

## APPENDIX A

### CONSTRUCTION OF THE INDEX OF PRODUCTION OF MANUFACTURES

In order to provide a composite measure of the physical quantity of manufactures produced, statistics representing the production of individual products as reported by the census have been summarized into a set of index numbers covering census years. Such index numbers for the years 1899, 1904, 1909, and 1914 were constructed in 1920 by Prof. Warren M. Persons, with the assistance of Miss Eunice S. Coyle, and published in the Review of Economic Statistics for November, 1920. Description of the construction of this index, which has been called the Harvard census index, is given in Chapter II of this monograph and need not be repeated here.

Since 1914 census investigations have been made for 1919, 1921, 1923, and 1925. For the purposes of this monograph and to provide the information for others who may wish to use it, a similar index has been computed for census years from 1914 to date and has been chained to the earlier index, thus providing a homogeneous measure of the physical volume of production by census years from 1899 to 1925. Index numbers for all industries combined, for the major industrial groups, and for certain selected industries, by census years, 1899 to 1923, are given in Table 38, Appendix B.

With some noteworthy variations the same methods of construction utilized in constructing the Harvard census index were adopted in making the new index. The index is a weighted geometric mean of relatives; the weights are based upon figures for value added by manufacture; and products and industries included are classified according to the grouping followed in the censuses of manufactures prior to that of 1923.<sup>1</sup>

The year 1919, however, was used as the base, whereas 1909 was the base in the earlier index. Another very important variation is to be found in the method of computing weights. Weights for the Harvard index were derived from values added by manufacture for 1909, the base year, but in the later index the weights applied to the relatives for any given year were averages of those for 1919, the base year, and those for the given year.<sup>2</sup>

<sup>1</sup> Classification was changed in 1923. See Ch. IV of monograph.

<sup>2</sup> The Harvard census index was computed for 1919 and revised for earlier years according to this method by Professor Day in 1922, but no explanation of the revision was published.

Other changes in the new index were confined largely to the data used. Several new production series have been given in recent censuses, but, on the other hand, statistics of raw materials consumed, which were used extensively with satisfactory results in the Harvard index, have not been reported since 1919. The index therefore is based entirely upon products manufactured. Although the absence of information regarding materials consumed is to be regretted, it is not believed to have materially affected the final results, as the Harvard indexes obtained by the two sets of data were closely similar.

Fuller treatment of data and methods, with explanations of the variations from those employed in the earlier indexes, is given in later sections. A general statement of methods used in the Harvard index is given in Chapter II of the monograph. Briefly, it may be said that in computing the new index physical quantity figures for each product included for the census years 1914, 1921, and 1923 were reduced to relatives in terms of the 1919 figures as 100; these relatives for all products in a single industry were weighted in accordance with their proportionate importance to each other and then averaged; thus a set of industry indexes were secured. The industry indexes were in turn weighted and averaged to give group indexes, which were similarly combined into a composite index for all manufactures. The actual physical quantity figures used, their individual relatives, the weights, and the industry and group indexes by census years from 1914 to 1925 are all shown in Table 26, given at the end of this chapter. The results have been discussed in the various chapters of the monograph.

#### SELECTION OF DATA

In constructing the index the data utilized were, with some important additions and a few subtractions, those employed in the Harvard census index. The nature of this statistical material is indicated in Chapter II of the monograph by a quotation from the Review of Economic Statistics. The most important variation from the Harvard index, as was stated above, is that in the new index practically no statistics of materials consumed have been used, because such data have not been requested in the census investigations since 1919.<sup>3</sup>

Statistics of products, on the other hand, have been expanded somewhat by the census, and a number of series not available for earlier dates are included in the new index. In some cases these additions are merely new series, perhaps of little or no importance until recently, added to an industry already represented in the index. Examples of these are found in the cases of some of the chemicals and acids, of upper leather, and of face brick. Generally, however,

<sup>3</sup> Specifically statistics of materials consumed were used in flour milling, wood pulp, coke, gas, and petroleum refining. In a number of instances the production of semifinished and finished products in the same industry were given—e. g., pig iron and steel ingots, crude petroleum and refinery products, leather and shoes, and wood pulp and paper.

the additions were of entire industries or groups of industries—notably shipbuilding, rubber products, locomotives, cement, and several others of less importance. The inclusion of shipbuilding is a distinctive feature of the new index. It was felt to be necessary in order to provide an accurate basis of comparison between 1919 and other years, because of the unusual magnitude of that industry in 1919. In other years it was not of great importance.

Data for some previously unrepresented industries were derived by still another method which involved the utilization of extracensal information. Estimates of paper consumption to represent the printing and publishing industries and of nonferrous metals consumption for industries using these materials were arrived at by the use of production, import, and export statistics, and were included in the index. For reasons given below the liquors and beverages industries have been omitted for years since 1919.<sup>4</sup>

Another difference between earlier census figures and those of recent years, which is of such small importance as to be hardly worthy of mention, is that the investigations of 1921 and 1923 did not include establishments with a total production for the year of less than \$5,000 in value, whereas in previous years \$500 had been the minimum. That the effect of this change is insignificant is seen by the fact that for 1919 the total value of products for all establishments was 62,193 millions of dollars, whereas for those with products of \$5,000 and over the total was 62,042 millions of dollars, a difference of only two-tenths of 1 per cent.

Data included in the index, however, are subject to certain important limitations. In the first place only a portion of all products of manufacture are measurable and therefore available for use, and, secondly, changes in degree of fabrication are not indicated by mere changes in quantity. Improvements in quality represent larger production as much as do increases in quantity, but there is no satisfactory way of measuring such changes.<sup>5</sup>

Data for some of the industries and individual series are peculiar in respect to source, method of compilation, units, weighting, or some other such characteristic. These peculiarities, where worthy of notice, are given in the section at the end of the chapter after the discussion of methods. Note is made especially of cases where the data are not exactly the same as those used in the Harvard census index. Certain more detailed information regarding some of the series may be found in the description of that index in *The Review of Economic Statistics*.<sup>6</sup>

---

<sup>4</sup> See p. 111.

<sup>5</sup> In the index for the automobile industry some allowance is made for such changes in the quality of automobiles produced by providing for the increase in proportion of closed cars produced as compared with open cars. This index indicates an increase of 132 per cent in production of automobiles from 1919 to 1923, as compared with 106 per cent shown by comparing the simple totals of number of cars produced.

<sup>6</sup> Preliminary Vol. II, No. 11, November, 1920, pp. 311-315.

*Representativeness of the index.*—A rough measure of the comprehensiveness of the index may be obtained by comparing the value of those products included in the index with the total value of all products manufactured. Because of the large amount of duplication in the figures of total value reported by the census, however, a comparison of the value added by manufacture for those industries represented in the index with total value added for all industries is probably a more accurate measure of representativeness.

These comparisons and other measures of the comprehensiveness of the index are given in Table 21. In the first two columns the number of industries and series included in the index from each group is shown. It will be noted that indexes are available for 53 separate industries, comprising relatives for 137 individual products. It should be remembered, however, that for most of these products the series are totals of a large number of subdivisions. All kinds of cotton goods, for example, are shown by a single series, and the tonnage of all the various products of steel rolling mills has been added together.

TABLE 21.—MEASURES OF REPRESENTATIVENESS OF DATA USED IN INDEX

GROUP AND INDUSTRY	Number of industries	Number of products series	ADEQUACY OF DATA	
			For industries <sup>1</sup>	For groups <sup>2</sup>
All groups covered.....	53	137		3 87
All industries covered.....				4 48
I.—Food and kindred products.....	10	25		48
Butter, cheese, and condensed and evaporated milk.....		3	88	
Slaughtering and meat packing.....		7	87	
Flour-mill and grain-mill products.....		4	98	
Sugar, beet.....		2	95	
Sugar refining, cane.....		1	99	
Canning, etc., fruits and vegetables.....		4	99	
Canning, etc., fish and oysters.....		1	79	
Corn sirup, corn oil, and starch.....		1	26	
Rice cleaning and polishing.....		1	95	
Ice, manufactured.....		1	99	
II.—Textiles and their products.....	8	20		52
Cotton goods.....		3	90	
Knit goods.....		5	81	
Silk manufactures.....		3	80	
Woolen and worsted goods.....		4	96	
Carpets and rugs, wool, other than rag.....		1	96	
Cordage and twine, etc.....		2	91	
Hats, fur-felt.....		1	83	
Oilcloth and floor coverings.....		1	98	
III.—Iron and steel and their products.....	2	2		40
Blast furnaces.....		1	98	
Steel works and rolling mills.....		1	74	
IV.—Lumber and its remanufactures.....	1	2		48
Lumber and timber products and planing-mill products.....		2	79	
V.—Leather and its finished products.....	2	5		80
Leather, tanned, curried, and finished.....		1	100	
Boots and shoes.....		1	100	

See footnotes at bottom of table on opposite page.



TABLE 21.—MEASURES OF REPRESENTATIVENESS OF DATA USED IN INDEX—  
Continued

GROUP AND INDUSTRY	Number of industries	Number of products series	ADEQUACY OF DATA	
			For industries	For groups
VI.—Paper and printing.....	3	11		° 15
Paper and wood pulp.....		8		80
Printing and publishing.....		2	(°)	
Paper boxes.....		1	(°)	
VII.—Liquors and beverages.....	0	0	0	0
VIII.—Chemicals and allied products.....	35	35		77
Chemicals and acids.....		10		36
Coke.....		2		72
Gas.....		3		88
Fertilizers.....		1		97
Explosives.....		1		91
Paint and varnish.....		5		95
Petroleum refining.....		7		91
Oil and cake, cottonseed.....		2		65
Turpentine and rosin.....		2		100
Salt.....		1		76
Soap.....		1		65
IX.—Stone, clay, and glass products.....	4	7		64
Brick, tile, etc.....		3		54
Lime.....		1		84
Cement.....		1		99
Glass.....		2		35
X.—Metals, nonferrous.....	2	11		° 35
Brass, bronze, etc.....		1		79
Smelting and refining.....		5		62
Other industries.....		5	(°)	
XI.—Tobacco products.....	3	3		° 100
Chewing, smoking, etc.....		1		° 100
Cigars.....		1		° 100
Cigarettes.....		1		° 100
XII.—Vehicles for land transportation.....	4	5		97
Motor vehicles.....		3		60
Carriages, wagons, etc.....		1		65
Railway equipment <sup>1</sup> .....				74
Cars, etc.....		2		70
Locomotives.....		1		86
XIII.—Railroad repair shops <sup>2</sup> .....	0	0	0	0
XIV.—Miscellaneous.....	3	9		18
Ship and boat building.....		2		19
Rubber products—				
Rubber boots and shoes.....		4		100
Rubber tires and inner tubes.....		3		87

<sup>1</sup> Percentage that (1) value of products covered by index for each industry in 1923 bears to (2) total value reported for all products of that industry in 1923.

<sup>2</sup> Percentage that (1) value added by manufacture in 1923 for industries covered in each group bears to (2) total value added by manufacture reported for all industries in that group. The figures from which these percentages are computed are given in part in Table 23.

<sup>3</sup> Percentage of value added by manufacture for the groups represented in the index to that of all groups reported by the census.

<sup>4</sup> Percentage of (1) value added by manufacture for all industries directly represented in the index to (2) that of all industries reported by the census. Had certain paper and printing and nonferrous metals industries, which are indirectly represented in the index by consumption figures, been included in (1) this ratio would have been 55.

<sup>5</sup> Exact data are not available. The estimate given has been based on the best information at hand.

<sup>6</sup> These percentages cover only those industries directly represented in the index. The inclusion of the industries indirectly represented by consumption figures would give the following: Paper and printing, 91; and metals, nonferrous, 87.

<sup>7</sup> No adequate data for use as basis of estimates are available.

<sup>8</sup> Indirectly some 22 industries in Group X are represented.

<sup>9</sup> New products manufactured by railroad repair shops are included under railway equipment.

The number of the series, however, gives little indication of the extent to which the figures actually cover the industries, and in the last two columns of the table figures are given to show (1) the percentage of the value of the products represented from each industry included in the index to the total value of all products of that industry and (2) the percentage of value added for the industries included from each group to the value added for that group as a whole. Most of the individual industries included are fairly well represented by their products, the value percentage varying from 19 to 100 per cent, with nearly one-half above 90 per cent.

Direct representation of some of the groups, however, is not so large. The important iron and steel and allied industries, for example, are covered by but two industries, whose value added equals only about 40 per cent of the total for the group, and in nonferrous metals the direct representation is smaller, but in both of these groups the products used are of such a basic nature that they probably reflect rather closely conditions in the more advanced industries using these products as raw materials. The liquors and beverages group is not represented at all after 1919. The most completely covered groups are tobacco products and vehicles for land transportation.

Comparisons of totals of these groups, industries, and products included in the index to the grand total for all manufactures give the following results: Value added by manufacture for all groups directly and indirectly represented is 87 per cent of the total and the value added of only those industries directly represented equals nearly 50 per cent of the total. A comparison of the total value of products to total value of all products included can not be accurately determined because of (1) the lack of value figures in a number of cases and (2) the large amount of duplication in the combined value figures.

The conclusion drawn from such a comparison for the Harvard census index is applicable here. It is "Analysis of the data, therefore, leads to the conclusion, first, that our sample of manufacture is well distributed and, second, that the sample is large enough to constitute a reliable basis for the computation of indexes of physical production for manufacture."

Another test of the representativeness of the index is given in Table 22, which shows for intercensal periods the percentage of change in the number of wage earners and in primary horsepower for all industries, for the industries directly represented in the index, and for those not so represented.

TABLE 22.—COMPARISON OF GROWTH OF INDUSTRIES INCLUDED IN INDEX WITH GROWTH OF OTHER INDUSTRIES

	PER CENT OF INCREASE OR DECREASE (—)					
	24-year period, 1899-1923	Intercensal period				
		1919- 1923	1914- 1919	1909- 1914	1904- 1909	1899- 1904
NUMBER OF WAGE EARNERS						
All industries.....	88.2	-2.5	29.3	6.4	21.0	16.0
Industries included in index.....	82.4	-3.5	33.0	5.2	20.7	11.4
Industries not included in index.....	95.2	-1.8	25.5	7.6	21.3	21.4
PRIMARY HORSEPOWER						
All industries.....	229.6	12.8	31.5	20.1	38.5	33.6
Industries included in index.....	218.3	12.7	33.5	15.6	40.6	30.1
Industries not included in index.....	251.2	13.1	26.1	34.2	32.2	38.8

From this evidence it would seem that changes from one census year to another in the industries included in the index are in most cases typical of those for all industries, although in a few cases there are fairly wide discrepancies. These data show that for the period as a whole the industries included in the index have grown by a slightly smaller amount than those excluded, indicating that over a long period of time the index probably somewhat understates the growth of all manufactures. The industries included in the index employed over 50 per cent of the total number of wage earners employed in all industries and contributed nearly 75 per cent of the total primary horsepower.

## METHODS OF CONSTRUCTION

Processes involved in the construction of this index previously briefly described will now be explained in greater detail. The figures for 1914, 1921, and 1923 in each set of physical quantity data were reduced to percentages of the corresponding figure for 1919, and a weighted geometric average of these percentages or relatives for any given year gave the composite index number for that year. The weights represented the importance of their respective products relative to all other products included in the index. They were derived from figures showing value added by manufacture in the base year (1919) and in the particular year for which they were used. In other words, there was a different set of weights for each year covered by the index, which were averages of two other sets, one applying to the common base year and the other to the given year.

The following formula expresses in mathematical symbols the methods employed in compiling the index:

$$I_0 = \sqrt{\left(\frac{q_1}{q_0}\right)^{\frac{p_0q_0 + p_1q_1}{2}} \times \left(\frac{q'_1}{q'_0}\right)^{\frac{p'_0q'_0 + p'_1q'_1}{2}} \times \left(\frac{q''_1}{q''_0}\right)^{\frac{p''_0q''_0 + p''_1q''_1}{2}} \text{ etc.,}}$$

wherein  $q_1$  is the quantity of a given product produced in any given year,  $q_0$  the quantity of the same product produced in the base year;  $q'_1$  and  $q'_0$ ,  $q''_1$  and  $q''_0$ , quantities of other products produced in corresponding years;  $\frac{q_1}{q_0}$  and  $\frac{q'_1}{q'_0}$ , etc., are the relatives;  $p_0 q_0$  and  $p_1 q_1$  represent value added by manufacture;  $\frac{p_0 q_0 + p_1 q_1}{2}$  represents the average value added in the given year and base year, or the weights assigned; and the radical,  $\sqrt{\frac{p_0 q_0 + p_1 q_1}{2}}$ , is the sum of all the weights.

*Type of average.*—Several considerations governed the choice of the geometric mean as the type of average to be utilized in constructing this index. In the first place, it was desirable that the methods used be similar to those employed in computing the Harvard census index, in which the geometric type of average was adopted. Another reason is that the index was devised for use in a study of the relative growth of manufacture and the geometric average is especially suited for averaging percentages and securing composite measures of relative changes. The so-called aggregative type of index, wherein all figures are reduced to values and the aggregate values are compared to secure the index numbers, more closely measures absolute changes in volume. Another objection to the aggregative type is the difficulty of obtaining, in the case of manufactures, satisfactory weight factors which are needed to reduce the quantity figures to values. This difficulty is due to the fact that these factors not only must convert quantities into values but also at the same time must weight the products in accordance with the relative importance of the various industries which they represent.<sup>7</sup>

Advantages of the geometric mean over the arithmetic mean are technical in nature but are important in this index. In the first place, with the geometric type the index can be readily shifted to a new base without recalculation of the averages. This characteristic was advantageous in linking the new index with the Harvard census index. The geometric mean, in the second place, is not ordinarily as much affected by extremely large items as is the arithmetic average, and in computing this index there were some relatives of sufficient magnitude to make this feature important.

*Base period.*—The year 1919 was chosen as the base in computing this index primarily because it was the middle year, in point of time, of the period covered by the index, and therefore was more directly comparable with all the other years than any other single year would be. It is a link between the old and the new—between the pre-war industrial system and the somewhat different order now

<sup>7</sup> Experimental computations of aggregative indexes gave practically the same results as the geometric averages adopted.

prevailing. Furthermore, it was central in point of magnitude, the index for 1919 (100) being practically halfway between that for 1914 (78) and that for 1923 (122). This was likewise true for a number of the individual industries, and therefore the relatives comprising the index tend to group themselves around the average more closely than they would if another year had been selected as a base. Another advantage of 1919 as a base over some earlier year is that it permits the use of a number of figures which were not available until 1919.

*Weights.*—In averaging the relatives for individual products to secure a composite measure of changes in the volume of production of all manufactures, it was necessary to weight each relative in accordance with the proportionate importance of the product represented. Because the output of many products manufactured can not be measured and therefore these products can not be included in the index, the weight for each major industrial group was divided among the industries of that group included in the index, and the industry weights were in turn divided among the products included. Thus steel production is weighted not only in accordance with the importance of the industry designated as "steel works and rolling mills" but also for all industries in the iron and steel group, except blast furnaces which are represented by pig iron.

The weights for industries and for major industrial groups were derived from figures measuring value added by the process of manufacture, and the weights for individual products within each industry were derived from data showing total value produced, data for value added not being available for the individual products. The value-added figures provide the most satisfactory basis of weighting available because they represent the actual contribution of the manufacturing process to the production of a commodity—the application of machinery and labor.<sup>8</sup> The weights were computed in terms of percentages of the whole and multiplied by 10, the total of weights for all products equaling 1,000. The percentages were first computed for the major groups, the group percentages were divided proportionately among their respective industries, and the industry totals in turn were distributed among their products.

In computing weights for groups, industries, and the individual-products series, some allowances were made for their adequacy, comprehensiveness, and representativeness. Iron and steel production, for example, because of the basic nature of these products, was assigned weight for a large number of industries in which iron and steel are used as raw materials. Full weight, as indicated by the value added by manufacture, on the other hand, was not assigned to a few products which could not be considered as repre-

<sup>8</sup> See Ch. I, p. 20.

sentative of production in other lines. Outstanding examples of these are automobiles and shipbuilding, for which one-half of the value added by manufacture was assigned to iron and steel. The principal reason for this, in addition to that mentioned above that the products being results of the final stages of the production process do not represent output of other products in more advanced stages of manufacture, is that the materials used in their construction—chiefly iron and steel—are already represented once in the index, and their inclusion again gives them undue importance as contrasted with the amount of those same materials going into other manufactures not included, notably machinery. The use of steel in machinery output probably declined between 1919 and 1923, whereas that used in automobiles increased; the inclusion of one without the other presents a distorted picture. The reduction of the weight given to automobiles and the corresponding increase of that assigned to steel serves to remedy this defect. Another reason for reducing the weight for shipbuilding and automobile manufacturing is the unsatisfactory character of the physical-quantity figures, which do not adequately represent production in these industries because of important changes in nature of product. Adjustments of weights in individual instances are discussed in the subsequent section dealing with the individual series included in the index.

Percentages of the importance of the various groups, industries, and products were computed from the value-added data for each year covered by the index—1914, 1919, 1921, and 1923—and those for 1914, 1921, and 1923 were averaged separately with the corresponding percentages for 1919 in order to obtain a set of weights for use in computing the index for each year. That is, the 1914 weights are averages of the 1914 and 1919 percentages, those for 1921 are averages of the 1921 and 1919 percentages, and so on. Table 23 gives the computation of weights for the major industrial groups and for individual industries. In computing these percentages, figures were rounded off as much as possible in order to simplify the labor of computation. Percentages were used instead of actual value figures in order to remove the influence of price changes and of growth, thereby preventing one year from dominating the weights.

The practice of averaging the computed weights for a given year with those for 1919 in order to obtain the weights actually used for that year has the advantage of providing in the index for changes which occur in the relative importance of different industries. If 1919 weights alone had been used, for example, the shipbuilding industry would have exerted far too great an influence on the index—its relative importance during the period changed from 0.6 per cent of the total in 1914 to 4.2 per cent in 1919, and back to 0.6 per cent in 1923. The industrial structure is likely to change materially in a

decade and in two decades changes are too great to be ignored. The automobile industry was of only moderate importance in 1914; in 1923 it was the leading industry in total value of output. It is necessary that the weighting system provide for such changes.

Another reason for using these combined weights is a technical one relating to the characteristics of the type of average used. A geometric average of relatives weighted on the basis of data for a single year is likely to have a bias—i. e., “a foreseeable tendency to err in one direction”—and such a bias is particularly pronounced if the relatives cover a wide range. Since with base-year weights the bias is in one direction and with given-year weights it is in the other, a combination of these two sets of weights will give an average free from bias.<sup>9</sup> Therefore because of the inherent nature of the average, because of the wide dispersion of relatives comprising the index, and because of the need for making allowances for fundamental changes in industrial arrangements, the weights used in this index were based upon two years rather than one.

---

<sup>9</sup> For a discussion of bias, as well as of other characteristics of index-number formulae, see Irving Fisher, “The Making of Index Numbers”; U. S. Bureau of Labor Statistics, Bull. 284, “Index Numbers of Wholesale Prices in the United States and Foreign Countries,” by Wesley C. Mitchell; or some recently published textbook on statistical methods.

TABLE 23.—COMPUTATION OF WEIGHTS FOR INDUSTRIES AND GROUPS, BY CENSUS YEARS: 1914 TO 1923

[Value figures expressed in thousands]

INDUSTRY	1914			1919			1921			1923		
	Value added by manufacture	Per cent of total	Weight <sup>1</sup>	Value added by manufacture	Per cent of total	Weight <sup>1</sup>	Value added by manufacture	Per cent of total	Weight <sup>1</sup>	Value added by manufacture	Per cent of total	Weight <sup>1</sup>
Total of all groups included in index	\$8,588,471	103.60	1,029	\$21,755,482	100.00		\$15,705,308	100.00		\$22,541,028	100.00	1,000
Food and kindred products:												
Group total <sup>3</sup>	1,030,829	12.40	117	2,421,471	11.10		2,018,125	12.86	118	2,406,769	10.60	108
Total in index	1,647,499			1,513,838			944,767			1,162,997		
Butter, cheese, and condensed and evaporated milk	49,259	1.12	11	139,439	1.18		129,296	1.75	17	149,774	1.38	13
Slaughtering and meat packing	210,302	4.75	43	363,861	3.92		322,744	4.53	40	406,794	3.77	38
Flour-mill and grain-mill products	125,410	2.84	25	253,253	2.14		185,980	2.52	20	162,006	1.50	18
Sugar, beet	21,266	.63	5	62,127	.52		17,241	.23	5	47,494	.44	5
Sugar refining, cane	25,314	.68	5	68,843	.58		40,001	.64	5	44,361	.41	5
Canning and preserving, fruits and vegetables, etc.	45,883	1.04	11	136,614	1.16		81,624	1.10	12	151,870	1.40	12
Canning and preserving, fish, oysters, etc.	12,657	.29	3	26,208	.22		14,092	.19	2	16,536	.18	2
Corn syrup, corn oil, and starch	12,407	.28	4	55,927	.47		29,180	.39	6	42,079	.38	5
Rice cleaning and polishing	5,493	.06	1	13,405	.11		7,034	.09	1	6,855	.06	1
Ice, manufactured	42,651	.96	9	94,127	.80		107,715	1.46	10	117,998	1.08	9
Textiles and their products:												
Group total <sup>4</sup>	1,432,495	17.30	175	3,894,024	17.60		3,156,921	20.00	190	4,070,552	18.10	180
Total in index	1,685,790			2,085,652			1,610,087			2,180,189		
Cotton goods	257,778	6.51	70	880,764	7.61		598,679	7.44	76	800,523	6.90	74
Knit goods	112,226	2.94	27	286,044	2.47		273,616	3.40	30	364,157	3.10	28
Silk	109,569	2.78	27	300,001	2.59		245,860	3.05	28	282,284	2.40	25
Woolen and worsted goods	132,857	3.36	34	399,838	3.46		355,538	4.41	40	439,827	3.75	36
Carpets and rugs, wool, other than rag	26,948	.68	6	56,136	.49		53,762	.67	6	102,008	.92	7
Cardage and twine	16,157	.41	4	43,661	.38		28,875	.36	4	34,641	.30	3
Hats, fur-felt	20,403	.51	4	42,587	.37		26,362	.33	3	40,805	.34	4
Olecloth and floor coverings	7,322	.20	3	26,601	.23		27,395	.34	3	46,944	.40	3
Iron and steel and their products:												
Group total <sup>4</sup>	1,689,817	20.40	234	5,717,215	26.30		3,160,072	20.00	231	5,589,931	24.60	254
Total in index	567,030			1,807,553			856,714			1,846,898		
Blast furnaces	53,074	1.96	24	173,181	2.52		58,721	1.40	21	179,983	2.40	24
Steel works and rolling mills	601,956	18.45	210	1,694,372	23.78		777,993	18.60	210	1,665,845	22.20	230
Lumber and its remanufactures—Group total	837,351	10.10	90	1,710,074	7.90		1,240,747	7.96	80	1,988,264	8.80	82
Lumber and timber products	455,358			916,510			524,574			1,921,398		



Leather and its finished products:	Group total.....	351,459	4.30	43	886,424	4.10	609,788	3.90	40	796,740	3.50	38
	Total in index.....	274,560	1.30	17	721,849	1.60	494,654	.83	15	699,769	.91	25
	Leather, tanned, curried, and finished.....	82,957	3.00	25	282,071	2.50	389,044	3.07	25	1,571,148	2.59	12
	Boots and shoes.....	191,403			439,772					472,621		26
Paper and printing:	Group total.....	875,330	10.60	92	1,705,867	7.80	1,817,423	11.50	35	2,028,926	9.90	90
	Total in index.....	807,095			1,554,140		1,660,015			2,028,917		
	Paper and wood pulp.....	118,966	1.83	25	320,577	1.62	221,444	1.60	25	333,620	1.63	25
	Printing and publishing.....	643,686	8.51	62	1,123,279	5.65	1,352,619	9.40	65	1,574,562	7.68	60
	Paper boxes.....	38,443	.51	5	105,284	.53	85,960	.60	5	120,129	.59	5
Chemicals and allied products:	Group total.....	712,289	8.00	86	1,862,624	8.00	1,485,633	9.30	90	2,002,782	8.90	88
	Total in index.....	653,439			1,748,846		1,437,637			1,571,502		
	Chemicals and acids.....	77,084	1.24	10	309,446	1.84	211,960	1.74	18	326,679	1.83	18
	Coke.....	30,137	.49	5	82,520	.52	52,592	.71	5	162,893	.94	8
	Gas.....	148,469	2.51	17	171,728	1.02	208,943	1.71	14	258,977	1.50	13
Fertilizers.....	Group total.....	45,241	.73	7	96,103	.57	35,387	.70	4	55,109	.92	4
	Explosives.....	15,806	.25	3	49,504	.28	28,631	.35	3	35,533	.20	3
	Paint and varnish.....	57,169	.92	8	123,234	.73	102,912	.85	8	155,190	.90	8
	Petroleum refining.....	71,086	1.15	17	384,025	2.23	325,270	2.86	25	368,647	2.13	22
	Oil and cake, cottonseed.....	31,151	.50	5	83,063	.31	92,461	.49	4	98,873	.46	4
Turpentine and rosin.....	Group total.....	15,454	.25	2	38,121	.23	17,022	.19	2	28,194	.16	2
	Salt.....	7,797	.13	1	16,580	.12	10,761	.12	1	20,360	.12	1
	Soap.....	39,075	.63	5	78,221	.47	86,839	.74	6	102,857	.69	5
Stone, clay, and glass products:	Group total.....	375,427	4.50	40	676,988	3.10	597,125	3.80	36	971,751	4.30	36
	Total in index.....	280,869			427,428		377,556			677,157		
	Brick and tile, terra-cotta, and fire-clay products.....	93,198	1.81	15	140,853	1.03	126,063	1.28	13	230,068	1.60	13
	Lime.....	10,853	.21	2	19,674	.14	16,807	.17	1	27,544	.19	1
	Cement.....	49,769	.97	9	83,765	.60	101,267	1.04	10	163,332	1.14	10
Glass.....	Group total.....	77,069	1.51	14	171,104	1.25	127,435	1.31	12	186,183	1.37	12
Metals and metal products, other than iron and steel:	Group total.....	332,890	4.70	41	859,269	3.90	589,278	3.70	38	947,128	4.20	40
	Total in index.....	301,767			690,397		597,066			667,690		
	Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper.....	46,712	.72	10	177,489	1.11	84,277	1.04	10	179,714	1.15	10
	Smelting and refining.....	105,045	1.64	10	122,008	.84	66,818	.82	8	148,216	.92	10
	Other industries.....	160,000	2.34	21	310,000	1.95	150,000	1.84	20	330,000	2.10	20

\* Computed as described in text from averages of corresponding percentages for 1919 and for given year.

\* Liquors and beverages are included only in 1914, and in order to make the figures comparable with those for 1919 the percentages and weights for 1914 have been made to equal more than 100 and 1,000, respectively.

\* Includes data for the entire iron and steel group, as classified prior to 1923, less locomotives and plus one-half of the value added for vehicles and shipbuilding.

TABLE 23.—COMPUTATION OF WEIGHTS FOR INDUSTRIES AND GROUPS, BY CENSUS YEARS: 1914 TO 1923—Continued

[Value figures expressed in thousands]

INDUSTRY	1914			1919			1921			1923		
	Value added by manufacture	Per cent of total	Weight	Value added by manufacture	Per cent of total	Weight	Value added by manufacture	Per cent of total	Weight	Value added by manufacture	Per cent of total	Weight
<b>Tobacco manufactures:</b>												
Group total <sup>1</sup> .....	\$293,000	2.40	20	\$323,353	1.50		\$194,690	1.20	13	\$219,311	1.00	12
Total in index.....	282,905			283,897			283,897			283,897		
Tobacco, chewing and smoking, and snuff.....	98,677	.84	6	109,001	.31		95,964	.23	3	76,593	.14	2
Tobacco, cigars.....	135,568	1.15	9	201,581	.57		177,897	.49	5	182,422	.35	4
Tobacco, cigarettes.....	48,730	.41	5	218,784	.62		176,600	.45	5	209,313	.51	6
<b>Vehicles for land transportation:</b>												
Group total <sup>1</sup> .....	223,772	2.70	31	757,410	3.50		491,839	3.10	33	905,194	4.00	38
Total in index.....	417,696			1,454,911			949,469			1,765,893		
Motor vehicles.....	276,623	1.70	23	1,139,395	2.75		758,377	2.47	26	1,404,871	3.32	31
Carriages, wagons, and repairs.....	54,824	.35	2	43,101	.10		15,883	.05	1	17,305	.04	1
Railway equipment.....			6						6			6
Cars.....	66,721	.43		188,531	.45		128,598	.42		190,691	.43	
Locomotives.....	19,838	.13		83,884	.20		46,611	.16		91,131	.21	
<b>Ship and boat building:</b>												
Group total <sup>1</sup> .....	25,943	.30	13	455,920	2.10		115,793	.70	14	64,337	.30	13
Total in index.....	53,085			917,839			237,468			128,674		
Rubber products—Group total.....	137,959	1.70	20	568,723	2.50		337,024	2.10	22	487,355	2.00	23
Rubber boots and shoes.....	29,885	.37	15	61,900	.13		39,571	.39	4	88,471	.37	4
Rubber tires and inner tubes.....	108,083	1.33	15	477,303	2.19		265,124	1.71	18	370,884	1.63	18
Liquors and beverages—Group total <sup>1</sup> .....	310,000	3.60	20	100,000	1.40							

<sup>1</sup> Computed as described in text from averages of corresponding percentages for 1919 and for given year.<sup>2</sup> Liquors and beverages are included only in 1914, and in order to make the figures comparable with those for 1919 the percentages and weights for 1914 have been made to equal more than 100 and 1,000, respectively.<sup>3</sup> Amount of internal revenue tax deducted.<sup>4</sup> One-half of value added for vehicles and shipbuilding assigned to iron and steel.<sup>5</sup> Not included in the total except for comparison with 1914, in which case the 1919 total equals 100.40.

## DESCRIPTION OF INDIVIDUAL SERIES

In most cases the designation of the products included in the index, as given in Table 26, is sufficient to explain their nature without further detailed description, and in general this section is limited to a discussion of small details and of special cases. Further information regarding the individual series may be obtained from the census reports and also from the description of the original Harvard census index in "The Review of Economic Statistics," Preliminary Vol. II, No. 11, November, 1920.

## GROUP I.—FOOD AND KINDRED PRODUCTS

The weight for this group is based upon value added by manufacture according to the old classification and does not include nonalcoholic beverages, which under the 1923 classification were assigned to this group. It includes, on the other hand, manufactured ice, not assigned to this group under the old classification.

*Butter, cheese, and condensed and evaporated milk.*—The figures used cover only factory production made by establishments engaged primarily in their manufacture. A small amount made by factories classified in other industries is excluded, as well as that produced at home or in small establishments.

*Slaughtering and meat packing.*—For this industry the figures for materials—dressed weight of animals slaughtered—were published in 1921 and 1923, as in prior censuses, and were included in the index. Meat, fresh and cured, includes beef, veal, mutton and lamb, pork, edible offal, and other fresh meat, pickled and other cured beef, smoked pork, and pork, not smoked, all of which are reported separately by the census. Lard and lard compounds, reported separately, are totaled to make this series. The figures for cattle hides in 1921 and 1923 include the weight of hides received as payment for custom slaughtering. Sheep and lamb skins are not included because their weight in pounds was not reported, and the series is not comparable throughout the period covered. Relatively important products of this industry not included in the index are canned meats, sausage, scrapple, etc., and by-products such as fertilizers and glue. Weights for the individual series are based upon value of product.

*Flour-mill and grain-mill products.*—Canvass of this industry in 1914, 1921, and 1923 covered only merchant mills and, in order to preserve comparability, data for custom mills in 1919 have been excluded from the figures used. Some custom business of merchant mills, however, is included in all years. The figures for 1921 and 1923 are probably not directly comparable with those for earlier years because of the exclusion of establishments with value of product of less than \$5,000. For the same reason, and because of the exclusion of custom mills, the census figures for wheat-flour production are somewhat smaller than those reported from trade sources. The figures for grain milled, which are totals for all types of grain, make one of the few series of materials consumed given by the census since 1919.

*The sugar industries.*—For beet sugar, figures are available for materials—tons of beets treated—as well as for products—granulated and raw sugar produced. Output of refined cane sugar has been reported by the census only since 1914. In the Harvard index, for the lack of better data, quantities were estimated from statistics of production and imports of raw sugar.

*Canning and preserving.*—The data for these industries include products of establishments engaged primarily in other industries. The figures for fruits, vegetables, fish, and oysters are totals of several varieties expressed in terms

of standard cases, which contain 24 cans. Cases of canned soup contain 48 cans. The figures for dried fruits in 1923 are not strictly comparable with those for earlier years because of some enlargement in the scope of the canvass for prunes and apricots. Data for canned soups and for fish and oysters were not included in the earlier Harvard index.

*Corn sirup and starch, Rice cleaning and polishing, and Ice manufacturing* were added to the new index by the use, respectively, of figures for the production of starch, of clean rice, and of manufactured ice. The industries are not very important but are worthy of inclusion under the standard adopted (value of product of over \$10,000,000) and in the case of the ice industry because of its increasing importance.

Important industries in this group for which quantitative statistics are not available over a period of years are bread and bakery products (collection of data was commenced in 1923), confectionery, ice cream (figures reported in 1923), and food preparations, not elsewhere classified. This last industry includes chiefly "breakfast-foods" or "cereal" preparations, and also lard compounds, macaroni, peanut butter, malted milk, and others. These industries are of such a nature that they are not adequately represented by the other industries in the group, and the lack of satisfactory quantity statistics for them is unfortunate.

#### GROUP II.—TEXTILES AND THEIR PRODUCTS

Weight was assigned to this group on the basis of value added by manufacture for all industries in the group and was distributed among those industries represented. Owing to the basic nature of the products included in the index, they are probably fairly representative of the more finished commodities not represented—mostly wearing apparel and dyeing and finishing textiles.

*Cotton manufactures.*—The weight for this industry includes cotton small wares and lace, as well as cotton goods. The principal products series, woven goods (over 12 inches in width), is a total of several types of cloth—sheetings, tire fabrics, print cloth, ginghams, twills, sateens, etc., shirtings, cotton flannel, and a number of others.

Statistics of yarns include only those manufactured for sale, as total production or consumption data are not published. Because of the lack of data for materials used, it is now impossible to measure the extent to which other materials than cotton are included in the goods produced by cotton mills.

*Hosiery and knit goods.*—Products are totaled irrespective of materials used. The underwear figures have been divided into two series—union suits and shirts and drawers—because if they are added together the decrease in recent years in the total number of shirts and drawers produced appears to more than offset the increase in the production of union suits, whereas actually one union suit should be considered as replacing one of each of the separate garments. The treatment of these products as separate series with weight based on relative values of total output, avoids this possible error.

*Silk.*—Broad silks are the most important products of this industry. Velvets, plushes, upholstery, and tapestry were totaled to form a single series. Other silk goods are largely thrown silk, organzine, tram, and crêpe twist, with spun silk and machine twist important additions. The extent to which raw materials and yarns other than silk have been used in recent years is not indicated in the census reports.

*Woolen and worsted goods.*—The classification of goods as all-wool woven goods, union or cotton-mixed woven goods, and cotton-warp woven goods, as used in the index, has not been clear cut in recent census reports. It was therefore necessary to classify certain minor products such as shawls and carriage cloths,

for which fibers were not reported, as like products of the same establishments were classified in 1919. Figures for yarns and tops refer only to those made for sale, and are totals of many different kinds.

*Oilcloth and floor coverings* are represented by figures in square yards for the production of linoleum and asphalted-felt-base piece goods and rugs and of various kinds of oilcloth. The figures had to be totaled because changes in classification of the products from one census to the other prohibited comparable separation.

Data for the other industries included—Carpets and rugs, Fur-felt hats, and Cordage and twine, jute goods, and linen goods—need no explanation. The figures are totals of several different kinds of products, individually small in magnitude, but collectively worthy of consideration.

### GROUP III.—IRON AND STEEL AND THEIR PRODUCTS

This group, with the largest weight of all the groups, is represented by only two series of figures, which, however, cover products that are basic for all the industries in the group. In computing the weights, in addition to value added by manufacture for the iron and steel group proper, which as classified in censuses prior to 1923 includes a number of machinery industries, one-half of the values added for vehicles for land transportation and for shipbuilding were assigned to iron and steel. This procedure, as explained in the discussion of weights, was followed in order to avoid giving undue weight to vehicles, which happen to be represented in the index, while the machinery industries, also large consumers of steel, remain unrepresented. With the readjustment of weights, iron and steel represents in the index steel works and rolling mills, industries making a number of miscellaneous iron and steel products, the machinery industries, and in part, the vehicles industries.

*Blast furnaces* are represented by figures including castings made direct from blast furnaces and ferro-alloys, as well as all types of pig iron. About three-fourths of the pig iron produced is consumed in works of the producing company; therefore this series can also be considered as a raw material for the steel industry.

*Steel works and rolling mills.*—Rolled, forged, and other classified iron and steel products include a variety of finished and semifinished products, made in rolling mills for sale or for consumption by the producing company. Some duplication undoubtedly results from such a grouping, as a portion of these products are used by the same company for further production, but the effect of this duplication upon comparisons between census years is slight. This series is assigned a weight for steel works and rolling mills and for industries manufacturing products largely made by steel works and rolling mills.

As in the case of textiles, quantitative statistics are not available for a number of important industries in the iron and steel groups—notably hardware, plumbers' supplies, heating apparatus, tools and cutlery, and also certain machinery industries, which prior to 1923 were classified by the census under iron and steel. These are foundry and machine shops—a heterogeneous collection of establishments, generally closely associated with companies producing a wide variety of products—engines and water wheels, machine tools, textile machinery, cash registers, pumps, and typewriters. In the 1923 census these industries were classified with agricultural implements, electrical apparatus, and others in a separate machinery group.

In recent censuses quantitative statistics have been published for engines and water wheels, machine tools, textile machinery, agricultural implements, and electrical apparatus. Certain characteristics of these data, however, disqualify them for use in the production index. In the first place, the units in which the figures are expressed are of questionable comparability between census years.

Important shifts may occur in the character of machines produced in 2, 4, or 5 years. In fact, within a year the demand for different types may change to such an extent that totals become noncomparable. In the second place, these industries have passed through some extreme variations of activity in the past decade, and it is impossible to determine whether any single industry or any group of industries may be considered as at all representative of the group as a whole. The figures, however, are worthy of investigation, are undoubtedly of value for certain purposes, and may in time become increasingly significant.

Experimental indexes were computed for these industries and are given for those who may be interested. The extent of their accuracy and representativeness can not be stated.<sup>1</sup>

TABLE 24.—INDEXES OF PRODUCTION OF MACHINERY: 1914 TO 1923

	1914	1919	1921	1923
Engines and water wheels.....	27	100	43	80
Machine tools.....		100	33	45
Textile machinery and parts.....		100	118	132
Agricultural implements.....	89	100	67	74
Electrical machinery, apparatus, and supplies.....	48	100	96	167

## GROUP IV.—LUMBER AND ALLIED PRODUCTS

*Lumber and timber products.*—The physical quantity of hardwoods and softwoods cut in each year since 1921 has been compiled by the Bureau of the Census in cooperation with the Forest Service, Department of Agriculture. The figures for 1919 include data from custom mills and from mills with an annual cut of less than 50,000 feet, whereas custom mills were not included in 1914, 1921, and 1923, and furthermore in 1923 figures for mills reporting less than 50,000 feet were omitted. The 1919 figures were adjusted for use in the index to make them comparable with those of other years. Statistics of quantity output of planing-mill products, such as flooring, sash, doors, interior woodwork, and moldings are needed. Of the other industries in this group, furniture is by far the most important, and for it physical quantity statistics are not only unavailable but would be difficult to obtain. Comparable statistics of wage earners and of horsepower indicate that the lumber and timber products industry alone is not representative of changes for the group as a whole. In view of this fact and of the possibility that the production statistics used are not entirely comparable from year to year, owing to differences in the types of canvass conducted, the index for lumber is not considered to be as satisfactory as those for the other groups. Weights for the two series used—softwoods and hardwoods—were computed on the basis of relative values of products.

## GROUP V.—LEATHER AND ITS FINISHED PRODUCTS

*Leather, tanned, curried, and finished.*—Statistics of the physical production of upper leather made from hides and skins of various animals, other than cattle, were first published in 1914 and have been added to other series representing this industry in the Harvard index—sole leather, harness leather, and upper leather from cattle hides. The importance of these additional types of leather is attested by the fact that their total value in 1919 exceeded that of sole leather and was double that of upper leather from cattle hides. Quantity statistics of leather production are now collected monthly in great detail by the Bureau of the Census. *Boot and shoe* production has also been reported monthly since late 1921, and the 1923 figures in the census of manufactures reports are the totals of these monthly

<sup>1</sup> For actual quantity figures, see Table 37, pp. 185 and 190.

canvasses. *Gloves and mittens*: These statistics were not reported in 1923, and for this reason and because their importance in the group was relatively slight the series was omitted for all the four years from 1914 to 1923.

As indicated by value added by manufacture, the industries from this group represented in the index make up a dominant proportion of the group total. The other industries not represented are of minor importance. The entire weight for the group, less that for boots and shoes, was assigned to the tanning industry.

#### GROUP VI.—PAPER AND PRINTING

*Paper and wood pulp*.—Pulp-wood consumption statistics have been compiled annually by the Bureau of the Census in cooperation with the Forest Service of the Department of Agriculture, and are published in the pamphlet "Pulp-Wood Consumption and Wood-Pulp Production." Wood-pulp production, given in the same pamphlet and also in the census of manufactures reports, represents total production, including that consumed in the producing mill. Paper production is shown in great detail by types according to use, and some of these are further divided into kinds according to process of manufacture. For use in index the totals for the most important types—newsprint, book paper (including cover paper), fine paper, wrapping paper, and paper board—have been separately included, while all others—chiefly building, tissue, bag, and hanging papers—have been grouped under the heading of "Miscellaneous."

*Printing and publishing*.—No adequate figures are available for measuring production in the important printing and publishing industries. Paper production may be considered as the closest indication of the output of newspapers and books and of activity in job printing and may be weighted accordingly, but paper consumption is more accurate, and, therefore, allowance has been made for imports and exports of paper, which in the case of newsprint have been of increasing importance. In 1914 imports of newsprint equaled less than 20 per cent of domestic production, whereas in 1923 the totals were 85 per cent of production. In other words, 46 per cent of estimated consumption of newsprint in the United States in 1923 was imported, as compared with 16 per cent in 1914. Obviously, figures showing only the production of newsprint in this country can not be said to indicate growth in newspaper printing. The production of book and fine paper, less net exports of printing paper other than newsprint, was used to represent periodical and book publishing and job printing. Unquestionably, such statistics are inexact, but they probably give more accurate results than could be obtained from the use of paper-production figures.

*Paper boxes*.—Paper-board production was considered as representative of the paper-box industry. Imports and exports of box board are negligible.

In assigning weights, wood pulp and paper was weighted in accordance with value added by manufacture for industries in the group not represented in the index, in addition to that for the wood-pulp and paper industry proper. Weights for the individual pulp and paper series were based upon value of output, while those for the two series representing printing were based upon the relative importance of the newspaper and the periodical and book and job printing industries.

#### GROUP VII.—LIQUORS AND BEVERAGES

Under prohibition laws these industries have become of decreasing importance, and in the 1923 census of manufactures this group was abolished and its industries were divided among the food and chemical groups. No figures for these industries were included in the new index for years subsequent to 1919 for several reasons, of which the first is their relative unimportance and the next is that physical production statistics of their products are not given in the census reports.

The data used in the Harvard index were secured from the Annual Reports of the Commissioner of Internal Revenue and represented output in fiscal years ending June 30. In earlier periods these data for every five years probably represented with reasonable accuracy trends in the industry, but since 1919, when production has been decreasing at an exceedingly rapid rate and when comparisons are made every two years instead of every five years, fiscal-year statistics are hardly indicative of trends in calendar-year production. Furthermore, the figures formerly used covered only alcoholic beverages, and since data are not available for nonalcoholic beverages, which have shown an increase in production during recent years, an index based only upon the figures available would not be representative of the group.

#### GROUP VIII.—CHEMICALS AND ALLIED PRODUCTS

Several series of considerable importance were added to the industries in this group, and a number of others were revised in the new computation of the index.

*Chemicals and acids.*—This industry is a combination of two industries—Sulphuric, nitric, and mixed acids and Chemicals, not elsewhere classified—and is weighted accordingly. The statistics for this industry have been enlarged somewhat in recent years, and whereas the Harvard index was made up only of data for sulphuric acid, soda ash, and glycerin, the revised index includes, in addition, statistics showing the production of ammonium sulphate, acetylene, oxygen, pyroxylin plastics, and others of less importance. A representative index for this industry should be particularly serviceable, as monthly and annual statistics indicating the production of chemicals and acids are scarce. The figures used include products made in establishments classified in other industries. The value of the products included in this index equals about one-third of the value of all chemical products reported in the 1923 census. Weights are based upon values of products.

The Coke industry is represented by figures for coal consumed and coke produced. Gas, illuminating and heating is also represented by data for materials consumed—coal and oil, benzol, and benzine—as well as by gas produced for sale.

