549 11,321	614 1,374	308 308	8,818,153 14,231,758	13,731,792 26,878,979
Atlanta, Ga.	1880 1890	196 410	2,408,456 9,508,902	3,680 8,684	889,282 3,809,955	2,753 7,226	533 979	394 470	3,159,267 5,914,571	4,861,727 18,074,097
Auburn, N. Y.	1880 1890	154 258	4,423,050 11,123,238	4,518 6,166	1,458,826 2,628,365	3,579 4,592	752 1,453	187 121	4,052,746 3,783,971	7,710,409 9,634,785
Augusta, Ga.	1880 1890	60 440	2,069,275 7,770,688	1,080 0,294	448,825 2,063,189	807 3,900	511 1,742	302 583	2,247,605 5,430,871	8,139,020 9,244,850
Baltimore, Md.	1880 1890	63,680 5,265	38,581,873 92,723,677	50,316 83,745	15,113,489 35,914,854	34,080 60,389	18,126 21,523	4,110 1,833	47,906,447 78,770,001	78,937,064 141,723,590
Bay city, Mich.	1880 1890	80 331	4,235,500 9,654,415	2,238 4,696	802,488 2,006,052	2,069 4,269	21 363	151 64	3,851,553 5,043,587	5,533,621 9,009,342
Boston, Mass.	1880 1890	63,604 7,942	47,298,384 118,198,539	59,090 90,805	24,886,400 55,125,872	39,700 67,840	18,070 22,625	1,230 331	81,608,520 103,602,560	130,300,003 210,936,016
Bridgeport, Conn.	1880 1890	6169 559	9,730,783 19,786,572	7,473 13,131	3,325,935 7,666,913	5,461 10,045	1,787 2,395	225 191	4,805,339 10,428,987	10,418,212 22,274,635
Brooklyn, N. Y.	1880 1890	65,195 10,583	61,423,249 161,730,500	47,406 109,292	22,425,467 65,247,119	37,400 86,992	6,933 20,881	3,424 1,419	128,966,171 151,060,710	177,022,368 269,244,147
Buffalo, N. Y.	1880 1890	1,183 3,565	26,847,937 70,707,145	18,021 51,433	7,442,199 25,495,833	15,033 41,956	1,795 8,440	1,193 1,028	27,552,686 54,120,611	42,937,701 100,052,298
Cambridge, Mass.	1880 1890	379 1,232	6,480,799 20,331,585	7,543 14,258	3,416,470 7,769,813	6,205 11,073	1,172 3,151	166 34	20,101,349 20,268,534	20,005,688 35,975,089
Camden, N. J.	1880 1890	6320 658	5,023,835 15,244,506	4,312 10,362	1,015,506 5,557,580	3,285 8,042	785 2,148	242 172	4,337,285 11,816,151	7,018,705 21,145,637
Charleston, S. C.	1880 1890	194 566	1,718,360 7,345,450	2,146 5,504	639,030 2,326,078	1,788 4,314	150 1,095	208 95	1,468,375 4,753,496	2,732,500 9,065,421
Chelsea, Mass.	1880 1890	155 347	1,822,250 7,023,356	1,647 3,470	677,737 1,884,002	1,122 2,485	500 969	25 16	2,691,911 4,081,291	3,810,250 8,158,207
Chicago, Ill.	1880 1890	63,518 9,977	68,831,885 359,739,598	79,391 210,366	34,040,812 129,955,001	62,421 181,904	12,173 25,910	4,797 2,552	179,194,925 409,493,927	248,995,848 664,567,923
Cincinnati, Ohio.	1880 1890	63,275 7,832	50,531,900 104,483,032	54,513 96,689	19,553,020 47,691,332	38,993 73,777	5,039 21,264	1,048 1,048	62,374,570 102,545,231	105,255,165 196,003,983
Cleveland, Ohio.	1880 1890	1,055 2,307	19,430,989 69,732,781	21,724 50,674	8,502,935 28,355,565	18,018 44,400	2,286 5,116	1,420 1,162	81,629,737 95,645,649	48,604,050 113,210,115
Columbus, Ohio.	1880 1890	316 708	5,379,401 16,178,703	5,490 13,421	1,961,994 6,865,988	4,935 11,426	289 1,805	206 100	5,534,406 11,183,710	9,646,079 22,887,584
Covington, Ky.	1880 1890	181 1,308	3,182,141 6,897,380	2,925 7,602	1,033,463 4,232,019	2,251 6,698	223 899	451 5	3,935,727 8,223,079	5,804,530 15,999,575
Davenport, Iowa.	1880 1890	188 475	2,806,222 8,732,122	1,705 5,136	685,469 2,214,002	1,473 3,922	82 1,011	150 203	2,960,063 6,098,349	4,468,978 10,867,232
Dayton, Ohio.	1880 1890	495 937	6,063,334 13,469,964	6,025 12,017	2,293,630 5,900,719	5,071 9,845	513 2,041	441 161	6,434,225 11,686,149	11,935,433 22,440,572
Denver, Colo.	1880 1890	259 762	2,301,850 16,811,868	2,944 10,613	1,574,438 8,377,520	2,550 9,384	264 1,082	130 147	5,715,215 14,216,540	9,397,749 29,240,747
Des Moines, Iowa.	1880 1890	155 330	1,463,250 3,877,149	1,378 3,935	667,609 2,068,359	1,211 3,342	71 536	90 57	2,810,306 4,408,377	4,220,709 7,931,272
Detroit, Mich.	1880 1890	919 1,746	15,594,479 45,041,197	16,110 38,178	6,306,460 18,900,309	12,477 32,106	2,430 5,329	1,203 683	18,150,995 41,300,058	30,181,416 77,851,549
Dubuque, Iowa.	1880 1890	346 262	3,446,806 7,016,962	3,003 4,657	1,339,730 2,133,880	2,610 4,121	292 467	92 60	3,837,846 5,084,431	6,328,839 9,894,800
Elizabeth, N. J.	1880 1890	149 190	2,453,180 7,785,553	3,819 6,561	1,740,456 3,727,972	3,151 5,848	216 536	482 177	2,915,851 4,511,026	6,828,027 10,489,304
Elmira, N. Y.	1880 1890	6262 539	2,653,762 6,895,180	2,673 5,171	1,020,196 2,504,606	2,240 4,228	306 864	113 79	3,114,412 4,593,241	4,857,733 8,844,936
Erie, Pa.	1880 1890	167 236	4,730,503 12,812,504	3,767 7,029	1,518,085 3,823,438	3,284 6,550	207 224	276 255	4,870,210 6,145,680	7,633,356 12,765,768

(a) Includes officers, firm members, and clerks. This class of wage earners was covered by a specific inquiry for the Eleventh Census; they were not fully reported at the Tenth Census; a satisfactory comparison, therefore, of labor and wages is impracticable.
 b The difference between the totals stated in the table for 1880 and those published in the reports of the Tenth Census is caused by the elimination of data which were duplicated in the Tenth Census under the head of "Mixed textiles," such data having been also included in the totals of that census for the different branches of the textile industry.

MANUFACTURING INDUSTRIES.

TABLE I.—COMPARATIVE STATEMENT BY TOTALS FOR 1880 AND 1890 OF 100 CITIES REPORTED SEPARATELY IN 1880—Continued.

CITIES.	Year.	Number of establishments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					Cost of materials used.	Value of products, including receipts from custom work and repairing.
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.		
				Average number.	Total wages.					
Evansville, Ind.....	1880	a312	\$4,673,815	3,609	\$1,356,006	2,915	307	387	\$4,892,690	\$7,041,914
	1890	482	9,100,859	7,435	3,197,928	5,815	1,244	376	6,875,575	12,809,334
Fall River, Mass.....	1880	258	25,076,518	17,085	4,659,077	8,232	6,723	2,130	10,552,192	18,913,684
	1890	397	37,199,470	23,542	8,775,722	12,687	9,629	1,226	17,685,671	32,510,281
Fort Wayne, Ind.....	1880	114	2,352,101	2,735	1,020,793	2,426	164	145	4,007,955	5,810,024
	1890	235	6,999,600	6,011	2,676,316	5,401	566	44	5,048,585	9,301,040
Galveston, Tex.....	1880	170	871,350	684	499,785	683	15	36	1,283,246	2,375,065
	1890	190	5,122,612	1,932	1,241,299	1,589	270	76	3,253,088	5,724,545
Grand Rapids, Mich.....	1880	355	4,864,298	5,172	1,895,072	4,509	295	368	3,956,663	7,405,007
	1890	869	15,945,947	13,282	6,510,749	11,731	1,267	284	9,301,615	19,851,181
Harrisburg, Pa.....	1880	274	4,026,457	3,660	1,230,522	3,243	264	153	4,973,276	7,663,410
	1890	475	6,716,074	6,898	3,367,941	6,019	839	40	5,432,803	10,538,444
Hartford, Conn.....	1880	269	9,670,126	6,300	2,848,041	4,573	1,373	354	6,467,466	11,437,200
	1890	513	14,120,282	9,021	5,524,518	7,695	1,285	41	7,964,930	17,164,318
Hoboken, N. J.....	1880	a120	494,020	714	281,444	610	53	51	586,746	1,040,136
	1890	289	3,948,782	3,347	2,264,236	2,848	451	48	3,585,921	7,151,991
Holyoke, Mass.....	1880	a122	8,763,903	8,794	2,693,142	4,340	3,749	705	7,439,573	13,286,047
	1890	493	24,411,939	13,139	6,107,923	7,581	5,106	452	13,574,788	27,000,315
Indianapolis, Ind.....	1880	688	10,049,500	10,000	3,917,114	8,671	830	400	19,198,102	27,453,089
	1890	1,189	15,266,685	18,061	8,854,812	14,381	3,124	556	21,247,116	36,426,974
Jersey city, N. J.....	1880	584	11,890,915	11,138	4,622,655	7,962	2,426	750	49,738,985	60,473,005
	1890	726	18,165,694	12,869	7,808,270	10,832	1,718	319	23,206,831	37,376,322
Kansas city, Mo.....	1880	224	2,147,305	2,548	1,420,713	2,127	232	188	3,723,910	6,382,681
	1890	1,478	14,104,620	14,757	9,448,096	12,996	1,612	149	16,361,184	31,936,366
Lancaster, Pa.....	1880	313	3,702,740	4,252	1,177,240	2,741	1,044	407	2,942,912	5,404,937
	1890	599	7,691,514	8,179	2,710,262	5,490	2,174	515	6,306,495	11,361,535
Lawrence, Mass.....	1880	a225	16,098,977	14,372	4,754,755	6,652	6,849	871	11,979,898	21,046,357
	1890	523	29,626,806	16,276	6,723,383	9,173	6,631	472	15,145,851	26,550,725
Louisville, Ky.....	1880	a1,105	21,357,013	17,103	5,734,683	13,401	2,675	1,027	20,760,540	34,768,874
	1890	1,700	36,086,985	27,198	12,372,871	20,821	5,240	1,157	28,033,840	54,515,236
Lowell, Mass.....	1880	283	20,465,192	20,339	5,996,591	9,218	9,503	1,318	16,315,062	33,935,777
	1890	853	41,911,798	28,155	11,243,392	15,096	13,447	612	22,996,193	42,450,509
Lynn, Mass.....	1880	343	5,894,575	12,420	5,833,849	8,894	3,489	37	17,433,455	26,828,023
	1890	1,369	17,919,025	22,452	12,777,174	16,281	6,086	85	23,039,987	44,223,845
Manchester, N. H.....	1880	121	15,149,153	10,838	3,370,404	4,632	5,748	458	7,901,066	14,136,305
	1890	336	22,424,968	15,351	5,950,234	7,697	7,405	249	11,872,289	20,187,295
Memphis, Tenn.....	1880	138	2,313,975	2,268	845,672	2,150	69	69	2,419,341	4,413,422
	1890	345	9,357,821	6,118	3,158,975	5,668	359	91	7,090,100	13,244,533
Milwaukee, Wis.....	1880	844	18,766,914	20,880	6,946,105	16,015	3,922	940	28,975,872	43,473,812
	1890	2,879	60,145,814	43,423	20,640,717	34,509	8,135	779	55,815,485	97,593,951
Minneapolis, Minn.....	1880	401	9,669,650	5,344	2,582,253	4,702	457	185	24,274,623	29,973,470
	1890	2,723	42,643,764	27,792	15,254,175	24,312	3,252	228	54,592,210	82,922,974
Mobile, Ala.....	1880	91	525,768	704	261,648	622	87	45	830,961	1,335,579
	1890	261	2,236,318	3,013	1,169,353	2,740	198	75	1,814,463	3,326,399
Nashville, Tenn.....	1880	268	3,892,380	4,791	1,312,765	3,815	538	498	5,812,527	8,597,278
	1890	420	9,904,205	8,122	3,728,066	6,540	1,225	351	7,994,751	14,590,823
Newark, N. J.....	1880	a1,318	25,575,315	29,907	13,115,949	22,143	5,178	2,586	44,534,415	69,051,075
	1890	2,490	62,552,752	46,848	26,857,170	36,911	9,196	741	46,020,530	93,476,052
New Bedford, Mass.....	1880	330	7,681,682	5,812	2,058,751	3,915	1,538	359	5,907,874	9,835,055
	1890	413	20,132,693	11,422	4,985,010	7,308	3,727	387	8,581,373	17,025,779
New Haven, Conn.....	1880	587	9,703,737	15,156	5,761,874	9,998	4,780	378	14,482,163	24,040,225
	1890	1,123	19,592,384	17,864	10,090,820	14,163	3,668	33	14,400,638	33,393,811
New Orleans, La.....	1880	915	8,565,303	9,504	3,717,557	7,666	1,286	552	10,771,892	18,803,096
	1890	1,961	26,319,277	25,221	10,887,584	17,973	6,773	475	28,271,445	48,295,449
Newport, Ky.....	1880	94	1,700,715	1,748	711,019	1,608	35	105	2,526,936	3,996,095
	1890	1,003	3,471,388	4,848	2,420,689	8,491	1,331	26	3,072,313	6,687,987
New York, N. Y.....	1880	a11,273	179,605,506	223,073	95,832,742	144,920	69,240	8,013	236,267,774	468,443,242
	1890	25,403	426,118,272	354,291	230,102,167	257,112	95,116	2,063	366,422,722	777,222,721
Norfolk, Va.....	1880	105	570,276	752	317,528	668	61	23	861,020	1,455,987
	1890	374	3,417,454	2,948	1,388,195	2,416	594	28	2,542,790	5,100,408
Oakland, Cal.....	1880	72	1,371,457	1,387	759,917	1,369	13	5	2,012,095	3,181,066
	1890	342	6,629,468	4,458	3,090,007	3,644	507	237	4,687,699	9,112,778
Omaha, Neb.....	1880	154	1,835,800	1,688	726,918	1,466	64	158	2,527,470	4,280,860
	1890	675	18,319,594	9,414	6,115,294	8,253	910	251	29,260,102	42,339,321

a See note b, page 3.