*Fertilizers and Explosives* are shown only in the form of products, as data for materials are not available in later censuses. In *Cottonseed oil and cake* the figures for hulls and linters have been omitted as too insignificant to be assigned weights. Crude oil and cake and meal are considered sufficiently representative.

*Paint and varnish.*—The data for this industry, which are given by the census in detail, are grouped into totals for index purposes. All colors or pigments produced and sold are combined into a total. The paints in oil, in paste form, include white and red lead and zinc oxide and are shown in pounds, while those mixed for use are given in gallons. Varnishes, japans, and lacquers are almost equally divided into oleoresinous varnishes and all other.

*Petroleum-refining* products have been reclassified since the census of 1909 in order to separate gasoline from other products, and in this respect the figures used differ from those employed in the Harvard index. In addition to the output of the important refinery products, statistics are also included showing production and refinery consumption of crude petroleum. These figures were not collected by the census in 1921, but were procured from Geological Survey reports.

*Salt and Soap* industries were added to those included in the Harvard index for this group. The latter is a rather important industry, and the production of hard soap, which is the series used in the index, in 1923 accounted for nearly two-thirds of the value of all products of the industry.

The industries in this group are rather heterogeneous in nature, and although those represented in the index accounted in 1923 for over three-fourths of the value added by manufacture for the entire group, it is hardly correct to say that



they are representative of the others in respect to changes in production. Some of the more important industries for which no physical production data are available are Patent medicines, Perfumery and toilet preparations, and Druggists' preparations—all producing commodities which are destined for personal consumption rather than for use in further production.

#### GROUP IX.—STONE, CLAY, AND GLASS PRODUCTS

*Brick and tile, terra-cotta, and fire-clay products* include a large number of products, for many of which production statistics have been collected annually in recent years by the Geological Survey. The series selected for the index are, however, only the most important and include figures for face brick in addition to those for common brick and fire brick used in the Harvard index. *Glass*: Statistics showing the amount of bottles and jars and of pressed and blown glass produced have not been published in census reports since 1919, and therefore these series, which were used in the Harvard index, were necessarily omitted. Data for window and plate glass, however, have been continued. Production of *Cement*, including a number of minor by-products, and of *Lime* have been added to the series for this group of industries. The lime statistics are totals of the output of quicklime and hydrated lime. The tonnage of the latter equals about one-half that of quicklime. Marble, slate, and stone work, Artificial stone products, and Pottery are the important industries in this group not represented in the index. The value of the production of various articles of pottery are given, but no statistics expressed in physical units are available. In value added by manufacture, the industries included in the index comprised in 1923 over 60 per cent of the group total.

#### GROUP X.—METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL

*Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper* is the name applied to an important industry, or group of establishments, manufacturing a wide variety of products, largely from copper or copper alloys. The production of semifinished products is reported in pounds with a cross classification according to (1) raw material—brass, bronze, copper, and other metals and alloys—and (2) form—ingots, bars, plates, sheets, rods, tubing, wire, and castings. Brass plates and sheets, as indicated by total weight, were the most important products, with copper wire, copper rods, brass castings, and brass rods next in order. The figure used in the index is the total production in pounds of all these semifinished products. These figures have been available only since 1914 and were therefore not included in the old index. The output of products more nearly finished is reported only in value terms.

In computing indexes for the other industries in this group the procedure followed in the Harvard index was somewhat changed. In the earlier index estimates of the consumption of important nonferrous metals were used as indicating the productivity of the entire group, whereas in the new index, the group is represented by the industry mentioned in the preceding paragraph, by the smelting and refining industries, and finally by certain consumption estimates. For *smelting and refining* the following statistics were used: The refinery production of new copper in the United States from both domestic and foreign ores, total production of refined primary lead from domestic ores and from foreign ores and base bullion, smelter production of primary zinc from foreign and domestic ores, refinery production of gold and silver from United States mines. The figures for copper, lead, and zinc were compiled by the Geological Survey and those for gold and silver by the Director of the Mint.

Consumption statistics for these minerals have been estimated by the same authorities. The copper figures represent the amount of both new and old copper withdrawn on domestic account from the total supply. No account was taken of consumers' stocks. The lead data indicate apparent consumption of refined primary lead, disregarding both refinery and consumers' stocks; i. e., taking into account only those stocks in bonded warehouses. In the case of zinc, stocks at smelters were considered in estimating annual consumption. The figures, however, cover only primary slab zinc. For gold and silver consumption figures show the amounts issued for use in the industrial arts as reported by the Director of the Mint.

The extent to which these figures actually represent production of this group of industries can not be determined. Variations of the actual production from that indicated by the computed figures may be caused by any of a number of factors, such as differences in the uncounted stocks of metals, changes in the use of these materials by industries in other groups, and likewise variations in the consumption of other materials by industries in this group. Important industries of this group not directly represented in the index are Copper, tin, and sheet-iron work; Jewelry; Stamped and enameled ware, not elsewhere classified; Aluminum manufactures; and Gas and electric fixtures.

The weight for this group was distributed among its components on the following basis: Weights for the two industries directly represented—brass, bronze, etc., and smelting and refining—were based upon value added by manufacture as, respectively, reported for these two industries; and the value added for the other industries in the group was distributed among the series measuring the consumption of the various metals in accordance with their relative values.

#### GROUP XI.—TOBACCO MANUFACTURES

On the basis of products for which production statistics are available, this is the most adequately represented of all groups of industries, as practically every product of the industry is covered. The figures are taken from "the annual abstract of tobacco manufacturers' accounts prepared by the collector of internal revenue at the close of each calendar year." Tobacco and snuff include plug, twist, fine cut, and smoking tobacco, and snuff. The statistics for cigarettes weighing more than 3 pounds per 1,000 and for cigars weighing less than 3 pounds per 1,000 were excluded from the index as being too small to be significant. In weighting this group the large portion of the value added by manufacture, which is made up of revenue taxes, was excluded. This amounted to about \$310,000,000 out of a total of nearly \$530,000,000 in 1923.

#### GROUP XII.—VEHICLES FOR LAND TRANSPORTATION

Assignment of weights to the various industries in this group was explained above under Iron and steel.

*Motor vehicles.*—Automobile production is now reported by the Bureau of the Census in detail by classes and types. The industry included, according to the 1923 census of manufactures, "all manufacturing establishments whose principal products are four-wheeled, motor-propelled (internal-combustion, electric, or steam) steerable vehicles." The production figures used include products made in establishments engaged in other industries. Owing to the rapid increase in the proportion of closed cars to the total number produced, and the essential difference between open and closed cars, the production figures for this industry have been divided into three series—(1) open passenger cars, (2) closed passenger cars, and (3) all others, including public conveyances, business vehicles, government vehicles, chassis, tractors, and trailers. The last series is a heterogeneous assortment, but it is relatively unimportant as compared with the other groups, and further separation would have no significant effect upon the industry

index. The three series were weighted in accordance with the relative values of their products. The index as thus computed was 25 in 1914 and 232 in 1923, whereas a comparison of unweighted totals for all types of vehicles gave relatives of 30 in 1914 and 206 in 1923. The weight for this industry as a whole was based upon the combined value added by manufacture for the Motor-vehicles and Motor-vehicle bodies and parts industries, reduced as explained above under Iron and steel.

*Carriages, wagons, and repairs* are represented by figures comprising completed carriages, wagons, buggies, public conveyances, sleighs, and sleds produced in establishments devoted primarily to the manufacture of such horse-drawn vehicles. The total does not include automobiles manufactured by the same establishments.

*Railway equipment.*—Products of several industries have been included in this category. Passenger-car production represents the total number of both steam and electric railroad cars produced by establishments engaged primarily in the manufacture of railroad cars, by railroad repair shops, and by other establishments. Freight cars are those made by all reporting industries for steam railroads. The number of electric freight cars produced is relatively negligible. *Locomotives* were not included in the Harvard index, as figures have been given in census reports only since 1919. The data include steam locomotives made by establishments engaged primarily in their production, by railroad repair shops, and by establishments in other industries. The figure used for 1914 represents locomotives built in American and Canadian plants and in railroad repair shops as reported by *The Railway Age*. A comparison of the corresponding figure for 1919 with the census figure indicates that the former is too small rather than too large, despite the inclusion of Canadian output. The figures are not exactly comparable, but the difference is not appreciable. This industry prior to 1923 was classified in the Iron and steel group, but for the purposes of the index it was considered better suited for this group.

From the standpoint of the proportion of its industries included in the index, this industrial group is exceptionally well represented. Motor cycles and bicycles, Aircraft and parts, and a few other relatively unimportant industries are omitted. Motor-vehicle bodies and parts are not directly included but are represented with a reasonable degree of adequacy by automobile production. The chief defect of the figures for the industries in this group is the noncomparability of units—both those which in a single year are combined into totals and those which from one census year to the next bear the same name but are really different. The automobiles of 1914 were different from those of 1923 to an extent not entirely indicated by the change from open to closed cars, and perhaps to a smaller degree the same is true of railroad cars and of locomotives. The index is, therefore, only an indication of what has taken place, but is probably a more nearly correct indication than can be obtained from any other series of available statistics.

#### GROUP XIII.—RAILROAD REPAIR SHOPS

New products manufactured by railroad repair shops have been included in the figures for Group XII, but the largest proportion of the output of this industry, consisting of repairs, is essentially unmeasurable on a physical basis and therefore is not included in the index.

#### GROUP XIV.—MISCELLANEOUS

No figures were used in the Harvard index from the industries in this group, in part because they were not then available, in part because the industries were not especially important, and perhaps to some extent because the statistics available were unsatisfactory. Within the past decade, however, the two industries shown in the new index—Shipbuilding and Rubber products—have become of great importance, and in some instances the reporting of serviceable quantitative statistics has been started. Most of these statistics are in certain

respects unsatisfactory for index-number purposes because of the difficulty of defining units, but, as was the case with the transportation industries, the indexes give an approximate indication of what has occurred and for that reason should be of value.

*Ship and boat building.*—As was stated earlier in this chapter (p. 95) any comparison of the volume of manufacturing which includes 1919 would not be accurate, unless consideration were given to shipbuilding, in view of its unusual activity in that year. The statistics employed in measuring production in the Shipbuilding industry show total gross tonnage of all vessels of 5 gross tons and over completed during the year. Two sets of figures are given—one for steel vessels and the other for wooden vessels. They cover only the production of private establishments engaged primarily in shipbuilding. Production by other private establishments engaged in other lines and by Government shipyards have not been given regularly in census reports. For those years in which reported, they were unimportant relative to the figures used. Distribution of the weights for the industry between the two series was based upon value of output. Assignment of the total weight to this industry was explained above under Iron and steel.

*Rubber products,* in the new classification of industries instituted by the Bureau of the Census in 1923, were given the dignity of a separate main group, made up of three industries—Rubber boots and shoes, Rubber tires and inner tubes, and Rubber goods, not elsewhere classified. Until 1921 the last two industries were combined in the census reports. Physical production statistics are available for two of these industries. In *Tires and tubes* the figures used represent production of pneumatic tires and inner tubes for use on automobiles. Motor-cycle and bicycle pneumatic tires and solid tires were omitted as of negligible importance. The figures for the *Rubber boots and shoes* industry since 1919 include, in addition to boots and shoes, data for rubber heels made for sale and for canvas shoes with rubber soles. These two products have been of increasing importance in the past decade. Value figures are given in the census reports for a number of other rubber products, but no other data of great importance are reported in terms of physical units. The products included in the index, however, comprised three-fourths of the total value of rubber products manufactured in 1923.

The only other industries of importance in this group are Agricultural implements, Textile machinery and parts, and Musical instruments. The first two were assigned in the 1923 census reports to the Machinery group of industries and are discussed above under Iron and steel. Musical instruments were given in the 1923 reports as a separate group. Quantitative production figures are reported for a number of instruments and other products and an index was computed for this group but because of the doubtful comparability of the figures over a period of years and the relatively slight importance of the group, it was not included in the index for all industries. The results, which are based upon products with a value equaling about 70 per cent of the aggregate value for all products in the group, are as follows:

TABLE 25.—INDEXES OF PRODUCTION OF MUSICAL INSTRUMENTS: 1914 TO 1923<sup>1</sup>

	1914	1919	1921	1923
Total.....	48	100	52	73
Pianos.....	96	100	65	102
Phonographs and records.....	24	100	45	60

<sup>1</sup> Quantity figures are given in Table 37, p. 189.

TABLE 26.—DATA USED IN THE INDEX, WEIGHTS, RELATIVES, AND INDUSTRY AND GROUP INDEXES, BY CENSUS YEARS: 1914 TO 1925<sup>1</sup>

GROUP AND INDUSTRY	Unit	QUANTITY OF PRODUCTS					WEIGHTS					INDEXES AND RELATIVES [1919=100]				
		1914	1919	1921	1923	1925	1914	1921	1923	1925	1914	1921	1923	1925	1914	1925
							1,020	1,000	1,000	1,000	79.3	79.4	122.0	128.5		
All industries.....							117	118	108	110	80.8	93.5	111.6	116.4		
Food and kindred products.....																
Butter, cheese, and condensed and evaporated milk.....																
Butter.....	Mill. lbs.	709.8	920.6	1,118.2	1,303.5	1,443.9	11	17	13	14	67.8	104.9	122.4	131.6		
Cheese.....	Mill. lbs.	370.3	473.6	423.4	563.6	554.3	6	10	8	9	83.6	121.5	141.6	156.8		
Condensed and evaporated milk.....	Mill. lbs.	873.4	2,150.2	1,735.5	1,821.1	1,808.0	3	4	3	3	78.2	89.4	119.0	117.0		
Slaughtering and meat packing.....																
Meats.....																
Beef, dressed weight.....	Mill. lbs.	3,788.4	5,118.7	4,338.0	5,151.4	5,434.4	6	6	6	6	74.0	83.1	100.6	106.2		
Calves, dressed weight.....	Mill. lbs.	206.3	457.5	438.0	535.7	623.6	1	1	1	1	45.1	95.7	117.1	136.3		
Sheep and lambs, dressed weight.....	Mill. lbs.	5,476.2	7,393.9	6,873.3	9,439.1	7,854.7	10	10	10	10	126.0	113.7	103.1	106.4		
Hogs, dressed weight.....	Mill. lbs.	9,680.2	12,634.0	10,876.0	13,663.2	12,910.8	21	18	16	16	76.5	86.9	107.7	102.2		
Meat, fresh and cured.....	Mill. lbs.	1,575.6	1,894.0	1,632.4	2,419.7	2,123.2	3	3	3	3	80.0	103.1	127.8	112.1		
Lard and lard compounds.....	Mill. lbs.	434.5	627.5	524.1	636.5	677.5	1	1	1	1	69.2	83.5	99.8	108.0		
Hides and skins, cattle and calf.....	Mill. lbs.															
Flour-mill and grain-mill products.....																
Material.....																
Grain, ground or milled.....	Mill. bushels	818.9	830.0	713.6	743.2	708.0	25	20	18	13	95.4	86.9	91.1	87.6		
Product.....																
Wheat flour.....	Mill. bushels	116.4	132.5	110.8	114.4	114.2	7	6	4	4	98.7	86.0	89.5	85.3		
Corn meal and corn flour.....	Mill. bushels	18.3	20.7	19.9	12.2	9.0	12	10	10	10	87.8	83.6	86.3	86.2		
Bran, middlings, feed, and offal.....	Thous. tons.	9,419.8	9,327.1	8,966.9	9,663.4	9,083.0	1	1	1	1	182.3	101.9	114.0	84.1		
Sugar, beet.....																
Material.....																
Beets.....	Thous. short tons.	5,639.1	5,648.6	7,872.8	5,768.1	7,422.8	5	5	5	5	101.7	141.4	102.7	142.3		
Product.....																
Beet sugar.....	Thous. short tons.	743.5	721.9	1,029.9	754.5	1,082.8	2	2	2	2	99.8	139.4	102.4	131.4		
Sugar refining, cane.....																
Refined sugar.....	Thous. short tons.	3,333.1	3,521.5	3,770.2	4,429.1	5,411.7	3	3	3	3	103.0	142.7	104.5	150.0		

<sup>1</sup> For sources and other details of quantity figures given in this table, see section on "Description of Individual Series," Appendix A. For quantity figures for earlier years, see Table 37. Indexes for earlier years by groups and for certain important industries are given in Table 38.

TABLE 26.—DATA USED IN THE INDEX, WEIGHTS, RELATIVES, AND INDUSTRY AND GROUP INDEXES, BY CENSUS YEARS: 1914 TO 1925—

Continued

GROUP AND INDUSTRY	Unit	QUANTITY OF PRODUCTS					WEIGHTS					INDEXES AND RELATIVES [1919=100]				
		1914	1919	1921	1923	1925	1914	1921	1923	1925		1914	1921	1923	1925	
Food and kindred products—Continued.																
Canning and preserving, fruits and vegetables, etc.																
Canned vegetables	Mill. cases	50.3	58.1	38.2	75.8	94.7	11	12	12	19		77.3	69.6	186.7	153.5	
Canned fruits	Mill. cases	8.4	21.4	12.5	20.3	25.4	2	3	3	3		86.6	65.7	130.5	163.3	
Dried fruits	Mill. lbs.	563.6	615.4	504.9	791.8	1,054.1	2	2	2	2		43.9	58.4	94.9	118.7	
Canned soups	Mill. cases	4.9	5.8	6.9	14.2	10.0	1	1	1	1		92.4	82.0	128.7	171.3	
Canned fish, oysters, etc.	Mill. cases	8.8	10.3	4.9	7.4	9.8	3	2	2	2		84.5	119.0	244.8	172.4	
Corn sirup, corn oil, and starch	Mill. lbs.	620.8	783.5	894.1	833.4	874.3	4	6	5	5		85.4	47.6	71.8	95.1	
Rice cleaning and polishing:	Mill. lbs.	674.9	1,062.8	1,154.2	1,171.6	947.8	1	1	1	1		63.5	108.6	110.2	89.2	
Clean rice	Mill. tons	21.04	27.95	31.38	35.84	40.46	9	10	9	9		75.3	112.3	128.2	143.7	
Ice, manufactured							175	190	189	170		96.8	96.8	122.9	119.3	
Textiles and their products																
Cotton goods																
Woven goods (over 12 inches in width)	Mill. sq. yds.	6,813.5	6,317.4	6,703.8	8,264.2	7,775.7	70	76	74	70		101.6	92.6	122.8	117.9	
Yarns manufactured for sale	Mill. lbs.	498.0	618.0	484.2	620.7	626.4	54	57	55	51		107.9	106.1	130.8	123.1	
Thread	Mill. lbs.	26.5	26.4	23.3	31.6	37.6	14	17	17	17		80.6	78.3	100.4	101.4	
Knit goods							2	2	2	2		100.2	88.0	119.7	142.4	
Hosiery							27	30	28	28		92.9	94.0	115.2	112.5	
Underwear	Thous. doz. prs.	75,165	84,046	80,241	97,433	103,707	12	16	15	15		88.8	94.8	115.1	122.5	
Shirts and drawers	Thous. doz.	21,739	17,130	11,712	12,747	11,262	6	4	4	4		123.6	68.2	74.2	65.6	
Union suits	Thous. doz.	6,273	9,211	9,284	10,746	11,500	5	5	5	4		68.1	100.8	116.7	124.9	
Gloves and mittens	Thous. doz. prs.	2,470	3,571	2,685	2,094	1,301	1	1	1	1		69.2	75.2	83.6	36.4	
Sweaters, jerseys, hoods, scarfs, shawls, etc.	Thous. doz.	3,300	2,989	3,618	6,278	5,011	3	4	4	4		110.4	121.1	210.1	167.6	
Silk manufactures																
Broad silks	Mill. linear yds.	216.03	310.13	273.59	357.03	472.62	27	28	25	25		73.2	92.6	116.9	137.0	
Velvets, plushes, upholstery, and tapes	Mill. linear yds.	25.91	22.33	18.03	24.38	9.08	20	21	19	19		69.7	88.2	115.1	152.4	
Other silk goods	Thous. lbs.	7,240	10,833	13,056	13,671	15,976	3	2	2	2		115.0	80.0	117.1	43.0	
							4	4	4	4		66.7	120.3	126.0	147.2	

## 119

Woolen and worsted goods.	Mlll. sq. yds.	\$23.04		398.66	345.96	36	52	104.5	92.6	728.2	115.9
All-wool woven goods.	Mlll. sq. yds.	47.4		24.9	52.9	20	18	98.9	100.0	122.2	105.9
Union or cotton-mixed woven goods.	Mlll. sq. yds.	46.2		142.2	180.9	2	2	96.8	52.1	99.3	110.7
Cotton-warp woven goods.	Mlll. sq. yds.	196.2		161.5	181.5	4	4	93.5	88.1	112.4	112.1
Yarns and tops.	Mlll. lbs.	141.5		136.0	169.5	9	3	110.4	106.1	156.4	131.9
Carpets and rugs, wool, other than rag:											
Carpets and rugs.....	Mlll. sq. yds.	66.54	52.17	52.91	83.24	6	7	127.2	101.4	158.6	138.2
Cordage and twine, jute goods and linen goods											
Rope and binder twine, exclusive of cot-											
ton rope.....	Mlll. lbs.	487.4	443.2	353.3	432.9	3	2	110.0	80.8	97.7	100.0
Twine, other than binder.....	Mlll. lbs.	105.2	92.4	80.4	120.1	1	1	114.0	87.0	130.0	90.2
Hats, fur-felt.....	Thous. doz.	2, 119	2, 100	1, 756	1, 970	4	3	100.9	83.6	93.8	82.5
Olecloth and floor coverings: Peece goods, rugs, etc.	Mlll. sq. yds.	119.5	108.9	135.8	205.2	3	3	108.7	123.5	186.7	192.6
Iron and steel and their products											
Black furnaces:											
Pig iron, including ferro-alloys .....	Thous. long tons.	23, 270	30, 543	16, 618	40, 163	24	24	76.2	54.4	131.5	120.1
Steel works and rolling mills: Rolled, forged, and other classified iron and steel products.....	Thous. long tons.	25, 523	36, 212	20, 572	47, 513	210	230	70.5	56.8	131.2	132.8
Lumber and its remanufactures											
Lumber: Softwoods..... Hardwoods.....	Mlll. M ft. b. m. Mlll. M ft. b. m.	20.41 7.94	26.80 6.98	22.19 4.78	30.90 6.26	65 15	67 15	103.7 113.7	82.8 89.6	115.3 94.8	118.3
Leather and its finished products											
Sole leather, Harness leather..... Upper leather (other than patent)— Skins, total..... Catlle sides.....	Thous. sides Thous. sides Thous. skins Thous. sides	18, 098 2, 944 66, 269 8, 288	19, 716 1, 721 78, 443 16, 683	15, 063 811 66, 960 12, 596	18, 993 1, 555 88, 147 18, 571	17 8 1 6	17 4 1 2	86.0 91.8 171.1 84.5	85.0 91.6 47.1 85.4	102.7 96.3 90.4 112.4	84.5 74.8 92.1 91.9
Boots and shoes, leather: Boots, shoes, and slippers.....	Mlll. prs	292.7	331.2	286.8	351.1	25	25	88.4	86.6	106.0	97.7

TABLE 26.—DATA USED IN THE INDEX, WEIGHTS, RELATIVES, AND INDUSTRY AND GROUP INDEXES, BY CENSUS YEARS: 1914 TO 1925—

Continued

GROUP AND INDUSTRY	Unit	QUANTITY OF PRODUCTS					WEIGHTS					INDEXES AND RELATIVES [1919=100]				
		1914	1919	1921	1923	1925	1914	1921	1923	1925	1914	1921	1923	1925		
Paper and printing.																
Paper and wood pulp.																
Material—																
Pulpwood.	Thous. cords.	4,470	5,478	4,557	5,872	6,094	25	25	25	25	86.4	85.2	124.3	141.2		
Products—																
News paper, in rolls and sheets.	Thous. short tons.	1,313	1,324	1,237	1,521	1,563	2	2	2	2	81.6	83.2	107.2	111.2		
Book paper.	Thous. short tons.	904	951	792	1,243	1,243	4	4	4	4	99.2	93.4	114.9	118.1		
Fine paper.	Thous. short tons.	248	325	231	1,208	1,243	4	4	4	4	76.3	83.3	127.0	141.2		
Wrapping paper.	Thous. short tons.	832	831	704	1,027	1,027	3	3	3	3	76.3	71.1	116.0	145.8		
Books.	Thous. short tons.	1,291	1,867	1,740	2,793	3,287	4	4	4	4	106.1	84.7	123.6	155.5		
Miscellaneous papers.	Thous. short tons.	632	801	727	1,103	1,103	3	3	3	3	69.1	93.2	149.6	176.1		
Wood pulp, total production.	Thous. short tons.	2,833	3,518	2,876	3,759	3,962	2	2	2	2	82.3	81.8	107.7	112.7		
Printing and publishing.																
Newsprint consumed.	Thous. short tons.	1,567	1,842	2,018	2,814	2,984	62	65	60	60	89.7	96.7	141.8	156.5		
Other printing paper consumed.	Thous. short tons.	1,140	1,201	1,004	1,580	1,817	32	35	30	30	85.0	109.6	152.8	162.0		
Paper boxes.	Thous. short tons.	1,201	1,867	1,740	2,793	3,287	30	30	30	30	94.9	83.6	131.6	151.0		
Box board produced.	Thous. short tons.	1,291	1,867	1,740	2,793	3,287	20				93.2	149.6	176.1			
Liquors and beverages.																
Liquors, distilled:																
Distilled spirits, plus alcohol produced industrially.	Thous. gals.	181.9	100.8				2				232.2					
Liquors, malt:																
Fermented liquors.	Thous. bbls.	66.2	27.7				18				180.5					
Chemicals and allied products.																
Chemicals and acids.																
Acetylene.	Mill. cu. ft.	121.7	311.4	290.8	522.3	525.7	16	18	18	19	82.6	84.1	112.5	136.1		
Ammonium sulphate.	Mill. lbs.	179.6	590.4	536.0	894.4	1,017.0	1	1	1	1	39.1	93.4	167.7	168.8		
Anhydrous ammonia.	Mill. lbs.	16.7	27.5	27.6	23.5	31.7	1	1	1	1	30.4	90.8	151.5	172.3		
Carbonic acid.	Mill. lbs.	50.4	59.8	54.6	51.1	59.7	1	1	1	1	30.7	100.4	85.5	115.3		
Cautic soda.	Thous. short tons.	231.5	312.7	238.0	436.6	497.3	2	2	2	2	84.3	91.3	85.5	99.8		
Glycerin, refined.	Thous. short tons.	60.9	69.5	68.8	76.0	97.3	2	2	2	2	53.2	76.1	139.6	159.0		
Oxygen.	Mill. cu. ft.	104.7	1,173.4	1,053.8	2,057.5	2,073.8	1	1	1	1	8.9	90.3	109.4	140.0		
Pyroxilin plastics.	Mill. lbs.	955.3	1,033.5	956.6	2,777.7	17.9	1	1	1	1	90.5	60.1	69.1	44.6		
Soda ash.	Thous. short tons.	4,071.6	5,522.6	4,369.9	1,705.0	1,907.8	2	2	2	2	73.3	92.8	165.3	184.6		
Sulphuric acid (basis 500).	Thous. short tons.				6,555.5	7,012.3	5	5	5	5		78.7	118.1	126.3		



[illegible]

TABLE 26.—DATA USED IN THE INDEX, WEIGHTS, RELATIVES, AND INDUSTRY AND GROUP INDEXES, BY CENSUS YEARS: 1914 TO 1925—  
Continued

GROUP AND INDUSTRY	Unit	QUANTITY OF PRODUCTS					WEIGHTS				INDEXES AND RELATIVES [1919=100]			
		1914	1919	1921	1923	1925	1914	1921	1923	1925	1914	1921	1923	1925
Stone, clay, and glass products							40	36	36	38	112.5	93.3	155.6	179.1
Brick and tile, terra-cotta, and fire-clay products														
Common brick	Mill. brick	7,146	4,752	4,448	7,282	7,562	15	13	13	14	122.6	88.1	164.8	167.8
Fire brick	Mill. brick	817	963	621	1,134	999	9	8	8	8	150.4	93.6	133.2	150.1
Face brick	Mill. brick	810	791	873	1,931	2,475	4	3	3	3	84.5	64.5	117.8	163.7
Glass							2	2	2	2	102.4	110.4	244.1	312.9
Window glass	Mill. sq. ft.	401.0	303.9	260.0	510.2	507.2	14	12	12	12	107.6	83.5	151.7	173.8
Plate glass, polished	Mill. sq. ft.	60.4	56.8	56.2	94.5	117.4	7	6	6	6	108.7	70.5	133.3	153.8
Cement	Mill. bbls.	89.0	81.3	99.4	138.8	163.4	7	6	6	6	105.3	98.9	166.4	206.7
Lime							9	10	10	11	109.5	122.3	170.7	201.0
Quicklime and hydrated lime, total	Thous. tons.	3,381	3,071	2,891	3,766	4,062	2	1	1	1	110.1	77.9	122.6	182.3
Metals and metal products, other than iron and steel							41	38	40	38	64.9	86.5	135.7	129.8
Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper														
Semifinished products	Mill. lbs.	449.4	1,434.3	782.9	1,937.6	1,772.9	10	10	10	10	31.3	54.6	135.1	123.6
Smelting and refining														
Copper, primary	Thous. short tons	768.9	885.1	473.4	989.9	1,102.3	10	8	10	10	98.0	61.6	118.1	121.1
Lead, primary	Thous. short tons	542.1	482.2	448.6	618.3	767.0	4	3	4	4	86.6	53.7	111.8	124.5
Zinc, primary	Thous. short tons	383.0	465.7	200.5	510.4	572.9	2	1	2	2	112.4	93.0	128.2	159.1
Gold production in United States	Thous. fine ozs.	4,573	2,919	2,422	2,503	2,412	2	2	2	2	75.8	43.1	109.6	123.0
Silver production in United States	Mill. fine ozs.	72.46	56.68	53.05	73.34	66.16	1	1	1	1	156.7	83.0	85.7	82.6
Other industries							21	20	20	18	127.8	93.6	129.4	116.7
Consumption of—														
Copper (new and old)	Thous. short tons	479.0	744.5	523.0	1,061.0	1,120.5	8	8	8	8	75.7	75.7	185.4	186.5
Lead	Thous. short tons	462.5	434.1	444.9	573.5	655.7	8	8	8	8	64.3	70.2	142.5	150.5
Zinc	Thous. short tons	324.0	324.0	203.6	446.5	500.1	3	3	3	3	104.2	102.5	132.1	151.0
	Thous. fine ozs.	9,792	3,652	2,432	3,352	3,191	4	4	4	4	92.6	67.1	91.8	87.4



## APPENDIX B

### GENERAL TABLES

*Data.*—Actual figures upon which this study was based are given in detail in the following general tables. The first two tables (27 and 28) show the number of wage earners employed and the amount of primary horsepower installed for certain major groups and important subgroups of industries. Tables 29, 30, and 31, respectively, give data for wage earners, horsepower, and value added by manufacture for a number of selected industries, arranged by industrial groups. Number of wage earners and primary horsepower from 1899 to 1923 and total value of products from 1869 to 1923 for all industries, arranged in alphabetical order, are given in Tables 32, 33, and 34. In Tables 35 and 36 the wage earners and horsepower data are shown for the various States and geographic divisions. Table 37 provides data on physical quantity of production of all products for which such information has been given in the census reports, and Table 38 gives the index of production for the more important industries and groups from 1899 to 1923.

*Changes in data.*—Comparability between figures has not been maintained throughout the entire period for all industries. There have been changes in definition, designation, and classification; new industries have grown up, old ones have become of negligible importance; and the grouping of industries has changed from time to time. These changes as they refer to individual industries are indicated in the tables by means of footnotes.

In computing the percentages attempts have been made, wherever these shifts were important, to compare only homogeneous sets of data in adjoining census years, and the percentages for the entire 24-year period in such cases are derived indirectly by linking together the percentages for the separate intercensal periods.

There have been several important changes of a general nature which affect all tables. These are as follows:

1. For the census years 1899 to 1919, inclusive, factories having products valued at \$500 or more were included, but the statistics for 1921 and for 1923 relate only to establishments having products valued at \$5,000 or more. In the tables, two sets of data are given for 1919, one comparable with the earlier years and the other with the later years.

2. The horsepower figures for the census years prior to 1919 include data for rented power other than electric, whereas the statistics for

1923 do not include such data. Data for primary horsepower were not collected in 1921.

3. The statistics for 1921 and 1923 do not include data for establishments engaged in automobile repairing, and although these data were collected in 1919 and were included in the figures as given in the right-hand column for that year, they were not included in those given in the left-hand column.

4. Owing to the lack of comparability between figures for the censuses since 1919 and those for earlier censuses, the percentages of change for the period 1899-1923 were not computed directly but are combinations of two sets of percentages computed from comparable data, one set covering the period from 1899 to 1919, the other the period from 1919 to 1923.

5. The grouping of industries is that followed in the census reports prior to 1923. The data for 1923 were regrouped, as nearly as possible, on the basis of the earlier classification. This was necessary in order to preserve comparability, as it was not feasible to regroup data for all the earlier years on the basis of the new classification. See Chapter IV.

TABLE 27.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN INDUSTRIAL GROUPS, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

[Because of the omission of certain minor industries and the transfer of a few others from one group to another, some of the group totals and some of the items given in this table differ somewhat from the corresponding totals and items as they appear in the census reports. As to the comparability of 1921 and 1923 figures with those of previous years, see general remarks preceding the tables, par. 4, p. 123.]

GROUP	AVERAGE NUMBER OF WAGE EARNERS							PER CENT OF INCREASE OR DECREASE (-)								
	Including data for establishments with products valued at \$500 or more							24-year period, 1899-1923	Inter-censal period							
	1923	1921	1919	1919	1914	1909	1904		1899	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909	1899-1904	
Food and kindred products.....	625,524	568,734	681,031	684,672	496,234	411,575	354,046	301,868	108.2	-8.2	10.0	-16.5	38.0	21.6	16.2	17.3
Animal products.....	183,410	164,622	217,039	217,268	137,884	119,383	100,768	90,392	90.5	-15.5	11.4	-24.2	57.6	15.5	18.5	4.5
Vegetable products.....	442,114	404,112	463,992	467,404	358,350	292,190	253,278	205,470	116.8	-4.7	9.4	-12.9	30.4	22.6	15.4	23.3
Textiles and their products.....	1,716,646	1,510,876	1,608,131	1,611,309	1,507,374	1,445,720	1,163,497	1,028,706	67.1	6.7	13.6	-6.0	6.9	4.3	24.3	13.1
Textile fabrics and materials.....	1,164,638	993,557	1,051,984	1,052,327	950,880	909,507	764,757	683,772	70.4	10.7	17.2	-5.6	10.7	4.5	18.9	11.8
Articles from textile fabrics for personal wear.....	499,413	473,574	505,293	507,700	510,595	508,138	373,337	318,387	56.7	-1.2	5.5	-0.3	.5	36.1	17.2	17.2
Other articles from textile fabrics.....	52,595	42,745	50,854	51,282	45,899	28,075	25,403	26,547	101.2	3.4	20.2	-14.0	11.7	63.5	10.5	-3.6
Iron and steel and their products.....	1,527,120	1,031,523	1,583,928	1,585,712	1,061,038	1,026,553	868,634	745,235	105.1	-3.6	48.0	-34.9	49.4	3.4	18.2	16.6
Crude iron and steel and rolled products, including products not made in rolling-mill establishments (though largely made therein), plus wire and wirework, not elsewhere specified.....	608,447	374,621	587,491	587,742	406,634	395,584	321,291	282,949	113.2	3.6	62.5	-36.3	44.5	2.8	22.1	13.6
Other iron and steel products.....	918,673	657,002	996,437	997,970	654,424	630,969	547,343	462,286	99.1	-7.8	39.8	-34.1	52.5	3.7	15.3	18.4
Lumber and its remanufactures.....	896,236	675,069	825,884	839,008	633,529	911,593	734,136	671,096	35.5	8.5	32.8	-18.3	.7	-8.6	24.2	9.3
Lumber and timber products, plus planing-mill products.....	598,940	442,280	555,679	567,901	576,000	659,570	502,237	486,767	25.8	7.8	35.4	-20.4	-1.4	-12.7	31.3	3.2
Other manufactures of lumber.....	297,296	232,789	270,205	271,107	257,529	252,023	231,899	184,329	61.3	10.0	27.7	-13.8	5.3	2.2	8.7	25.4

Leather and its finished products.....	344,545	280,071	348,715	349,362	307,030	309,766	264,459	248,626	33.8	-1.2	22.0	-19.7	13.8	-9	17.1	6.4
Leather, tanned, curried, and finished.....	89,708	49,955	72,465	72,476	55,936	62,202	57,239	52,109	14.6	-17.6	22.0	-32.4	23.6	-10.1	8.7	9.8
Finished products of leather.....	284,842	231,116	276,250	276,886	251,124	247,564	207,220	196,517	45.3	3.1	23.2	-16.3	10.3	1.4	19.5	5.4
Paper and printing.....	526,795	467,072	502,238	503,875	452,900	415,990	351,640	298,744	79.1	4.9	12.8	-7.0	12.6	8.9	18.3	17.7
Paper and wood pulp.....	120,677	105,294	113,752	113,759	88,457	75,978	65,964	49,646	143.1	6.1	14.6	-7.4	28.6	16.4	15.2	32.9
Manufactures of paper; plus wall paper.....	99,278	80,278	94,633	94,759	79,368	69,753	56,320	45,455	118.7	4.9	23.7	-15.2	19.4	13.8	23.8	23.9
Printing and publishing, plus industries relating to printing and publishing.....	306,840	281,500	283,913	301,357	285,075	270,279	229,356	203,643	54.5	4.4	9.0	-4.2	5.7	5.5	17.8	12.6
Liquors and beverages.....	31,338	35,374	54,493	55,442	88,152	77,827	68,338	55,120	-42.2	-42.5	-11.4	-35.1	-37.1	13.3	13.9	24.0
All except mineral and soda waters.....	13,276	20,723	37,961	38,002	72,646	64,680	57,459	46,332	-71.3	-65.0	-35.0	-45.4	-47.7	12.3	12.6	24.0
Mineral and soda waters.....	18,062	14,651	16,532	17,440	15,506	13,147	10,879	8,788	117.0	9.3	23.3	-11.4	12.5	17.9	20.8	23.8
Chemicals and allied products.....	404,786	329,472	425,996	427,008	299,566	267,261	227,326	196,538	106.4	-5.0	22.9	-22.7	42.6	12.1	17.6	15.7
Stone, clay, and glass products.....	345,370	250,812	296,229	298,659	334,612	342,827	285,846	231,716	50.3	16.6	37.7	-15.3	-10.7	-2.4	20.1	28.1
Industries using stone as a material.....	111,900	82,165	88,145	89,723	114,123	124,512	87,731	63,673	81.7	26.9	36.2	-6.8	-21.4	-8.3	41.9	40.0
Industries using clay as a material.....	151,514	106,849	121,588	122,337	134,736	137,048	122,618	108,719	40.2	24.6	41.8	-12.1	-0.2	-1.7	11.8	12.7
Glass and manufactures of glass.....	81,956	61,798	86,496	86,599	85,753	81,267	74,997	60,287	36.1	-5.2	32.6	-28.6	1.0	5.5	8.4	24.4
Metals and metal products, other than iron and steel.....	327,537	235,170	338,383	339,469	262,154	249,607	198,531	161,463	103.5	-3.2	39.3	-30.5	28.5	5.0	25.7	23.0
Metals, including smelting and refining.....	108,663	65,093	120,646	120,706	79,700	74,627	63,235	54,020	101.3	-0.9	72.3	-47.7	51.5	6.8	18.0	17.1
Metal products, plus "related industries".....	218,874	172,087	217,737	218,763	182,454	174,980	135,296	107,443	104.6	.5	27.2	-21.0	19.9	4.3	29.3	25.9
Tobacco manufactures.....	146,337	149,985	154,969	157,097	178,872	166,810	159,406	132,626	11.9	-5.6	-2.4	-3.2	-12.2	7.2	4.6	20.3
Vehicles for land transportation.....	510,468	281,350	440,008	440,878	250,514	202,719	136,625	133,663	382.6	16.0	81.4	-36.1	76.0	23.6	48.4	2.2
Automobiles, plus "automobile bodies and parts".....	404,886	212,777	342,876	343,115	127,062	75,721	12,049	2,241	13,032.1	18.1	90.3	-37.9	170.0	67.8	528.4	437.7
Cars, steam and electric railroad, not including operations of railroad companies.....	80,600	49,033	55,218	55,218	58,128	46,669	38,768	37,038	117.5	45.9	87.8	-13.0	-5.0	24.6	20.3	4.7
Railroad repair shops.....	523,430	418,285	515,535	515,709	365,902	304,592	247,922	180,620	180.8	1.5	25.1	-18.9	40.9	20.1	22.9	37.3

See footnotes at end of Table 28, p. 129.

TABLE 28.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN INDUSTRIAL GROUPS, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

[No data in regard to prime movers were collected for 1921. Because of the omission of certain minor industries and the transfer of a few others from one group to another, some of the group totals and some of the items given in this table differ somewhat from the corresponding totals and items as they appear in the census reports. As to the comparability of 1921 and 1923 figures with those of previous years, see general remarks preceding tables, pars. 2 and 4, pp. 124 and 125.]

GROUP	PRIMARY HORSEPOWER						PER CENT OF INCREASE OR DECREASE (-)				
	Including data for rented power other than electric						24-year period, 1899-1923	Interdecadal period			
	Excluding data for rented power other than electric	1923	1919	1914	1909	1904	1899	1919-1923	1914-1919	1909-1914	1899-1904
Food and kindred products.....		2,641,916	2,564,874	2,571,157	1,994,983	1,725,985	1,182,902	123.9	28.9	15.6	22.8
Animal products.....		621,686	579,408	580,520	412,106	323,050	223,107	240.5	40.9	27.6	44.8
Vegetable products.....		2,030,220	1,985,466	1,990,637	1,582,877	1,402,935	999,983	102.7	25.8	12.8	18.3
Textiles and their products.....		3,794,443	3,238,738	3,274,090	2,752,054	1,288,031	1,745,309	173.0	16.4	19.0	31.1
Textile fabrics and materials.....		3,536,440	3,024,498	3,037,732	1,543,298	2,127,979	1,316,705	171.3	19.4	19.5	30.2
Articles from textile fabrics for personal wear.....		132,317	131,953	133,000	120,314	90,800	59,121	211.5	0.3	10.5	53.5
Other articles from textile fabrics.....		105,636	102,337	103,558	883,502	69,252	36,436	183.1	3.3	27.8	41.1
Iron and steel and their products.....		8,934,535	8,071,629	8,082,692	5,537,842	4,561,284	3,326,702	308.8	10.7	46.0	37.1
Crude iron and steel rolled products, including products not made in rolling-mill establishments (though largely made therein), plus wire and wire-work, not elsewhere specified.....		6,632,365	6,006,565	6,010,688	4,275,692	3,554,191	1,685,882	283.6	10.4	40.6	37.4
Other iron and steel products.....		2,302,220	2,065,064	2,072,004	1,262,150	1,007,094	740,256	359.6	11.5	64.2	36.0
Lumber and its remanufactures.....		3,323,262	3,397,178	3,417,941	3,185,861	3,250,296	2,218,266	58.1	-2.2	7.3	-2.0
Lumber and timber products, plus planing-mill products.....		2,425,515	2,773,415	2,778,608	2,607,209	2,727,584	1,800,673	51.6	-12.5	6.6	-4.4
Other manufactures of lumber.....		897,747	624,763	639,333	578,652	522,712	417,593	80.2	43.7	10.5	25.2
Leather and its finished products.....		412,998	382,537	389,130	317,837	281,117	203,620	163.0	8.0	22.4	28.1
Leather, tanned, curried, and finished.....		230,137	217,761	218,238	172,712	148,140	117,450	159.6	5.7	26.4	16.6
Finished products of leather.....		182,811	164,776	170,892	145,125	132,977	86,170	167.0	10.9	17.7	54.3



Paper and printing	2,742,697	2,345,949	2,348,999	2,051,984	1,674,061	1,307,781	913,445	200.7	16.9	14.5	22.6	28.0	43.2
Paper and wood pulp	2,178,623	1,849,699	1,851,014	1,621,154	1,304,265	1,093,708	762,118	186.1	17.8	14.2	24.3	19.3	43.5
Manufactures of paper, plus wall paper	135,910	117,815	118,415	87,222	62,564	40,316	27,048	405.2	15.4	35.8	39.4	55.2	49.1
Printing and publishing, plus industries relating to printing and publishing	428,164	378,435	379,570	343,608	307,232	173,757	124,279	245.4	13.1	10.5	11.8	76.8	39.8
Liquors and beverages	247,161	412,463	415,361	525,769	446,450	347,723	254,615	-2.3	-40.1	-21.0	17.8	28.4	36.6
All except mineral and soda waters	182,380	371,296	373,597	500,905	427,058	335,509	246,578	-25.6	-50.9	-25.4	17.2	27.3	36.1
Mineral and soda waters	64,781	41,167	41,764	25,164	19,392	12,214	8,037	717.9	57.4	66.0	29.8	58.8	52.0
Chemicals and allied products	2,703,070	2,639,934	2,043,525	1,467,831	1,025,576	729,627	460,730	487.6	32.5	32.2	43.1	40.6	53.3
Stone, clay, and glass products	1,906,499	1,567,815	1,568,719	1,490,975	1,240,908	775,718	510,013	274.3	21.6	5.3	20.2	60.0	52.1
Industries using stone as a material	1,040,023	782,144	783,172	801,073	635,615	298,770	180,973	475.5	33.0	-2.2	26.0	112.7	65.1
Industries using clay as a material	615,494	569,058	569,709	516,551	473,402	378,704	271,666	126.9	8.2	10.3	9.1	25.0	39.4
Glass and manufactures of glass	250,982	216,613	216,868	173,351	131,891	98,244	67,374	338.1	15.9	25.1	31.4	34.2	71.2
Metals and metal products, other than iron and steel	1,210,520	982,720	988,033	575,025	463,136	290,922	214,637	467.5	23.2	71.9	24.2	59.2	35.5
Metals, including smelting and refining	874,595	744,574	747,926	401,919	330,569	211,893	148,773	490.7	17.5	86.1	21.6	56.0	42.4
Metal products, plus "related industries"	335,934	238,146	240,702	173,106	132,567	79,039	65,859	415.9	41.1	39.1	30.6	67.7	20.0
Tobacco manufactures	43,515	43,390	43,397	34,937	28,514	24,604	22,296	95.2	.3	24.2	22.5	15.9	10.4
Vehicles for land transportation	1,210,099	791,517	797,805	438,541	327,239	189,951	148,266	722.8	52.9	81.9	34.0	72.3	28.1
Automobiles, plus "automobile bodies and parts"	898,625	539,053	544,242	173,684	75,550	10,109	3,164	28,407.5	66.7	213.4	129.9	647.4	219.5
Cars, steam and electric railroad, not including operations of railroad companies	250,102	167,180	167,255	136,701	112,938	63,048	38,200	554.1	49.6	22.4	21.0	73.2	64.8
Railroad repair shops	806,435	644,875	648,345	478,983	329,155	171,127	101,530	698.9	25.1	35.4	45.6	92.3	68.5

<sup>1</sup> Based on figures shown in left-hand column for 1919.

<sup>2</sup> The figures shown in the right-hand column for 1919 were used in calculating the percentages in this column.

<sup>3</sup> Includes sewing-machine cases.

<sup>4</sup> Does not include sewing-machine cases; see "Other iron and steel products," footnote 3.

<sup>5</sup> "Carriages and wagons"; "carriage and wagon materials"; "motor cycles and bicycles and parts"; "carriages and sleds, children's"; "wheelbarrows," included in total but not shown in detail.