COMPARATIVE STATEMENT.

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TABLE 1.—COMPARATIVE STATEMENT BY TOTALS FOR 1880 AND 1890 OF 100 CITIES REPORTED SEPARATELY IN 1880—Continued.

CITIES.	Year.	Number of establishments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					Cost of materials used.	Value of products, including receipts from custom work and repairing.
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.		
				Average number.	Total wages.					
Oswego, N. Y.	1880	a178	\$2,511,238	2,097	\$728,418	1,716	202	89	\$8,423,382	\$5,287,966
	1890	249	6,254,200	3,415	1,503,643	2,577	765	73	4,604,096	7,482,378
Paterson, N. J.	1880	a340	11,613,442	18,755	6,679,437	9,868	6,145	2,742	13,992,233	25,239,300
	1890	599	27,603,549	24,232	11,578,082	15,470	7,894	868	22,480,727	42,263,531
Peoria, Ill.	1880	296	4,160,707	4,067	1,507,666	3,019	813	135	9,550,470	14,228,134
	1890	656	15,085,862	7,700	4,344,012	6,862	1,206	138	9,986,379	55,535,023
Petersburg, Va.	1880	115	1,755,415	4,106	602,749	2,209	1,245	742	3,290,110	4,643,015
	1890	271	3,911,240	5,525	1,367,414	3,341	1,746	433	4,884,462	7,167,004
Philadelphia, Pa.	1880	a8,481	178,765,206	174,952	61,152,952	100,071	51,459	14,422	100,451,376	300,424,150
	1890	18,166	375,249,715	200,264	135,917,021	192,603	57,865	9,790	311,045,804	577,234,440
Pittsburg, Pa.	1880	1,112	52,645,010	30,030	17,168,989	32,011	1,681	3,238	42,109,777	75,015,033
	1890	1,420	108,368,838	56,438	33,898,152	50,710	3,566	2,132	60,892,195	126,859,657
Portland, Me.	1880	302	4,243,225	7,129	1,541,997	4,841	1,550	738	6,813,962	9,832,931
	90	662	6,887,557	6,260	3,160,132	5,031	1,212	176	6,286,438	11,871,487
Poughkeepsie, N. Y.	1880	140	3,728,700	2,482	761,711	1,766	493	223	2,781,289	4,392,000
	1890	303	4,850,659	3,772	1,837,656	2,923	718	131	3,200,593	6,254,123
Providence, R. I.	1880	1,205	27,177,000	22,891	9,464,110	16,050	5,125	1,716	22,794,227	42,597,512
	1890	1,934	61,133,598	42,124	20,793,390	28,809	11,410	1,905	39,794,241	77,467,283
Quincy, Ill.	1880	318	4,078,200	3,326	1,271,995	2,866	151	309	5,089,880	8,103,277
	1890	394	6,554,810	5,110	2,429,834	4,278	595	237	5,701,973	10,393,102
Reading, Pa.	1880	a320	7,488,256	6,635	2,219,290	5,373	715	547	3,354,310	13,163,595
	1890	435	14,083,374	12,966	5,461,293	10,561	1,762	703	12,000,332	20,855,165
Richmond, Va.	1880	698	6,884,386	14,047	3,006,456	9,218	2,872	1,957	12,141,512	20,790,166
	1890	966	16,785,242	18,512	7,192,646	13,888	4,127	547	14,014,214	27,792,672
Rochester, N. Y.	1880	a734	13,141,870	14,566	5,207,713	9,276	4,027	1,253	16,414,515	26,418,266
	1890	1,892	46,301,038	32,720	16,819,566	24,561	7,229	933	33,320,293	65,091,156
Sacramento, Cal.	1880	160	1,672,400	924	547,692	868	10	46	2,011,889	4,663,934
	1890	302	6,654,782	4,510	2,967,954	3,728	708	74	6,033,317	10,424,582
St. Joseph, Mo.	1880	238	1,423,650	2,258	896,762	2,040	94	124	3,210,080	5,143,585
	1890	270	6,230,097	5,026	2,351,691	3,560	1,389	77	7,848,353	11,916,141
St. Louis, Mo.	1880	2,924	50,832,885	41,825	17,743,532	33,930	4,701	3,084	75,379,867	114,233,375
	1890	6,148	141,872,386	94,051	53,894,630	76,750	14,866	2,426	122,210,570	229,157,243
St. Paul, Minn.	1880	593	3,738,791	5,230	2,254,340	3,930	1,092	268	5,719,067	10,286,363
	1890	1,442	22,501,211	18,558	10,373,396	15,793	2,583	182	15,897,573	33,035,073
Salem, Mass.	1880	241	3,678,850	4,181	1,401,592	2,632	1,309	240	7,264,447	9,026,594
	1890	513	6,250,164	5,798	2,446,076	3,853	1,831	114	4,738,643	8,622,751
Salt Lake, Utah.	1880	160	800,415	928	425,537	696	114	118	812,736	1,010,133
	1890	175	3,354,035	2,287	1,499,412	1,012	290	85	1,966,818	4,624,419
San Antonio, Tex.	1880	71	310,050	361	137,781	300	18	48	328,478	642,412
	1890	309	3,004,425	2,441	1,634,306	2,242	178	21	2,387,984	5,623,612
San Francisco, Cal.	1880	a2,969	35,858,630	28,407	14,918,834	23,651	3,574	1,182	47,966,677	77,801,940
	1890	4,059	74,834,301	48,446	30,979,374	38,610	8,755	1,073	78,656,470	135,625,754
Savannah, Ga.	1880	120	1,102,970	1,130	447,640	960	68	66	2,457,606	3,306,297
	1890	244	5,379,774	2,700	1,362,120	2,615	114	31	3,297,894	6,319,066
Scranton, Pa.	1880	216	4,470,631	3,549	1,313,287	2,908	456	185	6,671,479	8,561,850
	1890	177	16,237,271	9,123	4,273,012	7,751	1,032	340	16,922,753	24,341,745
Somerville, Mass.	1880	100	1,682,795	1,296	564,508	1,191	84	21	4,608,192	5,852,535
	1890	404	3,883,859	3,285	1,783,979	2,705	509	11	4,420,128	7,397,522
Springfield, Ill.	1880	116	1,709,775	1,098	656,253	1,391	75	232	3,156,270	4,123,883
	1890	374	3,641,415	3,269	1,745,158	2,814	428	27	3,790,754	6,562,470
Springfield, Mass.	1880	434	9,177,250	7,300	2,906,130	4,881	2,138	341	7,726,110	12,891,826
	1890	662	13,199,283	10,250	5,808,894	7,816	2,358	77	7,817,534	17,040,692
Springfield, Ohio.	1880	170	7,255,953	3,670	1,637,212	3,741	47	182	4,556,569	8,462,443
	1890	372	14,567,931	6,693	3,195,441	6,881	280	32	4,752,062	10,700,965
Syracuse, N. Y.	1880	724	8,186,818	10,966	3,042,135	7,513	2,871	582	8,544,436	14,605,074
	1890	1,246	22,853,424	17,518	8,520,677	14,048	3,279	191	14,104,504	20,297,241
Taunton, Mass.	1880	148	4,086,134	5,154	2,083,185	3,585	898	671	4,272,451	7,618,953
	1890	316	7,891,382	6,466	3,141,273	4,896	1,506	61	4,799,287	9,936,829
Terro Haute, Ind.	1880	224	2,566,750	3,376	1,406,352	3,090	144	142	6,743,719	9,185,246
	1890	367	4,965,184	5,205	2,154,031	4,203	809	194	6,785,616	13,720,529
Toledo, Ohio.	1880	440	5,534,287	6,738	2,269,456	5,028	1,020	690	6,355,399	10,600,074
	1890	734	12,700,372	10,313	5,214,443	8,582	1,492	239	12,189,924	21,651,574
Trenton, N. J.	1880	404	6,966,830	8,902	3,150,119	6,691	1,084	1,127	7,421,390	12,712,769
	1890	885	19,278,041	14,984	7,968,894	11,810	2,827	353	12,625,400	25,628,223

a See note b, page 3.

MANUFACTURING INDUSTRIES.

TABLE I.—COMPARATIVE STATEMENT BY TOTALS FOR 1880 AND 1890 OF 100 CITIES REPORTED SEPARATELY IN 1880—Continued.

CITIES.	Year.	Number of establishments reporting.	Capital.	AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.					Cost of materials used.	Value of products, including receipts from custom work and repairing.
				Aggregates.		Males above 16 years.	Females above 15 years.	Children.		
				Average number.	Total wages.					
Troy, N. Y.	1880	α513	\$13,413,853	22,431	\$6,744,144	10,337	11,114	980	\$13,442,210	\$26,492,363
	1890	840	24,030,753	25,157	9,544,762	11,006	13,953	198	13,150,156	29,243,750
Utica, N. Y.	1880	317	5,905,635	6,710	1,917,657	3,752	2,620	338	5,180,598	8,873,306
	1890	565	14,332,510	12,598	4,326,711	6,292	5,937	369	7,790,766	15,615,715
Washington, D. C.	1880	971	5,552,526	7,146	3,024,612	5,496	1,389	261	5,365,400	11,882,316
	1890	2,295	23,865,089	23,404	14,622,264	19,803	3,468	133	17,194,667	39,331,437
Wheeling, W. Va.	1880	227	4,868,288	5,512	2,192,255	4,658	196	658	5,203,931	9,259,844
	1890	418	8,494,630	6,850	3,037,727	5,121	1,224	505	7,381,940	13,022,589
Wilkesbarro, Pa.	1880	89	1,146,500	645	223,399	613	17	15	660,649	1,133,344
	1890	270	5,598,139	4,405	2,058,978	3,225	1,039	141	4,026,579	7,746,371
Wilmington, Del.	1880	258	10,744,389	7,852	3,174,821	6,871	459	522	7,884,847	13,205,370
	1890	560	20,585,646	14,377	7,064,148	12,724	1,070	583	13,050,152	24,568,125
Worcester, Mass.	1880	α633	11,217,104	16,248	6,792,382	13,498	2,366	384	16,274,319	26,712,003
	1890	996	25,230,620	21,720	11,694,121	17,738	3,776	215	21,208,904	39,533,869

α See note b, page 3.

TABLE 2.

SUMMARY FOR 165 PRINCIPAL CITIES HAVING A POPULATION
OF 20,000 AND OVER: 1890.

MANUFACTURING INDUSTRIES.

TABLE 2.—SUMMARY FOR 165 PRINCIPAL CITIES

CITIES.	Number of establishments reporting.	Value of hired property.	CAPITAL.						
			Aggregate.	Value of plant.			Live assets.		
				Land.	Buildings.	Machinery, tools, and implements.	Raw materials.	Stock in process and finished products on hand.	Cash, bills and accounts receivable, and all sundries not elsewhere reported.
Total	186, 147	\$833, 173, 008	\$3, 990, 705, 734	\$444, 048, 050	\$505, 787, 051	\$912, 509, 634	\$464, 402, 240	\$641, 642, 870	\$1, 023, 315, 895
1 Akron, Ohio	350	724, 312	14, 237, 429	1, 009, 575	1, 688, 007	2, 024, 503	1, 019, 865	1, 558, 153	6, 216, 420
2 Albany, N. Y.	1, 405	3, 589, 739	17, 270, 705	1, 446, 925	2, 716, 830	3, 931, 078	2, 343, 913	2, 277, 851	4, 554, 108
3 Allegheny, Pa.	675	2, 439, 935	22, 253, 243	3, 760, 710	3, 534, 218	4, 403, 296	2, 237, 551	2, 954, 180	5, 263, 179
4 Allentown, Pa.	382	735, 864	6, 977, 091	796, 006	924, 321	2, 182, 773	495, 222	1, 371, 521	1, 207, 158
5 Altoona, Pa.	298	593, 695	7, 955, 423	476, 900	2, 917, 150	2, 038, 830	1, 265, 062	623, 472	604, 003
6 Atlanta, Ga.	410	976, 274	9, 508, 962	1, 554, 157	1, 421, 876	2, 609, 721	1, 015, 390	1, 016, 667	1, 891, 145
7 Auburn, N. Y.	258	1, 141, 414	11, 123, 238	611, 175	1, 041, 720	1, 442, 404	853, 497	1, 700, 715	5, 568, 817
8 Augusta, Ga.	440	655, 915	7, 770, 688	546, 225	1, 766, 755	2, 918, 266	859, 501	880, 100	799, 743
9 Baltimore, Md.	5, 265	16, 658, 875	92, 723, 677	11, 172, 161	11, 924, 632	18, 758, 983	9, 695, 668	14, 237, 235	27, 025, 598
10 Bay city, Mich.	331	482, 853	9, 654, 415	3, 010, 373	781, 616	1, 485, 110	1, 182, 900	1, 260, 455	1, 934, 646
11 Binghamton, N. Y.	704	1, 006, 149	9, 058, 651	743, 269	843, 333	1, 611, 106	1, 639, 770	1, 256, 240	2, 964, 919
12 Birmingham, Ala.	283	885, 920	4, 553, 478	679, 650	580, 007	1, 636, 322	351, 786	349, 524	749, 889
13 Bloomington, Ill.	183	333, 974	2, 874, 141	211, 855	618, 050	636, 092	311, 293	292, 443	304, 403
14 Boston, Mass.	7, 942	55, 800, 301	118, 198, 539	9, 381, 008	12, 142, 689	25, 763, 723	14, 812, 083	22, 063, 319	34, 035, 113
15 Bridgeport, Conn.	559	2, 004, 940	19, 736, 572	1, 647, 251	1, 968, 779	3, 717, 073	1, 919, 022	3, 427, 082	7, 105, 563
16 Brockton, Mass.	537	1, 571, 421	7, 772, 452	366, 175	546, 497	1, 204, 070	1, 105, 545	1, 016, 498	3, 533, 061
17 Brooklyn, N. Y.	10, 583	31, 377, 420	161, 730, 500	24, 296, 639	22, 680, 125	39, 483, 204	16, 118, 381	21, 365, 301	37, 786, 850
18 Buffalo, N. Y.	3, 565	10, 526, 219	70, 707, 145	20, 852, 693	11, 294, 280	14, 557, 134	7, 061, 320	9, 470, 887	17, 470, 825
19 Burlington, Iowa.	238	492, 849	3, 963, 986	449, 400	513, 430	961, 167	642, 871	511, 723	891, 597
20 Cambridge, Mass.	1, 232	3, 936, 373	20, 331, 585	1, 614, 494	2, 346, 951	8, 310, 972	2, 171, 058	4, 797, 979	6, 090, 137
21 Camden, N. J.	658	2, 073, 183	15, 244, 506	1, 032, 230	2, 177, 320	8, 490, 831	1, 689, 214	2, 440, 345	3, 514, 516
22 Canton, Ohio.	420	437, 150	11, 357, 406	752, 132	1, 365, 067	1, 816, 936	961, 949	1, 360, 518	5, 130, 804
23 Charleston, S. C.	560	996, 537	7, 345, 638	1, 065, 598	1, 823, 760	1, 041, 105	481, 966	711, 605	1, 122, 425
24 Chattanooga, Tenn.	294	570, 305	7, 405, 646	1, 365, 372	871, 946	1, 602, 362	839, 700	931, 585	1, 794, 681
25 Chelsea, Mass.	347	1, 048, 968	7, 023, 356	583, 253	691, 446	1, 570, 182	934, 023	1, 560, 540	1, 821, 907
26 Chester, Pa.	201	406, 600	9, 397, 033	933, 655	1, 310, 944	2, 630, 755	1, 029, 535	1, 027, 692	1, 825, 422
27 Chicago, Ill.	9, 977	72, 716, 486	359, 739, 598	50, 643, 484	45, 308, 301	70, 449, 578	27, 445, 820	56, 427, 561	69, 494, 464
28 Cincinnati, Ohio.	7, 832	31, 936, 626	164, 483, 032	10, 392, 723	12, 469, 589	15, 289, 272	12, 084, 009	22, 832, 795	31, 534, 639
29 Cleveland, Ohio.	2, 307	8, 217, 164	69, 732, 761	6, 962, 936	8, 782, 511	18, 228, 595	5, 971, 571	9, 915, 968	10, 871, 272
30 Cohoes, N. Y.	2, 912	1, 626, 764	11, 275, 137	155, 092	4, 727, 464	2, 777, 427	1, 242, 994	1, 116, 940	1, 255, 230
31 Columbus, Ohio.	708	2, 600, 182	16, 178, 703	2, 160, 424	2, 020, 570	2, 900, 537	1, 885, 440	2, 750, 467	4, 461, 236
32 Council Bluffs, Iowa.	123	260, 855	1, 292, 233	188, 900	255, 910	214, 839	151, 332	191, 625	229, 597
33 Covington, Ky.	1, 368	1, 711, 012	6, 037, 380	820, 450	848, 950	1, 583, 653	805, 327	1, 066, 569	1, 772, 431
34 Dallas, Tex.	812	999, 410	6, 250, 118	614, 284	550, 147	1, 641, 013	608, 824	1, 607, 352	1, 068, 498
35 Davenport, Iowa.	475	1, 031, 350	8, 732, 122	1, 184, 579	1, 151, 730	1, 188, 336	1, 519, 336	1, 519, 593	2, 118, 679
36 Dayton, Ohio.	937	1, 734, 339	13, 460, 864	1, 358, 272	1, 879, 870	2, 900, 344	1, 585, 801	2, 089, 463	3, 656, 714
37 Denver, Colo.	762	4, 759, 912	16, 811, 863	2, 589, 650	1, 699, 610	4, 221, 479	2, 439, 220	2, 044, 055	3, 917, 854
38 Des Moines, Iowa.	330	1, 269, 963	3, 877, 140	455, 609	630, 917	991, 704	617, 892	408, 083	733, 845
39 Detroit, Mich.	1, 746	7, 854, 178	45, 041, 167	4, 992, 395	5, 374, 948	9, 078, 407	5, 681, 753	7, 042, 563	12, 371, 100
40 Dubuque, Iowa.	262	609, 275	7, 016, 802	863, 012	1, 072, 593	897, 020	1, 109, 233	1, 483, 632	1, 591, 256
41 Duluth, Minn.	278	612, 945	5, 332, 447	1, 319, 800	852, 950	1, 197, 397	438, 565	1, 233, 308	799, 487
42 Elizabeth, N. J.	190	453, 268	7, 785, 553	665, 130	1, 452, 818	2, 157, 674	854, 651	1, 468, 185	1, 247, 095
43 Elmira, N. Y.	539	949, 702	6, 895, 180	561, 975	1, 649, 400	828, 120	924, 350	608, 158	1, 969, 177
44 Erie, Pa.	236	563, 811	12, 812, 504	1, 006, 898	1, 065, 870	2, 510, 616	1, 908, 013	1, 723, 863	3, 997, 320
45 Evansville, Ind.	482	1, 041, 765	9, 100, 869	1, 007, 635	1, 182, 275	2, 270, 857	1, 064, 837	1, 310, 593	2, 430, 662
46 Fall River, Mass.	397	1, 156, 755	87, 109, 470	2, 454, 242	7, 584, 641	17, 188, 915	2, 850, 327	3, 131, 548	3, 933, 597
47 Fitchburg, Mass.	323	683, 405	7, 563, 522	582, 467	950, 272	2, 168, 058	938, 925	1, 388, 126	1, 520, 674
48 Fort Wayne, Ind.	235	719, 061	6, 990, 600	600, 430	980, 679	1, 021, 735	1, 762, 459	1, 756, 785	1, 808, 512
49 Fort Worth, Tex.	810	510, 484	3, 194, 032	519, 292	354, 731	1, 713, 140	318, 982	690, 015	597, 872
50 Galveston, Tex.	100	681, 510	5, 122, 612	1, 469, 670	762, 864	1, 341, 944	479, 500	370, 103	693, 525
51 Gloucester, Mass.	206	449, 650	2, 763, 284	180, 773	290, 909	455, 485	469, 827	300, 965	1, 074, 925
52 Grand Rapids, Mich.	869	1, 883, 111	15, 945, 947	2, 559, 967	1, 904, 552	2, 664, 585	2, 016, 310	2, 828, 165	3, 972, 428
53 Harrisburg, Pa.	475	1, 254, 273	6, 716, 074	660, 233	1, 165, 047	1, 503, 101	991, 317	818, 349	1, 548, 027
54 Hartford, Conn.	513	2, 608, 000	14, 126, 282	826, 800	1, 514, 650	3, 740, 859	1, 210, 563	3, 223, 205	3, 610, 185
55 Haverhill, Mass.	734	3, 220, 880	8, 084, 272	149, 750	188, 584	1, 261, 000	1, 413, 153	1, 553, 810	3, 515, 910
56 Hoboken, N. J.	289	1, 047, 270	3, 948, 782	479, 450	626, 395	1, 058, 090	349, 486	598, 939	836, 431
57 Holyoke, Mass.	493	1, 445, 172	24, 411, 939	1, 997, 659	4, 200, 975	5, 782, 387	2, 897, 481	3, 171, 279	6, 362, 268
58 Houston, Tex.	210	603, 715	3, 509, 434	439, 950	561, 007	1, 273, 586	351, 667	437, 883	437, 883
59 Indianapolis, Ind.	1, 189	3, 724, 435	15, 266, 685	1, 286, 694	2, 001, 397	3, 310, 829	2, 109, 862	2, 840, 327	3, 597, 676
60 Jackson, Mich.	220	588, 356	4, 979, 444	261, 850	477, 146	767, 043	621, 085	616, 607	2, 285, 713
61 Jersey city, N. J.	726	4, 772, 898	18, 165, 094	1, 933, 125	2, 400, 475	3, 782, 240	2, 192, 867	2, 452, 403	5, 408, 984
62 Johnstown, Pa.	113	159, 570	13, 280, 296	1, 027, 362	1, 396, 455	4, 880, 256	1, 843, 867	1, 177, 647	2, 414, 700
63 Joliet, Ill.	271	441, 582	9, 418, 932	562, 050	1, 242, 445	2, 401, 788	1, 685, 876	801, 372	2, 825, 401
64 Kansas city, Kan.	234	807, 865	11, 620, 703	1, 620, 500	2, 332, 905	1, 862, 734	807, 706	4, 619, 713	1, 877, 145
65 Kansas city, Mo.	1, 478	4, 974, 291	14, 104, 620	2, 379, 075	1, 301, 340	4, 081, 544	1, 352, 125	1, 824, 713	3, 075, 218
66 Kingston, N. Y.	198	262, 935	3, 251, 835	489, 935	518, 180	747, 355	697, 533	265, 440	533, 392
67 Knoxville, Tenn.	295	638, 468	3, 045, 661	542, 850	366, 375	704, 858	381, 882	808, 490	631, 296
68 Lacrosse, Wis.	200	250, 050	10, 039, 872	2, 386, 648	875, 800	1, 769, 987	1, 814, 121	1, 422, 545	1, 770, 771
69 Lancaster, Pa.	599	1, 097, 170	7, 691, 314	653, 925	1, 035, 810	1, 852, 828	1, 030, 456	1, 092, 154	2, 017, 141
70 Lawrence, Mass.	583	1, 508, 786	29, 026, 806	2, 166, 464	4, 425, 586	7, 416, 393	4, 092, 776	5, 553, 262	5, 972, 261
71 Lowiston, Mo.	214	489, 541	8, 324, 231	263, 428	1, 702, 500	2, 902, 812	945, 080	874, 075	1, 635, 736
72 Lexington, Ky.	183	441, 325	1, 619, 880	197, 175	231, 740	436, 210	220, 031	160, 180	374, 594
73 Lincoln, Neb.	182	681, 215	2, 360, 454	251, 762	233, 340	641, 316	351, 696	261, 550	920, 790
74 Lincoln, R. I.	149	250, 975	7, 677, 304	484, 733	1, 112, 316	3, 179, 532	879, 315	1, 466	

SUMMARY FOR PRINCIPAL CITIES.

HAVING A POPULATION OF 20,000 AND OVER: 1890.

MISCELLANEOUS EXPENSES.								AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.			
Total.	Rent paid for tenancy.	Taxes, including internal revenue.	Insurance.	Repairs, ordinary, of buildings and machinery.	Amount paid to contractors.	Interest paid on cash used in the business.	All sundries not elsewhere reported.	Aggregates.		Officers, firm members, and clerks.	
								Average number.	Total wages.	Males above 16 years.	
										Number.	Wages.
\$454,844,850	\$70,723,452	\$112,597,927	\$18,805,773	\$34,144,332	\$27,287,929	\$20,683,543	\$161,001,894	2,907,832	\$1,567,444,001	263,813	\$268,908,564
977,471	50,707	83,569	66,861	110,602	1,000	188,913	475,690	6,390	3,206,314	512	483,826
1,009,304	285,885	505,909	91,082	138,011	97,765	116,856	674,296	15,041	7,680,379	1,668	1,614,822
1,738,571	199,224	486,485	79,157	247,257	41,610	121,062	553,046	13,063	7,031,529	1,140	1,137,494
532,875	55,336	74,887	21,482	95,836	70,870	71,863	136,601	6,833	2,813,508	497	387,782
241,121	30,917	30,836	9,527	20,325	10,500	9,750	105,266	6,561	3,684,096	301	223,493
957,623	107,812	91,115	55,578	93,803	-----	81,601	567,716	8,684	3,809,055	685	584,590
1,339,705	92,051	57,795	25,056	66,452	2,400	192,667	903,284	6,166	2,623,065	381	377,498
626,569	61,344	143,615	43,175	40,947	-----	105,368	120,090	6,294	2,063,189	424	315,133
8,771,869	1,355,723	8,413,478	867,131	514,084	462,106	559,062	2,100,945	82,745	25,014,854	6,763	5,899,456
513,771	39,872	87,678	68,001	120,618	5,046	80,361	117,195	4,696	2,006,052	454	403,412
907,357	141,408	341,659	53,806	44,393	80,150	103,210	142,931	10,191	4,249,162	857	776,604
507,290	89,377	36,831	17,505	75,533	82,240	17,126	226,558	3,614	2,033,606	323	318,520
223,522	30,313	25,375	11,058	85,837	48,065	15,785	50,499	2,524	1,261,045	302	244,004
21,543,956	4,107,158	1,908,371	632,200	978,507	2,743,026	897,475	10,156,259	90,805	55,125,872	10,598	10,372,170
1,442,378	100,787	137,458	64,833	184,611	10,170	138,117	790,402	13,131	7,566,513	924	1,138,783
1,136,445	116,290	84,450	43,525	80,366	14,912	75,309	771,593	11,192	6,600,165	747	784,703
15,743,164	2,532,461	3,169,789	574,300	1,169,061	161,562	357,483	6,631,686	109,292	65,247,119	13,434	13,463,807
7,439,363	837,009	1,125,424	381,188	563,783	725,942	674,303	3,840,724	51,433	25,495,833	4,483	4,461,825
250,615	40,735	31,039	19,756	13,829	12,870	46,388	68,631	3,264	1,424,178	307	257,209
2,370,262	310,598	404,041	121,383	117,968	62,266	200,996	1,152,971	14,258	7,759,813	1,267	1,119,157
709,452	135,824	58,523	67,087	103,509	5,206	96,403	217,896	10,392	5,557,560	877	782,425
952,010	39,186	58,781	32,014	114,854	156,396	130,942	413,837	7,053	3,780,753	636	550,176
464,172	86,202	96,326	51,117	66,761	1,360	47,990	114,416	5,504	2,320,073	657	491,503
908,518	53,178	73,991	47,878	91,016	365,361	102,326	168,774	5,741	2,749,887	493	474,222
547,110	83,035	53,919	36,834	74,980	16,600	141,166	141,176	3,470	1,384,002	470	443,673
688,831	49,724	29,322	34,568	84,113	89,370	108,711	213,033	6,850	3,104,040	262	295,056
43,235,427	5,473,644	9,956,604	1,709,946	2,221,871	2,237,540	3,050,993	18,534,829	210,360	123,955,001	17,595	18,743,073
19,937,152	2,682,820	10,319,893	629,213	709,230	654,947	613,763	4,330,816	96,080	47,691,332	10,214	9,835,622
4,902,260	714,226	780,390	328,147	915,245	26,096	323,657	1,803,175	60,074	28,355,505	4,401	4,677,131
741,435	124,841	103,426	41,978	126,168	1,282	108,384	209,356	8,939	3,159,950	270	200,277
1,715,050	207,355	302,601	67,569	105,826	158,651	134,504	738,550	13,421	6,865,983	1,195	1,133,558
92,886	25,708	9,563	8,218	3,495	-----	19,213	26,689	1,014	3,727,632	149	117,559
1,026,579	152,971	325,128	23,415	63,442	216,310	16,490	223,353	7,602	4,252,019	1,354	1,204,949
595,257	103,517	62,747	38,728	49,800	43,760	49,728	47,023	4,082	2,520,639	473	470,921
780,201	87,139	110,924	49,345	58,011	143,335	58,076	267,371	5,136	2,214,002	627	533,120
1,459,655	159,912	297,477	53,552	111,005	62,914	93,798	675,997	12,047	6,900,719	1,278	1,095,654
1,310,898	497,537	282,378	86,470	132,347	3,000	81,010	178,125	10,613	8,377,529	1,248	1,000,680
442,162	112,290	54,198	24,068	20,638	300	33,288	201,300	3,935	2,068,360	466	417,939
5,947,807	631,122	1,772,256	301,275	345,204	345,204	292,854	2,377,477	38,178	18,900,309	8,444	3,325,151
564,377	54,216	115,057	53,000	53,365	300	63,529	224,910	4,657	2,133,880	433	401,642
412,496	90,589	43,093	35,802	23,352	147,927	33,165	37,608	3,752	2,008,693	388	330,631
371,214	37,051	94,719	32,225	82,329	4,900	11,374	108,616	6,561	3,727,972	272	395,802
538,070	73,931	94,165	31,542	41,499	27,227	53,194	246,502	5,171	2,504,606	664	546,169
718,157	45,999	92,048	51,087	73,205	3,400	116,191	335,627	7,029	3,823,438	534	595,779
804,871	98,850	210,198	71,542	70,546	98,500	108,337	137,970	7,435	3,197,928	592	621,903
2,093,945	88,231	476,325	106,638	482,477	-----	859,502	550,772	23,542	8,775,722	486	534,076
746,602	57,996	63,501	29,442	146,967	16,910	148,961	282,828	5,497	2,779,544	356	351,970
307,999	49,879	66,823	27,292	21,139	-----	45,308	97,537	6,011	2,676,316	338	282,298
226,452	57,833	17,503	21,290	17,600	-----	24,014	80,909	2,743	1,047,143	327	301,600
405,270	69,206	45,524	42,176	54,659	16,633	43,213	133,929	1,932	1,241,299	241	272,040

MANUFACTURING INDUSTRIES.