TABLE 29.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN SELECTED INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

[Because of the omission of certain minor industries and the transfer of a few others from one group to another, some of the items given in this table differ somewhat from the corresponding totals and items as they appear in the census reports. The italic figures indicate that establishments with products valued at less than \$5,000 are included to avoid discussing operations of individual establishments. As to the comparability of 1921 and 1923 figures with those of previous years, see general remarks preceding tables, par. 3, p. 123]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS						PER CENT OF INCREASE OR DECREASE (-)									
	Including data for establishments with products valued at \$500 or more						24-year period, 1899-1923	Inter-censal period								
	1923	1921	1919	1914	1909	1904		1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909	1899-1904		
All industries.....	8,778,156	6,946,570	6,000,059	4,096,372	3,036,247	2,615,046	4,712,763	38.2	-2.5	26.4	-22.8	20.3	6.4	21.0	16.0	
Food and kindred products.....	625,524	588,734	581,831	406,234	411,575	354,046	301,888	108.2	-8.2	10.0	-16.5	38.0	20.6	16.2	17.3	
Slaughtering and meat packing.....	132,792	117,049	160,989	98,832	87,812	74,134	68,386	94.2	-17.5	13.5	-27.3	62.0	12.5	18.5	8.4	
Bread and other bakery products.....	162,612	148,500	140,477	124,032	100,216	81,273	60,122	172.4	15.8	8.5	5.7	14.1	22.8	23.8	85.0	
Confectionery, chewing gum, and ice cream.....	83,689	83,207	98,239	95,388	144,038	180,239	230,866	232.2	-19.7	6.3	-13.3	14.1	43.5	23.2	84.9	
Flour-mill and grain-mill products.....	35,194	36,378	43,236	39,718	39,453	33,110	32,229	9.6	-22.3	-1.3	-21.9	14.5	.7	.9	21.4	
Canning and preserving, fruits and vegetable.....	57,178	38,688	59,771	60,865	40,492	39,988	37,189	56.7	-4.3	47.9	-35.3	20.9	24.8	1.3	7.5	
Sugar, beet, and cane sugar and its refining.....	25,043	31,783	36,054	36,084	22,852	20,730	17,512	58.5	-23.9	-10.3	-11.8	57.7	10.4	18.4	8.8	
Butter and cheese.....	25,169	22,094	21,564	17,667	14,267	12,182	12,799	97.3	16.7	14.4	2.0	26.9	19.0	17.1	-4.8	
Coffee and spice, roasting and grinding.....	9,665	8,832	10,523	8,849	7,490	6,939	6,387	51.5	-18.2	7.8	-13.6	23.3	14.1	25.7	-6.7	
Condensed milk.....	8,723	9,462	13,672	12,673	6,062	4,194	3,373	11.1	-38.2	-7.8	-30.8	127.8	44.1	26.4		
Cheese and starch.....	6,573	6,131	7,794	4,309	4,309	3,679	3,043	10.1	-16.1	0.6	-21.3	72.9	-3.5	2.0	-21.3	
Canning and preserving, fish and oysters.....	5,144	7,046	12,437	11,360	9,226	8,511	7,225	27.0	-27.0	15.4	-38.7	11.9	17.6	17.6	-35.0	
Pickles, preserves, and sauces.....	15,356	13,061	16,555	16,621	12,360	9,560	8,511	113.4	-7.2	11.5	-21.1	32.0	31.8	12.2	17.8	
Breadstuffs, preparations, such as cereals and breakfast foods.....	6,410	5,749	7,634	7,634	5,177	(1)	(1)	422.2	-24.3	3.4	-26.8	47.5	47.2	35.2	59.1	
Chocolate and cocoa products.....	6,876	6,652	9,083	9,083	4,100	2,926	1,314	67.1	6.7	13.6	-6.0	6.9	4.3	24.3	13.1	
Textiles and their products.....	1,716,646	1,510,878	1,608,131	1,611,309	1,507,374	1,445,720	1,163,497	1,028,706	67.1	9.5	-4.2	13.1	4.2	19.6	4.2	
Cotton goods and cotton lace.....	478,810	418,454	437,436	437,456	395,806	371,182	310,458	287,929	60.7	14.4	-4.2	13.1	4.2	19.6	4.2	
Clothing, men's.....	194,820	165,206	174,588	175,270	173,747	191,183	137,190	92,927	61.4	11.6	-5.4	13.1	-0.1	39.4	13.4	
Clothing, women's.....	133,195	144,595	164,983	165,649	168,907	153,743	115,765	53,739	59.6	-19.3	-12.2	-1.9	0.0	32.0	38.2	
Woolen and worsted goods.....	194,532	162,364	166,737	166,737	158,692	163,192	141,998	125,901	16.7	19.8	-12.2	-1.9	-2.8	14.9	32.8	
Silk goods, including throwsters.....	125,234	121,378	126,715	126,732	108,170	90,037	79,601	65,416	91.5	-1.2	-4.2	17.2	0.2	24.4	21.7	
Knit goods.....	194,244	161,880	172,458	172,572	150,530	120,275	104,022	83,691	132.2	12.6	-6.1	14.7	16.4	24.2	24.4	
Dyeing and finishing textiles, exclusive of that done in textile mills.....	63,414	51,510	55,914	55,955	48,467	44,046	35,565	29,776	113.2	13.4	-7.9	15.5	10.0	23.8	19.4	

Millinery and lace goods, not elsewhere specified.....	54,246	53,701	50,378	50,850	45,274	39,201	27,500	16,871	224.6	7.7	1.9	6.6	12.3	15.5	42.5	63.0
Carpets and rugs, other than rag.....	35,217	22,922	22,833	22,833	31,309	33,307	33,221	23,411	21.0	52.6	32.6	17.2	26.8	6.0	3.3	16.9
Cordage and twine.....	16,832	13,880	18,497	18,510	21,318	14,629	22,047	13,114	23.0	-7.9	20.5	-17.2	11.8	7.8	1.1	11.4
Hats, fur-felt.....	16,722	13,880	18,497	18,510	21,318	14,629	22,047	13,114	23.0	-7.9	20.5	-17.2	11.8	7.8	1.1	11.4
Bags, other than paper, not including bags made in textile mills.....	11,548	10,324	10,746	10,756	9,338	7,968	5,722	3,922	194.8	7.5	11.9	-3.9	14.9	17.4	30.3	45.9
Shirts.....	51,672	45,427	39,245	39,603	51,972	48,513	36,499	36,622	42.4	31.7	13.7	15.8	23.8	7.1	32.9	-3
Furnishing goods, men's, including cloth gloves and mittens, other than those made in textile mills.....	27,822	21,679	27,821	27,930	22,459	15,920	16,399	13,137	911.8	-12.4	28.3	-22.1	24.4	41.1	-2.9	24.4
Corsets.....	16,104	17,084	18,391	18,415	20,436	17,564	10,973	12,297	31.2	-12.4	5.7	-7.1	10.2	16.7	60.0	-10.8
Collars and cuffs, men's.....	10,449	9,285	11,096	11,103	10,100	12,421	10,786	17,135	-39.0	-12.4	12.5	-16.3	9.9	-18.7	15.2	-37.1
Iron and steel and their products.....	1,527,120 <sup>1</sup>	1,031,523 <sup>1</sup>	1,583,928 <sup>1</sup>	1,585,712 <sup>1</sup>	1,061,058 <sup>1</sup>	1,026,553	868,634	745,235	105.1	-3.6	43.0	-34.9	49.4	3.4	18.2	16.6
Crude iron and steel and rolled products, including products not made in rolling-mill establishments (though largely made there), plus wire and wirework, not elsewhere specified.....	608,447	374,521	537,491	557,742	406,634	395,534	321,291	292,049	115.2	3.6	62.5	-36.3	44.5	2.8	23.1	13.6
Foundry and machine-shop products <sup>1</sup> .....	448,777	321,863	481,701	572,838	392,471	388,911	348,378	350,103	99.8	-6.8	39.5	-33.3	58.0	2.4	15.1	15.1
Engines, steam, gas, and water.....	48,405	35,867	53,062	57,617	29,657	33,571	26,571	26,571	161.7	-37.1	56.6	-50.9	161.7	2.4	15.1	15.1
Machine tools.....	33,373	21,407	35,455	35,535	16,856	15,999	11,543	7,614	233.7	-17.9	49.6	-45.1	111.0	5.4	37.4	32.9
Tools, not elsewhere specified.....	23,170	19,453	35,455	42,505	41,213	38,513	31,713	26,463	88.7	17.5	47.6	-20.4	3.1	7.0	21.4	19.8
Hardware.....	49,884	33,803	49,440	52,565	29,535	32,118	23,728	26,463	17.5	17.5	34.6	-25.3	11.3	-3.0	8.0	8.0
Stoves and hot-air furnaces.....	33,029	24,330	32,860	32,868	29,535	32,118	23,728	26,463	17.5	17.5	34.6	-25.3	11.3	-3.0	8.0	8.0
Steam fittings and steam and hot-water heating apparatus.....	44,141	30,808	36,679	36,686	26,338	23,378	11,690	9,222	377.0	20.3	43.3	-16.0	39.0	12.9	100.0	26.4
Locomotives, not made by railroad companies.....	30,672	16,533	28,715	26,715	17,391	14,909	24,806	24,806	14.8	14.8	35.0	-37.9	53.6	16.6	-39.9	-39.9
Textile machinery and parts.....	33,672	31,023	31,732	31,732	16,544	7,465	4,078	2,067	624.4	-12.2	15.0	-2.4	84.7	20.0	83.0	97.3
Cash registers and calculating machines.....	14,971	9,736	10,533	10,533	8,956	7,465	4,078	2,067	624.4	-12.2	15.0	-2.4	84.7	20.0	83.0	97.3
Cutlery and edge tools.....	16,671	14,345	19,822	19,822	16,561	16,997	14,545	12,028	38.8	-15.9	16.2	-27.6	19.9	-2.6	16.9	20.9
Ordnance and accessories.....	( )	( )	11,823	11,823	( )	( )	289	289	245.1	-4.4	11.8	-14.5	41.3	15.8	53.7	43.6
Typewriters and supplies.....	14,933	13,331	13,911	13,911	11,823	9,578	6,232	4,340	245.1	-4.4	11.8	-14.5	41.3	15.8	53.7	43.6
Plumbers' supplies, not elsewhere specified.....	27,201	16,670	13,883	13,883	11,479	12,557	10,753	8,024	239.1	100.2	63.2	22.7	-25.4	-4.0	79.1	34.0
Stoves, gas and oil.....	16,783	7,921	10,555	10,555	17,700	3,012	3,676	2,471	579.9	59.0	111.9	-25.0	35.6	55.4	36.3	45.8
Pumps, steam and other power <sup>1</sup> .....	14,550	12,186	16,054	16,072	8,322	3,012	3,676	2,471	579.9	59.0	111.9	-25.0	35.6	55.4	36.3	45.8
Sewing machines and attachments (including cases).....	13,435	12,569	10,226	19,230	18,007	19,269	17,121	13,395	5.5	-30.1	6.7	-34.6	6.8	-6.5	12.5	28.1
Screws, machine.....	9,126	5,911	10,255	10,262	3,643	1,667	1,965	1,557	496.6	-11.0	54.4	-42.4	181.7	118.5	-15.2	26.2
Lumber and its remanufactures.....	896,236	675,069	825,834	839,008	833,529	911,633	734,136	671,696	35.5	8.5	32.8	-18.3	.7	-8.6	24.2	9.3
Lumber and timber products.....	495,932	364,247	469,207	490,945	479,786	547,178	404,533	413,257	23.0	5.7	36.2	-22.4	.2	-12.3	35.3	-2.1
Furniture.....	168,069 <sup>1</sup>	124,311 <sup>1</sup>	139,950	138,331	127,881	123,426	110,133	97,262	90.4	20.1	35.2	-11.2	8.2	3.6	12.1	26.2
Lumber, planing-mill products, not including planing mills connected with sawmills.....	103,008	78,033	86,382	112,832	112,832	112,832	97,674	73,510	44.6	19.2	32.0	-9.8	-10.3	-11.6	15.1	32.9

See footnotes at end of Table 31, p. 146.

TABLE 29.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN SELECTED INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 130]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS						PER CENT OF INCREASE OR DECREASE (—)									
	Including data for establishments with products valued at \$500 or more						24-year period, 1899-1923	Inter-censal period								
	1923	1921	1919	1914	1909	1904		1919-1923	1914-1919	1909-1914	1904-1909	1899-1904				
Excluding data for establishments with products valued at less than \$5,000																
Lumber and its remanufactures—Continued.																
Boxes, wooden packing, except cigar boxes.	39,154	32,595	42,325	38,548	35,449	30,329	21,999	78.4	-7.5	20.1	-23.0	10.1	8.7	16.9	37.9	
Coffins, burial cases, and undertakers' goods.	11,593	9,956	11,890	9,493	9,339	8,468	6,840	68.6	-2.4	16.4	-16.2	25.6	1.4	10.3	23.8	
Cooperage.	12,028	9,876	13,071	17,128	19,459	21,149	22,117	-45.0	-8.0	21.8	-24.4	-22.8	-12.1	-7.8	-4.4	
Leather and its finished products.	344,545	280,071	348,715	307,060	309,766	264,459	248,626	38.8	-1.2	23.0	-19.7	13.8	-9	17.1	6.4	
Boots and shoes, not including rubber boots and shoes.	225,216	183,502	210,991	191,555	185,115	149,924	141,830	58.8	6.7	22.7	-13.0	10.2	3.5	23.5	5.7	
Leather, tanned, curried, and finished.	59,703	48,955	72,465	55,986	62,202	57,239	52,109	14.6	-17.6	22.0	-32.4	29.6	-10.1	8.7	9.8	
Saddlery and harness.	6,617	4,489	10,024	10,411	12,968	15,032	14,364	-52.1	-34.0	47.4	-55.2	-19.7	-11.4	-2.7	4.7	
Trunks and valises.	11,441	8,712	11,404	9,911	11,122	9,091	6,964	65.2	-3	31.3	-23.6	15.7	-10.9	22.3	30.5	
Foot and shoe cut stock, exclusive of that produced in boot and shoe factories.	7,133	7,049	9,703	7,819	6,693	5,936	6,165	16.0	-23.5	1.2	-27.4	24.2	16.8	12.8	-3.6	
Paper and printing	526,795	467,072	502,298	452,990	415,990	351,640	298,744	79.1	4.9	12.8	-7.0	12.6	8.9	18.3	17.7	
Printing and publishing, newspaper and periodical.	115,646	107,534	115,102	114,375	108,672	96,857	94,604	27.8	5	7.5	-6.6	5.3	5.2	12.2	2.4	
Printing and publishing, book and job.	129,890	121,055	123,005	113,121	108,857	87,746	67,610	94.8	7.1	7.3	-2	8.7	4.1	23.9	29.8	
Paper and wood pulp.	120,677	105,294	113,752	88,457	76,978	65,964	49,646	143.1	6.1	14.6	-7.4	23.6	16.4	15.2	32.9	
Boxes, paper and other, not elsewhere specified.	56,855	46,242	55,822	45,311	39,514	32,082	27,653	105.8	19.9	23.0	-17.1	23.3	14.7	23.2	16.0	
Lithographing.	16,317	13,971	15,618	15,171	15,073	12,614	12,994	25.6	4.5	16.8	-10.5	2.9	14.7	19.5	-2.9	
Bookbinding and blank-book making.	20,728	17,465	20,361	21,663	19,938	17,713	15,971	31.3	3.0	18.7	-13.2	-6.1	8.8	12.6	10.9	
Paper goods, not elsewhere specified.	14,724	11,510	14,122	13,465	12,983	9,842	6,117	141.0	4.3	27.9	-13.5	4.7	3.9	31.9	60.9	

Liquors and beverages.....	31,338	35,374	54,493	55,442	88,152	77,827	68,338	55,120	-42.2	-42.5	-11.4	-35.1	-37.1	13.3	13.9	24.0
Liquors, malt, including cereal beverages.....	11,212	18,551	34,253	34,259	62,070	54,579	48,137	39,459	-71.6	-67.3	-39.6	-45.8	-44.8	13.7	13.4	22.0
Mineral and soda waters.....	18,062	14,651	16,532	17,440	15,505	13,147	10,879	8,788	117.0	9.3	23.3	-11.4	12.5	17.9	20.8	23.8
Chemicals and allied products.....	404,786	329,472	425,996	427,008	293,509	267,261	227,226	196,533	106.4	-5.0	22.9	-22.7	42.5	12.1	17.6	15.7
Petroleum refining.....	66,717	63,188	58,887	58,889	25,366	13,929	16,779	12,199	446.9	13.3	5.6	7.3	132.2	82.1	-16.9	37.5
Chemicals and acids.....	77,254	49,138	76,163	76,210	35,375	25,981	22,294	17,519	341.1	1.4	57.2	-35.5	115.4	36.2	16.5	27.3
Druggists' preparations, patent medicines and compounds, perfumery and cosmetics, and drug grinding.....	34,830	31,316	39,334	39,764	28,561	23,817	21,453	19,672	78.9	-11.5	11.2	-20.4	49.7	11.5	11.0	9.1
Gas, illuminating and heating.....	42,282	34,956	42,844	42,968	43,792	37,215	30,566	22,459	88.6	-1.3	21.0	-18.4	-2.0	17.7	21.8	36.1
Paint and varnish.....	19,817	22,071	35,161	35,193	25,594	20,582	18,869	14,008	41.7	-43.6	-10.2	-37.2	37.5	24.4	12.0	31.1
Fertilizers.....	22,818	18,015	21,473	21,307	16,083	14,240	11,653	9,687	135.8	6.3	26.7	-16.1	33.7	12.9	22.4	20.0
Food, not including gas-house coke.....	18,872	16,898	26,278	26,296	22,815	18,310	14,184	11,581	60.6	-29.3	9.9	-35.7	15.3	24.6	29.1	20.5
Soda, not including gas-house coke.....	28,304	16,070	23,314	23,319	21,107	12,899	11,044	16,969	67.0	-3.2	76.5	-45.2	38.9	54.2	11.7	11.7
Soap.....	17,002	16,558	20,404	20,436	14,172	12,899	11,044	16,969	72.4	-16.7	2.7	-18.8	44.2	9.0	17.7	16.4
Explosives.....	6,883	4,473	9,239	9,243	6,306	6,274	5,800	4,502	41.9	-30.9	42.7	-51.6	46.7	8.2	28.8	28.8
Turpentine and rosin.....	34,328	27,422	27,902	28,067	34,517	39,511	33,382	41,864	-17.6	23.0	25.2	-1.7	-18.4	-11.9	18.4	-20.3
Stone, clay, and glass products.....	345,370	250,812	296,229	298,659	394,612	342,827	285,346	231,716	50.3	16.6	37.7	-15.3	-10.7	-2.4	20.1	23.1
Glass.....	73,335	54,748	77,520	77,520	74,502	68,911	63,969	52,818	38.9	-5.4	34.0	-29.4	4.1	8.1	7.7	21.1
Brick, tile, pottery, and other clay products.....	140,129	97,591	104,724	105,353	127,444	132,696	118,449	105,668	33.4	33.8	43.6	-6.8	-17.3	-4.0	12.0	12.1
Cement.....	35,091	26,231	26,234	26,234	27,916	26,775	17,478	201.2	201.2	37.5	37.5	2.8	-8.6	4.3	53.2	22.6
Marble and stone work.....	40,066	30,260	32,309	32,768	54,891	65,603	51,110	41,686	-2.5	34.0	32.4	-6.3	-40.3	23.4	23.4	22.6
Minerals and earths, ground or otherwise treated.....	8,707	6,887	14,357	14,425	4,707	1,990	2,157	2,094	317.5	-39.4	26.4	-52.0	206.5	138.5	-7.7	3.0
Nonferrous metals and their products.....	327,537	285,170	338,333	339,466	292,154	249,607	198,531	161,493	103.5	-3.2	39.2	-30.5	23.5	5.0	25.7	23.0
Brass, bronze, and copper products.....	64,713	49,830	74,998	75,051	40,308	40,618	33,188	27,106	138.4	-13.7	62.5	-46.9	86.2	-8	22.5	22.1
Smelting and refining.....	26,821	20,214	47,787	41,787	57,318	31,854	28,665	25,495	59.6	-2.6	101.3	-51.6	12.0	17.2	11.5	12.0
Copper, tin, and sheet-iron work.....	28,852	23,153	40,704	40,871	28,259	30,847	22,680	21,468	29.4	-14.2	12.2	-23.5	9.1	-6.8	37.4	7.9
Stamped and annealed wire, not elsewhere specified.....	35,227	24,192	34,228	34,248	28,731	25,413	13,560	10,002	252.3	2.9	45.7	-28.3	19.2	13.1	87.4	35.6
Wire, not elsewhere specified.....	20,511	22,714	24,373	24,386	18,454	18,754	16,219	13,534	-11.2	-11.2	34.3	-33.9	52.3	14.3	16.8	55.9
Watches.....	11,571	12,174	15,885	15,885	12,300	10,684	10,724	6,880	-27.2	-27.2	-5.0	-23.4	23.2	16.0	-4	55.9
Aluminum manufactures.....	16,283	9,584	11,402	11,402	4,614	10,684	10,724	6,880	68.1	-42.9	69.9	-13.9	147.1	147.1	-4	55.9

See footnotes at end of Table 31, p. 146.

TABLE 29.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN SELECTED INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 130]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS						PER CENT OF INCREASE OR DECREASE (-)									
	Including data for establishments with products valued at \$500 or more						24-year period, 1899-1923	Interdecennial period								
	1923	1921	1919	1914	1909	1904		1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909	1899-1904		
Tobacco manufactures	146,337	149,985	154,969	157,097	178,872	166,810	132,526	11.9	-5.6	-2.4	-3.2	-12.2	7.2	4.6	20.3	
Tobacco, cigars and cigarettes	130,036	133,857	136,675	138,773	152,892	139,578	103,365	27.7	-4.9	-2.5	-2.4	-9.2	9.5	3.1	31.0	
Tobacco, chewing and smoking, and snuff	16,301	16,623	18,294	18,324	25,980	27,232	29,161	-44.0	-10.9	-2.0	-0.1	-29.5	-4.6	13.5	-17.7	
Vehicles for land transportation, including railroad repair shops	1,033,898	699,635	955,543	1,011,648	628,978	507,311	314,233	243.3	8.2	47.8	-26.8	60.8	24.0	31.9	22.4	
Automobiles	241,356	143,658	210,553	210,559	79,307	51,294	2,241	10,667.6	14.6	68.0	-21.8	165.5	54.6	401.0	358.9	
Steam-railroad repair shops	488,505	385,066	484,880	484,437	339,518	282,174	173,595	181.6	23.0	98.9	-20.5	42.7	20.3	13.1	36.4	
Automobile bodies and parts	163,530	69,119	132,323	132,556	47,785	24,427	(?)		23.0	136.6	-47.8	177.4	95.6	249.6		
Cars, steam-railroad, not including operations of railroad companies	76,612	45,121	52,298	52,298	54,288	43,086	33,453	129.0	46.5	69.8	-13.7	-3.7	26.5		1.8	
Automobile repairing	(a)	(a)	(a)	(a)	(a)	(a)	(a)		12.1	4.9	6.8	18.5	17.7	102.8	57.3	
Electric-railroad repair shops	34,925	33,279	31,155	31,272	26,384	22,418	7,025	399.1	56.0	-0.7	-65.7	-98.0	-21.4	-13.5	3.9	
Carriages and wagons, including repairs	7,740	7,797	17,583	18,173	41,304	52,540	58,428	-86.3	-56.0	-0.7	-65.7	-98.0	-21.4	-13.5	3.9	
Motor cycles, bicycles, and parts	6,576	4,308	10,832	10,886	6,680	4,437	17,528	-62.5	-39.6	52.6	-60.4	63.0	60.6	33.7	-81.1	
Miscellaneous industries	852,024	712,777	224,486	227,111	558,755	482,206	326,242	154.5	-30.4	19.5	-41.8	109.5	21.5	18.0	25.2	
Shipbuilding, steel	51,961	93,823	344,011	344,014	33,508	28,143	30,906	68.1	-84.9	-44.3	-72.9	926.7	19.1	-23.4	18.9	
Electrical machinery, apparatus, and supplies	234,892	161,204	212,294	212,374	118,078	87,256	42,013	459.1	10.6	45.7	-24.1	79.9	35.3	44.3	43.9	
Rubber tires, tubes, and rubber goods, not elsewhere specified, including belting and hose, rubber	108,433	79,385	125,662	125,674	55,365	31,632	22,175	339.1	-13.7	38.6	-36.8	127.1	74.8	27.2	12.2	
Agricultural implements	30,962	30,356	54,294	54,368	43,459	50,551	46,582	-33.5	-43.0	2.0	-44.1	12.2	-4.1	6.7	1.7	
Shipbuilding, wooden, including boat building	10,326	13,122	43,290	43,432	10,981	12,363	14,012	15,841	-76.1	-21.3	-69.7	205.5	-11.2	-11.8	-11.5	
Photographs and graphophones	20,491	17,438	28,714	28,721	9,881	6,190	1,267	1,518.6	-28.6	14.2	-37.6	206.2	80.4	53.0	163.1	
Ice, manufactured	24,852	24,666	28,595	30,247	23,011	16,114	6,890	294.8	-10.2	11.6	-19.5	31.4	42.8	57.9	46.8	
Fur goods	14,436	12,052	13,544	13,639	9,030	11,927	7,768	87.4	6.6	19.8	-11.0	51.0	-24.3	27.3	20.8	

Boots and shoes, rubber.....	23,898	32,875	18,687	17,612	18,991	14,391	104,41	-10,5	23,2	-27,2	75,9	6,1	-7,3	32,0
Photographic materials, 2.....	16,313	17,094	23,877	5,195	3,832	3,444	373,9	-4,6	-3,8	-27,2	97,3	67,0	36,3	10,7
Musical instruments, pianos.....	22,208	22,955	23,877	25,497	21,022	21,300	373,9	-3,3	-3,8	-27,2	97,3	67,0	36,3	10,7
Ammunition.....	10,470	8,370	11,493	8,715	7,410	5,231	100,2	-54,1	25,1	-31,0	-3,9	-6,4	21,4	-1,4
Instruments, professional and scientific.....	12,275	9,834	7,107	4,817	3,437	2,775	343,2	-22,8	30,8	-41,0	98,5	31,9	17,6	41,7
Optical goods.....	12,205	14,685	7,919	6,398	4,330	3,715	229,3	-16,9	9,8	-24,3	124,2	47,5	40,2	23,9
Mattresses and bed springs, not elsewhere specified.....	14,103	12,549	11,747	11,322	10,427	7,649	85,7	12,4	20,0	-6,4	7,6	3,8	8,6	36,3
Roofing materials.....	7,665	8,555	4,088	2,465	8,819	7,593	1,1	-13,4	11,9	-22,0	117,0	65,8	-72,0	16,1
Fancy articles, not elsewhere specified.....	13,522	13,874	7,399	6,729	6,624	5,718	138,1	-2,5	17,2	-16,9	88,7	10,0	1,6	15,8
Paving materials.....	10,442	15,742	19,540	1,419	1,919	2,436	714,9	23,5	26,4	-2,3	-17,7	27,0	-23,1	21,2
Stationery goods, not elsewhere specified.....	13,314	11,247	7,738	6,206	4,296	3,032	339,7	18,4	18,0	-2,3	45,7	24,5	44,5	41,7
Signs and advertising novelties.....	12,988	10,317	9,566	5,540	(7)	(7)	---	25,9	25,2	-5,5	9,1	72,7	22,5	30,6
Toys and games.....	14,434	14,066	7,887	5,305	4,330	3,316	340,3	2,8	53,3	-32,9	80,1	48,7	22,5	30,6
Buttons.....	11,860	15,439	14,511	16,427	10,567	8,685	37,8	-23,2	22,4	-37,3	7,3	-11,7	53,5	21,7

See footnotes at end of Table 31, p. 146.

TABLE 30.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN SELECTED INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

[No data in regard to prime movers were collected for 1921. Because of the omission of certain minor industries and the transfer of a few others from one group to another, some of the group totals and some of the items given in this table differ somewhat from the corresponding totals and items, as they appear in the census reports. As to the comparability of 1921 and 1923 figures with those of previous years, see general remarks preceding tables, pars. 2 and 4, pp. 124 and 125]

INDUSTRY	PRIMARY HORSEPOWER					PER CENT OF INCREASE OR DECREASE (—)							
	Including data for rented power other than electric					24-year period, 1899-1923	Inter-censal period						
	Excluding data for rented power other than electric						1914-1919 <sup>1</sup>						
	1923	1919	1914	1900	1899		1919-1923 <sup>1</sup>	1914-1919 <sup>2</sup>	1909-1914	1899-1904			
All industries.....	33,064,228	29,327,699	29,504,792	22,437,072	18,675,376	13,487,707	10,097,833	228.6	12.8	31.5	20.1	38.5	189-1904
Food and kindred products.....	2,641,916	2,564,874	2,571,157	1,994,983	1,725,935	1,405,567	1,182,902	123.9	3.0	28.9	15.6	22.8	18.8
Slaughtering and meat packing.....	332,127	358,522	359,212	253,066	202,432	115,956	85,008	350.5	6.6	41.9	25.0	74.6	36.4
Bread and other bakery products.....	193,186	165,711	165,950	107,771	65,298	37,241	22,472	763.3	16.6	54.0	65.0	75.3	63.7
Confectionery, chewing gum, and ice cream.....	268,090	185,854	185,069	101,423	35,870	24,252	10,410	1,286.3	44.2	83.5	182.8	47.7	10.1
Flour-mill and grain-mill products.....	709,856	875,464	876,405	822,384	833,584	775,318	670,719	1,286.0	-18.6	50.0	47.3	34.7	13.6
Canning and preserving, fruits and vegetables.....	138,997	132,247	132,422	88,303	59,950	44,469	26,906	417.2	5.1	17.6	10.0	23.7	63.4
Sugar, beet, and cane sugar and its refining.....	298,667	281,794	281,796	239,617	217,805	176,140	167,029	72.2	2.4	17.6	10.0	23.7	5.5
Butter and cheese.....	148,666	119,373	119,690	110,847	89,761	87,889	69,211	130.1	24.8	23.5	2.1	42.2	—
Coffee and spice, roasting and grinding.....	37,358	29,706	29,750	26,034	22,334	15,703	13,011	130.1	21.5	11.7	10.3	94.6	3.5
Condensed milk.....	48,300	49,178	49,181	20,615	11,588	5,956	24,642	150.6	-1.8	145.7	72.7	27.4	-35.5
Glucose and starch.....	65,764	52,086	52,846	41,639	28,237	35,986	24,642	243.6	26.4	26.9	47.4	37.4	18.7
Canning and preserving, fish and oysters.....	17,648	25,830	25,890	12,801	8,392	6,109	5,146	243.6	31.7	101.3	53.3	25.6	53.9
Pickles, preserves, and sauces.....	36,717	22,384	22,500	18,840	12,837	10,223	6,572	461.5	64.0	19.4	46.8	25.6	53.9
Breadstuffs preparations, such as cereals and breakfast foods.....	61,312	46,992	47,372	25,820	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	161.5	30.5	83.5	86.3	103.0	83.3
Chocolate and cocoa products.....	47,197	33,414	33,440	19,736	10,593	5,217	2,756	1,613.3	41.2	69.4	86.3	103.0	83.3
Textiles and their products.....	3,794,443	3,283,788	3,274,090	2,752,054	2,238,031	1,745,309	1,395,967	173.0	16.4	19.0	20.3	31.1	25.0
Cotton goods and cotton lace.....	2,162,844	1,845,378	1,840,279	1,575,833	1,296,105	979,109	789,858	174.4	17.2	17.4	22.5	31.4	24.0
Clothing, men's.....	52,642	40,198	40,577	35,664	30,069	21,106	13,347	198.0	31.0	13.8	18.6	42.5	58.1
Clothing, women's.....	27,704	32,421	32,622	28,396	22,294	14,916	9,962	180.0	-14.5	14.9	27.4	49.5	49.7
Woolen and worsted goods.....	533,465	466,219	468,480	381,230	345,233	277,368	234,660	130.5	15.5	22.9	9.5	26.6	18.2
Silk goods, including throwsters.....	208,029	173,743	176,825	116,924	97,947	71,760	57,397	265.4	18.6	51.2	19.4	35.5	26.0
Knit goods.....	183,675	149,438	151,601	125,842	103,769	78,769	57,346	224.9	22.9	20.5	21.3	31.7	37.4
Dyeing and finishing textiles, exclusive of that done in textile mills.....	204,128	159,857	160,430	130,172	107,746	84,898	69,233	195.9	27.7	23.2	20.8	27.0	22.6
Millinery and lace goods, not elsewhere specified.....	15,601	12,410	12,482	12,736	7,928	4,737	1,862	756.6	26.2	60.8	67.2	2.0	155.8



Carpets and rugs, other than rag.	53,842	37,523	33,179	43,953	38,553	33,945	26,740	104.5	43.3	-13.2	14.0	13.5	26.9
Cordage and twine.	72,371	56,556	50,643	55,377	47,269	41,041	33,657	115.2	8.7	20.3	17.2	15.2	21.9
Bags, gun-sat.	18,488	20,377	20,388	20,388	19,245	16,630	11,843	56.2	-9.3	-2.2	8.3	16.7	40.4
Bags, other than paper, not including bags made in textile mills.	13,822	9,076	9,082	10,392	6,855	4,522	1,755	693.7	52.6	-12.6	61.6	61.6	157.7
Silks.	14,650	14,896	14,944	17,617	12,656	8,723	7,119	98.4	-5.6	-15.2	38.2	45.1	22.7
Furnishing goods, men's, including cloth gloves and mittens, other than those made in textile mills.	8,613	9,023	9,029	5,880	3,993	3,061	1,250	530.8	-4.5	53.6	47.6	30.1	144.9
Corsets.	5,901	6,456	7,136	7,037	4,581	3,234	3,638	66.8	-15.2	1.4	54.0	39.5	-9.7
Collars and cuffs, men's.	5,630	5,276	5,286	5,886	3,234	2,360	2,302	113.7	-4.3	35.7	20.5	37.0	2.5
Iron and steel and their products.	8,934,585	8,071,629	8,032,692	5,537,542	4,561,285	3,323,702	2,183,594	308.8	10.7	46.0	21.4	37.1	52.0
Crude iron and steel and rolled products, including products not made in rolling-mill establishments (these last only made there) plus wire and wire-rope, not elsewhere specified.	5,632,355	6,008,555	6,010,688	4,275,092	3,554,191	2,382,446	1,635,832	283.6	10.4	40.6	20.3	37.4	53.4
Foundry and machine-shop products.	1,224,329	1,430,263	1,213,628	770,454	659,601	457,148	379,900	387.1	18.7	57.9	18.9	52.2	43.6
Machines, steam, gas, and water.	163,157	180,053	183,021	63,047	(?)	(?)	(?)	(?)	-13.1	201.4			
Machine tools.	109,196	101,294	(?)	(?)	(?)	(?)	(?)	(?)	8.9				
Tools, not elsewhere specified.	73,233	67,730	65,381	33,474	36,066	27,965	11,808	543.4	11.1	77.7	6.7	64.2	86.0
Hardware.	78,008	67,064	67,339	53,411	41,821	33,417	22,668	240.5	17.2	28.5	27.7	25.1	47.4
Stoves and hot-air furnaces.	65,366	49,408	49,479	41,196	40,248	28,414	(?)		32.3	20.1	2.4	41.6	
Steam fittings and steam and hot-water heating apparatus.	91,685	67,494	67,504	33,630	33,008	10,896	6,510	1,293.8	35.0	74.7	17.0	203.6	64.3
Locomotives, not made by railroad companies.	91,214	96,504	97,187	50,373	35,102	29,806	(?)		-5.5	92.9	43.5	17.8	
Textile machinery and parts.	56,285	41,744	(?)	(?)	(?)	(?)	(?)		34.9				
Cash registers and calculating machines.	23,872	14,643	14,630	10,619	6,944	4,139	1,340	2,130.3	104.0	38.0	52.9	67.8	203.9
Cutlery and edge tools.	43,171	38,553	33,938	34,781	32,228	32,432	26,475	64.9	12.0	12.0	7.9	-6	22.5
Ordnance and accessories.	(?)	40,632	40,632	(?)	(?)	(?)	(?)						
Typewriters and supplies.	11,451	13,054	13,066	10,387	6,845	4,455	2,731	404.4	-12.3	20.0	59.1	53.5	96.1
Flumbers supplies, not elsewhere specified.	59,973	29,695	29,702	23,253	20,078	12,601	7,574	633.7	102.0	5.3	8.3	107.0	66.4
Stoves, gas and oil.	22,298	11,240	11,295	7,954	5,276	(?)	1,723	1,194.6	97.5	42.0	50.8	46.4	109.1
Pumps, steam and other power.	38,298	32,441	32,501	17,211	(?)	(?)	(?)		18.0	88.8			
Sewing machines and attachments (including cases).	22,511	32,017	32,038	24,229	19,426	17,162	10,069	123.7	-26.7	32.2	24.7	13.2	70.4
Screws, machine.	28,954	23,517	23,540	7,988	3,319	3,201	1,407	1,953.0	23.1	194.7	140.7	3.7	127.5
Lumber and its manufactures.	3,323,262	3,397,178	3,417,941	3,185,861	3,250,296	2,218,296	2,113,856	58.1	-2.2	7.3	-2.0	46.5	4.9
Lumber and timber products.	1,922,091	2,355,345	2,358,937	2,192,392	2,316,034	1,490,816	1,375,139	40.6	-18.0	7.6	-5.4	55.4	8.4
Furniture.	1,485,347	1,265,064	1,265,703	240,665	211,438	1,163,614	1,114,508	319.8	83.1	9.2	13.8	29.2	42.8
Lumber, planing-mill products, not including planing mills connected with sawmills.	493,424	417,070	417,201	423,005	410,950	309,857	228,731	121.2	18.3	1.0	2.9	32.6	35.5
Boxes, wooden packing, except cigar boxes.	149,410	143,583	144,048	126,805	112,468	85,951	54,724	174.0	4.1	13.6	12.7	30.9	57.1
Coffins, burial cases, and undertakers' goods.	27,340	22,190	22,346	19,006	16,490	13,178	8,927	208.4	23.2	17.6	15.3	25.1	47.6
Cooperage.	33,519	30,683	30,686	33,290	42,636	39,116	30,700	9.0	9.2	-19.8	-10.2	9.0	27.1

See footnotes at end of Table 31, p. 146.

TABLE 30.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN SELECTED INDUSTRIES, IN CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 136]

INDUSTRY	PRIMARY HORSEPOWER					PER CENT OF INCREASE OR DECREASE (—)				
	Excluding data for rented power other than electric		Including data for rented power other than electric			24-year period, 1899-1923	Interannual period			
	1923	1919	1919	1914	1909	1904	1914-1919	1909-1914	1904-1909	1899-1904
Leather and its finished products.....	412,998	382,537	389,130	317,887	281,117	203,620	159,833	165.0	8.0	22.4
Boots and shoes, not including rubber boots and shoes.....	128,550	115,886	130,632	100,232	85,896	50,220	49,444	170.6	10.9	20.4
Leather, tanned, curried, and finished.....	230,187	217,761	218,238	173,712	148,140	117,450	88,800	153.0	5.7	20.4
Saddlery and harness.....	7,761	8,205	8,212	10,397	17,234	7,870	6,018	28.1	-5.4	-21.0
Trunks and valises.....	7,269	7,686	7,708	7,566	6,885	5,016	3,314	119.6	-5.5	1.8
Boot and shoe cut stock, exclusive of that produced in boot and shoe factories.....	6,963	8,448	9,008	6,829	4,769	4,519	3,202	131.7	-17.6	31.8
Paper and printing.....	2,742,697	2,345,949	2,348,999	2,051,984	1,674,061	1,307,781	913,445	200.7	16.9	14.5
Printing and publishing, newspaper and periodical.....	203,454	194,074	194,361	182,269	173,889	94,832	70,089	190.6	4.8	6.6
Printing and publishing, book and job.....	152,363	131,476	131,961	114,233	97,546	56,788	36,973	315.6	15.9	15.5
Paper and wood pulp.....	2,178,623	1,849,699	1,831,014	1,621,154	1,304,265	1,093,708	762,118	184.1	17.8	14.2
Boxes, paper and other, not elsewhere specified.....	61,687	54,675	54,955	38,179	28,323	15,117	9,286	567.6	63.7	63.7
Lithography.....	26,899	18,550	18,624	15,178	13,132	8,195	7,063	281.8	44.8	22.7
Bookbinding and blank-book making.....	15,539	11,037	11,123	11,266	10,069	5,671	4,089	234.0	40.8	11.6
Paper goods, not elsewhere specified.....	37,840	35,389	35,538	27,368	22,436	13,071	7,855	384.1	7.0	23.9
Liquors and beverages.....	247,161	412,463	415,361	525,769	446,450	347,723	254,615	-2.3	-40.1	-21.0
Liquors, malt, including cereal beverages.....	13,156,511	322,130	324,431	405,884	347,726	266,159	197,901	-20.3	-51.4	-20.1
Mineral and soda waters.....	64,781	41,167	41,764	25,164	19,392	12,214	8,087	717.9	57.4	66.0
Chemicals and allied products.....	2,703,070	2,089,934	2,043,525	1,467,831	1,025,676	729,627	460,790	487.6	32.5	39.2
Petroleum refining.....	391,154	238,906	238,906	128,468	90,268	46,019	36,127	982.5	63.7	86.0
Chemicals and acids.....	688,458	476,840	475,919	307,312	215,151	137,810	90,429	661.6	44.7	54.9
Druggists' preparations, patent medicines and compounds, perfumery and cosmetics, and drug grinding.....	52,713	46,968	47,296	33,844	28,961	19,874	17,404	205.0	12.2	39.7

Gas, illuminating and heating.....	358,805	238,454	238,457	213,370	128,350	78,101	31,787	1,028.0	50.4	11.8	66.2	75.6	126.9
Oils.....	265,225	336,821	340,185	278,853	212,928	166,275	86,302	277.9	-21.9	22.1	30.8	28.1	92.7
Paint and varnish.....	114,281	82,827	85,195	70,833	64,122	41,888	20,443	277.0	34.7	20.7	25.7	38.0	35.6
Fertilizers.....	161,771	122,827	124,689	111,281	84,122	41,888	35,680	318.4	28.5	10.2	76.6	34.8	24.1
Coke, not including gas-house coke.....	332,820	224,879	224,879	117,127	64,622	46,668	34,767	856.6	47.9	92.0	87.1	-40.2	91.8
Soap.....	74,820	55,708	53,710	45,778	28,806	20,228	17,614	327.4	122.0	-5.7	26.0	-40.2	15.5
Explosives.....	35,231	55,635	55,635	45,778	28,806	20,228	17,614	327.4	122.0	-5.7	26.0	-40.2	15.5
Turpentine and rosin.....	1,932	2,276	2,363	2,478	4,123	29,695	19,185	135.7	-15.1	12.8	60.1	-3.6	54.5
Stone, clay, and glass products.....	1,906,499	1,567,815	1,569,719	1,490,975	1,240,908	775,718	510,013	274.3	21.6	5.3	20.2	60.0	52.1
Glass.....	240,528	207,238	207,430	163,139	123,132	91,476	52,943	354.5	16.0	27.1	32.5	34.6	72.8
Brick, tile, pottery, and other clay products <sup>a</sup> .....	529,440	438,555	439,194	470,758	451,186	360,280	292,502	100.9	20.7	-6.1	30.2	34.9	42.7
Cement.....	642,840	488,808	488,808	490,402	371,799	149,604	83,119	670.0	31.5	-18.0	31.0	148.2	22.8
Marble and stone work.....	213,133	169,177	170,132	207,461	187,686	102,887	18,404	157.9	24.0	188.4	110.7	20.8	-3.9
Minerals and earths, ground or otherwise treated.....	88,471	127,064	127,074	44,069	20,920	17,325	18,404	333.7	-34.3	71.9	24.2	59.2	35.5
Nonferrous metals and their products.....	1,210,529	982,720	988,688	575,025	465,136	280,932	214,637	467.5	23.2	116.5	15.6	52.7	47.1
Brass, bronze, and copper products.....	305,839	265,373	265,688	122,700	105,120	60,494	47,257	547.7	15.2	72.2	23.0	57.8	40.9
Smelting and refining.....	555,644	464,503	467,400	271,494	217,242	137,706	97,750	471.9	19.6	4.0	23.8	42.3	18.5
Jewelry.....	16,851	15,095	16,389	15,666	11,204	7,872	6,552	174.8	41.6	13.0	13.8	68.4	-8.5
Copper, tin, and sheet-iron work.....	34,245	24,130	24,144	21,357	18,947	11,195	12,323	180.1	41.9	43.0	24.5	173.9	-38.2
Stamped and enameled ware, not elsewhere specified.....	68,326	51,232	51,441	34,767	27,829	10,088	16,697	312.8	36.4	58.7	17.3	78.1	80.0
Tinware, not elsewhere specified.....	41,252	30,234	30,499	19,139	15,690	8,946	8,172	319.7	2.7	143.4	22.5	15.9	10.4
Watches.....	7,396	7,202	7,202	6,624	5,649	3,172	1,762	1,762	92.4	3	22.5	47.5	33.0
Aluminum manufactures.....	38,272	30,280	30,280	12,338	5,649	3,172	1,762	1,762	92.4	3	22.5	47.5	33.0
Tobacco manufactures.....	43,515	43,390	43,397	34,937	28,514	24,604	22,296	95.2	1.6	79.3	47.5	52.6	3.5
Tobacco, cigars and cigarettes.....	24,894	24,497	24,504	13,664	9,261	6,069	4,583	445.6	-1.4	-11.2	10.5	3.9	4.5
Tobacco, chewing and smoking, and snuff.....	18,621	18,893	18,893	21,273	19,253	18,535	17,713	5.0	1.6	-11.2	10.5	3.9	4.5
Vehicles for land transportation, including rail-road repair shops.....	2,016,534	1,436,392	1,528,841	933,904	656,394	361,088	248,796	759.2	40.4	63.7	42.3	81.8	44.6
Automobiles.....	435,545	282,323	287,323	104,983	50,641	7,624	3,164	13,912.0	54.3	173.7	107.3	564.2	141.0
Steam-railroad repair shops.....	744,065	591,070	594,515	433,994	283,361	167,973	95,087	687.1	25.9	37.0	47.9	74.6	76.7
Automobile bodies and parts.....	463,080	256,770	256,919	68,701	24,909	2,483	687.1	687.1	80.3	274.0	175.8	902.4	76.7
Cars, steam-railroad, not including operations of rail-road companies.....	240,074	157,790	157,885	126,687	97,797	55,994	35,395	619.0	52.1	24.6	29.5	74.7	67.7
Automobile repairing.....	(a)	82,691	82,691	16,380	(b)	(c)	(d)	(e)	15.9	19.7	25.7	1,034.9	-51.0
Electric-railroad repair shops.....	62,370	53,805	53,830	44,969	35,794	3,154	6,443	888.3	-37.9	-44.9	-5.6	25.0	-21.8
Carriages and wagons, including repairs <sup>a</sup> .....	25,034	40,316	40,316	74,334	78,785	63,024	51,755	-50.8	2.9	69.2	47.6	3.5	-71.1
Motor cycles, bicycles, and parts.....	14,840	14,420	14,806	8,753	5,932	5,730	19,847	-23.2	2.9	69.2	47.6	3.5	-71.1

See footnotes at end of Table 31, p. 146.

TABLE 30.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN SELECTED INDUSTRIES, IN CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 136]

INDUSTRY	PRIMARY HORSEPOWER					PER CENT OF INCREASE OR DECREASE (—)				
	Excluding data for rented power other than electric	Including data for rented power other than electric				24-year period, 1899-1923	Inter-censal period			
		1913	1914	1919	1924		1914-1919	1919-1924	1924-1929	1929-1934
Miscellaneous industries.....	3, 115, 689	2, 823, 846	2, 831, 252	1, 568, 020	1, 032, 238	739, 042	424, 023	38, 862	43, 674	46, 152
Shipbuilding, steel.....	280, 373	475, 567	475, 567	83, 706	57, 697	51, 029	38, 862	43, 674	46, 152	49, 724
Electrical machinery, apparatus, and supplies.....	480, 268	438, 082	438, 082	227, 731	188, 768	105, 376	43, 674	46, 152	49, 724	52, 796
Rubber tires, tubes, and rubber goods, not elsewhere specified, including belting and hose, rubber.....	549, 450	373, 873	380, 457	174, 922	96, 533	60, 724	46, 152	49, 724	52, 796	55, 868
Agricultural implements.....	121, 975	128, 249	128, 249	121, 428	100, 601	89, 738	70, 646	72, 610	74, 574	76, 538
Shipbuilding, wooden, including boat building.....	37, 339	77, 794	78, 144	31, 627	30, 366	27, 098	23, 935	24, 389	24, 843	25, 297
Photographs and graphophones.....	41, 160	40, 163	40, 163	11, 688	6, 371	2, 522	1, 082	3, 705	2, 522	3, 705
Ice, manufactured.....	845, 012	569, 925	572, 370	461, 988	317, 789	191, 630	100, 421	74, 612	48, 313	22, 805
Fur goods.....	4, 299	5, 327	5, 327	3, 223	2, 120	1, 994	907	374	100	137
Boots and shoes, rubber.....	56, 184	49, 400	49, 400	24, 621	25, 903	26, 084	23, 017	124	137	150
Photographic materials.....	50, 267	28, 779	28, 779	16, 432	8, 697	5, 061	3, 412	1, 873	74	48
Musical instruments, pianos.....	26, 859	28, 732	28, 732	25, 981	23, 246	17, 467	10, 317	6, 412	3, 412	1, 873
Ammunition.....	23, 172	34, 128	34, 128	11, 354	10, 317	5, 061	2, 980	557	24	10
Instruments, professional and scientific.....	16, 203	12, 981	13, 020	6, 799	4, 856	2, 110	2, 471	557	24	10
Optical goods.....	13, 397	15, 949	15, 710	7, 792	5, 725	3, 410	2, 544	493	14	4
Mattresses and bed springs, not elsewhere specified.....	30, 324	23, 387	23, 469	20, 767	17, 689	13, 220	7, 990	281	23	9
Roofing materials.....	39, 598	36, 247	36, 247	11, 702	9, 431	23, 022	13, 217	117	9	9
Fancy articles, not elsewhere specified.....	8, 098	8, 657	8, 652	4, 586	3, 219	3, 376	2, 596	473	38	30
Paving materials.....	197, 290	191, 471	191, 471	138, 026	5, 757	3, 396	1, 706	576	38	30
Stationery goods, not elsewhere specified.....	11, 539	8, 342	8, 342	5, 703	3, 790	4, 757	3, 155	411	11	9
Signs and advertising novelties.....	11, 781	7, 714	7, 714	6, 789	5, 323	4, 757	3, 155	411	11	9
Toys and games.....	16, 111	14, 423	14, 423	6, 789	5, 323	4, 757	3, 155	411	11	9
Buttens.....	15, 354	13, 706	13, 706	14, 398	12, 831	6, 982	4, 165	280	8	6

See footnotes at end of Table 31, p. 146.