TABLE 2.—SUMMARY FOR 165 PRINCIPAL CITIES HAVING

CITIES.		AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES—continued.											
		Officers, firm members, and clerks—Continued.		Operatives, skilled and unskilled.						Pieceworkers.			
		Females above 15 years.		Males above 16 years.		Females above 15 years.		Children.		Males above 16 years.		Females above 15 years.	
		Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.
Total		33,410	\$16,012,923	1,684,041	\$955,772,381	347,037	\$101,266,985	53,901	\$8,597,128	303,008	\$158,783,497	215,528	\$57,021,772
1	Akron, Ohio	75	29,181	4,126	2,002,837	515	110,566	8	870	941	528,308	190	45,728
2	Albany, N. Y.	332	174,257	8,628	4,709,538	1,829	363,058	133	19,683	1,633	801,571	1,087	297,249
3	Allegheny, Pa.	66	27,510	9,500	5,208,260	724	100,274	281	39,859	675	363,338	584	130,806
4	Allentown, Pa.	43	14,844	3,262	1,362,911	307	56,273	336	40,451	586	262,508	766	156,116
5	Altoona, Pa.	44	14,905	3,508	1,663,805	121	24,097	72	8,226	2,462	1,733,642	53	10,588
6	Atlanta, Ga.	42	19,080	6,090	2,716,966	768	184,868	404	50,819	442	193,089	169	48,843
7	Auburn, N. Y.	64	39,193	3,028	1,344,113	1,171	290,716	121	17,913	1,183	513,031	218	54,901
8	Augusta, Ga.	156	58,110	3,298	1,157,000	1,315	305,738	523	63,360	247	100,410	271	57,752
9	Baltimore, Md.	493	299,398	39,975	20,099,021	10,472	2,708,911	1,515	202,025	13,651	5,169,374	10,558	1,685,414
10	Bay city, Mich.	30	19,951	3,533	1,382,917	257	35,365	60	7,392	282	132,748	67	17,437
11	Binghamton, N. Y.	150	65,374	5,095	2,544,143	1,594	458,130	165	26,550	759	267,192	927	205,500
12	Birmingham, Ala.	45	21,864	2,803	1,490,712	179	67,980	43	5,400	190	102,186	17	5,234
13	Bloomington, Ill.	21	9,042	1,713	841,001	123	24,402	30	3,335	261	124,130	40	12,480
14	Boston, Mass.	1,733	845,256	51,684	33,701,197	13,658	4,374,382	915	52,137	5,669	3,473,687	7,334	2,219,806
15	Bridgeport, Conn.	91	47,027	6,951	4,307,056	1,757	599,499	132	27,200	2,170	1,106,534	1,047	328,056
16	Brockton, Mass.	128	69,138	4,140	2,599,969	891	379,646	75	13,193	3,708	2,152,611	1,486	599,233
17	Brooklyn, N. Y.	1,684	766,452	63,892	40,575,431	12,520	3,759,303	1,257	206,335	9,068	4,920,317	6,707	1,529,486
18	Buffalo, N. Y.	1,034	466,299	32,526	16,607,541	4,230	894,662	791	103,954	4,942	2,369,077	3,185	574,037
19	Burlington, Iowa.	22	9,564	2,220	930,746	210	33,274	104	17,102	327	160,277	54	14,390
20	Cambridge, Mass.	410	148,693	8,690	5,034,305	1,299	375,004	32	3,605	1,116	690,644	1,442	393,895
21	Camden, N. J.	41	15,973	6,143	3,649,790	1,029	262,214	166	26,196	1,022	605,589	1,078	215,248
22	Canton, Ohio	57	21,936	4,239	2,153,038	465	141,510	18	3,289	1,280	733,118	357	176,702
23	Charleston, S. C.	163	54,786	3,908	1,456,992	737	139,547	91	13,866	261	120,984	195	48,120
24	Chattanooga, Tenn.	62	26,142	4,553	2,052,235	208	63,065	163	25,640	201	93,448	55	11,527
25	Chelsea, Mass.	90	55,984	1,763	985,527	493	120,309	12	1,010	319	145,202	396	121,991
26	Chester, Pa.	20	10,752	3,991	1,901,578	1,285	354,293	544	95,818	303	217,808	464	177,484
27	Chicago, Ill.	2,150	1,142,001	145,526	85,443,537	17,959	5,625,851	2,364	435,270	18,733	10,786,799	5,801	1,736,781
28	Cincinnati, Ohio	2,308	1,027,160	49,821	27,251,593	10,744	2,708,008	1,291	215,730	13,742	4,942,058	8,212	1,514,207
29	Cleveland, Ohio	358	170,434	35,048	19,537,845	2,084	524,478	850	159,150	4,957	2,505,433	2,674	661,070
30	Cohoes, N. Y.	28	13,750	3,029	1,497,232	1,847	505,160	670	105,532	334	148,769	2,139	626,592
31	Columbus, Ohio	173	74,334	8,408	4,214,004	939	246,428	152	23,783	1,823	981,571	690	184,501
32	Council Bluffs, Iowa	5	3,400	1,247	625,814	115	21,048	39	4,364	66	49,613	2	884
33	Covington, Ky.	137	70,807	4,489	2,400,425	607	150,540	5	831	855	326,261	95	18,197
34	Dallas, Tex.	55	34,346	2,514	1,612,585	394	100,753	191	31,582	377	236,170	78	24,289
35	Davenport, Iowa	48	20,387	2,773	1,218,796	429	86,972	88	11,233	522	249,774	534	79,085
36	Dayton, Ohio	155	67,682	7,251	3,664,433	1,102	242,820	159	25,629	1,310	600,442	784	203,747
37	Denver, Colo.	84	63,269	7,829	5,948,935	900	400,317	147	31,828	309	237,105	98	35,400
38	Des Moines, Iowa	49	19,922	4,005	1,457,500	444	116,464	67	8,704	110	34,015	43	13,464
39	Detroit, Mich.	199	84,984	24,825	11,837,714	3,220	826,577	662	94,439	4,397	2,317,711	1,910	411,106
40	Dubuque, Iowa	26	13,392	3,416	1,470,830	164	38,815	69	8,129	272	130,939	277	67,163
41	Duluth, Minn.	49	17,485	3,096	1,654,232	131	36,188	16	2,370	60	56,050	3	1,137
42	Elizabeth, N. J.	21	10,823	5,418	3,065,259	352	104,264	167	52,214	158	33,073	163	45,598
43	Elmira, N. Y.	175	89,881	3,087	1,504,038	420	78,084	65	8,670	477	211,532	269	65,539
44	Erie, Pa.	32	14,293	5,062	2,675,460	164	28,986	192	31,139	954	496,760	28	5,378
45	Evansville, Ind.	28	11,823	4,450	2,000,796	774	136,032	363	44,748	773	370,810	442	105,230
46	Fall River, Mass.	69	28,601	12,018	5,026,810	9,171	2,833,285	1,217	202,771	183	56,872	389	92,239
47	Fitchburg, Mass.	62	27,763	3,310	1,760,817	1,177	359,702	204	35,720	298	206,817	90	33,755
48	Fort Wayne, Ind.	29	12,464	4,005	1,803,098	216	48,703	25	2,239	1,057	449,438	321	75,534
49	Fort Worth, Tex.	48	27,475	2,130	1,531,752	193	52,687	31	5,412	26	19,332	18	8,890
50	Galveston, Tex.	12	7,166	1,221	794,657	208	65,345	71	9,895	124	83,166	50	8,000
51	Gloucester, Mass.	18	6,280	867	513,076	222	53,212	.....	.....	292	127,484	180	57,289
52	Grand Rapids, Mich.	228	98,663	9,427	4,444,943	648	180,151	272	38,248	1,119	570,263	391	74,142
53	Harrisburg, Pa.	50	18,417	5,315	2,712,257	471	104,054	40	4,714	170	63,872	818	71,494
54	Hartford, Conn.	87	37,113	6,212	3,894,794	986	332,671	40	4,958	860	544,254	212	52,505
55	Haverhill, Mass.	211	90,716	3,554	2,154,467	888	200,296	15	4,045	6,941	2,654,528	2,740	1,024,248
56	Hoboken, N. J.	17	12,097	2,430	1,747,353	421	116,513	48	3,320	70	28,042	13	4,400
57	Holyoke, Mass.	93	40,449	6,659	3,573,916	3,588	1,052,016	443	81,791	181	127,776	1,425	486,930
58	Houston, Tex.	27	17,224	2,242	1,183,564	121	36,878	77	21,680	264	108,756	1	468
59	Indianapolis, Ind.	253	118,390	10,732	5,466,178	1,373	336,898	449	68,765	1,868	960,398	1,498	221,062
60	Jackson, Mich.	30	14,155	1,967	824,760	128	32,386	64	6,755	524	158,052	575	106,714
61	Jersey city, N. J.	197	71,697	8,839	5,295,413	1,121	333,856	317	47,715	733	459,839	400	106,683
62	Johnstown, Pa.	12	5,842	5,210	2,841,163	40	10,317	89	16,009	17	8,350	13	3,130
63	Joliet, Ill.	25	13,042	2,605	1,682,046	83	21,058	74	9,107	103	60,781	1	520
64	Kansas city, Kan.	42	19,130	5,780	3,192,762	99	29,644	94	21,183	624	350,876	248	72,124
65	Kansas city, Mo.	204	119,065	9,986	6,305,494	863	281,419	147	27,086	1,068	688,678	545	142,124
66	Kingston, N. Y.	20	9,774	1,620	703,499	72	16,513	33	6,714	371	156,875	131	45,661
67	Knoxville, Tenn.	23	10,080	2,315	1,187,212	157	34,955	46	6,240	107	120,278	30	6,716
68	Lacrosse, Wis.	9	5,168	3,295	1,272,457	226	43,651	72	11,524	91	33,338	156	26,106
69	Lancaster, Pa.	142	43,793	4,240	1,536,198	1,445	319,503	504	58,157	543	187,052	567	117,282
70	Lawrence, Mass.	176	79,323	8,292	3,854,402	5,717	1,718,045	471	93,730	349	168,524	738	257,153
71	Lowiston, Me.	42	21,641	3,423	1,418,534	2,668	632,692	179	30,256	195	99,433	608	187,552
72	Lexington, Ky.	39	20,235	893	427,540	229	44,404	10	1,422	123	72,070	15	3,684
73	Lincoln, Neb.	28	15,400	1,330	781,315	82	20,717	78	13,986	130	67,605	19	5,310
74	Lincoln, R. I.	40	18,392	2,356	1,108,705	1,502	460,213	417	66,441	48	25,195	4	

SUMMARY FOR PRINCIPAL CITIES.

A POPULATION OF 20,000 AND OVER: 1890—Continued.

AVERAGE NUMBER OF EMPLOYEES AND TOTAL WAGES—continued.		COST OF MATERIALS USED.							VALUE OF PRODUCTS.		
Pleceworkers—Continued.		Total.	Principal materials.	Fuel.	Rent of power and heat.	Mill supplies.	All other materials.	Total.	Principal products.	All other products, including receipts from custom work and repairing.	
Children.	Number.											Wages.
	7,054	\$1,080,751	\$3,363,177,034	\$3,087,802,847	\$67,850,730	\$4,213,812	\$13,351,546	\$189,958,099	\$6,278,338,470	\$5,875,197,810	\$403,200,657
23	4,987	6,928,481	6,157,137	233,797	1,464	22,954	513,129	12,550,038	11,064,870	885,768	1
1	150	11,773,241	10,736,954	251,134	11,338	21,275	732,540	25,531,490	22,721,287	2,810,109	2
87	13,979	14,231,758	13,124,472	357,542	6,822	41,058	701,214	26,878,970	25,650,153	1,228,821	3
36	2,873	5,102,911	4,365,994	433,620	3,483	36,252	273,002	8,870,505	8,068,077	208,488	4
		6,133,222	5,913,961	150,908	350	28,545	39,449	10,497,010	8,245,558	2,251,461	5
75	11,700	5,914,571	5,480,563	130,978	3,040	44,575	255,395	13,074,097	10,805,545	2,268,492	6
		3,783,971	3,448,112	98,435	5,826	10,539	221,059	9,634,785	8,190,432	1,445,353	7
60	5,672	5,430,871	5,010,561	63,070	48,073	71,937	228,230	9,244,850	8,053,485	201,965	8
318	30,755	73,770,001	69,344,183	1,133,603	41,316	172,531	3,073,318	141,723,599	136,091,217	6,632,382	9
4	800	5,043,587	4,724,272	24,489	722	131,362	162,742	9,053,342	8,143,926	925,410	10
38	5,003	7,650,007	7,104,003	90,650	7,707	23,262	872,780	15,004,152	14,303,295	730,017	11
15	1,800	3,508,588	3,011,953	308,736	1,090	12,581	174,223	7,034,243	6,097,754	366,494	12
29	2,647	2,025,949	1,886,813	48,331	289	35,021	55,495	4,081,001	3,676,038	404,063	13
16	3,223	105,602,569	97,144,746	1,119,838	335,027	243,080	6,759,878	210,936,019	191,523,401	10,408,215	14
59	12,728	10,428,087	9,287,174	244,859	18,218	117,245	761,491	22,274,635	21,390,437	884,148	15
11	1,672	11,211,411	10,014,612	53,112	21,793	2,410	1,119,470	21,070,099	20,443,099	626,100	16
162	20,326	151,060,710	140,613,790	2,372,654	127,895	412,614	7,503,057	263,214,147	247,114,256	22,129,891	17
237	47,848	54,120,611	50,476,255	934,393	36,129	133,928	2,539,001	100,052,203	92,791,940	7,260,262	18
11	1,025	1,025,200	2,912,250	46,968	895	8,605	130,482	5,413,133	5,059,232	353,906	19
2	540	20,268,534	19,117,961	367,104	22,355	14,702	745,912	35,975,089	34,299,521	1,675,568	20
6	145	11,816,151	10,987,419	245,640	5,051	26,350	551,691	21,145,637	18,526,149	2,619,488	21
104	470	4,948,508	4,415,732	111,103	2,627	14,982	404,064	11,881,810	10,315,025	1,566,785	22
4	370	4,753,390	4,522,400	83,050	4,056	35,985	107,905	9,005,421	7,978,893	1,026,528	23
20	548	4,937,902	4,297,608	302,149	481	23,614	254,030	10,210,199	7,885,031	2,325,173	24
4	1,000	4,631,201	4,044,919	90,657	3,411	37,697	504,607	8,153,207	7,227,240	930,061	25
2	360	6,844,825	6,252,030	169,183	11,236	69,942	342,434	11,864,899	11,061,409	803,400	26
188	41,661	409,493,027	372,314,668	6,282,127	312,950	474,961	30,108,321	684,567,923	641,931,795	22,630,188	27
357	36,915	92,545,231	87,469,621	1,026,865	100,269	225,924	3,722,542	196,063,983	185,814,215	10,249,768	28
892	59,952	65,045,049	57,726,312	3,001,040	47,378	219,060	4,651,859	113,240,115	108,308,127	4,931,988	29
22	3,648	5,739,937	4,980,094	189,429	27,612	13,737	679,115	10,830,260	10,460,814	369,446	30
83	7,719	11,183,710	10,323,916	418,239	9,982	66,398	365,175	22,887,586	20,802,149	2,085,437	31
		1,272,948	1,112,191	36,729	774	26,774	118,014	2,627,988	2,313,183	314,200	32
		8,223,079	7,694,691	135,886	710	7,275	389,617	15,990,575	12,162,561	3,827,014	33
		4,354,769	4,174,906	92,719	6,474	15,596	65,134	8,799,722	8,099,722	255,014	34
		6,098,349	5,602,697	91,735	8,100	22,480	378,577	10,357,232	9,492,592	864,640	35
2	312	11,636,149	10,527,100	157,243	22,449	59,168	626,180	22,446,572	21,160,443	1,286,129	36
		14,210,549	13,297,592	320,143	8,897	49,363	540,011	29,240,747	27,847,547	1,393,201	37
		4,408,377	4,100,599	55,960	9,939	12,734	169,145	7,931,272	7,050,106	881,166	38
21	2,624	41,360,058	38,263,070	960,021	41,789	174,100	1,621,072	77,351,546	75,581,717	1,769,829	39
		5,934,431	5,747,911	87,273	3,489	25,676	120,082	9,894,860	9,131,550	763,310	40
		5,435,654	5,187,537	27,784	1,283	11,562	207,488	8,811,723	8,050,204	761,519	41
10	1,000	4,411,020	4,265,539	147,034	828	16,603	81,572	10,480,964	9,907,103	573,250	42
14	5,502	4,593,241	4,243,375	101,207	1,077	18,192	139,390	8,844,936	8,400,197	444,769	43
63	10,643	6,145,680	5,010,696	150,540	3,775	30,254	850,409	12,705,768	12,321,997	383,771	44
13	1,125	6,875,575	6,445,439	89,571	330	44,059	296,176	12,800,834	12,477,121	323,213	45
9	1,008	17,085,071	16,228,833	682,099	3,245	404,252	307,137	32,510,281	31,801,769	717,512	46
		6,414,105	5,950,947	133,151	6,745	77,566	195,756	10,145,534	10,145,534	1,070,502	47
19	2,542	5,048,585	4,702,639	91,398	2,550	9,943	242,005	9,301,946	9,000,261	301,685	48
		3,435,446	3,118,621	79,539	896	5,057	231,333	6,826,063	5,957,551	868,532	49
5	1,040	3,253,088	2,928,697	97,354	220	10,092	246,725	6,724,545	5,225,678	498,907	50
2	520	3,220,601	2,980,530	47,888	1,455	4,134	189,594	4,851,405	4,570,031	281,374	51
12	1,870	9,391,615	8,249,851	129,178	22,177	93,722	926,087	19,851,181	17,728,464	2,122,717	52
		5,432,303	4,753,628	499,156	3,075	920	175,524	10,638,444	10,351,363	187,070	53
1	156	7,964,936	7,581,670	132,700	22,778	65,989	161,793	17,164,818	16,584,729	579,589	54
		13,635,969	12,720,810	52,814	55,141	2,653	804,542	25,394,530	24,324,195	1,070,335	55
		3,535,921	3,451,816	41,754	2,870	7,795	81,086	7,151,391	6,334,906	816,395	56
9	1,000	13,574,788	12,111,709	346,467	109,887	147,768	858,959	26,060,315	24,415,085	1,645,280	57
6	2,292	3,638,205	3,455,503	73,161	1,077	43,228	60,253	6,832,943	6,097,688	1,655,255	58
107	6,755	21,247,116	19,872,340	198,093	21,585	58,063	1,096,433	36,426,974	34,347,311	2,079,663	59
		2,782,640	2,551,980	95,236	11,324	3,556	120,544	5,376,347	4,466,148	910,199	60
2	376	23,206,834	22,006,402	270,767	14,279	81,559	734,767	37,376,322	34,823,755	3,552,567	61
		13,137,931	11,884,070	1,002,987	340	4,409	249,408	18,422,989	18,193,771	229,218	62
		8,884,684	7,464,561	1,080,472	5,823	4,213	320,612	12,732,933	11,056,473	776,456	63
10	890	34,236,637	33,624,679	202,082	140	9,710	400,026	44,079,383	43,495,031	583,458	64
2	525	10,961,184	15,394,705	322,985	16,599	27,510	599,385	31,930,366	29,630,083	2,300,283	65
2	416	1,730,637	1,512,239	93,526	224	10,430	114,218	4,009,574	3,807,085	201,589	66
1	150	2,464,914	2,208,455	81,834	660	2,895	111,080	5,020,116	4,101,204	828,912	67
4	256	5,971,572	5,610,173	37,771	2,905	85,340	235,323	9,157,501	8,830,547	326,954	68
11	1,725	6,906,495	5,943,349	128,805	900	49,000	186,841	11,361,535	11,117,418	244,117	69
1	200	15,145,851	13,507,998	489,388	60,402	155,313	932,750	26,550,725	21,893,484	4,657,241	70
3	360	4,828,710	4,418,370	104,866	46,308	130,100	129,066	9,078,856	8,559,313	514,543	71
		1,250,739	1,037,163	40,721	414	1,380	127,001	2,708,445	2,448,780	259,665	72
1	70	1,534,623	1,377,877	89,032	1,350	2,044	64,320	3,710,138	3,623,511	86,627	73
12	2,399	2,980,934	2,620,968	130,250	523	104,557	124,672	5,900,140	5,672,320	227,820	74
		1,890,773	1,211,823	83,592	500	6,880	93,968	3,120,677	2,969,623	151,154	75

TABLE 2.—SUMMARY FOR 165 PRINCIPAL CITIES HAVING

CITIES.	Number of establishments reporting.	CAPITAL.								
		Value of hired property.	Direct investment.							
			Aggregate.	Value of plant.			Live assets.			
				Land.	Buildings.	Machinery, tools, and implements.	Raw materials.	Stock in process and finished products on hand.	Cash, bills and accounts receivable, and all sundries not elsewhere reported.	
76 Long Island city, N. Y.	325	\$1,038,062	\$12,823,594	\$1,889,562	\$1,460,647	\$3,415,035	\$1,297,221	\$1,013,871	\$2,847,268	
77 Los Angeles, Cal.	750	1,919,240	6,811,488	841,917	633,912	2,131,858	769,101	1,009,581	1,375,019	
78 Louisville, Ky.	1,700	5,044,539	36,086,985	3,668,345	5,183,953	6,468,718	4,002,636	6,265,877	9,737,951	
79 Lowell, Mass.	853	3,264,712	41,911,708	4,370,589	6,263,721	10,203,107	6,402,524	5,519,603	9,152,184	
80 Lynn, Mass.	1,360	5,324,330	17,919,025	492,222	915,458	3,071,637	2,295,058	3,293,200	7,041,450	
81 McKeesport, Pa.	118	166,896	10,970,812	631,020	696,020	2,915,279	1,207,096	1,915,875	3,614,422	
82 Macon, Ga.	203	499,000	3,983,900	481,000	581,725	1,327,209	539,604	360,390	710,572	
83 Malden, Mass.	295	430,060	7,600,124	310,599	744,912	955,643	1,169,530	1,431,118	3,048,322	
84 Manchester, N. H.	386	1,046,028	22,424,068	1,769,082	2,283,805	6,557,663	3,139,466	3,633,639	5,041,283	
85 Memphis, Tenn.	345	1,959,734	9,357,821	1,416,048	1,541,920	2,755,336	1,019,641	1,089,756	1,535,120	
86 Meriden, Conn.	238	823,535	13,712,146	607,333	1,419,045	3,079,204	932,539	8,836,925	3,837,750	
87 Milwaukee, Wis.	2,879	8,374,597	69,145,814	7,822,763	8,491,326	12,477,824	8,639,845	11,577,437	20,359,599	
88 Minneapolis, Minn.	2,723	7,525,830	42,643,764	6,312,162	4,119,808	8,404,173	8,493,722	5,901,083	9,412,210	
89 Mobile, Ala.	261	686,839	2,236,318	229,300	300,825	773,709	242,640	233,378	459,466	
90 Montgomery, Ala.	138	386,750	1,634,271	294,325	252,875	546,304	132,160	173,392	279,215	
91 Muskegon, Mich.	301	361,343	9,865,819	2,758,974	528,391	1,563,008	1,713,000	1,250,467	2,042,989	
92 Nashville, Tenn.	429	1,168,616	9,004,295	662,677	1,514,914	3,139,829	825,427	1,061,839	1,890,700	
93 New Albany, Ind.	298	250,310	5,242,071	393,851	804,932	1,823,561	632,999	933,252	753,459	
94 Newark, N. J.	2,490	10,123,030	62,552,732	5,811,050	9,481,215	13,320,325	6,015,971	11,416,290	15,877,901	
95 New Bedford, Mass.	413	946,280	20,132,663	908,430	3,640,285	7,588,814	2,678,402	2,542,660	2,771,092	
96 Newburg, N. Y.	287	1,073,360	5,773,354	567,846	1,010,655	1,663,741	748,810	753,870	1,008,432	
97 New Haven, Conn.	1,129	3,912,025	19,692,384	1,861,065	2,297,858	4,516,200	2,461,569	3,681,377	4,773,355	
98 New Orleans, La.	1,961	6,832,004	26,310,277	3,362,558	3,766,675	8,432,158	2,401,620	3,120,920	4,821,940	
99 Newport, Ky.	1,002	1,026,645	3,471,388	485,233	853,697	412,220	490,469	670,269	670,269	
100 Newton, Mass.	193	314,075	4,393,807	284,125	543,539	1,037,012	470,560	652,240	1,105,731	
101 New York, N. Y.	25,403	214,827,804	426,118,272	40,210,256	35,376,400	105,880,689	55,249,980	74,005,964	115,364,989	
102 Norfolk, Va.	374	1,023,620	3,417,454	590,473	340,935	839,936	354,415	333,456	878,234	
103 Oakland, Cal.	342	954,785	6,630,468	1,130,525	953,731	2,167,889	914,636	608,845	533,842	
104 Omaha, Neb.	675	2,912,690	18,819,594	2,787,575	3,899,950	3,316,033	2,511,054	1,874,376	4,026,601	
105 Oshkosh, Wis.	423	488,690	6,461,812	679,831	732,959	1,153,571	701,819	1,687,847	1,506,285	
106 Oswego, N. Y.	249	666,292	6,254,200	496,008	1,146,385	1,286,140	758,335	1,241,276	1,416,050	
107 Paterson, N. J.	599	3,654,328	27,004,549	1,950,230	4,016,063	7,092,190	2,770,339	6,726,947	4,447,719	
108 Pawtucket, R. I.	371	1,330,795	10,499,984	1,094,815	2,727,553	6,126,736	1,605,980	2,290,412	2,848,483	
109 Peoria, Ill.	556	1,387,850	15,085,862	1,368,458	2,704,078	6,177,755	1,298,241	1,545,678	2,051,062	
110 Petersburg, Va.	271	374,065	3,911,240	209,950	630,200	1,201,160	580,872	650,463	548,565	
111 Philadelphia, Pa.	18,168	64,144,077	375,240,715	58,679,356	47,236,048	89,953,236	41,006,646	65,549,951	101,704,478	
112 Pittsburgh, Pa.	1,420	8,192,655	16,368,838	17,575,302	14,038,695	27,107,372	11,443,370	13,888,093	24,310,441	
113 Portland, Me.	662	1,601,279	6,887,557	880,610	969,638	1,494,200	1,055,285	1,216,381	2,174,003	
114 Portland, Ore.	569	5,154,200	10,693,563	4,764,749	2,304,783	2,701,127	1,727,606	2,508,654	2,797,247	
116 Poughkeepsie, N. Y.	303	1,085,623	4,850,050	533,809	822,755	1,119,138	557,728	822,181	915,237	
116 Providence, R. I.	1,934	8,001,799	61,133,593	4,489,618	8,004,648	16,487,572	6,293,568	11,065,221	14,787,070	
117 Pueblo, Colo.	103	233,033	1,273,792	191,220	93,685	485,867	131,445	102,683	273,887	
118 Quincy, Ill.	394	1,322,880	6,551,810	603,759	1,118,684	1,245,439	1,055,285	915,923	1,700,158	
119 Racine, Wis.	100	287,206	11,533,267	716,203	1,110,241	1,442,836	1,585,710	1,555,575	5,122,628	
120 Reading, Pa.	435	1,355,858	14,033,374	1,445,173	2,723,603	3,405,642	1,045,157	2,139,770	6,224,024	
121 Richmond, Va.	966	2,723,460	16,785,242	1,290,230	1,537,629	3,750,853	2,851,846	2,609,417	4,085,267	
122 Rochester, N. Y.	1,832	7,397,018	46,301,058	4,125,334	6,214,037	7,694,316	5,763,368	8,352,736	14,151,217	
123 Rockford, Ill.	246	835,522	7,715,069	591,292	921,164	1,583,344	1,410,588	2,275,921	2,275,921	
124 Sacramento, Cal.	302	792,025	5,054,782	598,600	798,543	1,200,648	414,781	2,018,125	624,085	
125 Saginaw, Mich.	335	792,746	12,406,523	2,794,537	1,433,534	2,008,413	1,170,352	2,093,083	2,990,854	
126 St. Joseph, Mo.	278	1,217,190	5,230,607	658,245	659,693	1,189,975	673,012	933,489	1,116,283	
127 St. Louis, Mo.	6,148	20,097,245	141,872,386	14,834,325	18,754,990	25,798,263	16,696,610	23,669,687	42,188,027	
128 St. Paul, Minn.	1,442	6,464,399	22,501,211	2,871,430	1,599,494	5,280,553	2,865,859	3,706,843	6,183,027	
129 Salem, Mass.	513	752,013	6,250,164	252,087	798,933	2,056,404	878,493	747,770	1,516,967	
130 Salt Lake, Utah.	175	892,361	3,354,035	483,550	402,525	715,017	676,790	306,450	760,357	
131 San Antonio, Tex.	369	678,205	3,004,425	544,600	432,925	890,725	345,065	334,435	456,675	
132 San Francisco, Cal.	4,059	30,576,310	74,834,301	7,995,535	6,613,851	20,300,815	9,251,569	13,132,718	17,530,813	
133 Savannah, Ga.	244	779,298	5,379,774	844,448	1,040,208	1,394,887	322,103	389,820	1,397,248	
134 Scranton, Pa.	177	539,600	16,237,271	1,152,484	2,888,540	4,295,342	2,478,821	1,136,839	4,282,245	
135 Seattle, Wash.	331	1,046,434	4,758,283	628,240	1,430,353	461,960	650,055	904,041	904,041	
136 Sioux city, Iowa	196	1,573,175	5,222,626	735,747	599,450	959,551	408,790	1,424,175	1,120,283	
137 Somerville, Mass.	404	592,590	3,883,859	598,040	683,575	601,900	389,729	772,555	838,951	
138 South Bend, Ind.	208	364,945	11,252,887	906,837	1,444,847	945,947	2,500,542	2,375,990	3,078,724	
139 Springfield, Ill.	374	637,000	3,641,415	319,040	496,335	1,138,512	447,543	411,556	823,429	
140 Springfield, Mass.	692	3,019,593	13,199,283	1,266,006	2,078,698	4,055,647	1,308,956	1,760,681	2,729,945	
141 Springfield, Mo.	277	385,590	1,451,613	244,815	186,636	340,023	190,022	151,119	332,999	
142 Springfield, Ohio	373	884,841	14,667,931	804,266	3,069,932	2,023,498	951,495	1,260,050	6,459,710	
143 Syracuse, N. Y.	1,246	3,777,463	22,858,424	1,981,642	3,306,067	6,025,732	2,732,804	3,609,133	5,137,991	
144 Tacoma, Wash.	225	534,450	7,227,201	2,781,899	620,036	1,565,326	584,837	512,542	637,101	
145 Taunton, Mass.	316	656,880	7,891,382	434,050	1,163,165	1,979,646	778,033	1,702,255	1,723,003	
146 Terre Haute, Ind.	367	518,073	4,965,184	521,500	889,561	1,267,178	845,386	572,653	792,901	
147 Toledo, Ohio	734	2,279,040	12,700,372	1,369,323	2,071,140	3,171,354	1,793,806	1,536,083	2,801,655	
148 Topeka, Kans.	871	876,175	3,282,890	355,600	760,425	1,058,347	333,855	237,331	637,101	
149 Trenton, N. J.	885	1,969,662	10,278,041	2,960,838	3,469,552	3,899,859	1,497,851	3,659,994	3,741,507	
150 Troy, N. Y.	840	8,296,028	24,030,753	1,784,090	2,792,095	5,533,598	2,149,751	4,287,331	7,433,288	