TABLE 31.—VALUE ADDED BY MANUFACTURE IN SELECTED INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

[Because of the omission of certain minor industries and the transfer of a few others from one group to another, some of the group totals and some of the items given in this table differ somewhat from the corresponding totals and items as they appear in the census reports. The italic figures include establishments with products valued at less than \$5,000 to avoid disclosing operations of individual establishments. As to the comparability of 1921 and 1923 figures with those of previous years, see general remarks preceding tables, par. 4, p. 125]

INDUSTRY	VALUE ADDED BY MANUFACTURE IN THOUSANDS OF DOLLARS						PER CENT OF INCREASE OR DECREASE (—)									
	Including data for establishments with products valued at \$500 or more						24-year period, 1899-1923	Interdecennial period								
	1923	1921	1919	1914	1909	1904		1919-1923	1921-1923	1919-1921	1914-1919	1914-1919	1909-1914	1899-1904		
All industries	25,850,300	19,322,227	24,309,093	25,041,688	23,468,578	26,263,695	440.1	4.2	41.0	-26.1	153.5	153.5	35.5	30.3		
Food and kindred products	2,282,771	1,911,410	2,319,174	2,327,344	988,196	740,815	450.1	-1.6	19.4	-17.6	135.5	135.5	39.0	29.6		
Slaughtering and meat packing	409,794	322,744	463,338	463,361	210,302	108,058	302.8	-11.6	22.2	-28.2	120.3	120.3	51.9	6.3		
Bread and other bakery products	545,389	491,388	435,231	438,657	217,636	113,694	588.2	26.0	11.6	12.9	101.6	101.6	39.8	41.4		
Confectionery, chewing gum, and ice cream	303,831	250,975	292,821	294,438	93,041	53,645	1,107.3	3.7	21.0	-14.3	216.5	216.5	40.1	51.4		
Flour-mill and grain-mill products	162,606	135,930	252,447	253,233	125,410	116,098	122.6	-35.6	-12.5	-26.3	101.9	101.9	24.7	27.0		
Canning and preserving, fruits and vegetables	151,870	81,524	135,967	136,614	45,883	26,560	701.5	11.7	86.3	-40.0	197.7	197.7	8.8	39.5		
Sugar, beet, and cane sugar and its refining	98,073	63,232	144,535	144,568	82,197	42,439	370.9	-22.1	55.0	-56.2	177.0	177.0	23.8	103.6		
Butter and cheese	114,409	84,984	82,719	82,847	35,818	21,111	422.2	88.3	34.6	2.7	131.3	131.3	44.9	3.8		
Coffee and spice, roasting and grinding	72,684	59,810	60,844	60,888	34,220	18,341	404.5	19.5	21.5	-1.7	77.9	77.9	25.3	49.0		
Condensed milk	35,365	44,311	56,917	56,912	13,441	8,417	( <sup>c</sup> )	-37.9	-20.2	-22.1	323.4	323.4	102.8			
Glucose and starch	42,079	29,180	55,925	55,927	12,407	7,131	340.9	-24.8	44.2	-47.8	350.8	350.8	4.3	66.9		
Canning and preserving, fish and oysters	19,536	14,032	26,194	26,208	12,657	7,698	175.1	-25.4	38.6	-46.2	107.5	107.5	16.7	40.9		
Pickles, preserves, and sauces	64,478	46,511	52,568	52,748	25,242	15,537	574.0	22.7	38.6	-11.5	109.0	109.0	19.0	36.0		
Breadstuffs, preparations, such as cereals and breakfast foods	48,287	43,482	41,385	41,385	23,218	( <sup>c</sup> )	( <sup>c</sup> )	18.7	11.1	5.1	78.2	78.2	47.1	67.3		
Chocolate and cocoa products	84,689	32,515	37,504	37,504	11,230	6,867	1,143.8	-7.5	6.7	-13.3	234.0	234.0	63.5			
Textiles and their products	4,070,532	3,156,921	3,823,934	3,834,024	4,323,957	3,223,677	450.8	6.3	28.9	-17.6	167.5	167.5	45.7	22.8		
Cotton goods and cotton lace	774,915	585,439	863,739	863,807	252,496	160,403	386.2	-10.3	32.4	-32.2	242.1	242.1	56.6	7		
Clothing, men's	593,911	487,231	586,156	557,234	228,178	170,004	352.6	6.8	21.9	-12.4	144.2	144.2	37.1	29.2		
Clothing, women's	597,123	454,933	527,184	528,136	221,543	116,942	701.7	13.3	31.3	-13.7	133.4	133.4	50.5	56.7		
Woolen and worsted goods	439,827	355,535	399,791	399,839	132,987	110,453	355.1	10.0	23.7	-11.1	200.7	200.7	32.5	21.8		
Silk goods, including throwsters	282,254	245,800	299,890	300,001	193,586	57,427	523.4	-5.9	14.8	-18.0	173.8	173.8	55.2	28.0		

See footnotes at end of table, p. 146.

See footnotes at end of table, p. 146.

TABLE 31.—VALUE ADDED BY MANUFACTURE IN SELECTED INDUSTRIES, IN CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 141]

INDUSTRY	VALUE ADDED BY MANUFACTURE (IN THOUSANDS OF DOLLARS)						PER CENT OF INCREASE OR DECREASE (—)									
	Including data for establishments with products valued at \$300 or more						24-year period, 1899-1923	Inter-censal period								
	1923	1921	1919	1914	1909	1904	1899	1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909	1899-1904	1899-1904	1899-1904
Knit goods.....	364,157	273,616	285,823	288,044	89,902	60,287	44,639	716.4	27.4	33.1	-4.3	154.9	24.8	49.1	35.1	35.1
Dyeing and finishing textiles, exclusive of that done in textile mills.....	178,660	135,552	149,158	149,225	48,295	31,229	27,005	562.0	19.8	31.8	-0.1	188.8	8.9	54.6	15.6	15.6
Millinery and lace goods, not elsewhere specified.....	147,597	137,507	121,855	122,796	40,854	24,519	13,815	976.5	21.1	7.3	12.8	117.4	38.3	66.6	77.5	77.5
Carpets and rugs, other than rag.....	102,008	53,762	56,156	56,136	24,538	21,638	20,963	386.6	81.7	89.7	-4.2	109.1	-15.1	33.8	12.8	12.8
Cordage and twine.....	34,641	28,875	43,658	43,661	12,627	11,921	11,218	309.8	-20.7	20.0	-33.9	170.2	27.9	2.9	6.3	6.3
Hats, fur-felt.....	40,805	26,362	42,551	42,587	25,756	20,654	14,287	185.7	-4.1	54.8	-38.0	108.7	-20.8	24.7	44.5	44.5
Bags, other than paper, not including bags made in textile mills.....	23,454	16,014	38,022	38,041	8,518	6,641	3,213	630.5	-38.3	46.5	-57.9	216.8	41.2	28.3	106.7	106.7
Shirts.....	101,977	80,685	78,045	78,239	37,406	26,332	24,171	323.1	30.7	26.4	3.4	73.3	20.7	47.7	4.8	4.8
Furnishing goods, men's, including suspenders, garters, and elastic woven goods, and cloth gloves and mittens, other than those made in textile mills.....	65,912	53,058	79,471	79,625	27,344	14,519	10,919	504.5	-17.1	24.2	-33.2	164.5	10.1	88.3	33.0	33.0
Corsets.....	39,632	36,743	36,857	36,726	17,617	8,727	8,094	300.0	8.0	7.9	62.2	73.2	19.0	101.9	7.8	7.8
Collars and cuffs, men's.....	24,266	17,197	28,124	28,131	11,241	7,947	9,757	149.1	-13.6	41.3	-38.9	135.1	6.4	41.4	-18.6	-18.6
Iron and steel and their products.....	4,661,576	2,598,011	4,582,899	4,587,749	1,364,539	1,008,933	818,528	470.0	1.7	79.4	-43.3	214.1	7.1	35.2	23.3	23.3
Crude iron and steel and rolled products, including products not made in rolling-mill establishments (though largely made therein) plus wire and wirework, not elsewhere specified.....	1,845,828	836,715	1,806,706	1,807,553	547,911	378,715	348,149	430.6	2.2	120.6	-53.7	225.7	1.3	44.7	8.8	8.8
Foundry and machine-shop products.....	1,400,842	912,163	1,338,095	1,341,009	508,423	407,820	358,326	515.8	4.7	53.6	-31.8	214.4	-9.3	29.0	32.7	32.7
Engines, steam, gas, and water.....	142,455	87,801	247,185	247,224	40,661	(9)	(9)	(9)	-42.4	62.2	-64.9	508.0				
Machine tools.....	86,229	43,751	153,335	(9)	(9)	(9)	(9)	(9)	-37.2	119.9	-71.9	354.4				
Tools, not elsewhere specified.....	79,932	44,974	97,993	98,405	19,332	13,157	8,701	822.9	-18.4	77.8	-54.8	354.4	12.0	46.0	51.2	51.2
Stores and hot-air furnaces.....	159,787	76,944	97,899	97,899	39,397	29,139	21,242	511.4	35.3	63.7	-10.8	116.9	12.9	38.9	37.2	37.2
Steam fittings and steam and hot-water heating apparatus.....	102,404	60,573	90,893	90,915	44,139	35,925	(9)	(9)	12.7	68.1	-33.4	106.0	3.9	18.2		
	138,657	77,154	88,253	88,269	37,001	14,488	11,865	1,068.7	57.1	79.7	-12.6	138.6	17.3	117.8	22.1	22.1

Locomotives, not made by railroad companies	91, 132	46, 611	83, 894	19, 828	16, 522	31, 849	(C)	(C)	8.6	95.5	-44.4	323.1	20.0	-48.1
Textile machinery and parts	90, 956	84, 631	76, 332	26, 328	10, 156	8, 359	4, 754	1, 337.6	19.1	8.2	10.0	323.1	20.0	-48.1
Cash registers and calculating machines	82, 623	44, 080	47, 078	17, 355	15, 634	12, 859	9, 695	471.4	13.7	87.4	-39.9	173.0	31.6	141.1
Outfitters and edge tools	55, 317	34, 367	42, 903	17, 355	15, 634	12, 859	9, 695	471.4	17.5	61.0	-27.0	171.7	10.9	24.4
Ordnance and accessories	(C)	(C)	(C)	(C)	(C)	(C)	(C)	(C)	5.3	24.2	-15.2	92.6	21.5	78.4
Typewriters and supplies	38, 521	31, 020	36, 594	18, 969	15, 642	8, 770	5, 330	594.8	151.8	87.3	-34.5	30.5	8.5	68.0
Plumbers supplies, not elsewhere specified	81, 196	43, 359	32, 241	24, 716	22, 776	11, 618	7, 431	985.8	102.3	194.4	-31.2	171.3	60.3	79.0
Stoves, gas and oil	63, 290	21, 495	31, 320	11, 296	7, 047	3, 837	(C)	2, 948.1	18.6	35.5	-12.5	234.3	60.3	39.5
Pumps, steam and other power (including cases)	58, 465	43, 153	40, 314	14, 756	(C)	(C)	(C)	(C)	15.6	35.5	-12.5	234.3	60.3	39.5
Sewing machines and attachments (including cases)	28, 204	20, 671	33, 520	17, 038	10, 808	15, 443	11, 666	141.8	-15.9	36.4	-38.3	98.8	1.4	8.8
Screws, machine	23, 443	10, 788	25, 021	4, 190	1, 854	1, 761	1, 293.1	758.4	-6.3	117.3	-58.9	497.4	126.0	5.8
Lumber and its manufactures	1, 938, 264	1, 240, 747	1, 683, 739	1, 710, 074	837, 361	702, 248	526, 602	272.8	14.8	55.2	-26.5	104.2	-3.8	24.0
Lumber and timber products	921, 398	524, 574	898, 628	916, 511	433, 358	396, 069	312, 425	200.7	2.5	75.6	-41.6	111.5	-11.2	23.2
Furniture	11, 434, 289	296, 618	313, 456	309, 833	144, 220	125, 324	96, 827	508.7	38.5	46.4	-5.4	114.8	15.1	20.4
Lumber, planing-mill products, not including planing mills connected with sawmills	201, 610	190, 567	199, 978	128, 351	131, 318	104, 304	11, 681	342.8	45.8	53.0	-4.7	61.4	-2.3	25.0
Boxes, wooden packing, except cigar boxes	68, 778	49, 318	74, 664	33, 727	28, 864	23, 569	15, 368	348.7	-7.9	39.5	-33.0	122.0	16.8	22.5
Coffins, burial cases, and undertakers' goods	34, 017	27, 779	32, 752	13, 068	12, 562	10, 765	7, 007	386.0	3.9	22.5	-15.2	150.9	4.0	16.7
Cooperage	24, 778	15, 047	24, 433	20, 715	17, 460	18, 331	16, 289	53.6	-15.8	54.4	-45.5	74.0	-2.2	-4.8
Leather and its finished products	796, 740	609, 788	804, 622	896, 424	351, 459	322, 839	244, 170	330.8	-10.9	30.7	-31.8	155.1	8.9	32.2
Boots and shoes, not including rubber boots and shoes	472, 621	389, 044	439, 689	439, 772	191, 405	165, 163	90, 337	423.3	7.5	21.5	-11.5	120.8	15.9	34.6
Leather, tanned, curried, and finished	167, 148	105, 640	283, 023	282, 070	82, 957	79, 595	61, 442	40, 038	-40.7	58.2	-62.5	240.0	4.2	29.3
Saddlery and harness	17, 633	12, 499	30, 061	31, 270	20, 473	18, 281	13, 932	31.7	-41.3	41.2	-58.4	52.7	-2.7	15.1
Trunks and valises	30, 186	22, 666	30, 546	30, 710	12, 847	9, 536	6, 474	368.7	-1.2	33.2	-28.8	136.0	-4.1	40.5
Boots and shoe cut stock, exclusive of that produced in boot and shoe factories	20, 728	15, 769	27, 294	27, 316	8, 515	7, 741	6, 089	280.9	-24.1	31.4	-42.2	220.8	10.0	27.1
Paper and printing	2, 226, 926	1, 817, 423	1, 681, 498	1, 705, 866	875, 330	728, 047	550, 802	383, 942	32.4	22.5	8.1	94.9	20.2	32.2
Printing and publishing, newspaper and periodical	945, 022	752, 586	608, 281	623, 768	366, 824	308, 730	238, 947	437.2	48.8	20.3	23.7	70.0	18.8	29.2
Printing and publishing, book and job	518, 024	473, 896	379, 661	386, 596	210, 878	173, 276	130, 037	516.0	36.4	9.3	24.8	53.3	21.7	33.3
Paper and wood pulp	333, 620	221, 444	320, 574	320, 577	118, 966	102, 214	77, 463	487.5	4.1	50.7	-30.9	160.5	16.4	32.0
Boxes, paper and other, not elsewhere specified	120, 129	85, 980	105, 200	105, 284	38, 443	28, 724	20, 181	673.1	14.2	39.7	-18.8	173.9	33.8	42.4
Lithographing	60, 662	48, 950	45, 347	45, 433	22, 178	16, 895	14, 555	325.5	33.8	23.9	7.9	80.9	13.3	31.3
Book binding and blank-book making	53, 886	43, 968	42, 249	42, 786	24, 770	20, 112	16, 084	316.8	27.5	22.6	-4.1	73.7	23.2	25.0
Paper goods, not elsewhere specified	49, 204	34, 257	41, 965	41, 960	20, 751	16, 924	9, 415	607.2	17.3	43.6	-18.4	102.4	22.6	79.8

See footnotes at end of table, p. 146.

TABLE 31.—VALUE ADDED BY MANUFACTURE IN SELECTED INDUSTRIES, IN CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 141]

INDUSTRY	VALUE ADDED BY MANUFACTURE (IN THOUSANDS OF DOLLARS)						PER CENT OF INCREASE OR DECREASE (—)									
	Including data for establishments with products valued at \$500 or more						24-year period, 1899-1923	Intercensal period								
	1923	1921	1919	1914	1909	1904	1899	1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909	1899-1904		
Liquors and beverages.....	150,537	134,657	378,539	381,119	528,891	488,183	289,083	-47.5	-60.2	11.8	64.4	-27.5	7.7	33.1	25.0	
Liquors, malt, including cereal beverages.....	18,490,238	67,034	285,098	285,112	312,425	278,134	185,317	-73.4	-82.7	-26.5	-76.5	-8.7	12.3	24.5	20.6	
Mineral and soda waters.....	79,919	54,492	64,352	66,743	31,622	27,042	14,704	463.3	24.1	46.7	-15.4	111.1	16.9	53.5	37.7	
Chemicals and allied products.....	2,002,782	1,466,633	1,860,007	1,362,624	712,289	595,555	441,601	546.6	7.7	36.6	-21.1	161.5	19.6	34.9	42.3	
Petroleum refining.....	368,647	345,270	384,623	384,025	71,096	37,725	35,618	1,648.8	-4.2	6.8	-10.2	441.0	88.5	5.9	69.0	
Chemicals and acids.....	326,079	211,959	309,416	309,456	77,084	58,063	37,339	1,175.0	5.6	54.1	-31.5	301.5	32.7	68.6	45.7	
Druggists' preparations, patent medicines and compounds, perfumery and cosmetics, and drug grinding.....	261,083	201,260	220,095	221,646	103,897	94,118	80,063	57,835	18.6	29.7	-8.6	113.3	10.4	17.6	38.4	
Gas, illuminating and heating.....	258,977	208,943	171,690	171,728	143,459	114,386	87,965	369.0	50.8	23.9	21.7	19.1	25.4	30.0	59.6	
Oils.....	74,289	54,539	145,050	145,117	45,848	43,923	29,797	24,312	-48.8	26.2	-19.7	11.2	47.4	22.6	24.9	
Paint and varnish.....	155,180	102,912	123,168	123,234	57,159	45,874	31,014	24,824	26.0	50.2	-12.4	111.6	24.6	47.9	31.9	
Fertilizers.....	55,169	35,397	96,082	96,108	45,241	34,438	17,253	923.4	-42.6	56.1	-43.2	206.1	31.4	94.6	9.9	
Coke, not including gas-house coke.....	162,893	52,522	92,243	92,249	30,137	31,672	15,919	923.4	76.6	210.1	-43.1	206.1	-4.6	45.0	37.2	
Soap.....	102,857	89,839	78,159	78,221	39,075	39,179	24,649	412.5	31.6	14.5	14.9	100.2	-8.8	38.8	52.6	
Explosives.....	35,533	28,531	46,564	46,564	15,806	17,328	12,399	423.3	-23.7	24.5	-38.7	194.6	-8.8	38.8	52.6	
Turpentine and rosin.....	26,194	17,102	38,937	39,121	15,454	20,384	20,162	85.9	-32.7	53.2	-66.1	163.1	-24.2	1.1	42.4	
Stone, clay, and glass products.....	971,751	597,125	672,296	676,958	375,427	347,945	295,081	427.6	44.6	62.7	-11.2	80.3	7.9	29.8	44.5	
Glass.....	196,183	127,435	171,104	171,104	77,008	59,976	53,462	393.0	14.7	53.9	-25.5	122.0	28.5	12.2	34.3	
Brick, tile, pottery, and other clay products.....	312,352	185,762	195,421	196,145	118,753	123,248	102,445	331.6	59.8	68.1	-4.9	65.2	-3.6	20.3	41.1	
Cement.....	163,332	101,267	95,755	95,755	49,769	33,861	17,658	70.6	70.6	61.3	5.8	92.4	47.0	91.8	38.4	
Marble and stone work.....	124,655	94,174	78,155	78,155	69,233	75,696	35,275	201.6	59.5	48.1	7.7	15.0	-8.5	29.9	38.4	
Minerals and earths, ground or otherwise treated.....	22,008	14,652	29,726	29,797	5,746	2,639	2,570	964.7	-26.0	50.2	-50.7	418.6	117.7	2.7	24.1	



Nonferrous metals and their products.															
947, 128	530, 278	846, 593	850, 259	303, 690	848, 844	292, 842	218, 469	335.5	11.9	63.2	-31.5	116.0	13.0	32.5	20.3
179, 714	84, 277	177, 318	177, 489	46, 712	50, 761	36, 745	27, 465	555.2	1.4	113.2	-52.5	280.0	-8.0	38.1	33.8
145, 216	66, 818	132, 908	132, 908	105, 045	74, 603	73, 318	51, 016	83.0	11.5	121.8	-49.7	28.5	40.8	3.2	-10.7
95, 401	68, 172	92, 687	93, 443	41, 890	23, 049	23, 894	280.3	23.6	22.5	30.2	-25.4	133.2	-4.1	50.3	21.6
30, 401	72, 880	77, 238	78, 415	44, 717	42, 455	25, 934	11, 433	7.2	10.5	65.0	-33.0	133.5	23.3	46.7	1.4
86, 405	52, 352	73, 178	78, 197	32, 649	25, 246	11, 433	7, 213	1, 097.9	16.4	34.3	-13.4	144.9	43.7	20.8	58.5
21, 941	59, 537	63, 749	63, 738	28, 040	19, 541	15, 645	15, 645	294.1	13.3	25.0	-13.0	121.0	21.1	24.9	73.9
24, 984	18, 236	23, 631	23, 651	11, 608	6, 838	6, 807	5, 532	(7)	54.9	102.7	-23.6	402.4	-	-	-
40, 271	19, 869	20, 001	20, 006	5, 176	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Aluminum manufactures.															
538, 327	429, 801	522, 453	529, 365	283, 031	239, 509	205, 026	170, 847	213.2	1.1	20.1	-15.8	87.0	18.2	16.8	20.0
451, 738	354, 637	413, 635	420, 365	184, 354	157, 368	133, 212	102, 131	349.5	0.2	27.4	-14.3	128.0	17.1	18.1	30.4
76, 562	85, 264	108, 817	104, 000	98, 677	82, 141	71, 814	68, 716	11.7	-23.6	-10.2	-21.6	10.5	20.1	14.4	4.5
Tobacco manufactures.															
2, 598, 786	1, 693, 602	2, 227, 586	2, 357, 303	739, 007	473, 209	309, 027	237, 907	1, 051.3	16.7	53.4	-24.0	220.3	54.5	54.4	30.1
1, 015, 865	564, 325	592, 245	593, 252	210, 632	86, 032	14, 987	24, 397.7	33.3	25.5	34.0	-34.0	234.2	144.7	474.4	469.1
334, 303	707, 019	763, 533	763, 432	270, 212	206, 188	158, 670	108, 642	668.1	9.3	18.0	-7.4	132.5	31.1	29.9	46.0
449, 069	194, 652	329, 459	330, 143	65, 931	31, 465	1, 885	(7)	(7)	36.3	131.4	-41.1	400.3	109.7	1, 560.4	(7)
Vehicles for land transportation, including railroad repair shops.															
178, 923	121, 622	182, 138	182, 138	62, 576	44, 977	35, 518	28, 707	621.7	-1.8	47.1	-33.2	191.1	39.1	26.6	23.5
(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)	(78)
1, 401	53, 762	43, 059	43, 186	20, 907	16, 755	7, 974	5, 034	584.4	26.4	1.3	24.8	106.0	24.8	110.6	58.4
17, 305	18, 553	41, 401	41, 401	54, 524	64, 118	59, 811	61, 477	61.7	-88.2	11.1	-65.4	-21.6	-11.3	-4.1	7.7
14, 256	12, 775	27, 111	27, 120	11, 805	2, 525	15, 124	-5.7	(7)	-47.4	11.6	-52.9	139.9	101.3	122.4	-83.3
Miscellaneous industries.															
2, 674, 126	2, 070, 269	3, 306, 037	3, 312, 589	903, 339	672, 169	490, 990	338, 914	690.7	-19.1	29.2	-37.4	266.7	34.4	30.9	44.9
105, 798	202, 397	812, 734	812, 737	36, 947	27, 901	30, 831	26, 782	294.5	-87.0	-47.7	-75.1	12, 093.7	32.4	-9.5	15.1
744, 375	439, 915	572, 719	572, 370	180, 442	112, 743	73, 972	42, 976	1, 632.9	30.0	51.9	-14.5	217.5	60.0	52.4	72.1
Shipbuilding, steel.															
Electrical machinery, apparatus, and supplies.															
Rubber trees, tubes, and rubber goods, not elsewhere specified, including belts and hose, rubber.															
Agricultural implements.															
Shipbuilding, wooden, including boat building.															
Photographs and graphophones.															
Ice, manufactured.															
Fur goods.															
Boots and shoes, rubber.															
Photographic materials.															
Musical instruments, pianos.															

See footnotes at end of table, p. 146.

TABLE 31.—VALUE ADDED BY MANUFACTURE IN SELECTED INDUSTRIES, IN CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 141]

INDUSTRY	VALUE ADDED BY MANUFACTURE (IN THOUSANDS OF DOLLARS)						PER CENT OF INCREASE OR DECREASE (-)						
	Including data for establishments with products valued at \$500 or more						24-year period, 1899-1923	Inter-censal period					
	Excluding data for establishments with products valued at less than \$5,000												
	1923	1921	1919	1914	1909	1904		1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1899-1904
Miscellaneous industries—Contd.													
Ammunition	23,768	16,344	49,936	14,563	10,601	9,330	5,591	-52.4	45.4	-67.3	242.9	37.4	66.9
Instruments, professional and scientific	45,034	28,806	38,532	11,913	7,586	4,028	3,490	16.9	50.3	-25.2	224.4	57.0	15.4
Optical goods	35,350	27,772	35,828	11,532	7,548	3,797	3,110	-1.3	27.3	-22.5	210.2	53.3	22.1
Mattresses and bed springs, not elsewhere specified	46,085	32,568	34,459	16,318	15,390	12,429	7,729	33.6	41.5	-5.6	112.9	6.7	80.9
Roofing materials	28,922	31,180	33,276	10,373	6,746	9,029	6,505	-13.4	-7.6	-6.3	221.1	53.8	32.7
Fancy articles, not elsewhere specified	34,677	27,022	31,476	9,230	6,967	7,135	4,985	10.9	28.3	-13.6	240.9	32.9	43.1
Paving materials	46,614	36,655	29,371	21,515	2,751	2,367	2,354	58.7	27.2	24.8	38.1	16.2	6.6
Stationary goods, not elsewhere specified	42,975	34,991	30,150	11,149	8,993	4,947	2,938	42.3	22.8	16.1	171.1	25.1	68.4
Signs and advertising novelties	44,583	34,537	27,271	15,733	8,837	(7)	(7)	66.3	23.1	28.8	73.3	78.0	
Toys and games	32,237	20,922	25,647	7,978	4,710	3,289	2,845	23.2	54.1	-13.4	223.6	69.4	40.3
Buttons	19,550	16,128	24,850	12,010	13,167	6,990	4,893	-21.3	21.2	-33.1	109.0	-8.8	42.9

1 Based on figures shown in left-hand column for 1919.

2 The figures shown in the right-hand column for 1919 were used in calculating the percentages in this column.

3 Prior to 1914, the manufacture of ice cream was not included except in cases where it was made a subsidiary product in the manufacture of confectionery or some other class of product for which statistics were collected.

4 "Condensed milk" included in "Butter and cheese."

5 "Roasting and grinding of peanuts," included in "Coffee and spice, roasting and grinding."

6 Title changed to "Corn sirup, corn oil, and starch."

7 Not shown separately.

8 The following industries, formerly a part of "Foundry and machine-shop products," are now treated as separate industries: "Machine tools," "Steel barrels, drums, and tanks," "Textile machinery and parts," and the tempering and welding of iron and steel prior to 1919; "Engines—steam, gas, and water," and "Pumps, steam and power," prior to 1914; "Automobile repairing" in 1909 and 1904; "Iron and steel—cast-iron pipe," prior to 1909; "Locomotives," and "Stoves and furnaces," prior to 1904. The percentages have been computed from comparable figures. (See p. 124.)

9 Included in "Foundry and machine-shop products."

10 "Pumps, not including power pumps," included in "Pumps, steam and other power."

11 Includes "Show cases."

12 Includes "Window and door screens and weather strips."

13 "Cereal beverages," only.

14 "Coal-tar products" included 1899-1923, and "Ferro-alloys (electric-furnace)" for 1923, 1921, and 1914.

15 Includes "Candles."

16 Includes "Sand-lime brick."

17 "Cement" included with "Lime."

18 Includes "Artificial stone products."

19 Because of a change in classification, statistics not comparable.

20 Not called for on schedule.

21 Repairing included prior to 1923.

22 Includes "Airplanes, seaplanes, airships, and parts."

23 Includes "Photographic apparatus," and "Motion pictures."

24 Includes "Pianos," "Organs," and "Organ materials."

TABLE 32.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

[The italic figures include establishments with products valued at less than \$5,000 to avoid disclosing operations of individual establishments. As to the comparability of 1921 and 1923 figures with those of previous years, see general remarks preceding tables, par. 4, p. 125]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS					PER CENT OF INCREASE OR DECREASE (—)									
	Including data for establishments with products valued at \$5,000 or more					24-year period, 1899-1923	Interdecadal period								
	1923	1921	1919	1914	1909	1904	1939	1919-1923	1923-1923	1919-1923	1914-1919	1909-1914	1904-1909	1899-1904	
All industries.....	8,778,156	6,946,570	9,000,059	9,096,372	7,036,247	6,615,046	5,468,383	4,712,763	88.2	-2.5	26.4	-22.8	20.3	6.4	16.0
Agricultural implements.....	30,962	30,369	54,294	54,368	48,459	50,551	46,582	-33.5	-43.0	2.0	-44.1	12.2	-4.1	6.7	1.7
Airplanes, seaplanes, airships, and parts.....	2,901	1,395	5,645	5,543	1,588	(*)	(*)	-18.1	108.0	69.9	-10.6	2,096.3			
Aluminum manufactures.....	16,228	9,584	11,402	11,402	4,614	(*)	(*)	-54.1	54.1	25.1	-18.9	147.1			
Ammunition.....	10,470	8,370	22,816	22,816	11,403	8,713	7,410	100.2	54.1	25.1	-18.9	147.1			
Artificial flowers.....	4,696	3,883	4,126	4,136	4,893	4,832	4,343	-11.7	13.8	20.9	-13.9	98.6	31.9	17.6	41.7
Artificial limbs.....	493	500	652	671	493	432	343	-11.7	13.8	20.9	-13.9	98.6	31.9	17.6	41.7
Artificial stone products.....	10,766	9,864	7,413	8,378	10,255	9,957	2,506	103.7	24.4	54.2	-18.3	13.0	20.3	37.3	
Artists' materials.....	1,411	1,008	915	926	604	658	274	613.9	45.2	54.2	-18.3	13.0	20.3	37.3	
Asbestos products, not including steam packing.....	6,078	2,026	3,650	3,654	992	(*)	(*)	66.5	300.0	300.0	-44.5	270.8			37.0
Automobile bodies and parts.....	163,530	69,119	132,323	132,556	47,735	24,427	1,810	23.6	23.6	136.6	-47.8	177.4	95.0	124.6	
Automobile repairing.....	241,356	143,658	210,559	210,559	79,307	51,294	10,239	10,657.6	14.6	68.0	-37.8	338.2	54.0	401.0	355.9
Awning, tents, and sails.....	5,933	5,070	5,898	6,028	5,073	4,242	3,432	82.5	1.0	17.5	-14.0	18.8	19.9	57.6	6.4
Babbit metal and solder.....	1,497	1,372	2,360	2,372	1,035	897	569	335	35.8	9.1	-42.1	129.2	18.4	57.6	
Bags, other than paper, not including bags made in textile mills.....	11,548	10,324	10,746	10,756	9,358	7,968	5,722	194.8	7.5	11.9	-3.9	14.0	17.4	39.3	45.9
Bags, paper, exclusive of those made in paper mills.....	4,686	3,707	4,161	4,168	3,505	3,212	2,473	1,889	12.6	28.4	-10.9	18.9	9.1	29.9	24.2
Baking powders and yeast.....	3,507	3,557	3,318	3,331	2,270	2,156	2,449	81.7	5.7	1.4	-7.2	46.7	5.3	12.0	26.4
Baskets, and rattan and willow ware.....	5,838	4,795	4,456	4,533	4,574	4,664	5,106	40.8	31.0	21.8	-7.6	-9.1	-8.7	21.1	
Bells.....	218	203	237	237	445	414	663	-67.2	-8.0	7.4	-14.3	13.9	7.5	31.9	108.8
Belting and hose, rubber.....	(*)	(*)	5,826	5,826	5,115	5,131	3,698	1,771							
Belting and hose, woven, other than rubber.....	335	1,119	2,479	2,479	952	1,188	692	254	31.8	-70.1	-54.9	160.4	-19.9	71.7	172.4
Belting, leather.....	3,100	2,268	2,761	2,765	2,051	3,006	2,092	90.0	14.5	38.8	-17.9	-0.3	-1.8	43.7	25.5
Billiard tables, bowling alleys, and accessories.....	876	925	2,101	2,101	1,433	1,492	796	453	93.4	-5.3	-56.0	44.6	-2.8	87.8	75.7
Blacking, stains, and dressings.....	2,165	1,666	2,438	2,455	1,768	1,438	1,218	74.4	-11.2	30.0	-31.7	39.0	22.8	18.1	-2.6

See footnotes at end of Table 34, p. 177.

TABLE 32.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 147]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS					PER CENT OF INCREASE OR DECREASE (-)									
	Including data for establishments with products valued at \$500 or more					24-year period, 1899-1923	Interdecennial period								
	1923	1921	1919	1914	1908	1904	1900	1919-1923	1914-1919	1909-1914	1904-1909	1899-1904	1894-1899	1889-1894	1884-1889
Ruing.....	188	226	355	254	313	206	220	-47.0	-36.8	41.7	-18.8	51.9	-6.4		
Bone, carbon, and lamp black.....	1,303	676	20,126	339	228	200	85	93.0	22.4	96.1	48.7	14.0	135.3		
Bookbinding and blank-book making.....	20,728	17,465	20,126	21,093	10,933	17,713	15,971	3.0	18.7	-13.2	-6.1	3.8	12.6	10.9	
Boot and shoe cut stock, exclusive of those produced in boot and shoe factories.....	7,133	7,049	9,703	7,819	6,633	5,936	6,155	16.0	-27.4	24.2	16.8	12.8	-3.6		
Boot and shoe findings, exclusive of that produced in boot and shoe factories.....	7,865	5,917	8,908	6,714	6,483	4,434	3,246	-11.7	-33.6	33.2	3.5	46.3	36.6		
Boots and shoes, not including rubber boots and shoes.....	225,216	183,502	210,991	191,555	185,116	149,924	141,830	6.7	-13.0	10.2	3.5	23.5	5.7		
Boots and shoes, rubber.....	20,435	23,883	32,975	18,687	17,612	18,991	14,391	-10.5	-27.3	75.9	6.1	-7.3	32.0		
Boxes, cigar.....	5,101	4,657	5,189	5,835	6,115	6,352	4,609	-1.7	-10.3	-10.6	-4.6	-2.7	36.3		
Boxes, paper and other, not elsewhere specified.....	56,855	46,242	55,778	45,311	39,514	32,032	27,633	1.9	-17.1	23.3	14.7	23.2	16.0		
Boxes, wooden packing, except cigar boxes.....	39,154	32,595	42,325	38,548	33,449	30,329	21,999	-7.5	-20.1	10.1	8.7	16.9	37.9		
Brass, bronze, and copper products.....	64,713	39,830	74,998	40,806	40,618	33,108	27,166	-13.7	-46.9	86.2	-8.3	22.5	22.1		
Bread and other bakery products.....	162,613	148,500	140,477	124,652	100,216	81,278	60,192	15.8	9.5	14.1	23.8	23.3	35.0		
Brick and tile, terra-cotta, and fire-clay products.....	102,723	68,579	76,347	100,182	76,528	11,062	11,979	21.0	-9.9	-23.2	15.9	6.5			
Brooms.....	4,730	4,302	6,205	6,313	5,642	5,199	11,425	-23.8	-30.7	11.9	8.5	6.4	10.4		
Brushes.....	8,719	6,450	7,925	7,213	6,954	7,213	12,769	10.0	-18.5	10.5	3.7	21.3			
Butter.....	20,782	18,506	17,608	17,641	14,149	11,563	9,530	18.1	5.1	24.7	22.4	21.3			
Butter, reworking.....	(1)	(1)	47	47	304	295	148			-84.5	3.1	21.7			
Buttons.....	11,800	9,083	15,439	14,511	16,427	10,567	8,085	-23.2	-37.3	7.3	-11.7	55.5	21.7		
Candles.....	7,746	6,009	537	641	387	816	11,263	38.9	13.4	39.8	-28.2	-33.9			
Canning and preserving, fish.....	8,090	6,916	11,188	9,069	7,590	5,154	11,263	-28.2	-38.2	24.0	24.9	40.9	-54.2		
Canning and preserving, fruits and vegetables.....	57,178	38,668	89,771	50,325	40,492	39,988	37,189	-4.3	-35.3	20.9	24.3	1.3	7.5		
Canning and preserving, oysters.....	1,114	1,030	1,176	2,067	2,066	3,291	1,335	-5.3	8.2	-43.0	-21.7	-19.0	146.5		
Card cutting and designing.....	1,207	762	1,140	517	525	3,291	1,335	5.9	-12.4	122.1	-1.5	-24.6	114.2		
Cardboard, not made in paper mills.....	1,176	1,157	1,425	1,159	925	696	626	-17.5	-18.8	23.0	25.3	57.8	-6.4		
Carpets and rugs, other than rag.....	35,217	22,922	23,555	31,309	33,307	33,221	28,411	53.6	0.0	-20.8	-6.0	14.2	16.9		
Carpets, rag.....	2,041	1,576	1,868	2,130	1,982	1,318	67.2	0.3	-15.6	-5.4	7.5	31.7	11.5		
Carriage and wagon materials.....	1,983	2,747	6,480	11,087	17,388	17,100	15,387	-69.4	-57.6	-41.3	-36.2	1.3	11.3		
Carriages and sleds, children's.....	8,324	5,460	6,678	5,900	5,300	4,003	2,735	24.6	-18.2	13.3	11.3	82.4	46.8		
Carriages and wagons, including repairs.....	7,740	7,797	17,583	41,304	52,540	60,722	58,425	-56.0	-55.7	-50.0	-21.4	-13.5	3.9		

Cars and general shop construction and repairs by electric-railroad companies	34, 925	33, 279	31, 155	31, 272	28, 384	22, 418	11, 052	7, 025	399.1	12.1	4.9	6.8	18.5	17.7	102.5	57.3
Cars and general shop construction and repairs by steam-railroad companies	488, 505	385, 066	454, 380	484, 437	339, 518	282, 174	236, 870	173, 595	181.6	.9	28.9	-20.5	42.7	20.3	19.1	36.4
Cars, electric-railroad, not including operations of railroad companies	3, 978	2, 312	2, 920	2, 920	3, 840	3, 583	4, 730	3, 585	11.0	38.2	36.6	-3	-24.0	7.2	-24.2	31.9
Cars, steam-railroad, not including operations of railroad companies	76, 612	45, 121	52, 298	52, 298	54, 288	43, 086	34, 058	33, 453	129.0	46.5	69.8	-13.7	-3.7	28.0	28.5	1.8
Cash registers and calculating machines	14, 971	9, 786	16, 535	16, 535	16, 444	8, 665	4, 079	2, 067	624.4	-0.5	53.4	-40.8	84.7	20.0	83.0	97.3
Cement	35, 051	26, 231	25, 554	25, 524	27, 916	26, 775	17, 478	(7)	201.2	37.5	33.8	2.8	-8.6	4.3	53.2	-
Charcoal, not including production in the lumber and wood distillation industries	101	269	194	209	228	631	923	1, 736	-63.9	-47.9	-62.5	38.7	-8.3	-63.9	-31.6	-48.3
Cheese	4, 383	3, 498	3, 961	3, 967	2, 908	2, 704	2, 652	(7)	-	10.7	25.3	-11.7	27.7	7.5	2.0	-
Chemicals	64, 398	83, 474	55, 556	71, 249	32, 311	23, 729	19, 847	15, 163	444.6	15.9	63.1	-21.6	120.5	36.2	19.6	30.9
Chewing gum	2, 052	1, 994	3, 181	3, 190	2, 048	(20)	(20)	(20)	-	-35.5	2.9	-37.3	33.3	-	-	-
China decorating, not including that done in potteries	355	325	231	244	295	328	225	295	25.9	53.7	9.2	40.7	-17.3	-10.1	45.8	-24.5
Chocolate and cocoa products	6, 376	6, 652	9, 083	9, 083	4, 100	2, 526	2, 090	1, 314	425.2	24.3	3.4	-26.8	118.2	47.2	35.9	59.1
Cleaning and polishing preparations	2, 376	1, 687	1, 900	1, 900	1, 239	970	564	508	381.0	25.0	40.8	-11.2	57.8	25.2	73.6	11.9
Clacks	9, 359	8, 535	8, 248	8, 252	6, 764	7, 901	7, 249	6, 037	13.5	13.5	43.2	-20.8	22.2	-15.2	9.8	28.1
Coal, sparging and refinishing	1, 225	1, 123	1, 203	1, 206	901	975	705	534	129.9	1.8	9.1	-6.7	33.0	-7.6	22.6	48.9
Clothing, horse	841	705	1, 758	1, 765	1, 669	1, 648	1, 063	575	47.7	10.9	17.9	-7.0	54.1	1.3	55.0	84.9
Clothing, men's	194, 820	165, 206	174, 588	175, 270	173, 747	191, 183	137, 190	120, 927	61.7	11.6	17.9	-5.4	9.9	-19.0	39.4	12.4
Clothing, women's	334	329	448	454	672	530	903	944	-	23.4	1.5	-23.6	-	-	-	-
Coal-tar products	133, 195	144, 805	164, 993	165, 649	108, 907	153, 743	115, 705	83, 739	59.6	-18.3	-8.1	-12.2	-1.9	9.9	32.9	38.2
Coffee and spice, roasting and grinding	10, 499	6, 832	15, 646	(7)	(7)	(15)	(15)	(15)	-	-32.9	53.7	-56.3	-	-	-	-
Coffins, burial cases, and undertakers' goods	9, 665	8, 882	10, 523	10, 540	8, 549	7, 490	5, 959	6, 387	-	-8.2	8.8	-15.6	23.3	14.1	25.7	-
Coke, not including gas-house coke	11, 593	9, 956	11, 880	11, 890	9, 468	9, 339	8, 463	6, 840	69.6	-2.4	16.4	-18.2	25.6	1.4	10.3	23.8
Collars and cuffs, men's	28, 364	16, 070	29, 314	29, 319	21, 107	29, 273	18, 681	16, 999	67.0	-5.8	76.5	-45.2	38.9	-27.9	54.2	17.7
Combs and hairpins, not made from metal or rubber	10, 449	9, 285	11, 096	11, 105	10, 100	12, 421	10, 766	17, 135	-39.0	-	12.5	-16.3	9.9	-18.7	15.2	-37.1
Condensed milk	2, 144	1, 321	2, 229	2, 229	2, 773	4, 555	1, 906	1, 399	53.2	-3.8	62.3	-40.7	-19.6	-39.1	152.2	29.1
Confectionery and ice cream	8, 723	9, 462	13, 675	13, 675	6, 002	4, 164	3, 375	2, 375	-	-36.2	-7.8	-30.8	127.8	44.1	23.4	-
Cooperage	86, 617	81, 213	95, 098	95, 048	61, 938	44, 638	36, 239	26, 868	224.3	-8.9	6.6	-14.6	54.3	23.2	23.2	34.9
Copper, tin, and sheet-iron work	12, 028	9, 576	13, 071	13, 219	17, 138	10, 489	21, 149	22, 117	-45.0	-8.0	21.8	-24.4	-22.9	-12.1	-7.8	-4.4
Cordage and twine	28, 832	25, 172	26, 956	27, 640	23, 714	28, 448	22, 556	13, 315	4.4	7.0	14.6	-6.6	-3.7	9.9	26.1	-20.3
Corbals and flaving straws	16, 832	14, 583	17, 617	17, 622	15, 768	14, 629	14, 614	13, 114	26.0	-7.0	12.3	-17.2	11.8	7.8	65.9	82.3
Cork, cutting	1, 970	1, 408	1, 391	1, 398	929	1, 095	690	362	446.9	41.6	33.9	1.2	50.5	-15.2	8.5	23.7
Corses	3, 478	2, 774	3, 541	3, 545	3, 454	3, 142	2, 885	2, 340	-	-1.8	25.4	-21.7	-10.2	16.7	60.0	-10.8
Cotton goods	16, 104	17, 084	18, 391	18, 415	20, 406	17, 564	10, 975	12, 297	31.2	-12.4	-5.7	-7.1	-4.4	13.6	4.2	4.2
Cotton lace	477, 535	412, 058	450, 946	450, 946	379, 366	371, 182	310, 458	297, 929	-	12.6	14.4	-1.4	-12.8	4.2	19.6	-
Cotton small wares	7, 307	6, 398	6, 490	6, 490	7, 440	7, 608	5, 416	4, 932	-	74.4	122.6	-21.6	42.4	-14.3	42.1	9.8
Cranberries	16, 337	7, 363	9, 596	9, 596	302	335	250	671	-23.1	-38.2	25.2	-51.4	130.8	-9.9	19.6	-58.3
Cutlery and edge tools	10, 671	14, 345	19, 822	19, 859	18, 561	16, 997	14, 545	12, 028	38.8	-15.9	16.2	-27.6	19.9	-2.6	16.9	20.9
Dairymen's, poultrymen's, and apiarists' supplies	5, 783	3, 841	6, 400	6, 437	5, 531	4, 871	2, 008	(9)	-	-9.6	50.6	-40.0	16.0	14.0	86.8	89.0
Dental goods	4, 608	4, 137	5, 165	5, 224	3, 080	1, 573	1, 922	1, 017	355.7	-11.3	11.4	-20.4	69.6	95.8	-18.2	89.0
Drug grinding	730	840	1, 347	1, 347	1, 059	1, 922	1, 922	644	16.5	-10.7	-37.6	-37.6	27.2	14.9	-6.0	52.3
Druggists' preparations	8, 966	10, 838	13, 530	13, 568	9, 277	9, 490	7, 410	3, 658	58.8	-42.3	-17.3	-30.2	67.8	-2.2	28.1	31.0

See footnotes at end of Table 34, p. 177.