SUMMARY FOR PRINCIPAL CITIES.

A POPULATION OF 20,000 AND OVER: 1890—Continued.

MISCELLANEOUS EXPENSES.								AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.				
Total.	Rent paid for tenancy.	Taxes, including internal revenue.	Insurance.	Repairs, ordinary, of buildings and machinery.	Amount paid to contractors.	Interest paid on cash used in the business.	All sundries not elsewhere reported.	Aggregates.		Officers, firm members, and clerks.		
								Average number.	Total wages.	Number.	Wages.	
\$406,023	\$80,939	\$48,857	\$37,330	\$61,865	\$14,130	\$60,101	\$192,792	4,601	\$3,066,132	419	\$493,080	78
680,897	190,726	50,421	36,840	53,319	144,572	88,200	116,813	4,957	3,408,608	881	905,724	77
6,250,230	437,522	2,602,732	232,478	297,074	179,554	388,681	2,112,189	27,198	12,372,871	2,684	2,368,448	73
4,150,844	256,266	400,346	131,077	775,508	300	490,214	2,096,533	29,155	11,243,392	1,012	1,048,160	79
2,045,531	420,713	78,604	105,258	116,381	490,874	217,518	670,183	22,462	12,777,174	1,690	1,536,593	80
737,562	15,010	115,746	12,061	156,340	29,739	122,315	285,451	6,202	3,430,530	203	243,085	81
190,988	40,641	44,243	30,558	30,629	.....	22,557	51,060	8,417	1,242,962	232	175,911	82
498,174	81,456	44,172	39,301	40,312	.....	53,158	299,655	4,769	2,384,177	298	244,732	83
1,072,875	121,991	211,164	68,694	183,625	22,300	244,550	220,542	16,961	6,950,234	430	426,887	84
813,951	181,529	121,970	93,714	118,560	2,800	81,892	213,486	6,118	3,158,975	599	605,818	85
1,460,571	62,305	97,627	34,312	40,110	154,844	93,002	969,371	7,670	4,202,602	328	421,710	86
8,285,410	664,972	2,783,219	372,408	700,829	88,828	443,787	3,141,337	43,423	20,616,717	3,916	3,626,207	87
3,682,928	618,416	340,527	397,351	424,784	444,779	581,244	875,830	27,792	15,254,175	3,300	3,202,213	88
226,987	51,593	30,235	20,098	47,670	.....	7,086	69,495	3,013	1,169,353	268	210,582	89
140,829	30,940	19,597	20,079	23,184	4,000	19,507	23,522	1,800	787,259	170	148,674	90
478,391	32,034	140,970	58,317	80,660	.....	61,345	105,056	4,264	1,915,989	316	292,608	91
681,619	123,914	154,002	88,920	60,893	6,400	87,696	159,689	8,122	3,728,956	773	647,963	92
608,026	25,115	55,666	29,577	125,426	15,480	110,025	246,147	4,500	2,097,831	283	236,096	93
6,112,239	903,437	1,372,496	256,882	596,912	529,410	446,957	2,000,715	46,848	20,857,170	3,809	4,613,983	94
080,306	72,133	192,023	60,221	80,909	100	168,724	406,200	11,422	4,985,016	542	576,297	95
472,773	66,466	56,853	26,595	39,394	20,605	97,721	164,029	4,510	2,089,795	397	337,517	96
2,690,245	330,608	323,171	100,498	118,447	809,950	172,012	831,649	17,864	10,036,820	1,767	1,822,729	97
3,295,077	592,757	775,029	299,421	374,183	1,800	86,417	1,204,470	25,231	10,887,584	2,664	2,502,923	98
835,404	87,047	70,895	13,041	16,411	.....	22,175	125,895	4,848	2,426,089	570	579,775	99
243,663	25,173	24,724	21,271	56,423	.....	62,771	53,361	2,624	1,408,275	189	213,906	100
59,091,710	10,134,959	8,112,881	1,800,079	2,913,224	3,900,208	1,769,399	22,270,890	354,291	230,102,167	40,795	40,177,370	101
265,075	92,660	25,845	22,105	30,921	.....	10,558	75,815	2,948	1,388,195	493	353,420	102
438,010	94,569	97,056	24,421	66,563	175	57,113	158,113	4,438	3,090,007	462	487,995	103
3,673,516	271,254	2,504,473	60,867	207,850	5,100	227,139	397,952	9,414	6,115,294	1,066	1,183,198	104
529,149	43,058	78,614	81,131	51,769	.....	74,712	196,865	5,383	2,019,026	378	280,858	105
684,969	54,842	58,255	40,882	68,612	.....	111,578	350,800	3,415	1,503,643	402	386,254	106
2,143,913	309,174	370,134	164,395	269,545	7,070	864,174	218,821	24,232	11,578,082	958	1,106,560	107
1,051,697	92,040	89,299	48,680	128,144	1,000	113,970	578,561	9,508	4,079,579	489	461,991	108
24,475,327	135,437	23,538,742	131,443	121,238	17,125	61,584	499,708	7,706	4,344,012	785	749,304	109
894,420	33,300	586,251	41,500	31,288	1,600	43,473	96,948	5,525	1,397,414	302	220,157	110
89,615,476	6,182,228	3,853,289	1,527,602	2,894,127	4,901,827	2,154,514	18,101,888	260,201	135,917,021	23,378	21,611,094	111
7,561,199	729,863	1,639,349	361,251	1,640,964	164,797	670,618	2,354,382	50,438	33,898,152	3,284	3,926,982	112
585,149	165,095	43,519	42,691	80,596	23,250	39,615	180,473	6,260	3,160,132	827	710,510	113
1,220,577	343,713	148,453	76,953	169,000	163,000	94,755	292,098	9,731	7,532,920	1,006	1,313,997	114
311,023	63,837	46,151	22,941	33,091	36,000	22,783	86,210	3,772	1,837,650	414	329,925	115
5,082,048	694,542	370,209	214,479	566,746	92,730	664,495	2,278,638	42,124	20,793,399	2,633	2,886,228	116
92,792	25,627	10,954	5,927	10,171	200	13,148	27,065	1,071	769,310	118	129,699	117
648,086	101,465	249,393	44,977	47,137	.....	45,677	168,827	5,110	2,429,834	593	430,432	118
602,448	28,724	60,105	33,082	31,109	51,700	30,446	368,211	4,872	2,418,498	883	394,983	119
1,042,366	96,876	218,991	50,067	187,938	.....	81,415	497,079	13,966	5,461,293	722	663,563	120
3,290,170	232,030	1,576,474	115,020	170,724	70,172	166,480	958,361	18,512	7,192,616	1,500	1,993,138	121
5,613,832	692,082	984,297	177,271	253,913	1,215,007	284,274	2,192,098	32,720	10,819,566	3,330	3,476,545	122
549,317	64,107	33,436	35,164	53,483	19,409	31,708	255,888	5,223	2,474,793	327	296,444	123
439,227	83,693	60,758	29,888	41,000	47,073	30,157	139,749	4,510	2,067,954	292	264,466	124
697,399	65,651	134,665	97,214	93,532	7,193	130,830	133,259	5,716	2,053,135	383	370,768	125
490,472	91,935	70,484	33,132	39,107	.....	91,549	230,295	5,026	2,351,691	425	370,387	126
17,734,350	2,270,881	7,982,129	866,336	1,323,261	.....	840,993	5,051,410	94,051	53,394,630	10,090	11,114,630	127
1,740,518	484,542	226,573	95,777	58,117	54,615	120,094	720,899	13,558	10,373,393	2,023	1,803,140	128
424,772	72,929	52,942	32,863	92,031	11,940	74,916	87,651	5,798	2,446,076	337	496,065	129
291,255	40,599	18,920	15,920	14,199	29,500	28,711	71,920	2,287	1,490,412	279	285,860	130
494,744	67,825	101,241	21,588	49,626	1,500	20,300	232,064	2,441	1,694,306	373	357,110	131
8,322,483	2,254,842	1,146,798	468,443	633,309	440,533	637,371	2,732,190	48,446	30,070,374	6,111	6,041,899	132
484,497	82,861	53,351	30,922	41,423	.....	57,732	210,108	2,700	1,362,120	319	291,672	133
874,621	50,873	220,926	41,736	321,968	9,300	72,370	157,448	9,123	4,273,012	285	340,026	134
495,091	131,119	88,357	51,367	30,297	5,300	42,006	140,705	4,048	3,405,533	275	319,012	135
404,489	139,424	23,542	84,146	32,885	8,425	95,073	166,394	3,008	1,871,425	342	333,027	136
439,673	54,584	194,154	24,350	37,047	72	26,164	103,302	3,285	1,793,079	405	362,111	137
533,151	64,030	60,779	46,188	64,393	.....	42,582	290,579	6,088	2,842,104	310	325,966	138
303,368	63,272	57,461	14,646	63,015	2,765	22,947	83,202	3,269	1,745,153	342	324,726	139
875,334	226,271	181,225	48,040	70,621	10,750	80,029	295,798	10,250	5,698,894	871	319,328	140
270,601	34,767	29,302	8,652	8,516	125,885	14,869	49,116	1,422	677,146	98	84,520	141
1,046,292	67,250	53,882	85,806	27,000	100	180,454	675,710	6,093	3,195,441	521	507,271	142
2,089,781	289,187	380,839	78,925	190,006	795,008	173,064	782,062	17,518	8,520,677	1,773	1,719,010	143
464,674	72,652	75,921	39,914	63,643	.....	65,018	148,126	4,067	3,230,820	397	547,195	144
707,629	42,272	67,357	33,525	37,903	4,700	37,903	854,301	6,466	3,141,273	293	290,365	145
3,903,928	52,430	3,594,870	27,050	53,191	68,802	31,878	75,707	5,205	2,154,001	440	345,880	146
1,246,042	199,184	423,803	94,497	81,692	7,200	126,107	314,059	10,313	5,214,443	917	818,356	147
276,638	78,175	24,01										

TABLE 2.—SUMMARY FOR 165 PRINCIPAL CITIES HAVING

AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES—continued.												
CITIES.	Officers, firm members, and clerks—Continued.		Operatives, skilled and unskilled.						Pieceworkers.			
	Females above 15 years.		Males above 16 years.		Females above 15 years.		Children.		Males above 16 years.		Females above 15 years.	
	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.
76 Long Island city, N. Y.	29	\$15,039	3,718	\$2,884,788	105	\$28,082	57	\$12,395	256	\$108,215	107	\$23,947
77 Los Angeles, Cal.	204	125,790	2,731	1,882,834	418	141,002	43	8,121	410	270,003	264	43,912
78 Louisville, Ky.	355	159,955	14,863	6,631,462	2,630	651,236	928	120,625	3,774	1,915,317	2,255	490,023
79 Lowell, Mass.	365	150,785	13,878	6,031,155	10,136	2,762,903	579	94,764	706	310,340	2,940	840,987
80 Lynn, Mass.	444	207,415	7,692	4,892,084	1,239	477,161	72	13,588	6,899	3,939,257	4,403	1,700,496
81 McKeesport, Pa.	11	3,290	5,597	3,017,311	92	24,410	151	24,562	253	122,339	3	936
82 Macon, Ga.	28	9,980	2,398	923,290	392	84,536	210	18,154	63	16,886	79	12,050
83 Malden, Mass.	53	24,025	2,202	1,225,826	429	105,434	55	15,581	506	250,926	1,226	517,653
84 Manchester, N. H.	38	17,472	7,021	3,069,440	7,073	2,160,146	249	36,050	246	140,465	294	93,774
85 Memphis, Tenn.	22	10,593	4,643	2,215,705	219	56,993	90	17,636	426	226,479	118	25,151
86 Meriden, Conn.	41	16,902	4,970	2,860,277	1,174	350,061	9	1,050	943	488,714	199	62,934
87 Milwaukee, Wis.	657	273,159	26,624	13,446,747	2,901	636,286	654	84,125	3,969	1,859,416	4,517	695,717
88 Minneapolis, Minn.	789	377,469	19,439	10,971,527	1,782	484,724	205	34,663	1,573	881,521	681	199,668
89 Mobile, Ala.	26	8,501	2,166	809,567	80	17,074	75	7,554	306	108,188	92	7,887
90 Montgomery, Ala.	7	4,182	1,451	550,168	98	20,000	47	4,941	75	44,508	18	5,200
91 Muskegon, Mich.	35	15,030	3,365	1,446,458	107	22,978	72	6,624	320	126,526	15	5,133
92 Nashville, Tenn.	74	28,544	5,255	2,492,062	819	199,850	248	32,341	518	227,840	332	83,053
93 New Albany, Ind.	58	26,394	2,899	1,348,324	292	61,408	131	14,818	495	330,719	339	79,022
94 Newark, N. J.	230	105,648	24,429	14,890,813	5,194	1,531,067	672	100,815	8,583	4,563,637	3,772	1,042,360
95 Now Bedford, Mass.	68	30,014	6,298	2,944,536	3,480	1,046,063	370	55,096	408	260,288	179	64,722
96 Nowburg, N. Y.	23	10,802	2,021	1,108,209	402	101,645	139	21,826	653	253,892	868	254,070
97 New Haven, Conn.	191	88,215	9,338	5,523,434	1,505	396,410	30	3,957	3,058	1,785,113	1,972	520,586
98 New Orleans, La.	215	110,499	10,541	5,207,624	2,586	576,835	402	49,701	4,768	1,849,534	3,062	581,396
99 Newport, Ky.	316	154,737	2,300	1,232,859	681	159,263	21	3,333	435	222,750	334	78,376
100 Newton, Mass.	45	25,469	1,059	959,751	544	153,932	61	8,003	27	19,500	99	27,724
101 New York, N. Y.	4,852	2,515,588	169,407	119,000,051	56,217	19,066,902	1,718	270,122	46,910	27,056,851	34,547	12,024,542
102 Norfolk, Va.	64	18,385	1,713	825,000	256	50,352	28	2,482	210	100,502	184	31,754
103 Oakland, Cal.	58	33,974	2,368	2,181,963	274	107,465	203	30,001	314	187,466	176	40,208
104 Omaha, Neb.	125	68,564	6,911	4,440,863	709	215,378	251	40,890	270	148,548	76	17,805
105 Oshkosh, Wis.	88	25,146	3,826	1,472,128	368	79,693	120	18,159	238	105,313	365	37,810
106 Oswego, N. Y.	46	15,037	1,869	837,566	275	58,100	73	4,450	806	115,800	444	86,831
107 Paterson, N. J.	76	31,797	10,796	6,069,067	5,851	1,733,476	805	127,461	3,740	1,843,134	1,967	645,988
108 Pawtucket, R. I.	100	45,050	4,743	2,336,624	2,501	700,615	435	72,777	370	184,866	791	244,263
109 Peoria, Ill.	105	56,492	4,897	2,854,970	673	155,159	133	22,221	680	412,880	428	91,016
110 Petersburg, Va.	55	18,706	2,746	814,471	1,503	204,033	438	37,453	233	54,168	188	18,426
111 Philadelphia, Pa.	2,239	969,754	141,291	80,288,766	34,036	10,290,499	8,607	1,384,219	27,934	14,975,022	21,590	6,185,184
112 Pittsburg, Pa.	191	81,684	42,654	25,375,518	2,034	583,240	1,784	347,315	4,772	3,169,249	1,371	375,736
113 Portland, Me.	95	35,729	3,643	1,819,313	613	153,320	17	1,981	561	279,769	504	159,510
114 Portland, Ore.	72	53,566	7,740	5,735,284	476	132,549	96	18,902	295	204,870	46	18,732
115 Poughkeepsie, N. Y.	30	11,925	2,065	1,080,038	339	95,088	84	10,660	444	238,065	349	69,143
116 Providence, R. I.	504	221,281	24,120	12,997,492	8,016	2,469,430	1,865	300,826	2,056	1,238,636	2,290	672,236
117 Pueblo, Colo.	16	9,978	775	546,633	71	29,928	28	5,254	62	47,300	1	624
118 Quincy, Ill.	30	12,994	3,296	1,529,835	423	95,579	233	30,537	470	302,407	142	27,050
119 Racine, Wis.	29	13,646	2,959	1,440,394	317	77,503	110	16,964	368	427,197	183	43,645
120 Reading, Pa.	33	17,260	7,898	3,351,329	951	203,292	614	73,077	1,883	967,909	778	173,629
121 Richmond, Va.	121	45,645	10,227	4,398,398	1,491	252,861	329	30,030	2,111	633,017	2,515	501,808
122 Rochester, N. Y.	428	198,064	17,449	9,584,053	3,800	1,020,793	779	109,603	3,782	1,708,052	2,998	699,596
123 Rockford, Ill.	29	12,163	3,553	1,785,751	767	202,467	79	14,223	234	117,122	234	46,533
124 Sacramento, Cal.	32	20,610	3,183	2,302,697	236	61,292	24	5,327	253	140,274	440	45,279
125 Saginaw, Mich.	25	10,744	4,504	2,010,485	208	56,542	122	14,349	418	170,254	36	11,758
126 St. Joseph, Mo.	22	11,073	2,543	1,330,224	478	127,680	61	8,701	592	280,730	889	220,946
127 St. Louis, Mo.	1,059	485,286	58,155	33,108,597	8,989	2,466,730	2,290	392,318	8,514	4,761,770	4,827	1,058,073
128 St. Paul, Minn.	251	115,768	12,721	6,845,761	1,789	573,930	170	28,635	1,044	768,254	543	176,072
129 Salem, Mass.	96	36,045	2,578	1,210,442	923	233,397	18	2,269	700	304,679	812	212,079
130 Salt Lake, Utah.	22	8,098	1,546	1,043,991	254	72,461	85	13,462	88	70,393	14	5,207
131 San Antonio, Tex.	46	80,260	1,807	1,116,890	192	43,548	21	3,551	62	52,938		
132 San Francisco, Cal.	571	349,389	25,599	18,149,095	4,420	1,490,428	964	185,312	6,900	3,777,662	3,765	978,700
133 Savannah, Ga.	22	11,100	2,099	968,812	83	22,397	31	4,187	197	62,652	9	1,300
134 Scranton, Pa.	13	4,152	7,200	3,545,378	819	126,643	319	39,580	286	177,411	200	37,722
135 Seattle, Wash.	5	1,880	3,399	2,835,614	189	59,548	5	1,352	166	168,969	9	3,832
136 Sioux city, Iowa.	37	17,822	2,315	1,365,659	134	39,264	52	7,235	110	102,998	18	5,420
137 Somerville, Mass.	61	44,831	2,233	1,180,236	320	81,897	6	1,249	127	70,310	98	22,808
138 South Bend, Ind.	28	11,556	3,309	1,562,027	318	81,089	146	26,951	1,374	683,981	593	148,514
139 Springfield, Ill.	74	30,125	2,377	1,225,822	269	63,645	25	3,245	135	78,687	85	18,832
140 Springfield, Mass.	220	114,930	6,073	3,611,157	1,256	390,277	70	14,005	871	541,660	882	276,888
141 Springfield, Mo.	78	8,273	976	493,430	117	23,810	52	4,701	100	50,418	40	11,484
142 Springfield, Ohio.	21	25,498	5,245	2,319,358	159	33,278	29	4,958	614	292,225	50	11,941
143 Syracuse, N. Y.	170	68,657	10,299	5,202,394	1,748	392,718	177	28,662	1,971	878,680	1,361	227,033
144 Tacoma, Wash.	12	10,390	3,304	2,481,538	87	35,460	46	11,660	215	192,313	6	2,264
145 Taunton, Mass.	25	13,714	4,171	2,136,774	1,298	392,683	64	10,739	432	242,736	183	54,262
146 Terra Haute, Ind.	45	18,679	3,023	1,308,101	225	54,563	134	22,578	739	306,574	539	96,851
147 Toledo, Ohio.	149	62,765	6,749	3,529,731	1,181	251,190	154	20,253	916	464,326	212	55,240
148 Topeka, Kan.	23	11,673	2,605	1,439,946	221	58,124	64	9,429	117	71,508	35	6,086
149 Trenton, N. J.	220	100,474	9,896	5,465,173	2,224	546,524	275	41,669	943	660,031	377	107,607
150 Troy, N. Y.	198	80,062	7,939	4,128,647	1,505	394,263	161	22,066	1,949	987,450	12,310	2,752,516

SUMMARY FOR PRINCIPAL CITIES.

A POPULATION OF 20,000 AND OVER: 1890—Continued.

AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES—continued.		COST OF MATERIALS USED.						VALUE OF PRODUCTS.			
Pieceworkers—Continued.		Total.	Principal materials.	Fuel.	Rent of power and heat.	Mill supplies.	All other materials.	Total.	Principal products.	All other products, including receipts from custom work and re-pairing.	
Children.											
Number.	Wages.										
6	\$1,222	\$10,194,720	\$5,950,137	\$761,041	\$3,823	\$31,312	\$8,442,907	\$10,200,220	\$11,801,303	\$4,308,861	78
209	20,805	5,014,034	4,379,529	228,134	2,333	17,108	9,893,930	9,893,935	7,081,800	2,831,060	77
33	4,279	28,033,810	25,613,227	550,112	6,619	90,971	1,772,911	54,515,220	51,070,008	3,444,318	78
13	4,600	22,990,138	10,242,175	538,869	40,756	638,783	2,520,555	42,450,509	36,979,048	5,470,561	79
		23,030,987	20,617,089	142,220	138,227	54,625	2,087,826	44,223,845	38,506,825	5,717,020	80
		10,617,338	9,716,856	176,901	120	303,142	420,319	17,432,721	17,151,171	281,550	81
25	2,125	2,464,498	2,404,506	119,171	625	18,021	62,175	5,171,530	4,772,788	398,742	82
		5,901,817	5,127,467	81,616	1,713	9,725	681,236	9,592,501	8,525,273	1,067,228	83
		11,872,289	10,523,930	292,265	40,719	154,453	860,922	20,187,295	18,366,084	1,821,211	84
1	300	7,090,190	6,631,350	160,428	3,820	63,342	231,250	13,244,538	12,526,401	718,137	85
6	948	4,900,594	3,638,251	130,435	1,122	105,789	1,015,997	11,962,172	11,650,141	312,031	86
125	14,970	55,815,485	49,798,480	1,572,755	10,383	120,457	4,298,410	97,503,951	94,378,018	3,125,933	87
23	2,450	54,593,210	50,801,737	434,200	175,310	135,594	3,045,369	82,922,974	78,617,170	4,305,804	88
		1,814,463	1,627,132	17,874	1,585	30,150	137,722	3,826,969	3,278,935	547,034	89
		1,763,166	1,644,223	49,912	20	17,205	41,806	3,234,962	2,966,373	268,589	90
4	574	4,795,251	4,646,901	27,804	80	71,764	48,702	8,278,100	7,312,043	966,117	91
103	17,826	7,994,751	4,798,480	149,735	4,530	70,857	244,428	14,590,823	14,311,388	279,435	92
9	1,050	3,470,492	3,035,662	225,797	100	8,223	200,705	6,631,924	6,218,306	413,618	93
60	8,792	46,020,536	42,274,100	938,207	79,548	209,919	2,473,762	93,476,052	88,625,680	4,850,372	94
11	1,400	8,561,373	7,872,433	254,638	17,429	302,692	134,181	17,025,779	16,541,827	483,952	95
13	1,828	3,521,078	2,984,747	107,915	830	29,154	398,432	6,964,287	6,592,206	372,081	96
3	376	14,400,638	13,082,044	949,317	21,953	105,475	840,049	33,930,311	28,455,685	4,940,626	97
73	10,082	28,271,445	26,710,765	513,716	20,003	65,497	961,494	48,295,440	45,857,630	2,437,810	98
5	566	9,072,313	2,911,487	75,553	1,585	27,945	97,828	6,987,987	6,917,252	370,735	99
		2,175,249	1,946,820	58,137	150	13,068	157,065	4,335,764	2,888,824	1,446,940	100
345	82,241	366,422,722	340,466,427	3,257,019	618,234	606,253	15,473,889	777,222,721	731,627,996	45,595,725	101
84	12,808	2,380,634	2,380,634	31,365	2,097	12,825	5,100,408	5,100,408	4,548,008	552,400	102
		4,687,099	4,306,632	218,088	2,828	23,791	136,859	9,112,778	8,572,607	540,171	103
		20,200,102	27,983,893	646,379	4,881	13,277	606,762	42,339,321	41,722,381	616,940	104
		4,668,843	4,443,045	37,567	55,930	133,201	8,620,626	8,620,626	8,200,908	413,718	105
		4,004,000	4,183,115	41,280	6,588	203,028	170,085	7,482,678	7,010,253	463,125	106
63	15,599	22,450,727	21,561,186	520,240	60,366	100,789	242,346	42,283,531	41,134,632	1,129,499	107
79	13,984	9,415,654	8,593,155	285,326	11,363	107,119	418,066	10,303,729	14,088,542	2,215,187	108
5	1,070	9,996,379	9,159,306	232,597	7,436	13,084	578,956	55,535,623	54,679,393	855,630	109
		4,384,462	4,128,693	55,173	1,071	20,281	178,644	7,107,004	6,945,909	221,095	110
1,189	182,533	311,045,804	288,934,102	4,756,838	355,466	793,625	10,803,773	577,234,440	539,809,070	43,365,370	111
348	86,308	69,892,195	62,507,433	3,048,018	16,164	274,917	4,040,693	129,859,657	123,708,726	6,150,931	112
		6,286,438	5,495,913	131,775	13,534	10,340	934,876	11,971,487	9,647,440	1,724,047	113
		12,807,106	11,799,140	169,838	7,510	84,228	749,390	25,427,038	20,662,630	4,734,094	114
47	2,892	3,200,593	2,836,597	178,346	1,100	6,007	178,483	0,254,132	6,109,827	144,305	115
40	7,357	39,794,241	36,510,604	817,070	90,964	294,158	2,081,445	77,467,283	60,378,018	8,091,265	116
		999,966	924,888	36,923	25	1,631	36,479	2,374,631	2,127,870	246,761	117
4	400	5,701,973	5,160,708	153,269	4,670	2,295	378,121	10,395,102	10,204,624	190,478	118
23	4,224	4,340,398	3,892,246	103,130	800	6,474	337,658	8,462,959	8,133,172	329,157	119
89	11,234	12,009,332	10,844,494	853,251	2,250	149,586	602,751	20,855,166	19,520,837	1,325,328	120
218	18,749	14,014,214	12,370,145	255,550	13,318	21,465	1,353,736	27,792,072	25,982,739	1,809,333	121
154	21,070	33,320,398	31,569,730	311,370	93,424	63,566	1,282,302	65,091,150	63,586,630	1,504,520	122
		4,248,001	3,971,845	79,126	6,853	21,554	163,023	8,888,904	8,601,339	287,565	123
		6,033,317	5,641,173	153,961	2,060	13,194	232,329	10,424,632	9,106,061	1,259,521	124
17	2,235	6,587,763	6,264,585	40,035	3,321	74,968	195,854	11,303,006	10,398,482	904,524	125
16	1,950	7,848,353	7,482,019	130,920	8,885	5,072	220,557	11,910,141	11,456,201	453,940	126
136	17,246	122,216,570	108,806,099	2,701,919	69,842	934,868	9,703,242	229,157,343	213,818,887	15,338,456	127
12	1,908	15,867,573	15,049,745	197,277	20,159	22,017	572,374	33,035,073	31,581,984	1,453,089	128
96	11,100	4,738,643	4,465,450	85,937	34,585	69,690	83,011	8,522,751	8,272,398	250,353	129
		1,966,818	1,809,572	57,038	5,055	3,393	91,760	4,440,997	4,440,997	133,452	130
		2,387,984	2,193,566	125,776	820	19,419	48,403	5,623,612	5,408,741	154,871	131
		78,656,470	72,249,962	1,769,392	161,296	128,912	4,847,808	135,625,754	126,636,301	8,989,393	132
		3,297,804	3,082,214	104,420	5,304	16,810	6,819,066	5,997,911	5,997,911	821,155	133
21	2,100	16,922,753	15,425,837	709,589	4,815	31,593	750,919	24,341,745	20,070,007	1,271,738	134
		4,778,384	4,475,552	102,110	3,446	76,050	102,226	10,203,007	9,674,887	528,120	135
		10,295,190	9,865,802	110,143	1,749	42,869	274,627	14,119,843	13,562,726	557,117	136
5	477	4,420,123	4,218,248	80,947	1,785	4,275	115,873	7,307,522	5,202,185	2,105,337	137
10	2,000	4,907,716	3,949,667	103,634	1,748	14,330	533,287	9,812,513	9,516,294	296,219	138
2	76	3,780,754	3,546,720	85,808	1,615	8,757	147,858	6,562,470	6,174,643	387,827	139
7	745	7,817,534	7,109,078	153,470	34,437	87,313	436,232	17,040,692	16,241,159	799,533	140
11	501	1,657,877	1,496,626	30,067	400	110	130,674	3,062,095	2,866,622	195,473	141
3	912	4,752,062	3,565,123	197,551	968	15,386	973,094	10,760,905	10,142,363	618,542	142
14	2,723	14,104,504	12,948,905	362,568	26,251	92,411	674,369	29,297,241	27,942,479	2,254,762	143
		5,171,058	4,872,725	93,888	960	96,097	137,388	10,432,955	9,524,446	908,509	144
		4,799,287	4,145,292	137,026	2,252	44,050	420,667	9,936,829	8,934,081	1,002,748	145
10	775	6,785,010	6,243,011	158,716	3,713	26,807	353,369	13,720,529	13,266,059	454,470	146
85	12,573	12,189,924	11,391,952	221,400	4,118	40,498	532,046	21,051,574	20,867,044	184,530	147
2	260	3,670,106	3,303,868	58,453	10,210	21,496	186,079	6,752,440	6,300,209	452,240	148
78	13,400	12,625,400	11,298,126	734,571	1,405	42,647	548,691	25,628,223	24,936,117	692,106	149
37	6,638	13,150,156	11,520,228	692,771	28,851	53,260	846,046	29,248,750	24,568,008	4,680,742	150