TABLE 32.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 147]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS					PER CENT OF INCREASE OR DECREASE (-)										
	Including data for establishments with products valued at less than \$5,000					24-year period, 1899-1923	Interdecadal period									
	Including data for establishments with products valued at \$500 or more						1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909	1899-1904			
	1923	1921	1919	1914	1909											
Dyeing and finishing textiles, exclusive of that done in textile mills.	63,414	51,510	55,914	48,467	44,046	29,776	113.2	23.1	-7.9	15.5	10.0	23.8	19.4			
Dyestuffs and extractions, natural	3,243	2,983	4,341	2,889	2,397	1,647	94.9	8.4	-31.1	52.9	18.4	-11.5	64.4			
Electrical machinery, apparatus, and supplies	294,892	161,204	212,294	118,078	87,256	42,013	476.1	45.7	-24.1	79.9	35.3	44.3	43.9			
Electroplating	3,374	2,460	2,934	3,024	2,717	2,088	66.8	15.0	-16.2	17.0	-4.9	39.8	-6.9			
Enameling	3,595	2,849	5,597	2,887	1,943	801	553.6	35.8	-49.1	134.6	22.9	142.6	46.7			
Engines, steam, gas, and water	1,009	456	676	1,314	1,945	7,675	-86.6	49.3	-32.5	-47.2	-32.4	-72.6	24.3			
Engravers' materials	48,495	36,567	77,596	29,657	( <sup>u</sup> )	( <sup>u</sup> )	37.5	36.3	-54.2	161.7						
Engraving and die sinking	224	184	171	106	129	76	189.9	31.0	21.7	7.6	64.2	-17.8	163.3	-35.5		
Engraving, steel and copperplate, including plate printing	1,887	1,276	1,792	1,536	1,308	964	105.1	5.3	47.9	-23.8	22.3	17.4	-16.8	63.2		
Engraving, wood	7,529	7,156	6,973	6,859	5,326	3,303	129.2	7.9	5.2	2.6	2.3	23.8	43.8	8.4		
Explosives	9,241	7,944	8,129	6,970	5,303	2,984	-56.2	-37.3	7.6	-41.8	22.2	-5.0	-5.9	6.6		
Fancy articles, not elsewhere specified	6,388	4,478	9,249	6,306	6,274	5,800	209.7	13.7	16.3	-2.3	16.6	31.4	23.4	44.0		
Feathers and plumes	13,522	11,534	13,874	7,399	6,729	5,713	41.9	-30.9	42.7	-51.6	46.7	5.5	8.2	23.8		
Felt goods	1,712	2,064	3,494	4,483	5,181	( <sup>u</sup> )	138.1	-2.5	17.2	-15.9	88.7	10.0	1.6	15.8		
Ferro-alloys	5,735	4,180	6,236	4,035	3,544	2,688	113.3	-51.0	-17.1	-40.9	-21.8	-13.5	8.9	21.1		
Fires	( <sup>u</sup> )	( <sup>u</sup> )	2,344	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	60.6	9.5	37.2	-20.2	29.8	13.9				
Firearms	18,572	16,898	23,278	22,815	18,310	11,581	60.6	9.9	-33.7	15.3	24.6	29.1	22.5	22.5		
Fire extinguishers, chemical	4,590	3,595	5,764	4,349	4,158	3,160	48.3	-20.4	27.7	-37.6	32.6	4.6	26.9	3.7		
Fireworks	6,204	4,726	11,279	7,064	6,002	4,432	1,091.0	-45.0	31.3	-58.1	59.8	17.7	-3.6	178.1		
Flags and banners	1,878	991	1,065	1,495	1,543	1,509	71.9	1.0	-1.4	-7.7	-5.6	-5.2	-9.6	1.6		
Flavoring extracts	1,626	2,054	2,180	1,388	1,229	1,251	-24.7	-16.4	-5.6	-28.8	60.1	149.7	-26.5	23.3		
Flax and hemp, dressed	62	112	420	116	164	211	70.5	-85.2	-44.6	-73.3	-20.3	-23.4	1.4	4.4		
Flour-mill and grain-mill products	35,194	35,378	45,268	39,718	39,453	32,226	-22.3	-5.9	-21.9	14.5	35.7	32.1	38.0	21.4		
Food preparations, not elsewhere specified	26,212	22,868	30,194	20,306	14,968	8,214	290.9	-13.2	14.6	-24.3	49.5	2.4	15.1	35.0		
Foundry and machine-shop products <sup>a</sup>	448,777	321,383	481,701	362,471	388,911	350,103	98.8	-6.8	39.6	-33.3	58.0	18.6	47.3	13.3		
Fuel, manufactured	866	567	894	555	464	( <sup>u</sup> )	278.3	112.9	70.4	-36.6	21.3	60.2	27.3	20.8		
Fur goods	14,439	12,052	17,171	9,030	11,827	7,788	87.4	6.6	19.8	-11.0	18.1	-24.3	-2.9	25.4		
Furnishing goods, men's <sup>a</sup>	18,958	15,921	18,864	22,459	15,820	13,157	110.7	19.1	-15.0	24.4	41.1			20.8		

[See note at head of this table, p. 147]

Furniture.....	127,881	123,428	110,133	87,262	90,41	20,41	35,21	-11,21	8,21	3,61	12,11	26,21
Furs, dressed.....	1,625	1,241	1,105	835	491,41	2,71	17,51	-12,61	232,81	22,91	12,11	26,21
Galvanizing and other coating processes.....	1,580	1,447	1,256	835	64,31	47,21	28,01	-38,81	5,41	9,21	12,11	32,31
Gas and electric fixtures.....	10,913	11,751	8,141	6,513	80,41	25,91	30,71	-3,71	10,21	7,11	15,21	134,81
Gas, illuminating and heating.....	42,282	37,215	30,565	22,459	38,61	25,91	21,01	-18,41	-2,01	17,71	21,81	35,01
Gas machines and gas and water meters.....	42,282	37,215	30,565	22,459	38,61	25,91	21,01	-18,41	-2,01	17,71	21,81	35,01
Glass.....	6,127	4,280	5,533	4,767	183,01	9,71	34,01	-23,31	12,41	4,31	7,31	23,51
Glass, cutting, staining, and ornamenting.....	73,335	68,911	63,969	52,518	38,91	19,41	10,11	-30,41	4,11	8,11	7,71	21,11
Gloves and mittens, cloth, not including gloves made in textile mills.....	5,157	4,032	4,914	4,914	6,31	-19,41	34,01	-26,81	-19,71	-13,81	11,71	70,51
Gloves and mittens, leather.....	8,894	10,010	10,645	14,345	( <sup>10</sup> )	-1,01	53,91	-35,71	21	6,01	6,71	-25,81
Glucose and starch.....	7,757	4,773	4,679	10,11	30,11	-16,21	26,61	-25,91	72,91	-5,51	2,01	-21,31
Grain, not elsewhere specified.....	3,651	2,915	2,804	1,618	125,61	-6,61	25,21	-31,61	36,31	-4,21	14,01	77,01
Gold and silver, leaf and foil.....	3,918	1,353	1,402	1,163	-20,31	-2,51	15,81	17,21	-16,31	-17,91	-1,41	20,61
Gold and silver, reducing and refining, not from the ore.....	901	785	287	219	314,11	40,81	14,81	22,71	41,21	58,91	31,11	59,11
Graphite, ground and refined.....	244	132	162	137	444,91	-50,21	60,51	-69,01	98,81	-54,31	-25,71	59,11
Grease and tallow, not including lubricating greases.....	5,248	4,428	3,628	2,040	159,31	-20,41	18,51	-32,81	30,21	17,21	20,11	77,81
Grindstones.....	2,647	2,708	1,894	1,167	-47,21	-8,61	23,61	-39,21	-28,61	30,81	97,51	-39,51
Hair cloth.....	1,317	801	499	1,167	-47,21	-8,61	23,61	-39,21	-28,61	30,81	97,51	-39,51
Bar work.....	1,317	801	499	1,167	-47,21	-8,61	23,61	-39,21	-28,61	30,81	97,51	-39,51
Barrels.....	1,317	801	499	1,167	-47,21	-8,61	23,61	-39,21	-28,61	30,81	97,51	-39,51
Barrenocks.....	1,317	801	499	1,167	-47,21	-8,61	23,61	-39,21	-28,61	30,81	97,51	-39,51
Hand stamps.....	1,317	801	499	1,167	-47,21	-8,61	23,61	-39,21	-28,61	30,81	97,51	-39,51
Hardware.....	49,894	33,803	31,713	26,463	88,71	17,51	17,51	47,61	3,11	7,01	21,41	19,81
Hardware, saddlery.....	2,321	1,425	3,395	2,040	-21,01	-30,81	62,91	-61,21	46,41	-24,11	-2,51	15,51
Hat and cap materials.....	2,304	1,722	2,414	1,371	68,81	-23,11	33,81	-42,61	69,51	-25,01	-1,91	76,11
Hats and caps, other than felt, straw, and wool.....	7,313	6,505	6,594	12,544	-41,41	-2,51	12,41	-13,21	3,01	18,11	-6,01	-47,41
Hats, fur-felt.....	16,722	13,880	22,047	18,880	-11,41	-9,61	20,51	-25,01	-13,21	13,71	13,71	16,81
Hats, straw.....	6,812	7,299	8,814	5,503	( <sup>11</sup> )	-6,71	15,01	-18,81	-23,01	7,61	58,31	-28,71
Hats, wool-felt.....	1,960	1,425	1,503	2,108	-7,11	35,21	36,61	-1,01	15,91	-37,11	32,11	-28,71
Homes and wheelstones.....	1,166	1,212	1,522	2,189	-12,11	-21,71	74,71	-55,21	24,71	11,81	-30,91	16,41
Horse shoes, not made in steel works or rolling mills.....	255	207	232	231	11,41	-65,41	23,21	-72,01	26,51	100,71	26,31	.41
House-furnishing goods, not elsewhere specified.....	8,708	7,504	4,778	5,212	68,51	11,81	16,01	-3,71	13,21	41,31	2,71	-8,31
Ice, manufactured.....	26,882	24,056	10,101	6,893	294,81	-10,21	11,61	-19,51	31,41	42,81	59,51	46,81
Ink, printing.....	1,975	1,676	1,988	1,891	1,121	1,891	1,121	-15,71	42,91	24,11	17,41	41,41
Ink, writing.....	12,278	9,384	15,897	7,107	505,91	-16,41	14,71	-27,11	37,11	1,41	17,41	50,91
Instruments, professional and scientific.....	38,712	18,988	35,078	2,775	343,21	-22,81	30,81	-41,01	124,21	47,51	40,21	23,91
Iron and steel, blast furnaces.....	388,201	235,515	207,562	183,249	111,91	3,51	64,81	-37,21	50,81	3,61	15,71	13,31
Iron and steel, steel works and rolling mills.....	15,962	10,148	17,967	10,658	7,660	-11,11	57,31	-43,51	68,61	-6,11	40,21	5,61
Iron and steel, cast-iron pipe.....	21,576	12,496	12,625	12,557	( <sup>10</sup> )	70,91	72,71	-1,01	4,61	2,71	129,01	497,41
Iron and steel, doors and shutters.....	2,429	1,782	2,077	1,985	1,978,81	17,11	36,31	-14,11	4,61	24,01	129,01	497,41
Iron and steel, forgings, not made in steel works or rolling mills.....	27,468	16,740	23,387	4,655	486,21	-3,21	64,11	-41,01	165,01	30,91	44,21	20,81

See footnotes at end of Table 34, p. 177.

[See note at head of this table, p. 147]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS					PER CENT OF INCREASE OR DECREASE (-)									
	Including data for establishments with products valued at \$500 or more					Including data for establishments with products valued at \$500 or more					24-year period, 1899-1923				
	Including data for establishments with products valued at \$500 or more					Including data for establishments with products valued at \$500 or more					Interannual period				
	1923	1921	1919	1914	1900	1904	1899	1918-1923	1921-1923	1919-1921	1914-1919	1900-1914	1904-1909	1899-1904	
Iron and steel, nails and spikes, cut and wrought, including wire nails, not made in steel works or rolling mills.	2,849	2,412	3,355	2,644	2,765	3,681	4,477	-36.4	18.1	-28.1	26.9	-4.4	-24.9	-17.8	
Iron and steel, tempering and welding.	1,672	1,210	1,496	1,042	1,042	1,042	1,042	92.1	13.7	-31.3	23.7	-25.9	-2.2	-2.2	
Iron and steel, wrought pipe.	10,638	8,728	10,426	8,845	6,817	5,416	5,536		2.0	-18.6	17.9				
Ivory, shell, and bone work, not including combs and hairpins.	603	674	842	795	907	1,769	1,384	-64.3	-27.6	-10.5	5.9	-12.3	-48.7	32.6	
Japanning.	306	169	298	189	189	1,769	1,384	-64.3	-27.6	-10.5	5.9	-12.3	-48.7	32.6	
Jewelry.	26,354	22,482	30,871	28,289	30,347	22,090	20,468	98.6	7.7	92.5	28.4	26.7	37.4	160.3	
Jewelry and instrument cases.	2,977	2,241	2,734	2,387	2,070	1,676	819	29.4	14.2	-23.5	9.1	-6.8	-37.7	7.9	
Knife goods.	6,042	5,664	7,138	6,987	6,664	4,506	824	82.8	32.8	-17.9	14.6	13.9	23.5	104.0	
Knit goods.	194,244	161,880	172,459	160,520	129,275	104,092	83,691	284.2	15.4	6.7	-20.7	18.9	9.6	35.0	
Labels and tags.	5,048	4,152	5,217	2,600	2,313	1,945	1,571	132.0	20.0	-6.1	14.7	16.4	21.6	24.4	
Lamps and reflectors.	10,604	6,447	8,351	7,134	7,110	4,429	4,725	134.7	3.2	21.6	101.0	12.4	71.6	78.8	
Leather goods.	644	1,145	1,155	7,584	6,227	4,507	4,998	30.3	61.4	-65.2	97.8	-6.9	60.5	-6.3	
Leard, not made in slaughtering and meat-packing establishments.	(27)	2,618	13	19	(2)	(2)	(2)	100.2	-22.2	-13.8	-31.6	43.0	23.7	1.8	
Leads.	2,258	2,904	2,910	2,094	1,728	1,208	1,131	42.3	-2.4	-8.8	39.0	21.2	43.0	6.8	
Lead, bar, pipe, and sheet.	861	882	852	585	585	601	601	42.3	1.1	-2.4	3.5	45.6	27.1	6.8	
Leather goods, not elsewhere specified.	7,882	8,994	8,945	7,071	7,681	7,785	6,293	25.8	-7.9	-3.9	26.5	-7.9	-1.3	28.7	
Leather, tanned, curried, and finished.	59,703	48,955	72,476	55,936	62,202	57,239	52,109	14.6	-17.6	22.0	20.6	-10.1	8.7	9.8	
Lime.	12,200	10,345	11,264	12,429	13,897	11,152	19,088	65.3	18.8	-8.2	-8.2	-10.6	24.6		
Linen goods.	2,880	2,519	1,890	3,567	3,573	3,811	3,283	-12.2	52.4	33.3	-47.0	-2.2	6.2	16.1	
Liquors, distilled.	1,062	1,141	1,380	6,295	6,430	5,855	3,720	-71.4	-6.9	-6.9	-45.8	-2.1	30.1	44.0	
Liquors, malt, including cereal beverages.	11,212	18,551	34,253	62,070	54,579	48,137	43,459	71.6	-39.6	-17.3	78.1	13.7	22.0	22.0	
Liquors, vinous.	515	976	1,011	1,911	1,911	1,913	1,163	54.1	24.1	-57.5	-55.9	19.9	19.5	64.5	
Lithographing.	16,317	13,971	15,611	15,073	15,073	12,614	12,994	25.6	16.8	-10.5	2.9	-7.7	-19.5	-2.9	
Locomotives, not made by railroad companies.	30,672	16,583	26,715	17,391	14,909	24,806	19,039	-24.6	85.0	-37.9	53.6	16.6	-32.9	9.9	
Looking-glass and picture frames.	4,496	4,660	4,708	4,787	6,021	6,625	6,029	-24.6	-3.5	-16.9	-1.7	-20.5	-9.1	9.9	
Lubricating greases.	4,603	4,490	4,472	4,776	6,176	6,119	127	376.9	38.3	43.6	-10.6	-1.7	170.5	-6.3	
Lumber and timber products.	495,932	364,247	469,297	479,786	547,178	404,553	413,257	23.0	5.7	36.2	-22.4	-12.3	35.3	-2.1	
Turner, planing-mill products, not including planing mills connected with sawmills.	103,008	78,093	86,382	96,214	112,392	94,674	97,510	41.0	19.2	32.0	-9.6	-14.4	15.1	32.9	



See footnotes at end of Table 34, p. 177.

TABLE 32.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 147]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS					PER CENT OF INCREASE OR DECREASE (-)									
	Including data for establishments with products valued at \$500 or more					24-year period, 1899-1923	Interdecadal period								
	1923	1921	1919	1914	1909		1919-1923	1921-1923	1914-1919	1909-1914	1904-1909	1899-1904			
Pens, steel.....	475	572	807	573	699	473	-41.1	27.7	-53.9	40.8	-18.0	5.4	40.2		
Pertinax and cosmetics.....	7,761	5,838	5,343	2,897	2,875	1,764	45.3	32.9	9.3	86.6	22.0	14.1	18.0		
Petroleum refining.....	66,717	68,189	58,887	25,366	13,329	12,770	13.3	5.6	-7.3	132.2	82.1	-16.9	37.5		
Photography and graphophones.....	20,491	17,938	28,714	9,381	5,169	1,267	-28.6	14.2	-37.5	206.2	80.4	53.0	168.1		
Photo-engraving, not done in printing establishments.....	8,521	6,971	6,746	6,211	5,343	2,691	26.3	22.2	3.3	9.0	16.2	37.8	44.0		
Photographic apparatus.....	16,313	16,949	17,094	2,016	4,531	1,961	-4.6	-3.8	-8	23.7	203.6	-62.1	-10.7		
Pickles, preserves, and sauces.....	15,356	13,061	16,555	12,590	9,550	7,225	-7.2	17.5	-21.1	118.6	46.9	176.8	89.0		
Pipes, tobacco.....	2,402	1,765	2,522	2,539	2,775	1,947	-4.8	36.1	-30.0	32.0	31.8	12.2	17.8		
Plated ware.....	12,118	9,535	9,492	8,717	7,967	6,281	27.7	27.1	5.5	7.9	15.2	42.5	22.8		
Printers' supplies, not elsewhere specified	27,201	16,670	13,585	18,479	19,257	8,024	100.2	63.2	23.7	-26.4	9.4	26.8	-1.7		
Pocketbooks.....	5,518	2,715	2,888	1,466	1,472	2,281	91.1	103.2	-6.0	98.2	-4.0	-35.5	84.0		
Pottery.....	36,824	28,458	27,873	26,705	12,561	12,437	32.1	29.4	2.1	4.6	-4.0	7.1	19.9		
Poultry, killing and dressing, not done in slaughtering and meat-packing establishments.....	1,510	2,255	2,140	1,353	1,087	( <sup>1</sup> )	29.4	33.0	5.4	58.2					
Printing and publishing, book and job.....	129,890	121,055	121,255	113,121	108,785	67,610	7.1	7.3	-2.2	8.7	4.1	23.9	20.8		
Printing and publishing, music.....	919	900	887	873	788	778	2.5	2.1	-3.0	18.3					
Printing and publishing, newspaper and periodical.....	115,646	107,534	115,102	114,375	108,072	94,604	-5	7.5	5.3	5.2	12.2	2.4			
Printing materials.....	560	516	716	423	535	560	-21.8	-31.4	14.0	70.9	-20.9	49.9	-36.2		
Pulp, from fiber other than wood.....	( <sup>1</sup> )	( <sup>1</sup> )	64	( <sup>1</sup> )	( <sup>1</sup> )	121	20.3	-22.7	55.6	83.9	111.2	12.5	7		
Pulp goods.....	3,648	4,718	3,033	1,654	2,136	691	-9.4	19.4	-24.1	72.7	-1.1	52.1	122.2		
Pumps, not including power pumps.....	( <sup>1</sup> )	( <sup>1</sup> )	16,064	2,134	2,788	632	46.7	46.2	4	3.0	11.8	24.7	21.1		
Pumps, steam and other power.....	14,550	12,186	10,688	6,188	5,026	3,329	-3.0	-2.6	-4	10.6	-23.8	5.6	50.2		
Refrigerators.....	8,485	5,804	5,788	5,617	5,026	1,569	-3.0	-2.6	-4	10.6	-23.8	5.6	50.2		
Regalia, and society badges and emblems.....	2,146	2,204	2,213	2,010	2,038	374	-16.5	-9.1	-8.1	68.6	1.1	-17.0	124.2		
Rice, cleaning and polishing.....	1,764	2,112	2,113	1,253	1,239	651	-13.4	11.0	-22.0	117.0	65.8	-72.0	16.1		
Roofing materials.....	7,665	6,908	8,855	4,088	2,465	7,393	-13.7	36.6	-36.8	138.6	89.4	25.2	3.8		
Rubber tires, tubes, and rubber goods, not elsewhere specified.....	108,433	79,335	125,602	50,220	26,521	20,404	-13.7	16.5	16.6	-88.8	274.3	-26.8	-30.0		
Rules, ivory and wood.....	219	188	164	188	109	213	33.5	16.3	5.3	-38.8	14.6	-11.4	4.7		
Saddlery and harness.....	6,617	4,489	10,024	12,969	14,632	14,364	-34.0	47.4	-55.2	-19.7	-11.4	-2.7	4.7		
Sales and vaults.....	3,476	3,547	2,945	2,972	3,343	2,033	18.0	-2.0	20.4	-8	-11.1	-4.2	71.6		

## APPENDIX B—GENERAL TABLES

Salt.....	6,809	5,988	6,487	6,486	5,089	4,985	4,668	4,774	42.8	5.0	13.6	-7.6	27.6	3.1	5.8	-2.3
Sand and emery paper and cloth.....	1,176	680	771	504	557	611	305	274	350.1	52.5	72.9	-11.8	13.2	11.5	100.3	11.2
Sand-lime brick.....	582	374	604	504	557	611	305	274	350.1	15.5	55.5	-25.8	-9.5			
Sausage, not made in slaughtering and meat-packing establishments.....	4,392	3,788	3,443	3,471	2,244	1,915	1,265	878	427.3	33.4	13.6	12.5	54.7	17.2	51.4	44.1
Saws.....	5,420	5,601	5,601	5,510	4,560	4,560	4,560	4,560	4,560	-1.5	43.1	-31.1	20.8	17.2	51.4	44.1
Scales and balances.....	4,245	5,720	5,421	5,432	4,647	3,559	3,133	2,775	53.2	-21.7	14.1	-31.4	21.6	25.5	13.6	12.9
Screws, machine.....	9,126	5,911	10,255	10,262	3,643	1,667	1,557	1,557	486.6	-11.0	54.4	-42.4	181.7	118.5	-15.2	26.2
Screws, wood.....	4,108	2,742	4,889	4,889	4,446	3,464	1,488	1,970	108.5	-16.0	49.8	-43.9	10.0	28.3	132.8	-24.5
Sewing-machine cases.....	13,435	12,569	19,226	15,059	3,690	4,079	4,450	2,653	-1.5	-30.1	6.9	-34.6	12.8	-9.3	8.3	67.7
Sewing machines and attachments.....	51,981	53,323	844,011	344,014	33,508	15,217	12,671	10,712	68.1	-84.9	-44.3	-72.9	5.2	-6.0	20.1	18.3
Shoebinding, wooden, including boot binding.....	10,326	13,122	43,290	43,432	10,981	12,363	14,012	15,841	34.5	-76.1	-21.3	-93.7	295.5	-11.2	-11.8	-11.5
Shirts.....	51,672	45,427	39,245	39,603	51,972	48,513	36,499	36,622	42.4	31.7	13.7	15.8	-17.7	33.4	10.0	126.1
Show cases.....	12,988	10,373	10,317	10,432	2,297	3,390	3,082	1,363		25.9	25.2	5.2	9.1	72.7		
Signs and advertising novelties.....	125,234	121,378	126,715	126,782	108,170	99,037	73,601	65,416	91.5	-1.2	3.2	-4.2	17.2	9.2	24.4	21.7
Silk goods, including throwsters.....	4,972	5,287	6,453	6,453	8,070	8,643	8,580	5,813	-14.5	-23.0	-6.0	-18.1	-8.7	-18.2	18.5	8.4
Silverware and silverware.....	132,792	117,042	160,989	160,996	98,832	87,813	74,134	68,356	94.2	-17.5	13.5	-27.3	62.9	12.5	22.6	12.6
Slaughtering and meat packing.....	20,735	8,293	17,345	17,345	17,731	15,623	12,732	11,324	83.1	19.5	150.0	-52.2	-2.2	12.5	22.6	12.6
Smelting and refining, copper.....	6,194	4,509	6,438	6,438	7,335	7,424	7,573	8,319	-25.5	-3.8	37.4	-30.0	-12.8	-1.5	-2.0	-0.0
Smelting and refining, lead.....																
Smelting and refining, metals, not elsewhere specified.....	257	434	2,041	2,041	(5)	(5)	(5)	(5)		-87.4	-40.8	-78.7	-16.2	20.4	25.4	74.2
Smelting and refining, not from the ore.....	1,587	1,200	2,167	2,167	2,585	2,147	1,713	61.3	61.3	-26.8	32.3	-44.6	43.5	43.5	17.9	34.1
Soap.....	11,918	5,778	13,796	13,796	9,617	6,555	6,528	4,869	144.8	-13.7	10.2	-13.1	43.5	43.5	17.9	34.1
Soda-water apparatus.....	17,002	16,558	20,404	20,439	14,179	12,999	11,044	9,457	76.4	16.7	2.7	-18.8	44.2	8.0	17.7	16.4
Sporting and athletic goods.....	2,659	2,144	2,597	2,599	2,293	1,797	1,463	963	176.4	2.4	24.0	-17.4	16.6	24.9	22.3	82.3
Springs, steel, car and carriage, not made in steel works or rolling mills.....	9,683	7,063	6,364	6,412	5,602	5,321	4,260	2,225	338.6	52.2	37.1	-11.0	14.5	3.3	24.9	91.5
Stamped and enameled ware, not elsewhere specified.....	8,634	5,358	8,977	8,981	3,703	3,196	2,476	2,102	311.1	-3.8	61.1	-40.3	142.5	15.9	29.1	17.8
Stationary goods, not elsewhere specified.....	35,237	24,192	34,238	34,248	28,731	25,412	13,500	10,002	252.3	2.9	45.7	-29.3	19.2	13.1	87.4	35.6
Statuary and art goods.....	13,314	11,285	11,247	11,261	7,728	6,206	4,265	3,032	339.7	18.4	13.0	-29.3	45.7	24.5	44.5	41.7
Steam fittings and steam and hot-water heating apparatus.....	1,807	1,634	1,428	1,466	1,968	1,689	1,507	(5)		26.5	10.6	14.4	-26.3	17.0		
Steam packing.....	44,141	30,808	36,679	36,685	26,388	23,378	11,690	9,252	377.0	20.3	43.3	-16.0	39.0	12.9	100.0	26.4
Steel barrels, drums, and tanks, portable.....	5,064	4,877	6,141	6,147	4,213	3,648	2,734	1,147	342.1	-17.5	3.8	-20.6	45.9	13.5	33.4	138.4
Stencils and brands.....	2,668	2,013	3,322	3,322	(5)	(5)	(5)	(5)		-19.7	32.3	-38.4	-6.0	17.3	28.3	26.3
Stereotyping and electrotyping.....	4,066	3,617	3,662	3,664	3,457	2,550	2,679	2,408	70.3	11.9	13.2	-1.2	-6.0	21.3	8.0	11.3
Stoves and hot-air furnaces.....	33,029	24,530	32,890	32,895	29,535	32,118	26,728	(5)		11.9	34.6	-25.3	11.3	-3.0	8.0	43.8
Stoves, gas and oil.....	16,783	7,921	10,555	10,565	7,790	5,012	3,676	2,471	579.9	59.0	111.9	-25.0	35.6	55.4	36.3	
Structural ironwork, not made in steel works or rolling mills.....	51,591	32,837	43,895	43,902	47,107	40,234	34,276	24,903	107.4	67.5	53.8	-25.1	-6.8	17.2	17.4	37.6
Sugar, beet.....	7,571	13,602	11,731	11,731	7,997	7,204	3,963	1,970	284.5	-35.7	44.3	-15.1	47.3	11.0	81.8	101.2
Sugar, cane.....	2,829	2,724	6,071	6,101	3,632	9,399	14,129	(5)		-33.5	1.3	-15.1	63.0	-12.9	-1.1	
Sugar, refining, not including beet sugar.....	15,254	15,457	18,202	18,202	11,233	9,399	14,129	(5)		-16.2	1.3	-15.1	63.0	-12.9	-1.1	
Sulphuric, nitric, and mixed acids.....	2,357	2,352	3,064	3,064	2,232	2,232	2,447	2,356	232.1	-22.5	-14.8	-42.0	61.9	33.4	8.0	82.7
Surgical appliances.....	5,376	4,310	6,341	6,390	4,282	3,598	2,811	1,539	232.1	-15.2	24.1	-22.0	49.2	12.4	35.5	

See footnotes at end of Table 34, p. 177.

TABLE 32.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED BY INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 147]

INDUSTRY	AVERAGE NUMBER OF WAGE EARNERS						PER CENT OF INCREASE OR DECREASE (-)					
	Including data for establishments with products valued at \$500 or more						Inter-censal period					
	1923	1921	1919	1919	1914	1909	1919-1923	1919-1921	1919-1914	1909-1914	1904-1909	1899-1904
Suspenders, garters, and elastic woven goods.....	3,453	9,493	10,886	10,857	9,646	10,141	-68.1	-12.4	12.6	-4.9		
Textile machinery and parts.....	35,672	31,025	31,792	(10)	(10)	(10)	12.2	15.0	13.4	68.3		
Theatrical scenery.....	210	169	149	149	88	88	40.9	24.3	13.4	68.3		
Tin and other foils, not elsewhere specified.....	3,323	2,178	1,903	1,908	5,258	5,352	74.6	52.6	14.4	85.1	51.0	31.6
Tin plate and terneplate.....	(5)	2,178	1,903	1,908	5,258	5,352	-11.2	34.3	-33.9	52.3	14.3	18.8
Tinware, not elsewhere specified.....	30,511	16,628	18,294	18,324	22,584	27,232	-4.9	-2.5	-2.4	-2.5	9.3	31.0
Tobacco, chewing and smoking, and snuff.....	16,301	16,628	18,294	18,324	22,584	27,232	-4.9	-2.5	-2.4	-2.5	9.3	31.0
Tobacco, cigars and cigarettes.....	130,036	133,357	136,675	138,773	152,892	159,999	17.9	46.6	45.1	111.0	48.7	30.6
Tools, not elsewhere specified.....	29,100	19,453	35,425	35,585	16,866	15,999	2.8	53.3	32.0	15.7	22.5	30.6
Toys and games.....	14,484	9,448	14,066	14,201	7,887	5,305	2.8	31.3	23.6	15.7	10.9	30.6
Trunks and valises.....	11,441	8,712	11,404	11,470	9,911	11,122	23.0	28.2	-1.7	-10.4	13.1	1.3
Turpetine and rosin.....	34,328	27,422	27,802	28,067	24,817	33,511	-24.5	23.2	23.1	23.1	23.1	43.6
Type foundries.....	14,963	13,331	15,647	15,693	11,091	9,578	4.4	11.8	-14.5	41.2	15.8	33.7
Typewriters and supplies.....	3,776	3,149	5,348	5,368	4,792	5,472	12.8	19.9	-5.9	-23.7	-12.4	1.6
Umbrellas and canes.....	41,495	3,271	4,782	4,810	4,496	4,957	4.5	52.7	31.6	8.7	8.8	-7.6
Upholstering materials, not elsewhere specified.....	5,636	4,198	4,016	4,022	2,734	2,576	40.8	36.2	47.1	13.1	23.3	19.8
Varnishes.....	5,296	1,345	1,386	1,391	1,031	1,031	-4.9	20.8	-21.2	-47.4	47.3	60.9
Vault lights and ventilators.....	1,317	1,431	1,386	1,391	1,220	1,422	-30.2	33.7	-10.0	61.2	30.3	1.9
Vinegar and cider.....	5,412	3,988	4,962	4,981	1,220	1,422	27.2	33.7	-10.0	61.2	30.3	1.9
Wall paper, not made in paper mills.....	39,289	4,898	5,118	5,123	3,390	4,297	87.5	80.6	12.5	12.5	27.5	7.5
Wall plaster and composition flooring.....	6,144	4,147	5,064	5,068	2,902	3,635	5.4	48.2	-30.2	138.7	13.1	13.1
Washing machines and clothes wringers.....	32,745	1,563	2,631	2,686	2,995	1,897	2.4	47.3	-30.5	-9.4	56.4	42.9
Waste.....	396	369	578	582	670	643	-31.5	1.5	-32.5	-13.1	4.2	67.0
Watch and clock materials, except watch-cases.....	4,325	3,698	8,900	8,900	3,514	4,391	10.9	17.0	-8.2	11.0	-23.1	8.0
Watchcases.....	11,571	12,174	15,888	15,888	12,390	10,694	-27.2	-3.0	-23.2	16.0	8.2	53.9
Wheelbarrows.....	290	298	291	291	323	364	38.8	61.9	-21.6	-38.9	13.7	81.9
Whips.....	200	202	713	713	1,034	1,584	-72.0	-31.5	-38.0	-24.8	-5.3	20.7
Windmills.....	1,101	1,383	1,930	1,932	1,933	2,337	-43.0	-20.4	-1.2	-16.3	21.2	-5.7
Window and door screens and weather strips.....	3,637	2,129	2,149	2,179	3,194	(2)	71.6	73.2	-9.0	-31.8		

Window shades and fixtures.....	5,957	3,731	4,380	4,411	4,077	3,930	2,924	1,801	233.1	38.0	57.6	-13.7	8.2	3.7	49.8	45.7
Wire.....	21,310	14,832	19,741	19,741	17,000	18,084	4,737	1,603	---	7.9	43.7	-24.9	12.2	-2.6	251.2	193.3
Wirework, not elsewhere specified.....	16,783	11,435	15,138	15,224	12,128	12,348	13,379	9,142	84.6	10.9	46.1	-24.1	23.5	-1.8	17.9	46.3
Wood distillation.....	4,022	1,861	4,940	4,946	2,752	2,721	2,272	1,556	153.8	-18.6	116.1	-62.3	77.8	-1.2	13.9	46.0
Wood preserving.....	6,520	4,153	3,978	3,978	2,830	2,403	737	478	1,264.0	63.9	57.0	4.4	40.6	17.8	228.1	54.2
Wood, turned and carved.....	11,285	9,144	10,528	10,649	11,615	14,139	14,637	11,593	-1.3	7.2	23.4	-13.1	-8.3	-1.2	-3.8	97.7
Wooden goods, not elsewhere specified.....	5,727	5,492	6,402	6,443	6,418	6,780	6,594	3,206	73.9	-10.3	4.3	-14.2	-4	-1.3	-7.8	163.4
Wood pulling.....	696	552	705	705	708	631	681	473	46.5	-1.3	26.1	-21.7	-4	12.3	-7.3	43.4
Wool scouring.....	1,473	1,536	2,177	2,177	1,059	1,142	779	739	104.7	-32.3	-4.1	-23.4	105.6	-7.3	46.3	8.2
Wool shoddy.....	2,128	1,170	2,551	2,556	2,145	2,041	2,089	1,926	11.1	-16.6	81.9	-54.1	19.6	-7.3	46.3	8.2
Woolen and worsted goods.....	194,552	162,364	166,757	166,787	158,692	163,192	141,998	125,901	54.6	16.7	19.8	-2.6	3.1	-2.8	14.9	12.8

See footnotes at end of Table 34, p. 177.

TABLE 33.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

[No data in regard to prime movers were collected for 1921. As to the comparability of 1921 and 1923 figures with those of previous years, see general remarks preceding tables, pars. 2 and 4, pp. 124 and 125]

INDUSTRY	PRIMARY HORSEPOWER					PER CENT OF INCREASE OR DECREASE (—)						
	Including data for rented power other than electric					24-year period, 1899-1923	Interdecennial period					
	Excluding data for rented power other than electric											
	1923	1919	1914	1909	1904		1919-1923	1914-1919	1909-1914	1899-1904		
All industries	33,094,228	23,327,669	23,504,792	22,437,072	18,675,376	13,487,707	10,097,893	229.6	31.5	20.1	38.5	33.6
Agricultural implements	121,975	128,249	121,428	100,601	89,738	70,646	72.6	—4.9	5.6	20.7	12.1	27.0
Airplanes, seaplanes, airships, and parts	3,643	12,512	156	(1)	(1)	(1)	—	—	—	—	—	—
Aluminum manufactures	58,272	30,280	12,338	(1)	(1)	(1)	—	—	—	—	—	—
Ammunition	23,172	39,128	11,354	10,317	5,056	2,980	677.3	—40.8	244.6	10.1	104.1	68.7
Artificial flowers	847	488	237	167	96	113	649.7	31.0	97.5	41.9	—0.2	62.8
Artificial limbs	692	857	559	582	188	95	638.0	—19.3	45.5	1.2	209.6	97.9
Artists' materials	30,748	22,221	20,326	12,185	2,776	(1)	1,596.1	35.6	66.8	338.9	—	—
Asbestos products, not including steam packing	4,902	3,206	1,977	1,628	568	(1)	289	178.1	62.2	21.4	186.6	96.5
Automobile bodies and parts	26,855	9,657	8,777	(1)	(1)	(1)	—	—	—	—	—	—
Automobile repairing	463,080	256,770	68,701	24,909	2,435	(1)	—	—	—	—	—	—
Automobiles	(1)	82,691	16,350	(1)	(1)	(1)	—	—	—	—	—	—
Awings, tents, and sails	433,545	282,323	297,323	104,983	50,641	7,624	13,912.0	54.3	173.7	107.3	564.2	141.0
Babbitt metal and solder	4,728	4,571	2,610	2,022	1,105	999	415.2	3.4	73.8	29.1	83.0	20.0
Bags, other than paper, not including bags made in textile mills	4,004	6,020	2,881	2,293	1,138	999	300.9	—33.5	109.0	25.6	101.5	13.9
Bags, paper, exclusive of those made in paper mills	13,852	9,076	10,302	6,855	4,822	1,755	680.7	52.6	—12.6	51.6	51.6	157.7
Baking powders and yeast	6,108	4,429	3,682	3,885	2,927	2,448	134.3	37.9	20.3	—5.2	32.7	36.3
Baskets, and rattan and willow ware	35,845	20,071	7,892	3,335	2,955	2,446	1,365.6	78.6	155.3	135.7	12.5	21.2
Bells	11,474	6,319	7,293	7,195	6,259	5,097	91.4	81.6	—13.4	1.3	15.1	4.3
Belting and hose, rubber	426	783	787	516	516	1,071	—60.5	—45.6	—5.9	36.9	11.4	—52.1
Belting and hose, woven, other than rubber	(1)	26,202	22,995	17,471	12,343	3,317	316.7	—82.5	93.7	—10.4	167.9	289.2
Belting, leather	393	5,301	5,338	3,076	2,458	293	321.3	—3.0	31.4	75.1	48.9	—
Billiard tables, bowling alleys, and accessories	9,075	7,012	7,411	5,638	5,638	2,032	968.6	—44.9	65.6	21.6	318.7	127.8
Blacking, stains, and dressings	2,897	5,261	3,213	2,642	1,903	1,230	130.9	—3.5	18.0	17.8	54.9	—
Bluing	2,792	2,446	2,220	2,249	2,249	380	155.3	—30.0	92.3	—9.1	—14.8	144.8
Bone, carbon, and lamp black	296	423	220	220	220	220	—	—	—	—	—	—
Bookbinding and blank-book making	5,567	1,857	1,816	1,023	1,023	1,023	—	—	—	—	—	—
Boot and shoe cut stock, exclusive of that produced in boot and shoe factories	15,539	11,037	11,266	10,039	5,671	4,689	1,234.0	40.8	—1.3	11.6	78.1	20.9
Boot and shoe factories	6,963	8,448	6,829	4,769	4,519	3,202	131.7	—17.6	31.8	43.2	5.5	41.1

Book and shoe findings, exclusive of those produced in book and shoe factories.	12,825	9,976	10,682	5,988	5,637	3,229	2,943	333.2	28.6	82.0	4.1	74.6	13.6
Boots and shoes, not including rubber boots and shoes.	128,550	115,896	120,632	100,292	95,896	86,720	48,444	170.6	10.9	20.4	16.7	32.8	13.7
Boots and shoes, rubber.	56,184	46,400	47,421	21,421	20,000	20,000	25,017	124.6	13.7	100.6	11.9	9.0	4.3
Boxes, cigar.	6,184	5,002	5,050	2,321	2,321	2,321	4,214	43.1	20.9	3.4	11.6	9.0	28.8
Boxes, paper and other, not elsewhere specified.	61,687	54,773	54,955	38,179	38,323	13,117	9,235	53.1	12.8	43.9	63.7	64.3	62.8
Boxes, wooden packing, except cigar boxes.	149,410	141,833	141,048	126,803	124,586	83,951	54,724	174.0	14.1	13.6	12.7	30.9	57.1
Brass, bronze, and copper products.	305,839	265,875	265,888	127,701	127,701	69,494	47,257	347.1	16.2	116.5	15.6	52.7	47.1
Bread and other bakery products.	193,186	185,271	185,998	107,771	107,771	37,241	22,472	781.1	16.6	54.0	65.6	73.3	65.7
Brick and tile, terra-cotta, and fire-clay products.	480,576	403,157	403,746	442,513	442,513	11,108	176,700	101.7	18.6	3.4	17.5	33.6	44.5
Brooms.	4,860	6,037	6,032	2,398	2,398	6,441	4,432	—	17.8	34.6	17.5	36.6	43.7
Brushes.	10,270	7,977	7,974	9,193	9,193	77,523	88,082	43.9	33.1	15.6	17.3	8.8	12.0
Butter.	126,351	94,242	95,343	1,348	1,348	1,894	6,831	—	8.8	3.9	12.3	12.6	166.9
Butter, reworking.	15,384	15,708	16,201	1,430	1,430	12,521	4,165	280.8	2.1	12.5	12.2	83.8	57.6
Candles.	15,912	24,895	24,895	10,965	10,965	6,980	4,224	230.9	32.8	126.7	57.4	42.9	13.5
Canning and preserving, fish.	185,987	132,247	132,422	88,302	88,302	4,939	20,906	417.3	55.3	50.0	47.3	94.7	63.4
Canning and preserving, fruits and vegetables.	1,587	1,021	1,021	1,805	1,805	1,222	922	17.1	54.8	45.9	33.2	15.5	33.6
Canning and preserving, oysters.	2,334	3,553	3,770	43,963	43,963	38,945	26,740	104.5	27.6	65.3	68.9	21.2	1.4
Card cutting and destaining.	53,832	37,693	38,170	2,722	2,722	1,067	219	476.5	69.9	19.8	77.6	49.1	28.2
Cardboard, not made in paper mills.	2,587	2,659	2,674	3,215	3,215	4,031	32,016	384.3	53.3	13.2	14.0	18.6	26.9
Carpets, rag.	10,647	6,071	6,071	3,633	3,633	3,033	2,402	88.7	2.7	1.8	2.7	9.5	178.3
Carpets and rugs, other than rag.	9,376	40,316	40,966	74,334	74,334	63,024	51,755	50.8	55.0	38.0	19.1	45.4	47.6
Carpets and wagon materials.	25,034	53,805	53,830	44,989	44,989	35,794	6,449	888.3	37.9	44.9	3.6	25.0	21.8
Carriages and sleds, children's.	82,370	591,070	594,515	433,994	433,994	293,361	95,087	687.1	13.9	19.7	25.7	1,084.9	51.0
Carriages and wagons, including repairs to electric-railroad companies.	744,065	9,300	9,300	10,014	10,014	15,161	4,865	106.1	25.9	37.0	47.9	74.6	76.7
Cars and general shop construction and repairs by electric-railroad companies.	10,028	157,790	157,855	126,687	126,687	97,797	33,395	610.0	6.8	6.2	33.9	114.9	45.0
Cars, electric-railroad, not including operations of railroad companies.	240,074	14,645	14,645	10,019	10,019	6,944	1,340	670.0	52.1	24.0	28.5	74.7	67.7
Cars, steam-railroad, not including operations of railroad companies.	29,572	483,808	483,808	486,462	486,462	371,798	149,094	670.0	104.0	38.0	52.9	67.8	208.9
Cash registers and calculating machines.	642,840	132	132	134	134	355	164	—	31.5	—	31.9	153.5	—
Cement.	134	24,411	24,400	19,219	19,219	11,638	164	—	1.5	1.5	13.8	33.5	116.5
Charcoal, not including production in the lumber and wood distillation industries.	23,215	376,824	445,389	227,363	227,363	208,637	130,429	670.5	57.7	57.7	63.1	12.3	46.4
Cheese.	6,403	6,172	6,172	6,000	6,000	6,000	6,000	—	11.9	103.9	35.3	57.6	—
Chemicals.	47,197	33,416	33,440	19,736	19,736	10,593	2,756	1,613.3	41.2	68.4	56.3	103.0	88.3
China decrating, not including that done in potteries.	8,693	4,516	4,500	7,593	7,593	5,217	643	944.0	45.5	16.3	46.6	117.1	24.9
Chocolate and cocoa products.	8,235	6,922	6,922	6,011	6,011	4,822	3,456	137.7	19.2	15.7	7.2	32.7	30.0
Cleansing and polishing preparations.	911	1,577	1,577	1,902	1,902	1,454	109	970.0	1.7	17.9	8.5	13.6	193.4
Clots, sponging and redressing.	2,900	40,176	40,176	36,664	36,664	30,069	13,247	286.1	33.9	17.9	38.9	121.6	142.1
Clothing, horse.	52,842	32,421	32,421	28,398	28,398	22,294	9,952	180.0	40.9	14.9	16.9	22.5	38.1
Clothing, men's.	105	27,704	27,704	22,294	22,294	14,916	9,952	180.0	14.5	14.9	27.4	46.3	40.7
Clothing, men's, buttonholes.													
Clothing, women's.													

See footnotes at end of Table 34, p. 177.

TABLE 33.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 153]

INDUSTRY	PRIMARY HORSEPOWER						PER CENT OF INCREASE OR DECREASE (-)				
	Including data for rented power other than electric						24-year period, 1899-1923	Interdecadal period			
	1923	1919	1914	1909	1904	1899		1919-1923	1914-1919	1909-1914	1899-1904
Coal-tar products.....	75,099	68,339	23,750	22,334	15,703	1,263	130.1	9.9	11.7	19.3	42.2
Coffee and spice, roasting and grinding.....	37,358	29,708	22,345	16,490	13,178	8,927	208.4	23.8	17.6	15.3	-3.5
Coffins, burial cases, and undertakers' goods.....	27,340	22,190	22,345	16,490	13,178	8,927	208.4	23.8	17.6	15.3	-3.5
Coke, not including gas-house coke.....	332,590	224,879	224,879	117,127	62,622	66,669	856.9	47.9	82.0	87.1	26.1
Collars and cuffs, men's.....	5,050	5,276	3,896	3,234	2,360	2,302	119.7	-4.3	35.7	28.5	37.0
Combs and hairpins, not made from metal or rubber.....	1,919	1,588	2,711	4,175	1,263	817	136.5	20.8	-41.0	-55.1	230.6
Condensed milk.....	48,300	40,178	49,181	20,015	11,588	5,066	1,247.6	-1.8	165.7	172.7	94.6
Confectionery and ice cream.....	261,185	179,682	179,682	98,393	24,202	19,410	9.0	45.4	52.8	174.3	47.7
Cooperage.....	33,519	30,688	30,688	38,290	30,110	30,110	180.1	3.2	-19.8	-10.2	27.1
Copper, tin, and sheet-iron work.....	34,243	24,130	24,130	18,847	11,105	12,222	115.2	41.9	13.0	13.3	68.4
Cordage and twine.....	72,371	66,558	66,558	47,269	41,041	35,661	2,282.7	33.7	20.3	17.2	15.2
Cordials and flavoring syrups.....	13,651	8,177	2,070	1,154	732	913	1,363	17.3	53.5	79.4	47.6
Cork, cutting.....	10,052	8,558	2,814	2,746	2,284	1,368	66.8	-15.2	49.3	55.2	44.7
Corsats.....	5,901	6,956	7,156	2,581	2,284	3,668	175.5	17.3	1.4	22.5	39.5
Cotton goods.....	2,153,299	1,836,298	1,840,201	1,286,105	979,109	739,858	1,286.1	3.1	17.5	22.5	31.4
Cotton lace.....	9,545	9,078	9,078	10,412	7,495	5,976	441.1	-2.0	41.2	-3.0	38.9
Cotton small wares.....	31,926	14,085	14,263	10,100	10,412	7,495	120.3	12.0	210.2	7.2	25.4
Crucibles.....	1,647	2,714	2,714	875	32,238	26,416	64.9	21.7	1.0	7.9	-9.1
Cutlery and edge tools.....	43,171	38,555	34,731	32,238	32,432	26,416	64.9	21.7	1.0	7.9	-9.1
Dairymen's, poultrymen's, and apiculturists' supplies.....	14,306	11,756	11,756	6,898	3,904	(*)	275	37.8	44.9	103.6	196.8
Dental goods.....	3,731	2,708	1,874	6,865	1,112	2,875	398.1	-26.3	35.3	145.7	-33.0
Drug grinding.....	4,938	6,728	4,572	3,922	2,866	4,697	193.7	-11.2	50.9	-12.1	57.0
Druggists' preparations.....	11,255	12,670	8,417	9,580	6,102	3,813	193.7	-11.2	50.9	-12.1	57.0
Dyeing and finishing textiles, exclusive of that done in textile mills.....	204,128	190,857	160,420	107,746	84,988	69,238	195.9	27.7	23.2	20.8	22.6
Dyestuffs and extracts, natural.....	32,833	34,265	22,213	22,213	17,671	11,409	187.0	-4.3	47.4	4.8	44.9
Electrical machinery, apparatus, and supplies.....	490,298	438,839	227,731	158,788	105,376	43,674	1,001.2	9.6	99.7	43.4	141.8
Electroplating.....	9,505	6,788	5,845	4,461	2,598	2,933	237.8	40.0	91.1	31.0	72.8
Enameling.....	11,530	12,963	4,100	4,005	1,965	1,044	1,092.6	-11.1	216.2	1.0	103.8
Engines, steam, gas, and water.....	165,137	190,005	63,047	1,619	7,604	3,024	-18.2	114.4	-27.6	1.0	-78.7
Engravers' materials.....	822	759	549	549	135	(*)	720.5	13.5	33.8	-4.4	300.7



Engraving and die sinking	1,750	1,760	1,092	768	1,092	1,760	1,750	2,345
Engraving, steel and copperplate, including plate printing	5,353	5,420	1,291	2,732	5,670	5,420	5,353	5,738
Engraving, wood	67	67	45	39	68	67	67	26
Envelopes	7,124	7,137	2,122	3,091	5,206	7,137	7,124	9,904
Explosives	51,635	51,635	28,665	28,665	45,778	51,635	51,635	35,231
Fancy articles, not elsewhere specified	8,068	8,068	3,376	3,376	4,692	8,068	8,068	8,068
Feathers and plumes	410	410	167	167	309	410	410	20,522
Felt goods	16,411	16,411	11,405	11,405	14,056	16,411	16,411	16,411
Ferr-alloys	37,087	37,087	64,711	64,711	47,939	37,087	37,087	161,774
Fertilizers	125,939	125,939	4,835	4,835	130,9	125,939	125,939	15,155
Fires	11,897	11,897	16,352	16,352	7,474	11,897	11,897	15,639
Fire extinguishers, chemical	26,167	26,167	855	855	707	26,167	26,167	1,235
Fireworks	1,005	1,005	707	707	778	1,005	1,005	748
Flags and banners	3,376	3,376	1,447	1,447	1,060	3,376	3,376	4,278
Flax and hemp, dressed	1,470	1,470	873	873	299	1,470	1,470	877
Flour-mill and grain-mill products	822,334	822,334	775,318	775,318	600	822,334	822,334	789,858
Food preparations, not elsewhere specified	80,022	80,022	28,102	28,102	55,166	80,022	80,022	178,132
Foundry and machine-shop products	770,454	770,454	487,148	487,148	690,601	770,454	770,454	1,234,328
Foundry supplies	6,827	6,827	3,543	3,543	4,995	6,827	6,827	7,736
Fuel, manufactured	5,180	5,180	1,200	1,200	3,444	5,180	5,180	7,623
Fur goods	5,421	5,421	3,233	3,233	5,880	5,421	5,421	4,299
Furnishings, men's	285,064	285,064	211,438	211,438	3,983	285,064	285,064	483,347
Furniture	7,776	7,776	2,275	2,275	240,665	7,776	7,776	1,856
Furs, dressed	1,856	1,856	1,003	1,003	1,603	1,856	1,856	13,818
Galvanizing and other coating processes	358,605	358,605	73,101	73,101	9,655	358,605	358,605	7,394
Gas and electric fixtures	238,454	238,454	128,350	128,350	4,328	238,454	238,454	240,528
Gas, illuminating and heating	8,901	8,901	91,476	91,476	3,973	8,901	8,901	4,732
Gas machines and gas and water meters	5,110	5,110	4,897	4,897	5,589	5,110	5,110	3,143
Glass	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Glass, cutting, staining, and ornamenting	62,845	62,845	35,686	35,686	14,280	62,845	62,845	65,764
Gloves and mittens, cloth, not including gloves made in textile mills	16,408	16,408	14,280	14,280	278	16,408	16,408	24,708
Gloves and mittens, leather	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Glucose and starch	16,408	16,408	14,280	14,280	278	16,408	16,408	24,708
Glue, not elsewhere specified	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Gold and silver, leaf and foil	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Gold and silver, reducing and refining, not from the ore	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Graphite, ground and refined	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Grease and tallow, not including lubricating greases	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Grindstones	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Haircloth	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Hair work	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Hammocks	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Hand stamps	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Hardware	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Hardware, saddlery	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372
Hat and cap materials	3,357	3,357	2,725	2,725	3,889	3,357	3,357	4,372

See footnotes at end of Table 34, p. 177.

TABLE 33.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 153]

INDUSTRY	PRIMARY HORSEPOWER					PER CENT OF INCREASE OR DECREASE (—)				
	Including data for rented power other than electric					24-year period, 1899-1923	Inter-censal period			
	1923	1919	1914	1909	1904		1919-1923	1914-1919	1909-1914	1904-1909
Hats and caps, other than felt, straw, and wool	1,782	1,687	1,839	930	707	313,232	-45.2	28.0	85.3	24.2
Hats, fur-felt	18,488	20,377	20,380	19,245	16,639	11,843	56.2	-9.3	8.3	15.7
Hats, straw	3,673	3,392	3,248	3,452	2,899	(1)	-35.4	-35.4	30.7	47.2
Hats, wool-felt	2,694	2,692	3,091	2,321	1,694	2,394	13.9	-12.8	27.6	36.5
Homes and whistles	1,151	1,164	1,094	1,047	1,014	2,393	94.1	34.7	27.6	31.1
Horsehoes, not made in steel works or rolling mills	1,341	3,874	1,994	1,938	8,748	8,551	143.9	95.3	23.8	6.6
House-furnishing goods, not elsewhere specified	9,969	11,857	11,731	10,238	191,680	104,680	240.8	4.4	45.4	63.8
Ice, manufactured	845,012	593,925	467,883	317,269	191,680	104,680	43.2	32.4	33.5	73.1
Ice, manufactured	14,703	10,223	7,612	5,187	3,334	1,899	63.0	43.9	25.2	24.6
Iron, printing	16,203	12,981	6,799	4,856	2,116	2,471	557.6	24.8	40.0	130.1
Instruments, professional and scientific	91,832,919	1,581,407	1,581,407	1,173,422	773,278	487,272	388.6	15.9	4.2	61.7
Iron and steel, blast furnaces	4,110,173	3,818,167	2,706,553	2,100,978	1,646,289	1,100,801	273.5	7.6	28.8	27.4
Iron and steel, steel works and rolling mills	48,036	49,959	28,897	22,113	13,825	9,165	424.4	-3.8	30.7	50.8
Iron and steel, cast-iron pipe	47,239	28,711	26,854	15,737	(9)	223	64.4	11.1	38.0	106.1
Iron and steel, doors and shutters	8,581	4,013	3,176	1,997	969	(9)	-8	26.6	35.7	334.5
Iron and steel, forgings, not made in steel works or rolling mills	136,922	100,996	38,215	27,803	16,069	7,697	35.6	106.8	37.4	73.0
Iron and steel, nails and spikes, cut and wrought, including wire nails, not made in steel works or rolling mills	10,275	8,971	8,235	7,723	10,533	12,853	-20.1	14.5	6.6	-26.7
Iron and steel, tempering and welding	6,209	23,925	17,542	20,656	16,094	11,717	249.2	36.4	-15.1	36.8
Ivory shell, and bone work, not including combs and hairpins	880	879	708	916	1,247	973	-1.9	34.7	-22.7	28.2
Japanning	201	306	110	76	232	28	620.7	182.7	44.7	30.0
Jewelry	16,831	15,066	15,666	11,204	7,872	6,656	174.8	11.6	39.8	18.3
Jute goods	1,662	1,075	1,039	627	359	208	710.9	3.0	100.9	46.8
Knit goods	24,174	32,135	28,628	20,993	18,810	8,191	54.6	12.3	36.4	127.6
Labels and tags	183,675	149,438	151,601	103,799	78,769	57,392	224.9	22.9	20.5	31.7
Lamps and reflectors	4,538	4,033	2,223	1,889	919	392	12.5	81.9	40.5	72.9
Lapidary work	16,716	12,622	8,640	6,297	3,252	2,360	613.9	47.1	39.2	90.9
	566	680	546	679	554	212	-15.8	19.6	22.6	161.3

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)
Lard, not made in slaughtering and meat-packing establishments	40	5,842	5,317	107	5,842	5,317	3,886	2,865	1,951	278.1	26.3	18.2	57.0	18.2	46.8											
Leads	5,332	5,537	2,609	2,609	5,537	3,179	2,457	2,457	2,007	193.8	18.9	27.8	17.9	27.8	23.9											
Lead, bar, pipe, and sheet	3,840	3,902	3,772	3,772	3,902	3,179	2,457	2,457	1,644	159.6	5.7	26.4	16.6	26.1	8.8											
Leather goods, not elsewhere specified	4,902	218,293	218,293	218,293	218,293	148,140	117,450	98,860	628.8	43.4	41.4	12.5	44.0	96.1	32.2											
Leather, tanned, curried, and finished	200,187	217,780	218,293	218,293	218,293	148,140	117,450	98,860	628.8	43.4	41.4	12.5	44.0	96.1	32.2											
Lime	74,205	51,735	51,735	51,735	51,735	39,134	27,671	18,138	628.8	43.4	41.4	12.5	44.0	96.1	32.2											
Linen goods	6,069	9,922	9,922	9,922	9,922	8,229	6,133	5,885	66.5	61.5	32.2	12.5	44.0	4.2	34.8											
Liquors, distilled	8,129	16,494	16,494	16,494	16,494	42,949	31,427	19,901	74.1	60.7	88.3	12.7	30.6	34.8	96.5											
Liquors, malt, including cereal beverages	186,511	322,130	324,431	406,884	347,726	206,159	347,726	206,159	197,901	20.3	51.4	30.6	16.7	30.6	96.5											
Liquors, vinous	2,835	5,189	3,189	3,189	3,189	6,713	3,189	3,189	7,063	281.8	44.4	22.7	15.6	60.2	16.0											
Machinery	26,869	18,694	18,694	18,694	18,694	13,132	8,193	8,193	34.8	3.5	11.4	43.5	17.8	38.6	5.9											
Mats and matting, from coirs, fiber, grass, and cotton	91,214	96,504	97,187	97,187	97,187	35,402	29,806	3,337	34.8	3.5	11.4	43.5	17.8	38.6	5.9											
Mattresses and bed springs, not elsewhere specified	4,497	4,659	4,659	4,659	4,659	5,330	4,659	4,659	3,357	34.8	3.5	11.4	43.5	17.8	38.6											
Military and sea goods, not elsewhere specified	15,661	12,449	12,482	12,482	12,482	17,689	13,220	7,980	281.4	28.7	13.0	17.4	33.8	65.7	155.8											
Millstones	64,731	41,167	41,167	41,167	41,167	7,918	4,737	3,55	750.6	26.2	2.0	60.8	67.2	165.8	52.0											
Mineral and soda waters	83,471	127,064	127,064	127,064	127,064	19,322	12,214	8,037	717.9	37.4	68.0	29.8	58.8	52.0	-5.9											
Minerals and earths, ground or otherwise treated	5,722	4,233	4,233	4,233	4,233	20,920	17,325	18,404	353.7	34.3	188.4	110.7	20.8	-5.9	-5.9											
Mirrors, framed and unframed, not elsewhere specified	12,072	13,750	13,868	13,868	13,868	3,882	2,795	2,333	150.8	35.2	7.4	21.0	38.2	19.8	32.7											
Models and patterns, not including paper patterns	14,840	14,430	14,806	14,806	14,806	5,486	4,868	3,021	303.1	12.2	125.5	12.1	26.9	44.3	71.1											
Motor cycles, bicycles, and parts	3,204	3,202	3,242	3,242	3,242	5,932	5,730	19,847	23.2	2.9	69.2	47.6	3.5	-71.1	-71.1											
Mutuals, paste, and other adhesives, not elsewhere specified	3,204	3,202	3,242	3,242	3,242	2,335	1,505	1,426	127.5	.1	32.0	5.2	55.1	5.5	5.5											
Musical instruments and materials, not elsewhere specified	3,830	3,219	3,266	3,266	3,266	1,423	1,693	1,417	178.0	19.0	76.2	31.1	-11.2	13.1	13.1											
Musical instruments, organs	2,802	3,245	3,266	3,266	3,266	3,334	4,065	4,117	-86.1	-10.6	-11.3	10.9	-13.4	45.0	45.0											
Musical instruments, pianos	26,659	28,687	28,723	28,723	28,723	23,246	17,467	20,789	28.4	-6.4	10.6	11.8	53.1	25.3	25.3											
Musical instruments, piano and organ materials	16,478	13,716	15,821	15,821	15,821	15,043	8,652	2,103	368.6	23.1	73.9	8.9	460.3	16.0	16.0											
Needles, pins, and hooks and eyes	10,867	8,423	8,467	8,467	8,467	4,642	2,440	2,103	368.6	23.1	73.9	8.9	460.3	16.0	16.0											
Nets and seines	1,082	833	833	833	833	1,438	320	275	306.6	12.8	-50.6	30.2	-2.0	-2.0	-2.0											
Oil and cake, cottonseed	222,742	239,931	200,636	200,636	200,636	192,432	150,246	78,073	207.0	22.8	23.0	59.6	23.0	105.6	105.6											
Oil, essential	1,338	1,832	1,832	1,832	1,832	1,317	9,473	8,045	132.4	24.2	20.6	59.6	43.5	19.0	19.0											
Oil, linseed	21,674	17,691	17,691	17,691	17,691	13,911	9,473	8,045	132.4	24.2	20.6	59.6	43.5	19.0	19.0											
Oil, not elsewhere specified	18,431	30,067	30,075	30,075	30,075	6,157	8,702	8,491	355.2	23.7	173.8	77.4	39.5	11.6	11.6											
Oil, cloth and linoleum, floor	23,803	23,803	23,803	23,803	23,803	14,792	8,702	8,491	355.2	23.7	173.8	77.4	39.5	11.6	11.6											
Oil, cloth, enamel	23,803	23,803	23,803	23,803	23,803	14,792	8,702	8,491	355.2	23.7	173.8	77.4	39.5	11.6	11.6											
Oil, grease and other butter substitutes	2,892	6,431	6,431	6,431	6,431	1,487	1,580	1,349	199.1	10.2	23.0	27.4	39.6	23.0	23.0											
Optical goods	13,397	15,640	15,710	15,710	15,710	2,405	1,580	1,349	199.1	10.2	23.0	27.4	39.6	23.0	23.0											
Ordnance and accessories	93,127	73,330	73,330	73,330	73,330	5,726	3,735	2,731	428.6	17.4	101.6	26.1	67.6	34.0	34.0											
Paints	93,127	73,330	73,330	73,330	73,330	5,726	3,735	2,731	428.6	17.4	101.6	26.1	67.6	34.0	34.0											
									255.3	27.0	17.1	24.5	35.0	42.2	42.2											

See footnotes at end of Table 34, p. 177.

TABLE 33.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 153]

INDUSTRY	PER CENT OF INCREASE OR DECREASE (—)									
	PRIMARY HORSEPOWER					PER CENT OF INCREASE OR DECREASE (—)				
	Including data for rented power other than electric					Inter-censal period				
	1923	1919	1914	1909	1904	1899	1919-1923	1914-1919	1909-1914	1904-1909
Paper and wood pulp	2,178,623	1,849,699	1,621,154	1,304,265	1,093,708	792,118	186.1	17.8	24.3	19.3
Paper patterns	37,840	36,369	27,362	22,436	18,071	7,836	384.3	7.0	22.0	43.5
Patent medicines and compounds	29,988	25,608	18,642	14,704	10,092	8,293	322.2	-81.2	-51.8	71.6
Paving materials	197,240	191,471	138,026	5,797	5,166	34,397	10,993.2	18.1	26.1	45.7
Peasants, grading, roasting, cleaning, and shelling	7,288	7,851	4,235	2,827	1,602	1,602	478.6	38.8	2,297.6	11.7
Pencils, lead	7,288	8,099	3,738	3,448	2,272	1,360	436.0	4.9	48.8	76.5
Pens, fountain and stylographic	2,710	1,192	1,157	477	272	1,360	436.0	-10.0	12.7	31.4
Pens, gold	191	305	138	92	77	121	74.1	31.7	15.0	19.5
Pertinency and cosmetics	266	305	244	244	244	121	74.1	31.7	15.0	19.5
Photocopying	5,602	2,196	1,913	1,375	814	671	92.7	-12.8	25.0	-36.4
Photography and graphophones	391,154	283,908	128,688	90,208	514	671	889.1	196.1	14.8	113.0
Photography, not done in printing establishments	41,164	40,183	11,993	6,371	46,019	36,127	889.1	63.7	86.0	21.3
Photographic apparatus	5,786	3,800	3,821	2,829	1,925	1,040	275.2	2.5	243.7	12.1
Photographic materials	50,267	28,779	26,458	8,114	6,837	1,523	466.5	52.3	92.5	83.1
Pickles, preserves, and sauces	36,717	22,384	18,840	12,837	10,223	6,837	234.7	74.7	76.9	-10.3
Plated ware	2,354	2,001	1,716	1,406	1,038	5,451	461.5	64.0	19.4	25.6
Pipes, tobacco	22,890	14,212	10,499	7,431	6,295	5,451	175.2	17.6	16.6	42.3
Plumbers' supplies, not elsewhere specified	59,973	25,695	28,782	26,078	12,601	7,431	311.9	55.7	41.3	23.7
Pocketbooks	1,094	431	243	178	137	151	504.3	102.0	5.3	8.3
Poultry, killing and dressing, not done in slaughtering and meat-packing establishments	44,552	29,040	22,339	11,017	11,043,918	12,75,802	201.2	153.8	77.4	-43.8
Printing and publishing, book and job	2,006	4,016	2,230	97	546	36,973	-50.0	80.1	17.1	73.6
Printing and publishing, music	152,231	131,476	114,233	97	546	36,973	313.6	13.5	17.1	73.6
Printing and publishing, newspaper and periodical	203,231	194,074	182,269	173,839	94,852	70,089	294.6	94.2	62.7	79.8
Printing materials	1,082	1,351	671	663	524	219	190.6	4.8	4.8	35.3
Pulp, from fiber other than wood	13,805	12,273	8,235	3,125	2,368	1,314	68.8	-21.4	102.2	26.5
Pulp goods	38,263	32,441	20,446	4,214	2,569	1,245	935.8	10.9	39.1	32.0
Pumps, not including power pumps	17,136	13,029	11,332	10,013	6,160	5,040	245.2	18.0	136.6	64.0
Pumps, steam and other power	17,136	13,029	11,332	10,013	6,160	5,040	245.2	18.0	136.6	64.0
Refrigerators	17,136	13,029	11,332	10,013	6,160	5,040	245.2	18.0	136.6	64.0

Regalia, and society badges and emblems.....	1, 160	1, 321	1, 333	665	784	680	205	470.9	-12.2	100.5	-15.2	15.3	231.7
Rice, cleaning and polishing.....	22, 220	25, 340	27, 332	15, 571	19, 531	15, 866	7, 546	218.3	-12.3	75.9	-20.2	32.0	116.3
Roofing materials.....	39, 398	39, 247	39, 327	11, 702	9, 431	25, 022	18, 217	117.8	-9	236.1	24.1	-59.0	26.4
Rubber tires, tubes, and rubber goods, not elsewhere specified.....	11 549, 450	11 379, 373	384, 188	151, 927	79, 062	48, 381	40, 835	1, 154.1	44.6	133.1	92.2	63.4	18.5
Rules, ivory and wood.....	7, 714	8, 235	8, 212	10, 397	17, 264	318	308	135.7	193.8	-22.2	164.1	-47.5	5.0
Saddlery and harness.....	7, 691	8, 342	8, 406	8, 406	5, 546	4, 090	6, 018	135.7	-5.4	-21.0	-39.7	133.8	22.5
Sails and vaults.....	53, 101	42, 051	43, 187	29, 007	27, 293	19, 434	23, 885	150.1	38.2	-36.5	51.6	35.6	85.2
Salt.....	3, 694	3, 977	3, 153	3, 153	3, 331	1, 133	886	311.5	38.0	48.9	6.4	40.3	-13.6
Sand and emery paper and cloth.....	4, 332	4, 358	4, 338	5, 606	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	-6	22.3	-5.9	196.8	26.2
Sand-lime brick.....	17, 017	12, 671	12, 713	7, 930	6, 275	3, 355	2, 032	732.0	34.3	60.3	26.4	87.0	63.5
Sausages, not made in slaughtering and meat-packing establishments.....	13, 238	15, 046	15, 098	11, 793	11, 832	7, 491	5, 493	143.0	-11.6	28.0	-5	58.2	36.4
Saws.....	9, 615	7, 441	7, 451	6, 201	6, 183	3, 251	2, 466	290.3	23.2	20.2	-8	90.2	31.8
Scales and balances.....	28, 954	23, 517	23, 540	7, 988	3, 319	3, 201	1, 407	1, 939.6	23.1	194.7	140.7	3.7	127.5
Screws, machine.....	8, 500	7, 764	8, 044	8, 044	5, 618	3, 715	3, 490	145.0	10.1	-3.5	43.2	51.2	6.4
Screws, wood.....	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )
Sewing-machine cases.....	22, 511	32, 017	21, 379	18, 108	14, 400	10, 172	8, 014	87.6	-23.7	17.5	20.0	-28.1	240.1
Sewing machines and attachments.....	280, 373	475, 567	475, 567	83, 706	57, 697	51, 029	35, 862	622.0	-41.0	403.1	45.1	13.1	31.3
Shipbuilding, steel.....	37, 339	77, 704	73, 144	31, 627	30, 068	27, 068	22, 035	63.9	-51.9	147.1	4.2	12.1	18.2
Ships, wooden, including boat building.....	14, 050	14, 830	14, 944	17, 617	12, 656	8, 723	7, 110	98.4	-5.6	-15.2	39.2	45.1	22.7
Shirts.....	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )
Show cases.....	11, 781	7, 714	7, 730	4, 423	4, 145	4, 087	1, 232	( <sup>u</sup> )	52.7	6.7	-12.7	16.1	231.7
Signs and advertising novelties.....	206, 020	173, 748	176, 825	116, 924	97, 947	71, 700	57, 397	265.4	18.6	51.2	19.4	36.5	25.0
Silk goods, including throwsters.....	7, 284	6, 943	6, 940	8, 239	7, 752	6, 578	3, 035	143.3	6.4	-15.8	6.3	17.8	116.7
Silverware.....	332, 127	358, 322	359, 212	253, 066	202, 432	155, 956	85, 008	330.5	6.6	41.9	25.0	74.6	36.4
Slaughtering and meat packing.....	432, 886	321, 610	321, 610	194, 980	183, 126	76, 524	61, 630	602.3	34.6	64.9	23.3	106.6	24.2
Smelting and refining, copper.....	42, 377	49, 668	52, 565	29, 734	26, 954	25, 667	16, 342	174.4	-14.7	76.8	10.3	5.0	57.1
Smelting and refining, lead.....	1, 144	11, 700	11, 700	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )
Smelting and refining, metals, not elsewhere specified.....	9, 654	73, 604	73, 604	10, 075	10, 705	17, 111	8, 633	11.9	21.9	-21.4	-5.9	-37.4	98.2
Smelting and refining, not from the ore.....	69, 553	73, 604	73, 604	36, 705	21, 457	18, 404	11, 145	524.1	-5.5	100.5	71.1	16.6	65.1
Smelting and refining, zinc.....	74, 820	33, 700	33, 710	35, 726	28, 390	20, 223	17, 514	327.4	122.0	-5.7	26.0	40.2	15.5
Soap.....	4, 238	4, 131	4, 146	3, 728	2, 894	1, 533	1, 133	299.6	2.6	11.3	28.7	88.8	20.6
Soda-water apparatus.....	11, 091	6, 780	6, 875	4, 356	3, 243	2, 965	1, 133	892.7	63.6	57.8	34.3	8.3	164.3
Sporting, steel, car and carriage, not made in steel works or rolling mills.....	25, 393	16, 560	16, 585	8, 098	7, 349	5, 510	3, 185	698.2	53.3	104.8	10.2	33.4	73.0
Stamped and enameled ware, not elsewhere specified.....	68, 326	51, 233	51, 441	34, 797	27, 829	10, 088	16, 597	312.8	33.2	49.0	24.9	175.9	-39.2
Stationary goods, not elsewhere specified.....	11, 539	8, 342	8, 342	5, 703	6, 842	3, 366	1, 706	576.3	33.3	46.3	-16.6	101.5	99.1
Statuary and art goods.....	887	682	684	5, 826	6, 462	4, 468	( <sup>u</sup> )	( <sup>u</sup> )	30.1	-17.2	78.8	-9	( <sup>u</sup> )
Steam fittings and steam and hot-water heating apparatus.....	91, 085	67, 494	67, 504	38, 630	33, 008	10, 696	6, 510	1, 290.8	35.0	74.7	17.0	208.0	64.3
Steam packing.....	17, 671	26, 755	26, 763	17, 254	11, 129	8, 846	4, 488	293.6	-34.0	55.1	55.0	25.8	97.1
Steel barrels, drums, and tanks, portable.....	7, 907	10, 554	10, 554	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	-25.1	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )	( <sup>u</sup> )
Stencils and brands.....	12, 313	9, 498	9, 613	6, 983	4, 076	2, 878	1, 470	747.5	23.6	-9.0	53.7	-33.9	151.3
Stereotyping and electrotyping.....	65, 366	49, 408	49, 479	41, 196	40, 248	28, 414	( <sup>u</sup> )	( <sup>u</sup> )	32.3	20.1	71.3	41.6	95.8
Stoves and hot-air furnaces.....	22, 238	11, 230	11, 235	7, 954	5, 276	3, 603	1, 723	1, 194.6	97.5	42.0	50.8	46.4	109.1
Stoves, gas and oil.....	205, 518	165, 179	165, 347	109, 374	80, 278	56, 719	19, 073	945.0	24.4	51.2	36.2	41.5	188.3
Structural ironwork, not made in steel works or rolling mills.....	127, 771	127, 394	127, 394	76, 705	57, 202	35, 490	14, 490	733.6	-3	66.1	34.1	61.2	145.4
Sugar, beet.....													

See footnotes at end of Table 34, p. 177.

TABLE 33.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN INDIVIDUAL INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

[See note at head of this table, p. 158]

INDUSTRY	PRIMARY HORSEPOWER						PER CENT OF INCREASE OR DECREASE (-)					
	Including data for rented power other than electric						24-year period, 1899-1923	Interdecadal period				
	Excluding data for rented power other than electric											
	1923	1919	1914	1909	1904	1899		1919-1923	1914-1919	1909-1914	1904-1909	1899-1904
Sugar, cane.	88,214	101,861	113,246	122,189	140,650	152,569	-24.1	-13.4	-10.1	-7.3	14.2	-7.8
Sugar, refining, not including beet sugar.	72,632	52,541	49,696	38,434	30,434	24,977	99.3	38.3	5.8	29.3	19.9	161.1
Sulphuric, nitric, and mixed acids.	19,131	30,637	24,977	6,104	5,416	1,159	701.6	-37.6	22.9	283.8	70.9	
Surgical appliances.	9,290	12,382	6,361	5,170	3,026	(a)	(a)	-90.9	94.7	23.0	53.6	
Suspenders, garters, and elastic woven goods.	56,295	41,744	7,524	4,899	(a)	(a)	(a)	34.9	20.0			
Textile machinery and parts.	104	104	65	(a)	(a)	(a)	(a)	55.8	60.0			
Theatrical scenery.	12,595	6,991	2,458	1,909	1,388	854	1,375.1	80.2	184.4	44.7	22.4	62.5
Tin and other foils, not elsewhere specified.	(b)	18,697	6,355	3,154	8,990	3,515		-1.4	99.9	14.7	75.4	155.8
Tinware, not elsewhere specified.	41,252	30,494	19,139	15,690	8,940	(c)	5.0	36.4	59.4	22.0	3.9	4.5
Tobacco, chewing and smoking, and snuff.	18,621	18,893	21,273	19,253	18,535	17,733		-1.0	-11.2	10.5	32.6	33.0
Tobacco, cigars and cigarettes.	24,894	24,504	9,261	6,069	21,069	1,808	443.6	11.1	77.7	47.5	64.2	86.0
Toys, not elsewhere specified.	75,248	67,730	38,474	36,066	20,995	2,315	110.9	11.7	112.8	27.5	11.9	50.8
Trunks and valises.	16,111	14,423	6,789	6,323	4,757	2,314	125.7	-13.1	1.9	8.9	37.3	51.4
Turpentine and rosin.	7,269	7,703	7,568	6,885	5,016	886		70.3	-7.1	-40.0	251.4	35.7
Type foundry.	1,932	2,276	2,303	4,129	1,973	699	107.0	-12.3	-45.7	23.9	53.6	39.2
Typefounders and supplies.	11,431	845	850	1,285	4,455	2,272	404.4	10.8	20.0	59.1	13.7	45.6
Umbrellas and canes.	2,409	3,357	2,579	2,413	2,122	1,457	66.7	70.8	31.2	6.9	11.9	37.5
Updressing materials, not elsewhere specified.	21,740	19,622	19,826	17,456	15,604	29	1,351	84.0	50.2	36.8	46.0	-6.5
Varnishes.	21,154	11,497	7,658	5,596	3,174	4,090	476.7	10.8	3.7	7.4	16.7	6.4
Vault lights and ventilators.	254	269	279	224	224	103		84.0	50.2	36.8	46.0	-6.5
Vinegar and cider.	8,414	17,943	13,362	16,831	10,556	16,849	133.7	-5.0	-43.2	109.8	34.5	68.9
Wall paper, not made in paper mills.	11,246	8,123	7,010	6,890	4,897	573	146.9	38.4	38.3	23.1	16.7	37.3
Wall plaster and composition flooring.	62,620	32,356	36,626	23,892	20,054	(d)		38.2	16.4	38.4	23.1	16.7
Washing machines and clothes wringers.	11,415	8,816	8,836	3,351	3,541	2,732	318.8	93.5	-11.7	41.5	29.1	6.4
Waste.	12,347	11,304	8,513	4,286	3,823	2,192	318.8	8.2	53.8	80.2	46.3	-6.0
Watch and clock materials, except watchcases.	170	252	626	334	258	203	17.0	-32.5	-93.7	89.6	11.0	76.2
Watchcases.	5,710	4,275	2,356	3,366	2,559	1,708	317.7	83.6	73.2	87.4	98.8	-18.0
Watches.	7,396	7,202	6,624	5,449	3,172	1,765	318.7	8.7	36.1	17.3	76.1	80.0
Wheelbarrows.	1,455	7,765	1,188	1,496	1,392	818	91.0	90.2	-36.1	-19.4	15.9	68.2
Whips.	334	833	1,076	1,321	1,093	818	18.5	-41.7	-20.7	-18.5	23.7	30.5
Windmills.	2,732	4,666	3,997	3,301	3,694	2,214	25.3	-19.1	19.1	21.1	-10.6	66.3

	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
Window and door screens and weather strips.	9 515	7 530	8 138	5 737	2 705	1 927	194.3	28.6	35.4	-8.0
Window shades and fixtures	11 450	8 948	6 607	71 959	25 856	8 949	143.7	3.9	34.9	178.3
Wire	123 923	119 451	83 940	20 131	18 289	8.9	1 143.7	3.9	34.9	10.1
Wirework, not elsewhere specified	31 617	29 036	21 547	9 354	4 620	-2.7	141.9	136.0	53.7	113.3
Wood distillation	14 776	15 988	10 045	10 647	3 439	3 715.8	3.9	3.9	3.9	203.3
Wood preserving	37 948	16 104	16 269	11 801	47 330	40.1	191.7	9.2	25.1	1.8
Wood, turned and carved	43 368	39 722	39 958	48 447	27 472	7 820	246.0	-13.8	-3.8	25.7
Wooden goods, not elsewhere specified	22 438	25 874	20 711	1 324	1 324	7 802	246.0	31.2	31.2	3.2
Wool pulping	2 837	2 162	2 248	1 395	3 478	2 900	142.4	-28.2	-28.2	95.0
Wool scouring	6 976	9 710	7 579	6 782	12 444	2 900	142.4	9.9	9.9	11.8
Wool shoddy	12 496	16 567	12 440	12 333	12 444	11 455	9.9	-24.6	34.2	2.4
	538 465	496 219	381 220	345 283	277 366	234 660	130.5	15.5	22.9	25.6

See footnotes at end of Table 34, p. 177.





Boots and shoe findings, exclusive of those produced in boot and shoe factories	48, 012	39, 117	62, 680	62, 825	28, 303	25, 505	9, 905	7, 835	6, 805	2, 986	3, 654
Boots and shoes, not including rubber boots and shoes	1, 000, 078	867, 476	1, 154, 891	1, 155, 041	501, 760	442, 631	320, 107	258, 970	220, 649	96, 050	
Boots	131, 740	94, 033	116, 917	116, 917	53, 822	49, 721	70, 065	41, 090	18, 632	9, 706	
Shoes	14, 796	13, 317	13, 045	13, 110	8, 337	8, 491	36, 887	27, 316	18, 092	2, 903	980
Boxes, paper and other, not elsewhere specified	264, 209	174, 248	206, 281	205, 419	74, 711	8, 491	36, 887	27, 316	18, 092	2, 903	4, 030
Boxes, wooden packing, except cigar boxes	162, 858	122, 588	177, 423	177, 818	88, 567	75, 842	38, 513	27, 316	18, 092	2, 903	8, 965
Brass, bronze, and copper products	511, 470	214, 904	482, 036	482, 313	162, 167	149, 989	102, 407	88, 654	50, 056	27, 322	13, 131
Bread and other bakery products	1, 122, 906	1, 080, 972	1, 142, 677	1, 151, 896	491, 193	396, 865	269, 583	175, 369	128, 422	65, 825	36, 908
Brick and tile, terra-cotta, and fire-clay products	323, 416	194, 329	207, 555	208, 423	135, 621	122, 777	71, 152	51, 270	32, 854	12, 302	29, 028
Brooms	26, 262	18, 188	29, 387	30, 205	14, 085	14, 634	21, 104	18, 484	14, 156	10, 561	6, 622
Brushes	54, 512	35, 545	38, 823	39, 006	17, 884	14, 634	21, 104	18, 484	14, 156	10, 561	6, 622
Butter	684, 474	478, 724	582, 999	583, 153	243, 373	194, 999	118, 621	130, 783	130, 636	25, 743	2, 695
Butter, reworking	32, 080	2, 777	2, 929	2, 220	5, 869	8, 201	7, 271	7, 606	4, 550	1, 779	
Butter, reworking	32, 080	2, 777	2, 929	2, 220	5, 869	8, 201	7, 271	7, 606	4, 550	1, 779	
Canned and preserving, fish	47, 625	3, 957	3, 339	3, 851	20, 712	22, 708	13, 134	18, 178	6, 972	5, 426	
Canning and preserving, fruits and vegetables	370, 368	248, 106	400, 517	402, 243	149, 176	91, 439	78, 142	56, 427	29, 862	17, 600	5, 426
Canning and preserving, oysters	2, 964	2, 158	2, 950	2, 976	2, 233	2, 814	1, 083	1, 253	3, 261	52	764
Cards and card equipment	6, 109	4, 538	5, 296	5, 823	4, 350	3, 779	1, 864	1, 270	1, 071	959	
Cardboard and other paper mills	9, 340	7, 642	103, 880	123, 254	69, 128	71, 188	61, 886	48, 192	47, 770	31, 763	21, 762
Carpets and rugs, other than rag	199, 481	103, 880	123, 254	123, 254	69, 128	71, 188	61, 886	48, 192	47, 770	31, 763	21, 762
Carpets, rag	6, 097	4, 538	5, 296	5, 823	4, 350	3, 779	1, 864	1, 270	1, 071	959	
Carriage and wagon materials	7, 313	10, 787	26, 648	26, 765	24, 850	34, 626	30, 636	25, 027	16, 262	10, 114	1, 005
Carriages and sleds, children's	34, 173	21, 717	24, 468	24, 507	11, 752	8, 805	6, 371	4, 290	4, 094	1, 678	1, 433
Carriages and wagons, including repairs	34, 681	31, 659	88, 914	91, 463	104, 697	125, 367	125, 367	113, 285	102, 680	64, 952	65, 363
Cars and general shop construction and repairs by electric-railroad companies	86, 413	87, 312	74, 990	75, 211	38, 577	31, 963	13, 437	9, 871	2, 966		
Cars and general shop construction and repairs by steam-railroad companies	1, 433, 680	1, 180, 080	1, 279, 122	1, 279, 235	514, 041	405, 601	309, 775	218, 114	129, 462		
Cars, electric-railroad, not including operations of railroad companies	29, 074	14, 856	18, 442	18, 442	10, 495	7, 810	10, 844	7, 305	3, 302		
Cars, steam-railroad, not including operations of railroad companies	575, 277	325, 680	583, 223	583, 223	194, 776	129, 730	111, 175	90, 510	70, 084	27, 938	
Cash registers and calculating machines	95, 106	53, 633	83, 527	83, 539	30, 530	22, 708	9, 575	5, 675	1, 423		
Cement	294, 699	203, 627	179, 866	175, 265	101, 736	63, 205	28, 873				2, 034
Charcoal, not including production in the lumber and wood-distillation industry	399	419	550	589	402	872	1, 292	1, 134	976		
Cheese	130, 292	81, 830	143, 093	143, 456	51, 745	44, 263	29, 135	13	9		
Chemicals	19, 500, 392	19, 314, 871	438, 561	574, 141	158, 054	117, 741	75, 357	48, 159	38, 640		
China decorating, not including that done in pottery	40, 871	38, 865	51, 221	51, 240	17, 160						
Cocoa and cocoa products	1, 493	1, 242	823	897	727	756	327	485	848		
Cooking and polishing preparations	95, 532	81, 640	139, 258	139, 258	35, 713	22, 390	14, 390	9, 666	4, 222	1, 302	946
Clothing, men's	35, 443	23, 178	26, 266	26, 703	9, 152	6, 200	2, 710	2, 193	866	500	323
Clothing, women's	29, 553	17, 750	23, 358	23, 380	11, 032	12, 236	8, 368	7, 153	4, 229	4, 110	2, 510
Clothing, men's	4, 652	4, 101	3, 680	3, 691	1, 531	1, 544	1, 053	566	400	223	
Clothing, men's	5, 137	3, 835	6, 009	6, 021	5, 150	4, 135	2, 130	1, 305	1, 572	696	
Clothing, men's	1, 178, 715	984, 776	1, 161, 714	1, 162, 886	458, 211	456, 677	355, 797	276, 717	251, 020	208, 548	148, 660

See footnotes at end of table, p. 177.

TABLE 34.—GROWTH OF MANUFACTURE IN THE UNITED STATES AS MEASURED BY THE VALUE OF PRODUCTS OF INDIVIDUAL INDUSTRIES, BY CENSUS YEARS: 1869 TO 1923—Continued

[See note at head of this table, p. 168]

INDUSTRY	VALUE OF PRODUCTS (EXPRESSED IN THOUSANDS OF DOLLARS)									
	Excluding data for establishments with products valued at less than \$5,000					Including data for establishments with products valued at \$500 or more				
	1923	1921	1919	1914	1909	1904	1899	1893	1879	1869
Clothing, men's, buttonholes.....	804	646	964	638	781	700	681	784	(1)	(1)
Clothing, women's.....	1,408,684	1,022,743	1,207,249	473,888	384,782	247,062	159,340	63,164	32,005	12,901
Coal-tar products.....	130,588	76,897	135,448	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Coffee and spice, roasting and grinding.....	297,528	226,060	304,792	130,749	110,533	94,188	69,327	22,925	11,206	4,027
Coffins, burial cases, and undertakers' goods.....	65,558	64,796	64,377	26,325	24,528	20,268	13,932	12,231	8,188	1,132
Coke, not including gas-house coke.....	516,923	224,313	316,497	98,275	56,697	51,728	36,585	16,486	5,569	(1)
Collars and cuffs, men's.....	42,666	23,571	47,565	18,331	17,280	12,857	13,769	(1)	(1)	(1)
Combs and hairpins, not made from metal or rubber.....	8,770	4,580	6,668	3,478	3,376	2,769	1,976	1,021	951	689
Condensed milk.....	200,111	176,837	339,607	69,161	55,298	20,624	(2)	(2)	(2)	(2)
Confectionery and ice cream.....	626,223	327,260	637,701	209,038	194,796	87,087	60,644	55,897	23,637	15,923
Cooperage.....	73,134	96,633	87,547	50,017	48,622	49,424	38,440	33,615	23,715	26,804
Copper, tin, and sheet-iron work.....	168,908	146,776	164,817	94,891	89,388	56,082	33,813	66,694	50,184	42,357
Cordage and twine.....	88,283	76,356	133,357	59,781	41,942	46,017	37,660	33,313	12,492	8,979
Cordials and flavoring sirups.....	50,017	44,066	46,807	15,316	9,662	3,510	2,107	1,903	331	953
Cork, cutting.....	15,566	12,968	16,263	7,875	5,940	4,491	4,392	2,840	1,587	755
Corsets.....	78,048	76,600	75,480	40,531	33,287	14,862	14,451	12,402	6,495	---
Cotton goods.....	1,901,126	1,278,221	2,125,246	676,589	615,218	442,451	332,905	267,982	210,950	177,490
Cotton lace.....	35,792	25,981	29,397	13,207	13,174	8,016	6,394	777	1,446	1,117
Cotton small wares.....	73,223	26,061	40,897	11,525	1,849	1,343	2,607	11,111	11,661	11,105
Crucibles.....	3,468	5,294	5,294	1,985	22,885	18,615	14,787	2,595	(1)	(1)
Cutlery and edge tools.....	72,477	49,341	66,524	23,541	15,463	6,845	3,721	6,867	861	579
Dairymen's, poultrymen's, and apiculturists' supplies.....	39,463	37,644	37,997	18,960	16,160	10,836	(1)	(1)	(1)	(1)
Dental goods.....	32,423	23,812	23,280	16,160	10,836	7,810	3,721	2,485	(1)	(1)
Drug grinding.....	10,562	10,088	16,938	8,060	6,007	3,186	4,408	6,467	(1)	(1)
Druggists' preparations.....	79,143	81,698	114,538	48,010	43,968	31,732	22,715	6,860	(1)	(1)
Dyeing and finishing textiles, exclusive of that done in textile mills.....	342,280	276,751	323,874	169,292	93,556	50,850	44,963	28,901	32,297	(1)
Dyestuffs and extracts, natural.....	35,972	38,311	53,733	20,620	15,955	10,883	9,351	8,293	5,233	2,879
Electrical machinery, apparatus, and supplies.....	1,293,002	833,965	997,715	336,170	221,309	140,809	92,434	18,115	2,665	(1)
Electroplating.....	12,297	8,041	10,015	4,773	4,510	2,865	2,720	3,122	1,976	(1)
Emery and other abrasive wheels.....	25,307	12,568	30,949	6,711	6,711	2,062	1,852	726	322	153
Enameling.....	4,427	2,023	2,852	2,166	2,985	1,709	1,382	182	(1)	(1)
Engines, steam, gas, and water.....	268,998	194,499	464,775	72,121	(1)	13,709	(1)	(1)	(1)	(1)
Engravers' materials.....	2,309	1,817	2,249	72,121	921	2,422	(1)	204	86	(1)
Engraving and dismounting.....	9,121	4,850	6,067	3,134	2,250	2,422	1,408	2,137	1,180	2,003

Engraving, steel and copperplate, including plate printing.....	28,779	23,958	24,300	13,756	9,452	5,943	5,101	3,348	2,990	(*)
Engraving, wood.....	32,551	1,080	1,154	13,719	9,452	5,943	5,101	3,348	2,990	(*)
Envelopes.....	50,752	39,664	39,664	18,451	13,454	10,222	6,729	1,555	3,002	(*)
Explosives.....	75,029	92,475	92,475	41,453	20,003	20,222	17,125	4,856	3,802	(*)
Fancy articles, not elsewhere specified.....	63,208	64,665	64,665	17,659	12,391	11,962	9,046	11,353	8,817	(*)
Feathers and plumes.....	7,867	15,333	15,333	11,451	12,391	11,962	9,046	8,817	8,817	(*)
Felt goods.....	42,057	39,220	39,220	13,693	11,853	8,949	6,462	4,555	3,620	(*)
Ferro-alloys.....	183,089	281,006	281,006	153,106	103,960	56,541	44,657	29,181	23,651	(*)
Fertilizers.....	13,566	17,605	17,605	6,008	5,691	4,892	3,404	3,180	2,487	(*)
Files.....	17,065	36,171	36,171	10,544	8,058	8,276	5,445	2,649	2,923	(*)
Fire extinguishers, chemical.....	6,152	4,797	4,797	2,296	2,296	1,987	1,785	593	205	(*)
Fireworks.....	4,977	5,206	5,206	3,601	1,984	1,855	1,038	456	120	(*)
Flags and banners.....	3,807	3,060	3,060	1,380	8,828	7,772	6,308	2,615	1,146	(*)
Flavoring extracts.....	24,137	29,846	29,846	11,380	8,467	7,772	6,308	2,615	1,146	(*)
Fur and hemp, dressed.....	24,137	29,846	29,846	11,380	8,467	7,772	6,308	2,615	1,146	(*)
Fur goods.....	1,048,578	2,045,410	2,045,410	877,650	883,854	715,633	501,396	513,971	505,136	(*)
Food preparations, not elsewhere specified.....	3,473,402	2,680,689	2,680,689	219,333	125,331	61,180	30,837	14,105	2,493	(*)
Foundry and machine-shop products <sup>a</sup> .....	2,337,073	2,284,907	2,284,907	866,545	883,948	683,894	649,036	415,335	215,442	(*)
Foundry supplies.....	10,248	9,966	9,966	2,013	2,298	1,050	1,120	216	102	(*)
Fuel, manufactured.....	5,854	3,178	3,178	863	2,311	37,119	25,899	20,527	102	(*)
Fur goods.....	198,043	139,396	139,396	43,633	55,938	37,119	25,899	20,527	102	(*)
Furnishing goods, men's <sup>a</sup> .....	102,932	77,527	77,527	52,453	42,130	36,445	28,577	20,570	9,924	(*)
Furniture.....	2,776,496	2,578,657	2,578,657	295,705	229,197	170,447	125,316	111,743	77,846	(*)
Furs, dressed.....	25,467	19,157	19,157	2,875	2,311	3,216	2,471	631	8,239	(*)
Galvanizing and other coating processes.....	6,327	4,018	4,018	8,450	2,338	6,419	2,471	631	8,239	(*)
Gas and electric fixtures.....	61,750	42,890	42,890	28,740	29,844	17,590	11,480	7,826	4,830	(*)
Gas, illuminating and heating.....	460,057	411,196	411,196	220,235	156,814	125,145	75,717	56,987	32,049	(*)
Gas machines and gas and water meters.....	34,250	21,956	21,956	15,184	13,308	5,631	4,391	1,839	1,354	(*)
Glass.....	306,353	213,471	213,471	123,055	92,095	79,698	56,540	41,051	21,155	(*)
Glass, cutting, staining, and ornamenting.....	25,027	22,206	22,206	15,446	15,101	13,138	8,750	6,090	2,535	(*)
Gloves and mittens, cloth, not including gloves made in textile mills.....	28,126	15,213	15,213	28,588	23,612	15,724	11,812	9,548	849	(*)
Gloves and mittens, leather.....	38,051	24,855	24,855	21,614	23,631	17,740	16,926	10,104	7,380	(*)
Glucose and starch.....	116,660	80,041	80,041	52,615	48,799	32,650	30,027	16,691	12,029	(*)
Glue, not elsewhere specified.....	24,366	21,342	21,342	13,733	13,718	10,035	5,359	4,270	4,324	(*)
Gold and silver, leaf and foil.....	3,502	7,014	7,014	2,432	2,630	2,695	2,666	2,978	1,614	(*)
Gold and silver, reducing and refining, not from the ore.....	71,921	45,974	45,974	28,588	23,612	15,724	11,812	9,548	849	(*)
Graphite, ground and refined.....	2,184	1,457	1,457	1,724	1,140	1,342	1,429	55	210	(*)
Grease and tallow, not including lubricating greases.....	48,634	27,205	27,205	24,901	23,419	18,815	11,953	7,475	13,730	(*)
Grindstones.....	2,096	1,428	1,428	684	1,688	788	1,068	122	185	(*)
Grindstones.....	3,734	2,618	2,618	2,336	2,230	1,782	1,406	2,489	1,408	(*)
Haircloth.....	11,264	10,952	10,952	3,315	3,335	1,782	1,406	2,489	1,408	(*)
Hair work.....	11,131	250	250	671	578	447	480	60	110	(*)
Hammocks.....	11,131	250	250	671	578	447	480	60	110	(*)
Hand stamps.....	206,700	116,689	116,689	73,320	64,912	45,770	35,847	28,726	22,654	(*)
Hardware.....	9,260	3,911	3,911	14,137	14,137	14,137	14,137	14,137	14,137	(*)
Hardware, saddlery.....	20,508	11,545	11,545	8,236	8,236	6,440	3,849	3,466	2,217	(*)
Hat and cap materials.....	20,508	11,545	11,545	8,236	8,236	6,440	3,849	3,466	2,217	(*)

See footnotes at end of table, p. 177.