MANUFACTURING INDUSTRIES.

TABLE 2.—SUMMARY FOR 165 PRINCIPAL CITIES HAVING

CITIES.	Number of establishments reporting.	CAPITAL.							
		Value of hired property.	Direct investment.						
			Aggregate.	Value of plant.			Live assets.		
				Land.	Buildings.	Machinery, tools, and implements.	Raw materials.	Stock in process and finished products on hand.	Cash, bills and accounts receivable, and all sundries not elsewhere reported.
151 Utica, N. Y	565	\$1,840,625	\$14,332,510	\$768,242	\$1,613,109	\$3,358,853	\$2,624,005	\$2,956,250	\$3,671,961
152 Washington, D. C	2,295	6,664,939	28,865,089	5,438,756	5,390,278	8,543,897	1,810,540	2,211,088	5,425,530
153 Waterbury, Conn	219	878,487	17,682,500	1,186,150	2,569,650	3,519,979	1,526,962	3,613,653	5,266,706
154 Wheeling, W. Va	418	983,230	8,491,630	753,943	1,244,451	2,618,387	1,077,234	848,657	1,940,458
155 Wichita, Kan	144	478,051	3,062,696	305,000	635,775	573,188	394,586	598,814	555,333
156 Wilkesbarre, Pa	270	823,525	5,598,139	684,373	1,093,405	1,567,463	565,341	671,154	1,076,308
157 Williamsport, Pa	302	763,335	12,325,423	2,723,778	826,547	1,759,761	1,671,266	2,553,613	2,740,458
158 Wilmington, Del	580	1,378,180	20,585,616	2,575,882	3,135,902	4,353,309	2,657,983	2,998,953	4,864,526
159 Wilmington, N. C	121	141,166	1,752,667	174,350	269,240	646,865	171,881	179,049	311,272
160 Woonsocket, R. I	291	962,560	10,096,619	836,405	1,238,538	3,519,812	1,047,500	1,677,182	1,776,882
161 Worcester, Mass	996	4,079,140	25,230,620	1,752,855	2,455,940	5,836,413	3,765,212	4,565,173	6,855,018
162 Yonkers, N. Y	628	2,163,519	10,989,789	856,150	970,638	2,213,884	1,920,657	2,641,570	2,786,390
163 York, Pa	350	444,790	3,542,453	524,245	506,900	872,991	591,912	594,418	751,987
164 Youngstown, Ohio	245	418,044	7,542,742	646,585	992,160	2,170,663	792,246	912,688	2,028,400
165 Zanesville, Ohio	301	344,847	4,200,409	398,967	824,777	935,546	399,207	673,021	968,891

SUMMARY FOR PRINCIPAL CITIES.

A POPULATION OF 20,000 AND OVER: 1890—Continued.

MISCELLANEOUS EXPENSES.								AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES.				
Total.	Rent paid for tenancy.	Taxes, including internal revenue.	Insurance.	Repairs, ordinary, of buildings and machinery.	Amount paid to contractors.	Interest paid on cash used in the business.	All sundries not elsewhere reported.	Aggregates.		Officers, firm members, and clerks.		
								Average number.	Total wages.	Males above 16 years.		
										Number.	Wages.	
\$992,204	\$146,754	\$202,040	\$40,438	\$84,358	\$4,800	\$125,804	\$388,091	12,598	\$4,326,711	813	\$844,619	151
1,589,114	645,117	238,054	47,087	154,353	.....	68,103	536,311	23,404	14,622,264	2,680	2,200,834	152
1,155,304	73,234	118,321	44,041	150,119	.....	97,918	676,671	10,354	5,608,054	465	600,667	153
1,205,931	83,155	684,313	29,080	59,344	.....	48,175	351,864	6,850	3,037,727	618	516,162	154
304,458	39,583	12,778	25,884	16,097	.....	53,093	157,023	1,686	907,931	223	220,017	155
578,640	65,489	94,228	20,333	41,301	101,027	32,266	133,993	4,405	2,058,078	256	247,052	156
626,646	58,496	58,449	86,643	77,649	59,820	97,062	188,578	6,113	2,677,579	418	387,367	157
1,131,648	102,644	124,962	94,940	149,174	182,312	121,432	386,784	14,377	7,664,148	897	994,057	158
105,571	14,729	12,928	12,633	16,709	3,800	15,081	29,691	1,490	540,868	126	84,786	159
393,282	75,109	40,105	39,865	79,620	.....	118,512	43,071	6,417	2,361,617	180	201,808	160
1,827,815	373,361	216,292	147,861	116,943	1,441	174,420	797,497	21,729	11,694,121	1,355	1,508,511	161
819,340	180,650	47,432	36,534	35,965	.....	87,307	371,452	11,303	5,877,145	706	728,508	162
358,635	36,697	101,870	18,957	31,311	.....	12,692	167,208	4,120	1,609,456	382	268,779	163
462,785	42,678	50,297	33,605	130,118	5,490	62,805	125,821	5,843	3,607,659	317	295,771	164
393,616	27,980	79,990	17,824	53,280	.....	25,688	186,874	3,637	1,500,933	271	226,755	165

MANUFACTURING INDUSTRIES.

TABLE 2.—SUMMARY FOR 165 PRINCIPAL CITIES HAVING

CITIES.		AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES—continued.											
		Officers, firm members, and clerks—Continued.		Operatives, skilled and unskilled.						Pieceworkers.			
		Females above 15 years.		Males above 16 years.		Females above 15 years.		Children.		Males above 16 years.		Females above 15 years.	
		Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.
151	Utica, N. Y.	158	\$63,478	3,895	\$1,905,068	1,750	\$484,038	352	\$49,964	1,584	\$548,571	4,020	\$426,470
152	Washington, D. C.	309	157,288	15,860	9,732,366	2,599	1,092,106	128	22,050	1,254	992,426	560	424,134
153	Waterbury, Conn.	49	23,119	5,170	3,113,354	645	206,135	156	23,829	1,814	977,484	1,972	642,766
154	Wheeling, W. Va.	125	50,403	3,494	1,720,269	602	115,054	470	68,905	1,009	483,449	497	78,240
155	Wichita, Kan.	18	7,920	1,125	583,559	104	29,885	70	9,640	78	42,863	68	8,047
156	Wilkesbarre, Pa.	8	3,700	2,621	1,412,476	464	118,929	141	21,940	348	179,198	567	75,653
157	Williamsport, Pa.	42	18,741	4,051	1,841,411	619	138,549	63	8,576	637	232,463	252	46,978
158	Wilmington, Del.	110	52,224	10,736	5,568,877	835	222,451	565	92,845	1,091	787,593	125	32,273
159	Wilmington, N. C.	15	4,474	1,104	423,719	85	15,158	74	8,716	74	11,405	21	1,610
160	Woonsocket, R. I.	41	19,080	3,173	1,344,806	2,317	656,703	401	75,500	54	23,112	170	30,468
161	Worcester, Mass.	130	65,196	14,705	8,126,010	2,258	649,786	155	26,549	1,678	910,634	1,388	370,262
162	Yonkers, N. Y.	154	74,060	5,815	3,565,788	2,775	807,253	600	156,448	853	431,890	389	111,661
163	York, Pa.	69	20,259	2,501	1,069,746	180	33,463	71	6,277	852	116,790	476	85,755
164	Youngstown, Ohio	40	15,936	5,007	3,123,741	143	35,331	106	22,333	151	95,515	79	19,092
165	Zanesville, Ohio	28	8,587	2,300	985,290	357	56,837	60	7,495	427	231,043	244	44,925

SUMMARY FOR PRINCIPAL CITIES.

A POPULATION OF 20,000 AND OVER: 1890—Continued.

AVERAGE NUMBER OF EMPLOYÉS AND TOTAL WAGES—continued.		COST OF MATERIALS USED.						VALUE OF PRODUCTS.			
Children.		Total.	Principal materials.	Fuel.	Rent of power and heat.	Mill supplies.	All other materials.	Total.	Principal products.	All other products, including receipts from custom work and repairing.	
Number.	Wages.										
17	\$3,903	\$7,790,766	\$7,408,315	\$123,411	\$2,793	\$28,464	\$227,778	\$15,015,715	\$14,518,708	\$1,097,007	151
5	1,060	17,194,687	15,128,605	412,575	15,394	70,257	1,507,926	39,331,437	37,279,287	2,058,150	152
83	16,300	8,715,921	7,943,364	252,982	6,446	312,923	1,100,206	17,712,820	15,744,204	1,968,625	153
35	5,245	7,881,940	6,243,620	475,800	4,017	1,624	656,589	13,022,580	12,762,784	259,805	154
.....	.....	3,880,478	3,127,029	54,314	1,290	5,176	192,669	5,074,013	4,789,985	284,028	155
.....	.....	4,026,879	3,682,971	57,146	1,082	111,426	173,354	7,746,371	7,399,975	352,396	156
31	3,554	5,919,284	5,735,002	63,003	3,020	59,155	59,104	11,107,087	10,447,441	659,646	157
18	3,828	13,050,152	11,908,240	428,497	5,233	64,935	583,211	24,568,125	21,640,802	2,927,323	158
.....	.....	1,014,884	937,449	23,209	850	8,024	45,692	1,904,147	1,643,134	261,013	159
15	1,550	5,532,286	5,142,426	118,204	13,252	60,163	198,241	9,613,264	8,800,183	763,081	160
.....	.....	21,208,804	17,693,834	738,764	62,662	142,773	2,570,571	39,533,869	36,127,933	3,405,936	161
60	7,174	10,995,699	9,398,617	202,648	9,653	30,189	1,415,192	21,310,017	20,702,749	606,268	162
7	937	3,170,840	2,701,698	101,315	1,567	3,886	302,524	5,908,223	5,328,024	579,209	163
59	8,387	9,380,929	7,708,519	1,053,691	500	14,893	693,826	14,667,260	14,092,037	574,323	164
.....	.....	3,331,026	2,809,578	253,071	1,235	4,716	263,026	6,053,484	5,855,808	197,676	165