[See note at head of this table, p. 168]

INDUSTRY	VALUE OF PRODUCTS (EXPRESSED IN THOUSANDS OF DOLLARS)									
	Excluding data for establishments with products valued at less than \$5,000			Including data for establishments with products valued at \$500 or more						
	1923	1921	1919	1914	1909	1904	1899	1893	1879	1869
Hats and caps, other than felt, straw, and wool	42,812	36,987	44,231	18,593	13,689	12,866	11,234	37,312	21,303	
Hats, fur-felt	75,253	52,614	82,085	37,350	47,805	30,629	27,811	37,312	21,303	
Hats, straw	82,689	28,617	32,171	25,444	21,424	10,357	10,357	(a)	(a)	
Hats, wool-felt	8,463	4,964	6,727	1,944	4,382	4,382	3,692	5,380	5,517	
Horns and whetstones	546	300	794	260	208	308	186	54	224	259
Horsehoes, not made in steel works or rolling mills	1,814	1,832	3,367	1,786	1,015	739	498	1,110	(c)	(c)
House-furnishing goods, not elsewhere specified	69,333	54,551	60,004	26,433	18,509	15,011	14,278	8,497	1,332	283
Ice, manufactured	104,662	153,889	135,985	60,386	42,953	23,790	13,781	4,901	645	600
Iron, printing	26,412	20,869	26,231	18,880	8,865	6,774	3,080	2,977	(c)	366
Iron, professional and scientific	6,107	4,980	6,388	2,784	2,505	1,881	1,288	1,288	(c)	1,639
Instruments, professional and scientific	63,074	42,132	57,987	17,495	10,504	5,378	4,853	3,272	1,724	69,640
Iron and steel, blast furnaces	19,019,771	19,419,771	794,467	317,654	391,429	231,523	206,757	145,643	89,316	69,640
Iron and steel, steel works and rolling mills	3,154,325	1,481,559	2,858,802	918,665	886,723	673,965	597,212	353,044	207,242	137,568
Iron and steel, bolts, nuts, washers, and rivets, not made in rolling mills	35,774	89,731	89,731	23,403	24,485	14,087	13,978	12,373	10,073	7,191
Iron and steel, cast-iron pipe	92,674	44,322	50,235	26,659	28,154	(b)	(b)	(b)	(b)	(b)
Iron and steel, doors and shutters	15,367	12,467	10,869	5,184	3,006	1,477	320	89	495	
Iron and steel, forgings, not made in steel works or rolling mills	179,011	83,151	173,729	23,961	20,263	12,110	10,488	9,043	6,462	
Iron and steel, nails and spikes, cut and wrought, including wire nails, not made in steel works or rolling mills	13,300	10,976	17,583	7,199	8,192	8,923	14,777	34,228	5,639	24,824
Iron and steel, tempering and welding	9,112	6,202	10,505	(b)	(b)	(b)	(b)	(b)	(b)	(b)
Iron and steel, wrought pipe	90,823	56,662	81,869	37,655	30,886	17,401	21,292	37,907	13,292	7,369
Ivory, shell, and bone work, not including combs and hairpins	2,441	2,385	2,787	1,896	1,865	2,864	1,873	1,919	1,455	1,080
Jewelry	1,021	1,497	771	331	331	607	216	351	190	190
Jewelry and instrument cases	174,034	127,231	202,911	81,006	80,350	83,226	46,129	84,761	22,202	22,104
Leather goods	10,508	7,036	8,089	3,621	3,117	2,292	1,187	1,454	132	217
Leather goods	25,421	17,506	34,443	16,514	10,795	9,066	6,384	1,120	897	
Knit goods	848,177	634,074	712,749	288,913	200,143	137,076	96,884	67,447	29,614	18,412
Labels and tags	26,023	19,538	24,209	6,584	4,670	2,492	1,105	1,045	866	965
Lamps and reflectors	57,293	29,164	38,040	16,638	15,213	9,001	8,341	4,039	3,538	3,544
Lapidary work	9,130	4,245	29,952	5,360	9,173	7,947	5,786	3,516		107

Lard, not made in slaughtering and meat-packing establishments									
Leases	12,371	12,452	12,471	12,471	12,471	12,471	12,471	12,471	12,471
Lead, bar, pipe, and sheet	17,174	17,174	17,174	17,174	17,174	17,174	17,174	17,174	17,174
Leather goods, not elsewhere specified	47,715	47,715	47,715	47,715	47,715	47,715	47,715	47,715	47,715
Leather, tanned, curried, and finished	383,865	383,865	383,865	383,865	383,865	383,865	383,865	383,865	383,865
Lime	47,244	47,244	47,244	47,244	47,244	47,244	47,244	47,244	47,244
Linen goods	11,990	11,990	11,990	11,990	11,990	11,990	11,990	11,990	11,990
Liquors, distilled	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000
Liquors, malt, including cereal beverages	28,789	28,789	28,789	28,789	28,789	28,789	28,789	28,789	28,789
Liquors, vinous	5,331	5,331	5,331	5,331	5,331	5,331	5,331	5,331	5,331
Lithographs	91,671	91,671	91,671	91,671	91,671	91,671	91,671	91,671	91,671
Locomotives, not made by railroad companies	215,393	215,393	215,393	215,393	215,393	215,393	215,393	215,393	215,393
Looking-glass and picture frames	18,642	18,642	18,642	18,642	18,642	18,642	18,642	18,642	18,642
Lubricating greases	12,334	12,334	12,334	12,334	12,334	12,334	12,334	12,334	12,334
Lumber and timber products	1,494,452	1,494,452	1,494,452	1,494,452	1,494,452	1,494,452	1,494,452	1,494,452	1,494,452
Lumber, planing-mill products, not including planing mills connected with sawmills	692,784	692,784	692,784	692,784	692,784	692,784	692,784	692,784	692,784
Machine tools	137,206	137,206	137,206	137,206	137,206	137,206	137,206	137,206	137,206
Malt	16,431	16,431	16,431	16,431	16,431	16,431	16,431	16,431	16,431
Marble and stone work	191,538	191,538	191,538	191,538	191,538	191,538	191,538	191,538	191,538
Matches	23,890	23,890	23,890	23,890	23,890	23,890	23,890	23,890	23,890
Mats and matting, from cocoa fiber, grass, and hair	107,562	107,562	107,562	107,562	107,562	107,562	107,562	107,562	107,562
Mattresses and bed springs, not elsewhere specified	287,505	287,505	287,505	287,505	287,505	287,505	287,505	287,505	287,505
Millinery and lace goods, not elsewhere specified	153,195	153,195	153,195	153,195	153,195	153,195	153,195	153,195	153,195
Millstones	35,309	35,309	35,309	35,309	35,309	35,309	35,309	35,309	35,309
Mineral and soda waters	115,377	115,377	115,377	115,377	115,377	115,377	115,377	115,377	115,377
Minerals and earths, ground or otherwise treated	26,174	26,174	26,174	26,174	26,174	26,174	26,174	26,174	26,174
Mirrors, framed and unframed, not elsewhere specified	16,740	16,740	16,740	16,740	16,740	16,740	16,740	16,740	16,740
Models and patterns, not including paper patterns	15,742	15,742	15,742	15,742	15,742	15,742	15,742	15,742	15,742
Motor cycles, bicycles, and parts	23,068	23,068	23,068	23,068	23,068	23,068	23,068	23,068	23,068
Mudage, paste, and other adhesives, not elsewhere specified	9,330	9,330	9,330	9,330	9,330	9,330	9,330	9,330	9,330
Musical instruments and materials, not elsewhere specified	12,354	12,354	12,354	12,354	12,354	12,354	12,354	12,354	12,354
Musical instruments, organs	10,135	10,135	10,135	10,135	10,135	10,135	10,135	10,135	10,135
Musical instruments, pianos	73,640	73,640	73,640	73,640	73,640	73,640	73,640	73,640	73,640
Musical instruments, piano and organ materials	18,897	18,897	18,897	18,897	18,897	18,897	18,897	18,897	18,897
Needles, pins, and hooks and eyes	3,016	3,016	3,016	3,016	3,016	3,016	3,016	3,016	3,016
Nets and seines	217,225	217,225	217,225	217,225	217,225	217,225	217,225	217,225	217,225
Oakum	226,983	226,983	226,983	226,983	226,983	226,983	226,983	226,983	226,983
Oil and cake, cottonseed	3,794	3,794	3,794	3,794	3,794	3,794	3,794	3,794	3,794
Oil, essential	113,221	113,221	113,221	113,221	113,221	113,221	113,221	113,221	113,221
Oil, not elsewhere specified	93,275	93,275	93,275	93,275	93,275	93,275	93,275	93,275	93,275
Oilcloth and linoleum, floor	43,622	43,622	43,622	43,622	43,622	43,622	43,622	43,622	43,622
Oilcloth, enamel	77,739	77,739	77,739	77,739	77,739	77,739	77,739	77,739	77,739
Onionmargarine and other butter substitutes	33,733	33,733	33,733	33,733	33,733	33,733	33,733	33,733	33,733
Optical goods	54,462	54,462	54,462	54,462	54,462	54,462	54,462	54,462	54,462

See footnotes at end of table, p. 177.

TABLE 34.—GROWTH OF MANUFACTURE IN THE UNITED STATES AS MEASURED BY THE VALUE OF PRODUCTS OF INDIVIDUAL INDUSTRIES,  
BY CENSUS YEARS: 1869 TO 1923—Continued

[See note at head of this table, p. 168]

INDUSTRY	VALUE OF PRODUCTS (EXPRESSED IN THOUSANDS OF DOLLARS)								
	Excluding data for establishments with products valued at less than \$5,000				Including data for establishments with products valued at \$500 or more				
	1923	1921	1919	1914	1909	1904	1899	1879	1869
Ordnance and accessories.....	( <sup>1</sup> ) 201,124	( <sup>1</sup> ) 203,071	69,496	( <sup>1</sup> ) 112,400	( <sup>1</sup> ) 91,572	558	2,240	( <sup>1</sup> ) 2,425	16,932
Paints.....	997,347	687,436	286,714	332,147	267,657	67,278	50,375	40,438	23,391
Paper and wood pulp.....	116,162	84,129	788,049	46,871	57,638	188,715	127,329	78,937	48,849
Paper goods, not elsewhere specified.....	9,259	10,331	107,239	3,025	2,611	22,159	16,735	4,179	( <sup>1</sup> ) 513
Paper patterns.....	237,494	175,898	1,528	102,483	83,771	74,521	58,968	32,620	16,293
Patent medicines and compounds.....	71,456	61,123	45,741	35,678	6,229	5,033	( <sup>1</sup> ) 3,936	( <sup>1</sup> ) 3,936	16,293
Paving materials.....	38,189	19,669	33,354	14,995	7,377	7,261	2,222	1,688	( <sup>1</sup> ) 181
Peas, grading, roasting, cleaning, and shelling.....	24,668	21,882	24,124	8,323	7,379	4,426	2,296	( <sup>1</sup> ) 279	( <sup>1</sup> ) 417
Peas, feed.....	20,239	12,795	15,979	6,865	3,542	2,062	906	( <sup>1</sup> ) 333	( <sup>1</sup> ) 467
Peas, human and stylographic.....	2,320	1,335	1,801	642	1,197	474	399	( <sup>1</sup> ) 164	( <sup>1</sup> ) 180
Pens, steel.....	1,171	846	1,679	613	1,577	1,133	718	268	190
Perfumery and cosmetics.....	100,241	72,541	59,613	16,899	14,212	11,173	4,630	2,906	2,030
Petroleum refining.....	1,733,700	1,737,440	1,632,523	396,361	236,988	175,005	123,329	85,001	26,942
Photographs and graphophones.....	107,311	86,215	158,523	27,116	11,726	10,237	2,246	( <sup>1</sup> ) 2,072	---
Photo-engraving, not done in printing establishments.....	( <sup>1</sup> ) 43,660	( <sup>1</sup> ) 36,215	29,389	15,369	1,584	7,268	4,190	( <sup>1</sup> ) 2,072	---
Photographic apparatus.....	( <sup>1</sup> ) 138,946	( <sup>1</sup> ) 147,992	115,714	4,773	3,473	3,473	2,020	2,020	832
Photographic materials.....	144,018	117,631	145,756	9,015	37,334	29,696	23,477	1,831	---
Pickles, preserves, and sauces.....	9,705	7,124	11,554	4,230	5,312	2,834	2,472	2,409	142
Pigs, raised.....	53,990	33,944	41,685	18,484	18,526	12,139	12,609	8,596	442
Plated ware.....	132,695	69,119	60,026	43,386	43,637	21,542	14,771	11,990	8,142
Plumbers' supplies, not elsewhere specified.....	32,732	13,685	14,494	3,351	3,628	3,767	2,495	1,769	1,108
Pocketbooks.....	114,392	84,217	74,759	36,943	15,719	12,641	12,257	12,257	( <sup>1</sup> ) 1,108
Poultry, killing and dressing, not done in slaughter- ing and meat-packing establishments.....	26,424	34,717	41,705	12,917	( <sup>1</sup> ) 152,612	( <sup>1</sup> ) 152,612	( <sup>1</sup> ) 95,909	( <sup>1</sup> ) 95,909	( <sup>1</sup> ) 41,076
Printing and publishing, book and job.....	738,227	690,075	597,663	307,331	5,576	4,143	2,272	1,683	( <sup>1</sup> ) 25,393
Printing and publishing, music.....	14,627	14,025	14,592	7,271	406,090	309,302	222,984	( <sup>1</sup> ) 179,860	( <sup>1</sup> ) 25,393
Printing and publishing, newspaper and periodical.....	1,268,502	1,123,710	924,153	495,906	1,982	1,207	1,088	1,450	( <sup>1</sup> ) 421
Printing materials.....	4,806	5,319	4,883	2,111	( <sup>1</sup> ) 1,982	( <sup>1</sup> ) 1,207	1,103	1,450	( <sup>1</sup> ) 421
Pulp, from fiber other than wood.....	( <sup>1</sup> ) 20,436	( <sup>1</sup> ) 31,213	23,602	4,483	( <sup>1</sup> ) 1,770	1,467	1,207	( <sup>1</sup> ) 353	( <sup>1</sup> ) 421
Pulp goods.....	as 20,436	( <sup>1</sup> ) 31,213	23,602	4,483	1,770	1,467	1,207	( <sup>1</sup> ) 353	( <sup>1</sup> ) 421
Pumps, not including power pumps.....	32,504	31,213	31,656	6,350	5,583	2,833	1,342	1,342	2,818

Pumps, steam and other power.....	52,680	89,922	85,330	53,746	17,864	(9)	7,348	(10)	4,614	(11)	1,740	(12)	586
Refrigerators.....	50,076	33,019	26,083	26,049	16,052	(9)	9,386	(10)	3,204	(11)	8,519	(12)	626
Regalia, and society badges and emblems.....	47,063	10,359	9,345	9,345	22,371	(9)	10,697	(10)	6,683	(11)	3,257	(12)	3,257
Refrigerating and polishing.....	84,552	76,183	83,331	86,886	27,938	(9)	19,871	(10)	13,081	(11)	6,227	(12)	3,257
Rubbing materials.....													
Rubbing lines, tubes, and rubber goods, not elsewhere specified.....	826,778	11,810,870	11,021,980	987,088	223,611	(9)	62,946	(10)	18,709	(11)	14,566	(12)	14,566
Rugs, ivory and wood.....	42,113	30,164	81,469	83,753	53,659	(9)	42,045	(10)	33,703	(11)	38,089	(12)	32,710
Saddlery and harness.....	19,101	13,726	15,288	15,288	7,257	(9)	7,257	(10)	6,842	(11)	3,832	(12)	2,738
Sails and vaults.....	36,857	33,138	37,457	37,457	14,070	(9)	9,488	(10)	7,967	(11)	4,850	(12)	4,850
Salt and emery paper and cloth.....	13,753	6,452	9,304	9,304	4,238	(9)	1,477	(10)	1,176	(11)	262	(12)	349
Sand and brick.....	2,458	1,220	1,063	1,063	994	(9)	1,477	(10)	1,176	(11)	262	(12)	349
Sausages, not made in slaughtering and meat-packing establishments.....	69,510	53,087	56,396	56,610	22,014	(9)	8,123	(10)	4,588	(11)	3,055	(12)	3,055
Saws.....	30,767	15,885	31,415	31,415	12,017	(9)	9,820	(10)	6,444	(11)	3,572	(12)	3,175
Scales and balances.....	24,357	18,885	30,011	30,011	12,017	(9)	9,820	(10)	6,444	(11)	3,572	(12)	3,175
Screws, machine.....	34,289	18,365	30,011	30,011	12,017	(9)	9,820	(10)	6,444	(11)	3,572	(12)	3,175
Screws, wood.....	13,707	7,419	15,460	15,460	6,217	(9)	3,732	(10)	2,815	(11)	2,359	(12)	2,085
Sewing-machine cases.....	45,967	35,068	43,695	43,695	21,892	(9)	20,570	(10)	18,310	(11)	12,823	(12)	13,833
Sewing machines and attachments.....	177,763	356,216	1,456,450	1,456,450	66,217	(9)	58,453	(10)	50,368	(11)	38,800	(12)	31,484
Shoebinding, steel.....	35,529	44,619	165,248	165,248	22,465	(9)	24,355	(10)	24,155	(11)	20,130	(12)	17,839
Shoebinding, wooden, including boat building.....	241,331	203,944	205,327	205,327	95,815	(9)	56,971	(10)	47,122	(11)	38,639	(12)	30,180
Shirts.....	67,294	33,271	42,722	43,543	5,233	(9)	7,167	(10)	2,468	(11)	1,172	(12)	539
Signs and advertising novelties.....	761,322	583,419	688,470	688,470	254,011	(9)	133,288	(10)	107,256	(11)	97,268	(12)	12,211
Silk goods, including throwsters.....	27,207	24,411	29,118	29,118	19,796	(9)	20,701	(10)	13,598	(11)	4,033	(12)	2,414
Silverware.....	2,585,804	2,200,942	4,246,228	4,246,228	1,651,965	(9)	1,336,644	(10)	783,179	(11)	561,642	(12)	302,962
Slaughtering and meat packing.....	686,803	294,865	651,102	651,102	444,022	(9)	375,503	(10)	183,132	(11)	103,603	(12)	76,856
Smetting and refining, copper.....	227,753	130,594	196,795	196,795	171,579	(9)	186,827	(10)	173,466	(11)	156,527	(12)	156,527
Smetting and refining, metals, not elsewhere specified.....	5,382	7,020	30,074	30,074	30,992	(9)	17,403	(10)	7,735	(11)	28,189	(12)	28,189
Smetting and refining, not from the ore.....	85,352	15,150	40,245	40,245	39,992	(9)	17,403	(10)	7,735	(11)	28,189	(12)	28,189
Smetting and refining, zinc.....	84,184	37,482	104,126	104,126	53,638	(9)	24,791	(10)	18,158	(11)	8,411	(12)	8,411
Soda-water apparatus.....	276,403	246,198	316,610	316,610	177,943	(9)	68,275	(10)	53,231	(11)	43,600	(12)	35,625
Sporting and athletic goods.....	15,169	15,407	15,171	15,171	13,781	(9)	6,558	(10)	3,015	(11)	2,712	(12)	2,712
Sporting and athletic goods, not made in steel works or rolling mills.....	41,797	31,811	23,711	23,840	13,255	(9)	7,033	(10)	3,628	(11)	2,709	(12)	1,556
Stamps and enameled ware, not elsewhere specified.....	59,392	31,750	51,462	51,462	11,595	(9)	5,741	(10)	5,680	(11)	4,332	(12)	3,555
Stationery goods, not elsewhere specified.....	170,922	100,855	143,620	143,620	55,121	(9)	21,038	(10)	14,546	(11)	4,219	(12)	4,219
Stationery and art goods.....	77,680	64,597	58,288	58,288	31,903	(9)	8,867	(10)	5,066	(11)	4,456	(12)	3,898
Steam fittings and steam and hot-water heating apparatus.....	7,550	6,667	4,855	5,020	3,910	(9)	2,417	(10)	2,417	(11)	2,417	(12)	2,417
Steam packing.....	221,954	177,367	160,259	160,259	63,922	(9)	24,911	(10)	22,085	(11)	23,147	(12)	3,425
Steel barrels, drums, and tanks, portable.....	32,901	29,112	40,505	40,505	14,213	(9)	8,952	(10)	3,404	(11)	1,003	(12)	1,003
Stencils and brands.....	23,249	14,525	24,845	24,845	1,103	(9)	769	(10)	674	(11)	473	(12)	473
Stereotyping and electrotyping.....	20,596	17,359	15,905	15,905	8,154	(9)	5,005	(10)	3,772	(11)	2,184	(12)	725
Stoves and hot-air furnaces.....	165,801	101,573	145,655	145,655	67,941	(9)	54,408	(10)	3,772	(11)	725	(12)	725
Stoves, gas and oil.....	112,461	42,713	55,741	55,741	21,440	(9)	7,724	(10)	4,580	(11)	2,138	(12)	2,138

See footnotes at end of table, p. 177.

TABLE 34.—GROWTH OF MANUFACTURE IN THE UNITED STATES AS MEASURED BY THE VALUE OF PRODUCTS OF INDIVIDUAL INDUSTRIES,  
BY CENSUS YEARS: 1869 TO 1923—Continued

[See note at head of this table, p. 168]

INDUSTRY	VALUE OF PRODUCTS (EXPRESSED IN THOUSANDS OF DOLLARS)									
	Excluding data for establishments with products valued at less than \$5,000					Including data for establishments with products valued at \$500 or more				
	1923	1921	1919	1914	1909	1904	1899	1879	1869	
Structural ironwork, not made in steel works or rolling mills.....	406,117	250,086	264,633	159,378	133,241	90,945	66,927	37,745	(9)	
Sugar, beet.....	118,314	130,110	149,156	62,605	48,122	24,394	7,324	(6)	3,410	(9)
Sugar, cane.....	27,181	22,981	57,687	21,635	30,621	27,285	239,711	123,118	155,485	(9)
Sugar, refining, not including beet sugar.....	736,241	466,602	730,987	285,899	248,629	9,053	8,596	(9)	(9)	(9)
Sulphuric, nitric, and mixed acids.....	24,405	32,463	31,470	15,215	9,884	6,385	3,832	(9)	906	(9)
Surgical appliances.....	44,968	32,465	43,320	14,620	11,075	(9)	(9)	(9)	(9)	(9)
Suspenders, garters, and elastic woven goods.....	24,297	44,936	60,719	24,453	28,350	(9)	(9)	(9)	(9)	(9)
Textile machinery and parts.....	140,661	128,935	121,985	(19)	(9)	(9)	(9)	(9)	(9)	(9)
Theatrical scenery.....	1,626	1,214	1,067	327	(9)	(9)	(9)	(9)	(9)	(9)
Tin and other foils, not elsewhere specified.....	23,465	14,037	17,912	5,068	3,419	2,795	1,593	(9)	417	(9)
Tinware, not elsewhere specified.....	(9)	6,418	37,405	68,343	47,970	35,283	31,832	(9)	(9)	(9)
Tobacco, chewing and smoking, and snuff.....	215,971	168,305	233,890	81,331	58,814	116,768	103,754	65,844	52,703	38,388
Tobacco, cigars and cigarettes.....	222,966	241,741	233,944	175,281	156,607	214,344	159,959	120,693	83,080	33,374
Tools, not elsewhere specified.....	821,226	806,749	761,700	314,884	260,088	210,407	13,358	10,628	1,563	(9)
Toys and games.....	123,158	70,524	143,660	32,893	30,381	5,578	4,010	3,780	2,237	580
Trunks and valises.....	56,066	35,491	45,387	13,757	8,264	18,644	12,429	10,822	7,725	7,725
Turpentine and rosin.....	63,023	46,549	63,635	26,472	28,028	23,937	20,345	8,077	5,877	3,585
Type foundry.....	2,512	2,130	52,772	53,951	25,295	23,937	2,842	3,630	2,330	2,180
Typewriters and supplies.....	52,498	41,750	52,704	2,320	2,721	10,640	6,382	3,917	(9)	(9)
Umbrellas and canes.....	28,395	26,008	25,195	24,900	10,719	13,296	13,669	13,772	6,917	4,822
Upshooting materials, not elsewhere specified.....	4,46,561	23,810	39,850	16,492	13,064	13,273	10,048	5,733	2,888	2,888
Varnishes.....	113,011	71,269	83,612	3,215	30,317	23,484	18,667	13,796	5,721	4,991
Vault lights and ventilators.....	2,991	2,150	2,133	2,051	967	484	338	455	273	(9)
Vinegar and cider.....	12,535	18,249	24,032	7,811	8,448	7,265	5,932	6,649	3,418	3,472
Wall paper, not made in paper mills.....	34,756	23,148	23,048	15,887	14,449	12,697	10,963	7,432	2,166	2,166
Wall plaster and composition flooring.....	73,801	32,354	26,855	16,544	12,804	10,164	(17)	(17)	2,692	2,692
Washing machines and clothes wringers.....	50,373	30,199	40,740	7,600	5,825	3,889	3,735	2,489	1,380	1,380
Waste.....	33,701	16,791	29,692	17,600	11,398	8,343	4,800	1,907	351	574
Watch and clock materials, except watchcases.....	1,289	1,086	1,330	1,342	675	8,627	7,784	8,618	4,589	2,333
Watchcases.....	17,817	13,806	19,619	7,831	10,515	8,627	7,784	8,618	4,589	2,333
Watches.....	30,630	24,397	32,044	14,275	11,771	11,866	6,061	3,271	2,819	2,819
Wheelbarrows.....	2	1,455	1,680	1,942	1,695	1,178	6,454	1,186	473	473
Whips.....	742	1,022	2,975	3,162	3,949	3,147	2,734	1,609	1,243	1,243



Windmills.....	6,311	6,530	9,925	9,933	5,497	6,677	4,795	4,354	2,475	1,011
Window shades and weather strips.....	21,256	12,038	10,771	10,833	9,167	13,571	8,931	8,072	9,240	2,827
Window shades and fixtures.....	47,664	29,648	23,018	29,191	17,444	18,487	37,914	9,421	22,013	10,837
Wire net, not elsewhere specified.....	196,364	99,046	163,151	162,151	81,841	84,487	37,914	9,421	22,013	10,837
Wire net, not elsewhere specified.....	100,248	66,355	90,225	90,549	41,789	41,938	32,038	19,840	16,553	9,128
Wood preserving.....	29,297	9,238	32,539	32,545	9,833	9,737	7,813	6,001		
Wood turned and carved.....	71,053	47,422	53,239	53,239	21,055	14,090	3,968	2,398		
Wooden boxes, not elsewhere specified.....	38,077	31,322	34,386	34,386	19,047	22,199	20,169	14,318		
Wooden barrels.....	15,176	20,291	21,646	21,793	10,162	10,627	8,531	3,536		
Wool packing.....	8,190	6,767	17,361	17,361	8,273	5,181	882	890		
Wool scouring.....	16,697	6,820	15,680	13,680	4,565	3,259	1,053	890		
Woolen and worsted goods.....	1,062,559	755,584	1,065,357	1,065,434	379,454	419,744	307,942	239,745	212,773	194,157

tanks," "Textile machinery and parts," and the tempering and welding of iron and steel prior to 1919; "Engines, steam, gas, and water," and "Pumps, steam and power," prior to 1914; "Automobile repairing," in 1909 and 1914; "Iron, and steel cast-on pipe," prior to 1909; "Locomotives," and "Stoves and furnaces," prior to 1904. Percentages are computed from comparable figures.

"Gloves and mittens, cloth, not including gloves made in textile mills;" "Suspenders, garters, and elastic woven goods," included prior to 1919.

"Show cases," included in "Furniture."

"Included in "Furnishing goods, men's."

"Little changed to "Corn syrup, corn oil, and starch."

"Mullestones and pulpstones," included in "Grindstones."

"Harcloth" included in "Products."

"Stencils and brands, including hand stamps."

"Straw hats," included in "Hats and caps, other than felt, straw, and wool."

"Lard, not made in slaughterhouses," included in "Meats and meat products," with those for sausage, not made in slaughtering and meat-packing establishments.

"Food preparations, not elsewhere classified," for 1923. For 1921 such data are included with those for "Sausages," only.

"Vinegar, only."

"Wine, and door screens and weather strips," included under "Lumber, planing-mill products."

"Oakum," included in "Waste," for 1923.

"Includes "Linoleum" and "Asphalted-felt-base floor covering."

"Photographic apparatus," and "Motion pictures," included in "Photographic materials." Comparable figures shown for 1919.

"Statistics for 1923 are not comparable with prior years, because "Wall board, other than gypsum wall board," formerly treated as a product of the "Pulp-goods" industry, for 1923 was classified as a product of the "Wall plaster, wall board, and floor-composition" industry.

"Pumps, not including power pumps," included in "Pumps, steam and other power."

"Sewing machines, cases, and attachments," combined. Comparable figures shown for 1919.

"Includes "Artificial leather" and "Excelsior."

"Charcoal," included in census publications for 1923, not included here.

Based on figures shown in left-hand column for 1919.

The figures shown in the right-hand column for 1919 were used in calculating the percentages in this column.

Because of a change in classification, statistics not comparable.

"Airplanes, seaplanes, airships, and parts," included in "Motor cycles, bicycles, and parts."

Not shown separately.

"Feathers and plumes," included in "Artificial flowers."

"Artificial stone products," included in "Marble and stone work."

Includes "Asbestos textiles."

Not called for on schedule.

"Included in "Foundry and machine-shop products."

"Baling and hose, rubber," included in "Rubber tires, tubes, and rubber goods, not elsewhere specified."

Prior to 1914 "Sand-lime brick" was included in "Brick and tile"; "Terra-cotta, and fire-clay products," included in "Pottery."

"Cheese," and "Condensed milk" included in "Butter."

None reported.

"Candles," included with "Soap."

"Repairing," included prior to 1923.

"Cement and wall plaster," included with "Lime."

"Coal-tar products," included in "Chemicals," prior to 1919. Comparable figures shown for 1919.

"Ferro-alloys (electric-furnace)" included with "Iron and steel, blast furnaces" and "Chemicals."

"Chewing gum" included in "Confectionery and ice cream." Prior to 1914 the manufacture of ice cream was not included except in cases where it was made a subsidiary product in the manufacture of confectionery or some other class of product for which statistics were collected.

No data.

"Grinding and grinding of peanuts" included in "Coffee and spice, roasting and grinding."

The following industries, formerly a part of "Foundry and machine-shop products," are now treated as separate industries: "Machine tools," "Steel barrels, drums, and

TABLE 35.—AVERAGE NUMBER OF WAGE EARNERS IN GEOGRAPHIC DIVISIONS AND STATES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

DIVISION AND STATE	AVERAGE NUMBER OF WAGE EARNERS						PER CENT OF INCREASE OR DECREASE (-)									
	Excluding data for establishments with products valued at less than \$5,000			Including data for establishments with products valued at \$500 or more			24-year period, 1899-1923	Inter-censal period								
	1923	1921	1919	1919	1914	1909		1904	1899	1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909	1899-1904
UNITED STATES:																
GEOGRAPHIC DIVISIONS:																
New England:																
Middle Atlantic	1,254,486	1,071,699	1,348,190	1,351,389	1,140,233	1,101,290	940,752	851,903	47.7	-6.9	17.1	-20.5	18.5	3.5	17.1	10.4
East North Central	2,694,027	2,246,104	2,862,464	2,872,633	2,355,940	2,207,747	1,896,565	1,604,844	68.4	-5.9	19.9	-21.5	21.9	6.7	17.0	17.6
West North Central	2,387,049	1,710,939	2,388,970	2,396,618	1,880,291	1,618,764	1,073,322	1,073,322	123.1	-1.1	29.5	-28.4	42.6	11.0	23.6	14.1
South Atlantic	2,468,725	1,384,797	2,494,255	2,493,635	381,337	312,337	266,051	78.4	-5.0	22.1	-22.1	30.9	1.9	19.8	17.4	17.4
West Atlantic	832,016	646,207	808,804	817,212	685,252	663,015	522,611	498,344	88.5	2.9	28.8	-20.1	19.3	3.4	26.9	14.0
East South Central	347,200	259,256	324,702	326,228	264,378	291,772	221,229	177,208	98.6	6.9	33.9	-20.2	24.5	1.0	18.3	24.8
West South Central	267,111	229,549	282,312	285,244	211,940	204,620	143,470	113,388	138.0	-5.4	16.4	-13.7	34.6	3.6	42.6	26.5
Mountain	106,060	82,000	107,769	106,216	81,113	75,435	52,790	44,497	141.5	-1.6	29.3	-23.9	34.6	7.5	42.9	18.6
Pacific	420,472	316,019	482,963	485,179	235,515	213,166	164,077	123,206	243.0	-2.7	33.1	-27.0	84.8	10.5	29.9	33.2
NEW ENGLAND:																
Maine	83,328	75,710	88,006	88,651	82,149	79,955	74,958	60,914	1	-5.3	10.1	-14.0	7.9	2.7	6.7	7.2
New Hampshire	75,314	67,410	82,538	83,074	78,093	75,588	65,366	57,646	20.6	-0.1	11.7	-18.0	5.2	2.4	20.3	3.4
Vermont	30,783	23,767	33,178	33,491	32,704	33,788	33,106	29,179	111.3	-7.2	19.5	-22.3	2.4	-3.2	2.1	17.5
Massachusetts	667,172	578,071	712,846	713,886	606,098	584,659	488,399	438,284	520.5	-6.4	15.2	-19.8	17.7	8.8	19.7	11.4
Rhode Island	134,667	112,745	134,309	134,665	113,425	113,538	93,318	88,197	33.2	-3.3	13.4	-13.1	23.1	-1.1	10.7	10.3
Connecticut	263,232	210,990	292,013	292,672	226,264	210,792	181,605	159,733	65.1	-3.9	24.8	-21.7	29.3	7.3	16.1	13.7
MIDDLE ATLANTIC:																
New York	1,150,901	990,414	1,223,333	1,228,130	1,057,857	1,003,981	856,947	736,999	59.0	-5.9	15.0	-13.2	16.1	5.4	17.2	17.9
New Jersey	448,069	381,773	507,334	508,686	373,605	326,223	266,336	213,975	109.9	-11.7	17.4	-24.7	36.2	14.5	24.5	24.5
Pennsylvania	1,035,057	863,917	1,131,817	1,135,837	924,478	877,543	763,282	653,960	65.6	-3.2	26.8	-23.7	22.9	5.3	15.0	15.0
EAST NORTH CENTRAL:																
Ohio	699,132	494,288	728,631	730,733	510,435	446,924	364,298	308,100	127.7	-4.0	41.4	-32.2	43.2	14.2	22.7	18.2
Indiana	291,131	206,534	276,060	277,590	197,803	186,934	154,177	139,017	110.7	5.5	31.0	-23.2	40.6	8.8	40.9	14.9
Illinois	645,627	513,576	631,146	633,114	506,943	466,764	379,436	332,871	94.6	-7.8	23.6	-21.1	38.8	17.1	32.8	14.0
Michigan	805,808	394,471	470,338	471,242	271,040	231,469	175,229	155,800	223.7	-3.7	66.3	-33.3	73.8	17.1	32.1	12.5
Wisconsin	247,851	191,770	262,807	263,949	194,310	182,853	151,391	137,525	81.0	-3.0	26.2	-27.0	35.8	6.4	20.6	10.1
WEST NORTH CENTRAL:																
Minnesota	103,964	85,804	114,614	115,623	92,834	84,767	69,636	64,557	62.4	-0.3	21.2	-25.1	24.5	9.5	21.7	7.9
Iowa	77,847	62,274	79,621	80,551	63,113	61,635	49,420	44,420	77.3	-2.2	25.0	-21.8	27.6	2.4	24.6	11.4
Missouri	196,694	156,384	193,254	195,093	162,182	152,993	133,167	107,704	84.4	1.8	25.8	-19.1	23.2	-7.6	14.9	23.6
North Dakota	3,552	3,107	4,270	4,472	3,275	2,789	1,358	1,358	174.0	-16.8	14.3	-27.2	36.5	17.4	58.9	23.2
South Dakota	5,146	4,635	6,102	6,382	3,788	3,602	2,492	2,224	141.9	-15.7	11.0	-24.0	68.5	5.2	44.5	12.1
Nebraska	31,267	27,655	35,985	36,521	25,144	24,336	18,669	17,000	70.0	-13.1	13.1	-45.2	45.2	3.3	20.1	8.5
Kansas	51,235	44,938	60,409	61,049	41,259	44,215	30,570	27,119	90.0	-15.2	14.1	-23.6	48.0	-6.7	24.3	31.2

<sup>1</sup> For explanation of method of computing percentages in this column, see general remarks preceding these tables, par. 4, p. 125.  
<sup>2</sup> Based on figures shown in left-hand column for 1919.  
<sup>3</sup> The figures shown in the right-hand column for 1919 were used in calculating the percentages in this column.



# APPENDIX B—GENERAL TABLES

181

<b>WEST NORTH CENTRAL:</b>									
Minnesota.....	480,128	473,957	358,737	287,670	220,934	180,124	157.0	-2.3	32.1
Iowa.....	289,592	282,946	190,049	155,384	118,065	106,664	163.3	17.8	27.8
Missouri.....	583,367	477,903	391,865	340,467	247,861	194,3	194.3	16.6	22.0
North Dakota.....	16,730	17,791	14,062	13,196	9,873	7,331	137.9	-1.7	26.5
South Dakota.....	16,438	23,191	17,791	17,666	11,154	54.4	54.4	-18.1	35.9
Nebraska.....	129,428	125,814	89,285	64,466	46,372	216.7	216.7	5.3	40.9
Kansas.....	235,555	234,110	179,146	213,141	99,441	68,242	278.1	10.2	30.7
<b>SOUTH ATLANTIC:</b>									
Delaware.....	112,485	85,065	64,403	52,779	49,490	40,134	180.5	32.2	22.0
Maryland.....	497,945	406,768	263,753	218,244	165,449	122,032	278.2	22.8	20.9
District of Columbia.....	31,846	33,079	24,775	16,563	12,592	10,255	212.3	-3.2	34.5
Virginia.....	431,237	419,320	337,507	283,928	176,998	136,696	213.8	24.4	24.4
West Virginia.....	371,099	328,653	278,504	217,496	138,578	91,894	305.9	13.5	18.0
North Carolina.....	702,832	548,060	508,876	378,556	216,622	164,467	336.4	28.2	24.2
South Carolina.....	497,735	394,615	304,224	276,378	197,479	112,697	262.6	3.3	18.3
Georgia.....	449,888	436,008	357,403	288,241	220,419	136,498	232.7	4.0	22.2
Florida.....	138,269	139,456	100,071	89,816	43,413	36,356	282.8	-1.2	38.4
<b>EAST SOUTH CENTRAL:</b>									
Kentucky.....	251,554	247,573	238,314	230,224	174,625	144,161	76.2	2.6	3.9
Tennessee.....	391,465	338,814	296,857	232,277	175,836	130,318	201.3	15.9	18.1
Alabama.....	640,892	628,376	445,762	357,762	247,185	173,298	270.8	2.2	24.6
Mississippi.....	177,693	200,814	186,434	206,222	110,338	65,738	171.0	-11.3	-9.6
<b>WEST SOUTH CENTRAL:</b>									
Arkansas.....	165,154	214,194	177,208	173,088	109,509	79,560	110.0	-22.0	20.9
Louisiana.....	402,632	389,605	355,193	346,632	231,963	190,132	113.1	4.3	9.4
Oklahoma.....	152,956	138,599	97,308	71,139	23,608	11,572	1,235.5	10.4	43.0
Texas.....	548,299	443,207	335,701	282,471	164,637	116,157	376.2	24.3	32.0
<b>MOUNTAIN:</b>									
Montana.....	190,516	163,491	91,671	90,402	46,736	43,679	339.6	25.1	67.4
Idaho.....	72,146	73,335	50,821	47,804	16,987	5,649	188.9	-1.6	46.8
Wyoming.....	23,669	17,869	10,004	7,628	3,604	3,820	538.2	40.7	73.6
Colorado.....	116,873	206,309	162,881	164,616	124,907	43,434	310.4	-13.6	36.7
New Mexico.....	116,873	17,260	12,468	15,465	5,948	3,638	370.9	38.4	38.4
Arizona.....	128,531	103,536	54,697	38,140	21,412	8,537	1,411.2	-2.2	98.4
Utah.....	141,671	92,201	59,536	42,647	19,397	12,074	1,702.6	53.7	57.8
Nevada.....	27,883	19,874	15,748	7,766	2,834	1,561	1,702.6	41.6	6.0
<b>PACIFIC:</b>									
Washington.....	593,330	687,438	399,567	297,897	168,342	87,601	584.3	-12.8	76.5
Oregon.....	322,297	304,346	241,622	175,619	83,348	60,005	440.2	6.5	42.1
California.....	971,315	766,016	491,625	326,100	210,359	126,653	674.2	28.3	56.0

1 For explanation of method of computing percentages in this column, see general remarks preceding these tables, par. 4, p. 125.

2 Based on figures shown in left-hand column for 1919.

3 The figures shown in the right-hand column for 1919 were used in calculating the percentages in this column.

## GROWTH OF MANUFACTURES

TABLE 37.—QUANTITY OF MATERIALS CONSUMED AND PRODUCTS MANUFACTURED IN SELECTED INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923

MATERIAL AND PRODUCT		ACTUAL QUANTITY REPORTED						PER CENT OF INCREASE OR DECREASE (-)						
								24-year period, 1899-1923	Inter-censal period					
		1923	1921	1919	1914	1909	1904		1899	1919-1923	1921-1923	1914-1919	1909-1914	1904-1909
FOOD AND KINDRED PRODUCTS														
Butter, cheese, and condensed and evaporated milk:														
Materials—														
Milk—														
Cream—	(1)	(1)	10,244.9	8,431.4	9,888.7	12,147.2	311,678.1							
Butter—	(1)	(1)	2,551.7	2,384.0	1,406.1	588.2	262.7							
Products—														
Butter—	1,303.5	1,118.2	920.6	769.8	624.8	531.5	420.1	210.3	41.6	16.6	21.5	19.6	23.2	17.6
Cheese—	563.6	423.4	473.6	370.3	311.1	317.1	282.0	90.9	19.0	33.1	-10.6	27.9	19.0	-1.9
Condensed and evaporated milk—	1,821.1	1,753.5	2,150.2	873.4	494.8	308.5	186.9	874.4	-15.3	3.6	-13.2	146.2	70.5	60.4
Slaughtering and meat packing:														
Materials—														
Beef, dressed weight—	5,151.4	4,358.0	5,118.7	3,786.3	4,408.7	4,066.2	3,222.7	59.8	6	18.2	-14.9	35.2	-14.1	8.4
Calves, dressed weight—	535.7	438.0	457.5	296.3	262.3	161.0	70.5	573.8	17.1	22.3	-4.3	121.8	62.9	102.5
Sheep and lambs, dressed weight—	515.0	568.0	499.7	629.7	496.6	464.9	330.1	32.4	3.1	-9.3	13.7	-20.6	26.8	6.8
Hogs, dressed weight—	9,439.1	6,873.3	7,358.9	5,476.2	5,201.9	5,043.8	5,203.3	31.4	28.3	37.3	-6.6	34.5	5.3	3.0
Products—														
Meat, fresh and cured—	13,603.2	10,976.0	12,634.0	9,660.3	9,719.1	8,772.1	37,981.6	70.4	7.7	23.9	-13.1	30.8	6	10.8
Lard and lard compounds—	2,419.7	1,952.4	1,894.0	1,515.6	1,243.6	1,169.1	1,019.8	137.3	27.8	23.9	3.1	23.0	21.9	6.4
Hides and skins, cattle and calf—	4,626.5	4,524.1	627.5	434.5	504.6	456.4	336.0	86.5	-2	19.5	-16.5	44.4	-13.9	10.6
Flour-mill and grain-mill products:														
Materials—														
Grain, ground or milled—	743.2	713.6	830.0	818.9	806.2	754.9	720.1	1.9	-10.5	4.1	-14.0	1.4	1.6	6.8
Products—														
Wheat flour—	114.4	110.8	132.5	116.4	105.8	104.0	99.8	14.6	-13.7	3.2	-16.4	13.8	10.0	1.7
Corn meal and corn flour—	12.2	10.9	10.7	16.3	21.6	23.6	27.8	-56.1	14.0	11.9	1.9	-34.4	-24.5	-8.5
Bran, middlings, feed, and offal—	9.7	8.9	9.3	9.4	9.2	7.9	7.2	34.7	4.3	9.0	-4.3	-1.1	2.2	16.5
Sugar, beet:														
Material—														
Beets—	5,736.1	7,872.8	5,648.6	5,639.1	3,965.3	2,175.4	794.6	628.2	2.4	-26.5	39.4	.2	42.2	82.3
Product—	754.5	1,029.9	721.9	743.5	501.7	253.9	81.7	823.5	4.5	-26.7	42.7	-2.9	48.2	97.6
Beet sugar—														
Sugar refining, cane:														
Product—														
Refined sugar—	4,423.1	3,770.2	3,521.5	3,333.1	(*)	(*)	(*)		25.8	17.5	7.1	5.7		



MATERIAL AND PRODUCT		ACTUAL QUANTITY REPORTED						PER CENT OF INCREASE OR DECREASE (-)									
								Interannual period									
								1923	1921	1919	1914	1909	1904	1899-1904			
TEXTILES AND THEIR PRODUCTS—Continued																	
Woolen and worsted goods:																	
Materials—																	
Woolen in condition purchased.....mill. lbs.		(1)	(1)	443.5	434.7	474.8	418.7	330.2									
Tops.....mill. lbs.		(1)	(1)	26.3	29.1	20.8	9.2	5.6									
Worsted yarns.....mill. lbs.		(1)	(1)	43.0	53.6	59.1	31.0	25.1									
Products—																	
All-wool woven goods in.....mill. sq. yds.		399.1	326.7	326.7	323.0	322.9	290.0	216.4	84.4	23.2	22.2						
Union or cotton-mixed woven goods in.....mill. sq. yds.		47.4	24.9	47.8	46.2	37.5	63.2	57.3	-17.3	-8	90.4	-47.9	3.5	23.9	20.4		
Cotton-warp, woven goods in.....mill. sq. yds.		181.5	142.2	161.4	186.2	210.3	182.1	152.9	18.7	12.5	27.6	-11.9	-17.7	-6.7	15.5	19.1	
Yarns and tops.....mill. lbs.		200.6	136.0	128.2	141.5	145.4	118.1	96.2	108.5	56.5	47.5	6.1	-9.4	-2.7	23.1	22.8	
Carpets and rugs, wool, other than rag:																	
Materials—																	
Wool in condition purchased.....mill. lbs.		(1)	(1)	36.3	52.6	64.1	51.3	51.9									
Yarns.....mill. lbs.		(1)	(1)	87.2	122.6	128.3	129.7	109.3									
Products—																	
Carpets and rugs.....mill. sq. yds.		83.2	52.9	62.2	66.3	81.2	82.7	76.4	8.9	59.4	57.3	1.3	-21.3	-18.3	-1.8	8.2	
Hordage and twine, jute goods and linen goods:																	
Materials—																	
Hard fibers.....mill. lbs.		(1)	(1)	427.9	437.3	352.7	(1)	275.9									
Soft fibers.....mill. lbs.		(1)	(1)	206.0	338.3	307.0	(1)	238.8									
Products—																	
Rope and binder twine, exclusive of cotton rope.....mill. lbs.		432.9	358.3	443.2	487.4	411.4	(1)	305.8	41.6	-2.3	20.8	-19.2	-0.1	18.5			
Twine, other than binder.....mill. lbs.		120.1	80.4	92.4	105.2	75.8	(1)	36.2	231.8	30.0	49.9	-13.3	-12.2	33.8			
Hats, fur-felt:																	
Hats, fur-felt.....thous. doz.		1,969.6	1,756.0	2,100.0	2,118.6	2,989.3	2,611.9	1,882.4	4.6	-6.2	12.2	-16.4	-9	-23.1	14.4	38.8	
Hats and floor coverings:																	
Piece goods, rugs, etc.....mill. sq. yds.		205.2	135.8	109.9	119.5	106.2	66.5	(1)		51.1	86.7	23.6	-8.0	9.4	64.2		
IRON AND STEEL AND THEIR PRODUCTS																	
Cast furnaces:																	

[illegible]



Steel works and rolling mills:													
Materials—													
Pig iron, including ferro-alloys.....													17.3
Scrap, from outside sources.....													56.6
Ingots, blooms, billets, etc.....													37.3
Products—													32.7
Rolled, forged, and other classified iron													36.9
and steel products.....													46.7
Engines and water wheels:													20.5
Steam engines (not including traction													
engines).....													
Internal-combustion engines (not including													
tractors).....													
Tractors and traction engines.....													
Machine tools:													
Boring machines.....													
Drilling machines (except portable).....													
Grinding machines.....													
Lathes.....													
Milling machines.....													
Presses.....													
Screw machines (automatic).....													
Textile machinery and parts:													
Fiber-to-fabric machinery.....													
Fabric machinery.....													
Lumber and its remanufactures													
Lumber:													
Softwoods.....													
Hardwoods.....													
Leather and its finished products													
Leather, tanned, curried, and finished:													
Materials—													
Cattle hides.....													
Goat and kip skins.....													
Sheep and lamb skins.....													
Products—													
Sole leather.....													
Harness leather.....													
Upper leather (other than patent).....													
Skins, total.....													
Cattle sides.....													
Boots and shoes, leather:													
Boots, shoes, and slippers.....													
Gloves, mittens, leather:													
Gloves, mittens, and gauntlets.....													

See footnotes at end of table, p. 191.

## GROWTH OF MANUFACTURES

TABLE 37.—QUANTITY OF MATERIALS CONSUMED AND PRODUCTS MANUFACTURED IN SELECTED INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

MATERIAL AND PRODUCT	ACTUAL QUANTITY REPORTED						PER CENT OF INCREASE OR DECREASE (—)									
							24-year period, 1899-1923	Interannual period								
	1923	1921	1919	1914	1909	1904		1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909	1899-1904		
PAPER AND PRINTING																
Paper and wood pulp:																
Materials—																
Pulpwood.....	46,872.9	4,557.2	5,477.8	4,470.8	4,001.6	3,050.7	1,986.3	195.7	7.2	28.9	-16.8	22.5	11.7	31.2	53.6	
Wood pulp purchased.....	(1)	(1)	1,596.0	1,522.0	1,241.9	877.7	644.0	—	—	—	—	4.9	22.6	41.5	30.3	
Rags, including cotton and flax waste and sweepings.....	(1)	(1)	277.9	361.7	337.5	294.6	234.5	—	—	—	—	1.2	21.4	25.6	—	
Old or waste paper.....	(1)	(1)	1,854.4	1,510.0	983.9	588.5	356.2	—	—	—	—	22.8	53.5	67.2	65.2	
Products—																
News paper, in rolls and sheets.....	1,521.1	1,237.4	1,323.9	1,313.3	1,168.1	912.8	569.2	167.2	14.9	22.9	-6.5	8	12.4	28.0	60.4	
Books.....	1,207.9	792.3	951.3	904.0	670.1	434.5	282.1	328.2	27.0	52.5	-16.7	5.2	34.9	54.2	54.0	
Blank paper.....	1,371.0	230.9	325.2	247.8	198.2	146.8	112.7	234.5	15.9	63.3	-29.0	31.2	23.0	35.0	30.3	
Wrapping paper.....	1,027.0	703.8	831.4	881.8	763.1	644.3	535.2	91.9	23.5	45.9	-15.3	-5.7	15.6	18.4	20.4	
Boards.....	2,792.8	1,739.8	1,837.1	1,291.8	883.1	559.7	394.1	608.7	49.6	60.5	-6.8	44.5	46.3	57.8	42.0	
Miscellaneous papers.....	1,103.6	727.1	796.8	631.5	530.4	408.5	274.2	302.5	38.0	51.8	-9.1	23.7	19.1	28.8	43.0	
Wood pulp, total production.....	3,783.2	2,876.3	3,518.0	2,893.2	2,495.5	1,921.8	1,179.5	221.3	7.7	31.7	13.2	21.6	15.9	23.9	62.9	
CHEMICALS AND ALLIED PRODUCTS																
Coke not including gas-house coke:																
Material—																
Coal.....	15 84.4	15 37.3	15 65.6	1451.6	59.4	37.4	30.2	179.5	28.7	126.3	-43.1	27.1	-13.1	58.8	23.8	
Product—																
Coke.....	57.0	25.3	44.2	34.6	39.3	25.1	19.6	189.3	29.0	126.3	-42.8	27.7	-12.0	56.6	28.1	
Fertilizers:																
Material—																
Phosphate rock.....	(1)	(1)	2,247.3	2,051.0	1,549.5	888.6	787.9	—	—	—	—	8.0	34.3	74.4	12.8	
Product—																
Fertilizers.....	7,549.3	5,094.2	8,237.0	8,432.2	5,613.2	3,591.8	2,837.0	161.5	-8.3	25.9	-27.2	-2.3	50.1	56.4	24.4	
Gas illuminating and heating:																
Materials—																
Coal.....	7,338.3	5,972.0	7,657.8	6,116.7	4,940.6	4,431.8	2,457.2	195.0	-4.2	5.3	-9.0	25.2	23.8	11.5	78.2	
Oil, benzol, and benzine.....	874.3	841.9	881.5	716.8	579.7	411.0	194.9	348.6	-9	3.8	-4.5	23.0	23.7	41.0	110.9	
Product—																
Gas for sale.....	356.6	306.1	308.4	203.6	150.8	112.5	67.1	431.4	15.6	16.5	-8	51.5	35.0	34.0	67.7	

Paint and varnish:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
--------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

See footnotes at end of table, p. 191.

TABLE 37.—QUANTITY OF MATERIALS CONSUMED AND PRODUCTS MANUFACTURED IN SELECTED INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923—Continued

MATERIAL AND PRODUCT	ACTUAL QUANTITY REPORTED							PER CENT OF INCREASE OR DECREASE (-)						
	1923	1921	1919	1914	1909	1904	1899	24-year period, 1899-1923	1919-1923	1914-1919	1909-1914	1904-1909	1899-1904	
<b>STONE, CLAY, AND GLASS PRODUCTS</b>														
Brick and tile, terra-cotta, and fire-clay products:														
Common brick.....mill. brick	7,282.2	4,448.0	4,751.9	7,145.8	9,787.7	8,683.9	7,654.5	-4.9	53.2	63.7	-33.5	12.7	13.4	
Fire brick.....mill. brick	1,134.2	621.0	933.4	816.8	888.2	678.4	800.9	41.6	17.7	82.6	-2.6	23.6	-15.3	
Glass:														
Window glass.....mill. sq. ft.	510.2	280.0	368.9	401.0	846.1	242.6	217.1	135.0	38.3	98.2	-29.5	42.7	11.7	
Plate glass, polished.....mill. sq. ft.	94.5	56.2	58.8	60.3	17.4	27.8	10.8	459.2	66.4	68.1	-1.1	73.6	61.5	
Bottles and jars.....mill. gross	(1)	(1)	22.3	13.3	12.3	11.9	15.8					3.4	52.6	
Pressed and blown glass.....mill. doz. pieces	(1)	(1)	100.0	58.4	44.4	35.7	35.4					24.4	.8	
Cement.....mill. bbls.	138.8	99.4	81.3	89.0	66.7	31.7	15.9	773.0	70.7	39.6	22.8	110.4	99.4	
Lime: Quicklime and hydrated lime, total.....thous. tons	3,766.0	2,391.4	3,071.4	3,380.9	3,473.0	2,707.8	(1)		22.6	57.5	-22.1	23.3		
<b>METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL</b>														
Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper:														
Semi-finished products.....mill. lbs.	1,937.6	783.0	1,434.3	449.5	(1)	(1)	(1)		35.1	147.5	-45.4	219.1		
Smelting and refining:														
Copper, primary.....thous. short tons	998.9	475.4	885.1	766.9	695.5	425.7	296.2	234.2	11.8	108.2	-46.3	63.4	43.7	
Lead, primary.....thous. short tons	618.3	448.6	482.2	542.1	446.9	393.4	298.0	107.5	28.2	37.8	-7.0	21.3	32.0	
Zinc, primary.....thous. short tons	510.4	200.5	465.7	353.0	255.8	186.7	129.1	295.4	9.6	154.6	-55.9	31.9	44.6	
Gold.....thous. fine ozs.	2,503.0	2,422.0	2,919.0	4,573.0	4,822.0	3,892.0	3,437.0	-27.2	-14.3	3.3	-17.0	-5.2	27.9	
Silver.....mill. fine ozs.	73.34	53.05	56.68	72.46	54.72	57.68	54.70	33.9	29.4	38.2	-6.4	32.4	5.3	
<b>TOBACCO MANUFACTURES</b>														
Tobacco, chewing and smoking, and snuff: <sup>23</sup>														
Tobacco and snuff.....mill. lbs.	412.8	387.0	424.1	440.9	431.4	333.7	294.6	40.1	-2.7	6.7	-8.7	22.0	20.1	
Tobacco, cigars:														
Cigars, weighing more than 3 lbs. per 1,000.....millions	6,950	6,726	7,072	7,174	6,668	6,640	4,910	41.6	-1.7	3.3	-4.9	.4	35.3	
Tobacco, cigarettes:														
Cigarettes, weighing more than 3 lbs. per 1,000.....millions	66,716	52,065	63,120	16,856	6,819	3,427	3,742	1,682.7	25.6	28.1	-1.9	147.2	99.0	-8.4

VEHICLES FOR LAND TRANSPORTATION															
Automobiles <sup>a</sup> .....	thous. cars.	3,902.4	1,603.1	1,893.2	573.0	127.3	22.8	25 5.0	77,048.0	106.1	143.4	230.4	350.1	488.3	356.0
Motor cycles and bicycles:	thousands.	41.9	27.0	59.1	62.2	18.6	2.3	20,950.0	-20.1	55.2	-54.3	-5.0	234.4	708.7	1,150.0
Bicycles.....	thousands.	485.2	216.5	470.7	294.0	168.8	225.3	1,112.9	-56.3	3.3	124.6	57.4	77.1	-25.1	-73.8
Carriages, wagons, and repairs:	thous. vehicles.	236.1	107.3	608.8	1,124.9	1,519.2	1,711.3	1,594.3	-85.2	-61.2	120.0	-82.4	-45.9	-11.2	7.3
Complete vehicles of all classes:	thous. vehicles.	1,842	1,363	254	3,508	1,819	2,444	1,369	34.6	625.2	35.1	436.6	92.9	25.6	78.5
Steam-railroad cars:	number.	179.8	56.3	155.7	127.3	87.7	117.5	143.1	25.6	15.5	219.4	-63.8	22.3	-45.2	-17.9
Passenger service:	thous. cars.	3,598	1,757	3,411	2,285	(1)	(1)	(1)	(1)	5.5	104.8	-48.5	52.6	(1)	(1)
Freight service:	thous. cars.	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Locomotives (steam):	number.	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
SHIP AND BOAT BUILDING															
Vessels of 5 gross tons and over launched:	thous. gross tons.	281.3	1,206.9	3,734.2	243.0	255.0	328.4	282.5	7.2	-92.5	-76.7	-67.7	436.7	-4.7	25.1
Steel.....	thous. gross tons.	112.8	119.0	755.6	182.1	212.2	350.1	424.6	-73.4	-85.1	-5.2	-84.3	314.9	-14.2	-17.5
Wooden.....	thous. gross tons.	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RUBBER PRODUCTS															
Rubber tires and inner tubes:	thous. millions.	45.43	27.30	32.84	8.02	(1)	(1)	(1)	(1)	38.3	60.4	-16.9	309.5	(1)	(1)
Casing, pneumatic, automobile, and truck:	thous. millions.	57.23	32.08	33.26	7.91	(1)	(1)	(1)	(1)	72.1	78.4	-3.5	320.5	(1)	(1)
Inner tubes, pneumatic, automobile, and truck:	thous. millions.	944.3	401.4	1,455.0	(1)	(1)	(1)	(1)	(1)	-85.1	135.3	-72.4	(1)	(1)	(1)
Solid tires, truck:	thousands.	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Rubber boots and shoes:	thous. pairs.	9,098.0	6,532.0	9,207.7	4,024.5	(1)	(1)	(1)	(1)	-1.2	39.2	-29.1	128.8	(1)	(1)
Rubber boots:	thous. pairs.	60.10	57.19	68.15	57.21	(1)	(1)	(1)	(1)	9.1	5.1	-13.5	15.6	(1)	(1)
Shoes and overshoes:	thous. pairs.	28.11	15.24	21.03	(1)	(1)	(1)	(1)	(1)	94.2	71.3	-27.2	(1)	(1)	(1)
Carriage shoes with rubber soles:	thous. pairs.	289.2	137.5	138.9	(1)	(1)	(1)	(1)	(1)	108.8	110.3	-0.7	(1)	(1)	(1)
Heels for sale:	thous. pairs.	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
MUSICAL INSTRUMENTS															
Pianos:	thousands.	347.6	221.2	341.7	326.3	384.5	261.2	(1)	(1)	1.7	57.1	-35.3	4.7	10.5	39.5
Photographs:	thousands.	997.5	596.0	2,226.4	514.2	344.7	(1)	151.4	588.9	-55.2	67.4	-73.2	333.0	49.2	(1)
Records and blanks:	millions.	98.10	105.19	107.00	27.22	27.18	(1)	2.76	3,454.3	-8.3	-6.7	-1.7	203.1	.1	(1)

See footnotes at end of table, p. 191.

PER CENT OF INCREASE OR DECREASE (-)

[illegible]

Motors, 1 horsepower and over, plus railway motors.....	5,167.9	3,905.3	4,094.3	2,892.8	2,410.4	1,392.1	1,182.4	337.1	26.2	23.3	-2.4	42.0	19.6	73.1	17.7
Electric fans.....	288.1	342.1	769.4	398.3	(1)	(1)	(1)	(1)	-3.0	61.9	-40.6	75.0	77.7	43.5	---
Storage batteries (weight of plates).....	298.1	115.41	133.44	41.08	23.12	16.11	(1)	(1)	63.3	89.8	-35.4	144.5	109.1	595.1	150.8
Dry batteries.....	221.86	115.82	173.78	71.09	33.99	4.89	(1)	(1)	27.7	57.9	-9.7	153.8	32.6	-40.8	345.1
Incandescent lamps.....	389.37	246.56	224.71	88.53	66.78	112.71	25.32	1,437.8	73.3	57.9	14.2	19.1	---	---	---
Telephone instruments.....	2,602.8	1,251.6	1,066.4	920.2	(1)	(1)	(1)	(1)	137.4	108.0	---	---	---	---	---

<sup>1</sup> Figures not available.  
<sup>2</sup> Goats and kids not included.  
<sup>3</sup> Includes poultry dressed.  
<sup>4</sup> Includes data for hides received as payment for custom slaughtering.  
<sup>5</sup> Not shown separately.  
<sup>6</sup> Figures for 1923 not strictly comparable with earlier years because of enlargement of scope of canvases for prunes and apricots.  
<sup>7</sup> Figures not comparable.  
<sup>8</sup> Includes ice manufactured as a subsidiary product.  
<sup>9</sup> Includes organzine, tram, and crepe twist, spun silk, machine twist, and sewing, embroidery, and other floss silks.  
<sup>10</sup> Figures for 1923 include 574,731 square yards of woven shawls, and 784,830 square yards of carriage cloth; and 1921 includes 389,135 square yards of carriage cloth for which fibers were not reported on the 1923 and 1921 schedules but which were reported under "All-wool woven goods" in earlier years.  
<sup>11</sup> Figures for 1923 include 535,631 square yards of carriage robe, for which fibers were not reported on the 1923 schedules. Data for upholstery not included prior to 1923.  
<sup>12</sup> Figures for 1923 include 29,407,740 square yards of linings and Italian cloth, and 20,765,615 square yards of woven goods, for which fibers were not specified; for 1921, 38,082,019 square yards of woven goods for which fibers were not specified.  
<sup>13</sup> Data for "Ferro-alloys" not included, but includes 243,876 tons of other pig iron.

<sup>14</sup> Source, Census Bull., Forest Products, entitled "Pulpwood consumption and wood-pulp production."  
<sup>15</sup> Source, United States Geological Survey. These figures differ from those published in the 1923 census report because of the inclusion of a larger number of establishments in the Geological Survey canvases.  
<sup>16</sup> Estimated from Geological Survey figures.  
<sup>17</sup> Since 1919 figures have been reported in barrels of 500 pounds, and reduced to equivalent 280-pound barrels in order to preserve comparability.  
<sup>18</sup> Rosin distilled from wood not included in 1899, 1904, and 1909.  
<sup>19</sup> Includes powdered soaps.  
<sup>20</sup> Includes data reported as agricultural lime, 24,113 tons for 1923, and 67,754 tons for 1921.  
<sup>21</sup> Compiled by United States Geological Survey.  
<sup>22</sup> These figures were transcribed from the annual report of the Director of the Mint.  
<sup>23</sup> "Statistics of production" of tobacco products were transcribed from the annual report of the Commissioner of Internal Revenue.  
<sup>24</sup> Includes also data reported by the establishments engaged primarily in other industries.  
<sup>25</sup> The number of "motor vehicles" (including both passenger cars and auto trucks) manufactured in 1899 was reported by the 17th Census (Vol. X, p. 255) as 4,192. The figure was raised slightly owing to the broadened scope of later canvasses.

## GROWTH OF MANUFACTURES

TABLE 38.—INDEX OF PRODUCTION OF MANUFACTURES IN LEADING INDUSTRIES, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1899 TO 1923<sup>1</sup>

INDUSTRY	INDEX NUMBERS, 1919=100							PER CENT OF INCREASE OR DECREASE (-)						
	1923	1921	1919	1914	1909	1904	1899	24-year period, 1899-1923	Inter-censal period					
									1919-1923	1921-1923	1919-1921	1914-1919	1909-1914	1904-1909
Total	122.0	79.4	100.0	79.5	74.5	57.2	46.8	160.7	22.0	53.7	26.1	6.4	20.3	22.2
Food and kindred products	111.6	83.5	100.0	80.8	74.8	65.1	52.0	110.6	11.6	19.4	23.8	8.0	14.9	22.8
Butter, cheese, and condensed milk	122.4	104.9	100.0	67.8	52.6	44.0	34.0	200.0	22.4	16.7	47.5	23.0	10.5	29.4
Slaughtering and meat packing	113.0	90.1	100.0	75.7	74.8	67.0	60.6	86.5	13.0	25.4	32.1	1.2	19.2	12.0
Flour-mill and grain-mill products	91.1	86.9	100.0	95.4	91.2	87.5	84.1	8.3	-8.9	4.8	4.8	4.6	4.2	4.0
Canning and preserving, fruits and vegetables	126.7	69.6	100.0	77.3	54.5	45.2	24.6	415.0	26.7	82.0	29.4	41.8	20.6	83.7
Textiles and their products	122.0	86.8	100.0	96.8	91.9	71.9	60.7	102.5	22.9	27.0	3.3	5.3	27.8	18.5
Cotton goods	122.8	88.6	100.0	101.6	93.8	74.8	66.9	83.6	22.8	24.5	-1.4	8.3	25.4	11.8
Knit goods	115.2	94.0	100.0	92.9	86.8	61.5	44.3	150.0	13.2	22.6	-6.0	7.0	41.1	38.8
Silk manufactures	116.9	92.6	100.0	73.2	59.2	42.1	32.5	239.7	16.9	26.2	7.4	23.1	41.3	29.5
Woolen and worsted goods	128.2	68.6	100.0	104.3	105.2	86.8	70.8	81.1	23.2	30.0	-1.4	-1.9	21.2	22.6
Iron and steel and their products	131.2	56.6	100.0	71.1	75.3	51.8	43.2	203.7	31.2	131.8	40.6	-5.6	45.4	19.9
Lumber and its manufactures	110.1	79.9	100.0	110.6	137.3	104.0	106.4	3.5	10.1	37.8	19.6	-19.4	32.0	-2.3
Leather and its finished products	105.6	85.2	100.0	87.4	87.7	81.5	69.2	51.3	5.6	23.9	14.8	-3	7.6	16.8
Leather, tanned, curried, and finished	104.7	83.0	100.0	86.0	89.8	80.6	80.3	30.4	4.7	26.1	10.3	-4.2	11.6	11.6
Boots and shoes, leather	106.0	86.6	100.0	88.4	86.1	78.4	65.9	60.8	6.0	22.4	13.4	2.7	9.8	19.0
Paper and printing	127.1	62.4	100.0	87.5	69.8	51.9	36.6	274.6	37.1	46.8	14.2	25.4	34.5	41.8
Paper and wood pulp	124.3	85.2	100.0	86.4	69.8	51.9	36.6	239.6	24.3	45.9	15.7	23.7	34.5	41.8
Printing and publishing	141.8	96.7	100.0	89.7					41.8	46.6	-3.3	11.5		
Liquors and beverages	(1)	(1)	100.0	232.2	196.2	170.1	123.4				-56.9	13.3	15.3	32.5
Chemicals and allied products	125.1	94.5	100.0	70.7	53.8	42.9	30.2	314.2	23.1	32.4	41.4	20.2	37.1	42.1
Chemicals and acids	119.5	84.1	100.0	62.6	47.5	32.4	23.8	402.1	19.5	12.1	59.7	31.8	40.6	36.1
Gas, illuminating and heating	112.4	98.4	100.0	68.3	50.6	37.7	22.5	399.6	12.4	14.2	38.4	35.0	34.2	67.6
Paint and varnish	136.0	88.4	100.0	73.7	68.7	55.0	45.1	201.6	36.0	53.8	35.7	7.3	24.9	22.0
Petroleum refining	102.7	129.2	100.0	49.4	34.9	20.0	13.8	868.5	62.7	35.4	102.4	41.6	74.5	19.0



Stone, clay, and glass products.....	155.6	83.3	100.0	113.5	104.3	78.9	67.3	131.2	54.6	62.9	-6.7	-11.9	8.9	22.2	17.3
Brick and tile, earthenware, and fire-clay products.....	154.8	88.1	100.0	122.6	133.6	138.1	123.1	19.9	54.8	73.7	-11.9	-18.4	-22.7	14.8	17.0
Cement.....	170.7	123.3	100.0	109.5	82.0	39.0	19.5	775.4	70.7	39.6	22.3	-8.7	33.5	110.5	100.0
Glass.....	151.7	83.5	100.0	107.5	77.2	62.9	47.9	216.7	51.7	81.7	-16.5	-7.0	39.3	22.7	31.3
Metals and metal products, other than iron and steel.....	125.7	66.5	100.0	64.9	60.6	44.5	31.4	390.3	23.7	89.0	-33.5	54.1	7.1	36.2	41.7
Tobacco manufactures.....	109.8	94.3	100.0	76.4	66.6	57.8	46.3	137.1	9.8	15.2	-4.7	30.9	14.7	15.2	24.8
Vehicles for land transportation.....	199.5	76.8	100.0	36.0	15.6	8.2	4.4	4,434.0	99.5	159.8	23.2	177.8	130.8	90.9	86.4
Automobiles.....	232.4	91.7	100.0	24.9	5.5	1.0	2.2	116,100.0	132.4	153.4	-8.3	301.6	332.7	460.0	400.0
Railway equipment.....	119.0	45.5	100.0	84.6	62.3	77.0	82.4	44.4	19.0	161.5	-54.5	18.2	35.8	-19.1	-6.6
Ship and boat building.....	7.9	30.7	100.0	7.3	7.2	10.0	9.0	-12.2	-32.1	-74.3	-69.3	1,299.9	1.4	-28.0	11.1
Rubber products.....	130.8	80.0	100.0	32.3	21.0				30.8	63.5	-20.0	299.6	53.8		

1 For data from which these indexes are computed, weights and relatives for individual products, and indexes for other industries, not given in this table, for census years, 1914 to 1925, see Table 26.  
 2 Index not computed.

## APPENDIX C

### GROWTH OF MANUFACTURES TO 1925

After the preceding tables were prepared and text written, but before they were published, the results of an additional biennial census of manufactures, that for 1925, were compiled and available for use. In order to provide the latest possible information some of the figures from this census are given in the tables at the end of this chapter. The general conclusions, presented in the monograph, regarding the growth of manufactures since 1899 remain practically unchanged by the additional evidence provided by later figures. Table 39 gives data concerning the principal measures of the growth of manufactures from 1899, 1919, and 1923 to 1925.

TABLE 39.—PER CENT OF INCREASE IN PHYSICAL PRODUCTION, AVERAGE NUMBER OF WAGE EARNERS EMPLOYED, AND PRIMARY HORSEPOWER INSTALLED, FROM SELECTED CENSUS YEARS TO 1925

	PER CENT OF INCREASE OR DECREASE (—)		
	1899-1925	1919-1925	1923-1925
Physical production index.....	174.6	28.5	5.3
Average number of wage earners.....	79.9	-6.8	-4.4
Primary horsepower.....	256.5	22.0	8.2

The year 1925, like 1923, was a year of business prosperity and of activity in nearly all lines of manufacture. The index of production showed an increase of 5 per cent over 1923 in the quantity of goods manufactured, value added by manufacture increased 4 per cent, and amount of primary horsepower installed was 8 per cent larger. The average number of wage earners employed, however, decreased by over 4 per cent. The increases in quantity of goods produced and in horsepower, in contrast to the further decrease in number of wage earners, indicate a continuation of the tendency, noted in earlier periods, particularly between 1919 and 1923, toward greater use of machinery in production and illustrate the limitations of employment statistics as a measure of industrial growth.

For the 26-year period as a whole, production increased by 175 per cent, while the population of the country increased by 54 per cent, giving a per capita output in 1925 nearly 80 per cent larger than in 1899. The amount of primary horsepower installed increased

by over 250 per cent from 1899 to 1925 and the average number of wage earners employed by 80 per cent.

By industries and major industrial groups, the most rapid expansion between 1923 and 1925 occurred in the production of motor vehicles and allied products—rubber tires and gasoline. The large building activity of 1925 was reflected in the increased output of building materials, especially cement. The printing industry continued to expand, and growth was also shown in the canning and preserving, ice-cream, and cigarette industries. Two comparatively new industries which increased considerably in the two years were those manufacturing radio apparatus and rayon. The manufacture of engines and of machine tools also showed some increase. There were decreases, however, during the period in most of the textile industries (silk being the most notable exception) in meat packing and flour milling, in the manufacture of leather and its products, in the railway-equipment industries, and in the production of musical instruments.

By geographic divisions and States, the East South Central and the South Atlantic States appeared to have had the largest expansion between 1923 and 1925, with development of the Pacific Coast and East North Central States continuing at a more rapid rate than that for the country as a whole. Growth was smallest in the New England and Middle Atlantic States, and the Mountain States showed relatively less expansion than in any previous period.

#### TABLES OF 1925 FIGURES

NOTE.—The following tables give data from the 1925 census of manufactures corresponding to those provided for previous censuses in certain of the general tables in Appendix B. Tables 40, 41, and 42 give data for the census years 1914–1925, by major industrial groups, as classified in census reports for 1923 and 1925. Because of differences in grouping these tables do not correspond to any of the tables in Appendix B. Table 43 provides 1925 data corresponding to those given for earlier years in Tables 29, 30, and 31, and Table 44 corresponds to Tables 35 and 36.

The figures in the first three tables conform in manner of presentation more closely to recent, and probably future, census reports, whereas those given in the last two tables provide more exact comparisons with earlier census figures. Figures in Tables 40, 41, and 42 differ from those published in other tables of the monograph in the following respects: (1) The grouping of industries first adopted in the 1923 census has been followed, whereas in the previous tables the earlier classification was observed. (See Ch. IV.) (2) No adjustment has been made in the percentages, as in previous tables (and also in Tables 43 and 44), for the fact that the 1914 and 1919 figures include

data for establishments with products valued at less than \$5,000. (3) The all-industries totals differ from those previously published because data for coffee grinding and roasting, which were not compiled in the census of 1925, have been omitted for all years. Figures for automobile repairing have also been omitted from the 1914 and 1919 totals.

In Tables 43 and 44, the percentages have been computed as in previous tables: Those for the period from 1919 to 1925 by comparison of data only for establishments with products valued at over \$5,000, and those for the 1899-1925 period by chaining each 1923-1925 percentage to the corresponding percentage for 1899-1923 given in previous tables.

TABLE 40.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED IN INDUSTRIAL GROUPS, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1914 TO 1925<sup>1</sup>

Group No.	INDUSTRY	WAGE EARNERS (AVERAGE NUMBER)					PER CENT OF INCREASE OR DECREASE (—)				
		1925	1923	1921	1919	1914	1914-1925 <sup>1</sup>	1923-1925	1921-1923	1919-1921	1914-1919
	All industries.....	8,384,261	8,768,491	6,937,688	9,080,771	7,015,136	19.5	-7.2	-4.4	-23.2	28.7
1	Food and kindred products.....	664,760	672,472	617,736	723,124	527,887	25.9	-8.1	-1.1	8.9	37.0
2	Textiles and their products.....	1,627,141	1,715,361	1,509,789	1,610,067	1,506,197	8.0	1.1	13.6	-6.2	6.9
3	Iron and steel and their products, not including machinery.....	851,270	892,660	571,798	838,571	618,349	37.7	-9	56.1	-33.4	38.8
4	Lumber and allied products.....	921,145	931,748	703,309	863,937	865,069	6.5	6.6	32.5	-13.6	-1.1
5	Leather and its manufactures.....	315,288	344,545	280,071	349,362	307,060	2.7	-9.8	23.0	-19.8	13.8
6	Rubber products.....	141,121	137,868	103,273	138,549	74,022	90.6	-11.0	33.5	-34.9	114.2
7	Paper, printing, and related industries.....	536,766	527,019	467,266	510,049	453,062	18.5	5.2	12.8	-8.4	12.6
8	Chemicals and allied products.....	381,075	384,493	314,231	460,641	349,164	9.1	-17.3	22.4	-31.8	31.9
9	Stone, clay, and glass products.....	353,036	351,692	252,990	302,810	335,824	5.1	16.6	39.0	-16.5	-9.8
10	Metals and metal products, other than iron and steel.....	275,292	296,911	212,354	304,195	238,246	15.5	-9.5	39.8	-30.2	27.7
11	Tobacco manufactures.....	132,132	146,337	129,885	157,097	178,872	-26.1	-15.9	-2.4	-4.5	-12.2
12	Machinery, not including transportation equipment.....	838,843	907,707	682,277	998,484	618,737	38.8	-14.0	37.1	-33.7	61.4
13	Musical instruments and phonographs.....	46,990	58,329	45,113	68,741	48,768	-3.7	-31.7	99.3	-34.4	41.0
14	Transportation equipment, air, land, and water.....	550,573	606,238	465,773	833,532	312,562	79.0	-34.8	40.4	-52.7	174.7
15	Railroad repair shops.....	457,755	523,430	418,285	515,709	395,902	25.1	-11.2	25.1	-18.9	40.9
16	Miscellaneous industries.....	262,079	271,591	223,448	290,853	215,541	21.6	-9.9	21.5	-23.2	24.9

<sup>1</sup> Differences between figures given in this table and those given in other tables explained in prefatory note, p. 195.

TABLE 41.—AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN INDUSTRIAL GROUPS, BY CENSUS YEARS, AND PER CENT OF INCREASE,  
BY CENSUS PERIODS: 1914 TO 1925<sup>1</sup>

Group No.	INDUSTRY	PRIMARY HORSEPOWER <sup>2</sup>				PER CENT OF INCREASE OR DECREASE (-)			
		1925	1923	1919	1914	1914-1925 <sup>1</sup>	1919-1925 <sup>1</sup>	1923-1925	1914-1919
	All industries.....	35,772,628	33,056,870	29,297,963	22,264,343	60.7	22.1	8.2	31.6
1	Food and kindred products.....	3,881,952	3,685,667	3,173,400	2,477,376	55.7	22.3	5.3	28.1
2	Textiles and their products.....	3,986,136	3,783,504	3,248,456	2,717,369	46.7	22.7	5.4	19.5
3	Iron and steel and their products, not including machinery.....	7,518,999	7,202,426	6,430,002	4,587,816	63.9	16.9	4.4	40.2
4	Lumber and allied products.....	3,472,770	3,336,133	3,409,654	3,176,145	9.3	1.9	4.1	7.4
5	Leather and its manufactures.....	413,759	412,998	382,537	311,104	33.0	8.2	2	22.9
6	Rubber products.....	666,857	605,684	429,273	190,242	229.7	53.0	8.5	115.5
7	Paper, printing, and related industries.....	3,060,794	2,743,529	2,346,682	2,039,073	50.1	30.4	11.6	15.1
8	Chemicals and allied products.....	2,984,913	2,739,510	2,424,938	1,920,277	55.4	23.1	9.0	26.3
9	Stone, clay, and glass products.....	2,348,157	1,996,054	1,584,917	1,493,976	57.2	48.2	21.3	6.1
10	Metals and metal products, other than iron and steel.....	1,158,486	1,168,656	951,770	549,326	110.9	21.7	-9	73.3
11	Tobacco manufactures.....	42,075	43,515	43,390	34,756	21.1	-3.0	-3.3	24.8
12	Machinery, not including transportation equipment.....	2,714,377	2,300,443	2,060,325	1,256,908	116.0	31.7	18.0	63.9
13	Musical instruments and phonographs.....	97,318	90,229	91,040	57,526	69.2	6.9	7.9	38.3
14	Transportation equipment, air, land, and water.....	1,888,961	1,624,468	1,453,804	602,459	213.5	29.9	16.3	141.3
15	Railroad repair shops.....	942,248	806,435	644,876	478,893	96.8	46.1	16.8	34.7
16	Miscellaneous industries.....	604,526	577,660	622,900	362,007	67.1	-2.9	4.7	72.1

<sup>1</sup> Differences between figures given in this table and those given in other tables explained in prefatory note, p. 195.

<sup>2</sup> No data for horsepower were given in 1921.

TABLE 42.—VALUE ADDED BY MANUFACTURE IN INDUSTRIAL GROUPS, BY CENSUS YEARS, AND PER CENT OF INCREASE, BY CENSUS PERIODS: 1914 TO 1925<sup>1</sup>

Group No.	INDUSTRY	VALUE ADDED BY MANUFACTURE (EXPRESSED IN THOUSANDS OF DOLLARS)					PER CENT OF INCREASE OR DECREASE (—)					
		1925	1923	1921	1919	1914	1914-1925	1919-1925	1923-1925	1921-1923	1919-1921	1914-1919
	All industries.....	\$26,778,066	\$24,777,615	\$18,272,417	\$24,843,803	\$9,823,351	172.6	7.8	3.9	41.1	-26.5	152.9
1	Food and kindred products.....	2,690,558	2,460,520	2,034,389	2,454,822	1,036,345	157.6	9.7	8.5	18.0	-14.4	134.9
2	Textiles and their products.....	3,774,508	4,067,986	3,155,463	3,831,633	1,431,332	163.7	-1.5	-7.2	23.9	-17.6	167.7
3	Iron and steel and their products, not including machinery.....	2,727,318	2,675,923	1,316,046	2,465,845	821,818	231.9	-10.6	1.9	103.3	-46.6	200.0
4	Lumber and allied products.....	1,963,569	1,866,846	1,259,143	1,745,031	850,207	131.0	12.5	-2	56.2	-27.8	105.2
5	Leather and its manufactures.....	752,458	796,740	602,788	896,425	351,400	114.1	-16.1	-5.6	30.7	-32.0	155.1
6	Rubber products.....	536,374	457,355	327,024	543,873	137,959	288.9	-1.3	17.3	33.9	-32.9	234.2
7	Paper, printing, and related industries.....	2,823,440	2,227,870	1,818,193	1,706,631	875,548	188.9	48.2	13.5	22.5	6.5	94.9
8	Chemicals and allied products.....	2,233,116	2,026,459	1,453,352	2,137,076	1,200,349	87.7	3.0	11.2	36.6	-32.2	82.2
9	Stone, clay, and glass products.....	1,037,225	989,648	604,832	689,135	377,833	174.5	50.5	4.8	63.6	-12.2	82.4
10	Metals and metal products, other than iron and steel.....	886,993	866,959	521,033	780,393	364,136	143.6	13.7	2.3	65.4	-33.2	114.3
11	Tobacco manufactures.....	663,232	528,327	439,801	523,366	283,031	135.0	25.7	25.9	21.1	-16.9	87.0
12	Machinery, not including transportation equipment.....	3,034,914	2,836,284	1,873,912	2,795,216	919,442	230.1	8.6	7.0	51.4	-33.0	204.0
13	Musical instruments and phonographs.....	132,926	158,931	113,001	133,445	70,365	88.9	-27.5	-16.4	24.7	-35.7	160.7
14	Transportation equipment, air, land, and water.....	2,062,652	1,888,975	1,215,144	2,423,662	497,630	314.5	-15.0	6.4	15.6	-45.0	237.6
15	Railroad repair shops.....	769,933	888,734	760,771	806,617	291,180	164.1	-4.7	-13.5	16.8	-5.7	177.0
16	Miscellaneous industries.....	381,940	390,048	685,525	821,633	314,616	212.1	19.6	10.3	20.8	-16.6	161.2

<sup>1</sup> Differences between figures given in this table and those given in other tables explained in prefatory note, p. 196.

TABLE 43.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED, AMOUNT OF PRIMARY HORSEPOWER INSTALLED, AND VALUE ADDED BY MANUFACTURE, IN SELECTED INDUSTRIES IN 1925, AND PER CENT OF INCREASE FROM 1899, 1919, AND 1923 TO 1925

INDUSTRY	NUMBER OF WAGE EARNERS				PRIMARY HORSEPOWER				VALUE ADDED BY MANUFACTURE			
	Average number, 1925	Per cent of increase or decrease (-) <sup>1</sup>			Amount installed, 1925	Per cent of increase or decrease (-) <sup>1</sup>			Value, 1925	Per cent of increase or decrease (-) <sup>1</sup>		
		1899-1925	1919-1925	1923-1925		1899-1925	1919-1925	1923-1925		1899-1925	1919-1925	1923-1925
All industries	8,384,261	70.9	-0.8	-4.4	35,772,628	250.5	22.0	8.2	\$28,778,060,026	461.2	7.9	3.9
Food and kindred products:												
Slaughtering and meat packing	120,422	76.1	-25.2	-0.3	441,516	420.2	23.1	15.5	425,093,856	317.9	-8.3	3.7
Bread and other bakery products	160,411	168.6	14.2	-1.4	227,286	913.2	37.2	17.7	600,178,007	653.2	37.9	9.4
Confectionery, chewing gum, and ice cream	88,823	232.6	-0.6	2.2	297,495	1,434.7	00.1	11.0	348,830,815	1,286.6	19.1	14.9
Flour-mill and grain-mill products	31,988	-	-28.4	-9.1	669,910	0.0	-23.5	-5.6	172,635,847	1,136.4	-31.6	6.2
Canning and preserving, fruits and vegetables	70,009	91.7	17.1	22.4	151,941	463.1	14.4	8.9	163,254,911	761.6	20.1	7.5
Sugar, beet, and cane sugar and its refining	25,440	58.2	-29.4	-8	308,879	84.9	9.6	7.0	103,886,078	398.6	-28.1	5.9
Butter and cheese	21,149	65.9	-7.9	-15.9	147,702	68.1	23.7	-6	95,305,527	335.0	-15.2	-16.7
Condensed milk	7,118	53.1	-47.9	-18.4	53,697	177.0	9.7	11.7	31,206,369	325.0	-45.2	-11.8
Glucose and starch	6,492	16.7	16.7	-7	72,617	39.6	39.6	10.4	39,834,399	22.4	-28.8	-5.8
Canning and preserving, fish and oysters	10,530	-15.9	-14.8	15.2	10,327	280.3	-24.4	10.6	21,866,570	22.4	-16.5	11.9
Pickles, preserves, and sauces	13,557	120.3	-4.2	3.3	36,149	453.0	61.5	-1.5	67,242,362	602.6	27.9	4.3
Breadstuffs preparations, such as cereals and breakfast foods	9,168	442.6	-19.2	-3.8	52,626	2,016.2	12.0	-14.2	57,501,586	1,037.4	38.9	19.1
Chocolate and cocoa products	7,128	442.6	-21.5	3.7	58,266	2,016.2	74.4	23.5	33,120,370	1,037.4	-11.7	-4.5
Textiles and their products:												
Cotton goods and cotton lace	452,190	51.8	3.4	-5.6	2,245,870	184.9	21.7	3.8	654,697,257	310.8	-24.2	-15.5
Clothing, men's	174,332	44.8	-1	-10.5	44,749	238.4	11.3	-15.0	528,767,222	303.9	-4.7	-10.8
Clothing, women's	178,665	31.5	-23.4	-5.1	24,316	145.6	-25.0	-12.2	599,406,317	664.2	8.0	-4.6
Woollen and worsted goods	126,224	21.2	-9	-15.1	570,295	144.1	22.3	5.9	337,388,395	272.2	-15.6	-23.3
Silk goods, including throwsters	132,509	102.7	4.6	5.8	212,609	277.1	22.4	3.2	324,856,872	624.4	8.3	15.1
Knit goods	186,668	123.1	8.2	-3.9	176,630	212.5	18.2	-3.8	356,034,433	698.4	24.6	-2.2
Dyeing and finishing textiles, exclusive of that done in textile mills	70,749	137.8	26.5	11.6	252,701	266.3	58.1	23.8	187,837,303	595.7	25.9	5.1
Millinery and lace goods, not elsewhere specified	53,693	220.7	8.4	-1.2	11,986	551.1	-8.4	-23.5	156,470,732	1,041.3	28.4	6.0
Carpets and rugs, other than rag	33,886	19.3	47.8	-3.8	62,038	133.2	67.6	17.0	54,707,266	304.1	50.9	-17.0
Cordage and twine	15,400	17.5	-12.6	-6.0	77,503	130.2	16.5	7.2	33,600,060	199.7	-23.0	-3.0
Hats, fur-felt	15,156	-19.7	-18.1	-9.4	17,948	51.7	-11.9	-2.9	36,942,206	179.7	-6.1	-2.1



Bags, other than paper, not including bags made in textile mills	11,494	190.9	6.1	-1.2	15,295	772.0	68.5	10.4	24,979,634	1,400.1	34.3	6.5
Shirts	49,864	37.4	27.1	-3.5	13,884	55.9	-6.8	-1.2	56,309,170	290.1	23.3	-5.7
Furnishing goods, men's, including cloth gloves and mittens, other than those made in textile mills	28,802	119.8	3.8	3.8	8,493	570.7	-5.9	-1.4	60,931,559	459.3	-23.3	-7.6
Corsets	14,825	18.3	-21.0	-0.8	8,394	137.4	20.7	42.2	39,306,693	385.9	7.1	-8
Collars and cuffs, men's	7,137	-58.0	-35.2	-31.2	4,497	95.6	-14.8	-11.0	15,786,226	62.0	-43.8	-35.0
Iron and steel and their products:												
Crude iron and steel and rolled products, including products not made in rolling-mill establishments (though largely made therein) plus wire and wirework, not elsewhere specified	571,693	102.1	-2.7	-6.1	6,885,568	307.1	14.2	2.4	1,934,551,954	427.5	1.6	-6
Foundry and machine-shop products	397,838	77.0	-17.4	-1.4	1,434,239	492.1	38.0	12.8	1,849,777,793	492.4	8	-3.7
Engines, steam, gas, and water	31,099	5.3	-34.1	10.3	272,434	47.0	47.0	33.8	167,604,184		32.1	17.8
Machine tools	36,325	231.2	-30.5	-12.0	173,538	572.9	16.2	32.6	121,668,126		21.0	25.8
Tools, not elsewhere specified	23,340	98.0	-23.8	-4.9	159,588	336.9	48.5	25.0	89,236,720	1,213.1	16.1	2.9
Hardware	52,349	38.0	-10.6	-11.1	88,278	336.9	28.0	-2.8	147,646,805	595.5	53.0	13.7
Stoves and hot-air furnaces	29,376				63,543				93,555,574		2.9	-8.6
Steam fittings and steam and hot-water heating apparatus	43,280	387.5	17.9	-2.0	109,313	1,579.8	62.0	20.0	151,573,080	1,177.3	71.7	9.3
Locomotives, not made by railroad companies	12,809		-32.1	-38.2	114,209		13.3	25.2	23,671,932		-71.8	-74.0
Textile machinery and parts	27,869		-12.3	-21.9	61,738		47.9	9.7	82,616,456		8.2	-9.2
Cash registers and calculating machines	13,236	543.5	-19.6	-11.2	14,016	946.3	-4.3	-33.1	87,213,232		20.1	5.6
Cutlery and edge tools	16,407	38.7	-17.2	-1.6	51,673	97.2	34.0	19.7	69,701,243	516.6	26.3	7.9
Typewriters and supplies	14,969	245.5	-4.3	0.0	15,568	586.1	19.3	36.0	47,522,510	766.8	31.0	24.4
Plumbers' supplies, not elsewhere specified	33,280	315.0	145.0	22.3	84,334	1,018.6	184.7	41.0	104,233,131	1,294.5	223.4	28.4
Stoves, gas and oil	17,138	594.4	62.4	2.1	30,581	1,675.7	170.9	37.1	74,574,239	3,506.7	138.3	13.3
Pumps, steam and other power	17,935		11.7	23.2	56,470		74.1	47.6	69,519,722		41.6	13.4
Sewing machines and attachments (including cases)	12,121	-0.3	-37.0	-9.8	27,439	172.7	-14.3	21.9	27,688,612	137.5	-17.4	-1.8
Screws, machine	8,937	477.4	-12.4	-1.5	30,514	2,071.7	23.8	5.4	28,991,069	98.1	-1	6.6
Lumber and its remanufactures:												
Furniture	473,998	17.6	1.0	-4.4	2,049,500	49.2	-13.0	6.1	841,687,154	174.9	-6.3	-8.7
Lumber and timber products	180,895	104.9	23.3	7.6	402,519	248.3	51.9	-17.1	483,633,265	573.2	54.3	11.4
Lumber, planing-mill products, not including planing mills connected with sawmills	111,329	56.3	28.9	8.1	597,103	167.7	43.2	21.0	307,634,500	367.2	53.8	5.5
Boxes, wooden packing, except cigar boxes	34,834	58.8	-17.7	-11.0	142,519	162.9	0.0	-3.9	65,936,408	330.2	-11.7	-4.2
Coffins, burial cases, and undertakers' goods	11,479	69.9	-3.4	-1.0	29,164	228.9	31.4	6.7	37,641,451	438.0	15.0	10.7
Cooperage	11,453	-47.4	-12.1	-4.5	30,738	0.0	-2	-8.2	23,538,976	45.9	-20.0	-4.9
Leather and its finished products:												
Boots and shoes, not including rubber boots and shoes	296,992	46.0	-1.9	-8.1	130,569	192.8	20.4	8.6	448,751,458	391.2	.9	-6.1
Leather tanned, curried, and finished	53,043	1.8	-26.8	-11.2	222,673	151.2	2.3	-3.3	152,379,595	216.9	-44.9	-7.0
Saddlery and harness	4,570	-66.9	-54.4	-30.9	5,021	-16.5	-38.8	-35.3	11,307,594	-15.6	-62.4	-35.9

See footnotes at end of table, p. 204.

INDUSTRY	NUMBER OF WAGE EARNERS				PRIMARY HORSEPOWER				VALUE ADDED BY MANUFACTURE			
	Average number, 1925	Per cent of increase or decrease (—)			Amount installed, 1925	Per cent of increase or decrease (—)			Value, 1925	Per cent of increase or decrease (—)		
		1899-1925	1919-1925	1923-1925		1899-1925	1919-1925	1923-1925		1899-1925	1919-1925	1923-1925
Leather and its finished products—Con.	10,348	49.4	-9.3	-0.6	7,898	138.4	2.6	8.6	\$29,842,016	303.5	-2.3	-1.1
Trunks and valises.												
Boot and shoe cut stock, exclusive of that produced in boot and shoe factories.	7,197	17.1	-25.8	.9	7,859	161.5	-7.0	12.9	18,574,394	241.8	-31.9	-10.4
Paper and printing:												
Printing and publishing, newspaper and periodicals.	117,001	29.2	1.6	1.2	287,692	239.7	22.5	16.8	1,068,120,575	533.9	75.6	18.0
Printing and publishing, book and job.	133,316	99.9	9.9	2.6	169,283	359.7	23.8	11.1	578,197,533	537.8	52.3	11.6
Paper and wood pulp.	128,842	149.5	8.9	2.6	2,427,010	218.7	31.2	11.4	366,022,084	544.5	14.2	9.7
Boxes, paper and other, not elsewhere specified.	57,148	107.1	2.5	.5	76,185	724.4	39.3	22.5	130,232,270	738.1	23.8	8.4
Lithographing.	16,957	30.5	8.6	3.9	28,623	306.9	54.3	6.5	56,559,116	343.6	43.8	9.7
Bookbinding and blank-book making.	20,836	32.0	3.5	5.5	16,147	247.0	46.3	3.9	59,473,290	344.6	30.0	8.8
Paper goods, not elsewhere specified.	13,386	143.1	-5.2	-0.1	35,324	351.9	-1.1	-6.6	53,517,592	688.7	27.5	8.3
Liquors and beverages:												
Liquors, malt, including cereal beverages.	8,749	-77.9	-74.5	-22.0	106,839	-45.6	-66.8	-31.7	42,651,549	-76.9	-85.0	-13.4
Mineral and soda waters.	18,635	123.7	12.7	3.2	62,026	683.0	50.7	-4.3	96,643,138	581.3	50.1	20.9
Chemicals and allied products:												
Petroleum refining.	65,324	435.3	10.9	-2.1	388,753	989.8	64.8	7	486,978,537	2,211.1	26.6	32.1
Chemicals and acids.	57,890	230.6	-24.0	-25.1	676,987	652.1	42.9	1.2	287,597,638	1,021.7	-7.1	-12.0
Druggists' preparations, patent medicines and compounds, perfumery and cosmetics, and drug grinding.												
Gas, illuminating and heating.	33,823	73.8	-14.0	-2.9	58,168	236.5	23.8	10.3	308,233,501	436.5	40.0	18.1
Gas, illuminating and heating.	46,998	109.6	9.7	11.2	428,132	1,245.3	79.5	19.4	277,036,908	402.9	61.4	7.0
Oils.	22,700	62.3	-3.4	14.5	234,027	229.9	-16.3	7.1	104,213,882	328.6	-28.2	40.3
Paint and varnish.	25,490	163.3	18.7	11.7	143,111	372.2	68.7	25.2	176,793,224	612.3	43.5	13.9
Fertilizers.	19,644	69.9	-25.2	5.8	152,193	293.3	20.8	-5.9	68,964,719	336.6	-28.2	25.1
Coke, not including gas-house coke.	22,191	36.4	-20.9	-18.2	1,077.8	82.1	82.1	23.2	100,892,852	534.0	9.4	-38.1
Soap.	15,697	62.6	-24.5	-9.4	496,592	223.8	68.2	-24.2	93,399,570	398.4	19.5	-9.2
Explosives.	5,687	-88.4	-88.4	-10.8	37,808	96.9	-26.8	7.3	31,791,419	308.4	-31.7	-10.5
Turpentine and resin.	29,413	-20.4	5.4	-14.3	3,198	266.7	37.9	62.4	30,477,018	116.3	-21.7	16.4

INDUSTRY	NUMBER OF WAGE EARNERS				PRIMARY HORSEPOWER				VALUE ADDED BY MANUFACTURE			
	Average number, 1925	Per cent of increase or decrease (—)			Amount installed, 1925	Per cent of increase or decrease (—)			Value, 1925	Per cent of increase or decrease (—)		
		1899-1925	1919-1925	1923-1925		1899-1925	1919-1925	1923-1925		1899-1925	1919-1925	1923-1925
Leather and its finished products—Con.	10,348	49.4	-9.3	-0.6	7,898	138.4	2.6	8.6	\$29,842,016	303.5	-2.3	-1.1
Trunks and valises.												
Boot and shoe cut stock, exclusive of that produced in boot and shoe factories.	7,197	17.1	-25.8	.9	7,859	161.5	-7.0	12.9	18,574,394	241.8	-31.9	-10.4
Paper and printing:												
Printing and publishing, newspaper and periodicals.	117,001	29.2	1.6	1.2	287,692	239.7	22.5	16.8	1,068,120,575	533.9	75.6	18.0
Printing and publishing, book and job.	133,316	99.9	9.9	2.6	169,293	359.7	23.8	11.1	578,197,533	537.8	52.3	11.6
Paper and wood pulp.	128,842	149.5	8.9	2.6	2,427,010	218.7	31.2	11.4	366,022,084	544.5	14.2	9.7
Boxes, paper and other, not elsewhere specified.	57,148	107.1	2.5	.5	76,185	724.4	39.3	22.5	130,232,270	738.1	23.8	8.4
Lithographing.	16,957	30.5	8.6	3.9	28,623	306.9	54.3	6.5	56,559,116	343.6	43.8	9.7
Bookbinding and blank-book making.	20,836	32.0	3.5	5.5	16,147	247.0	46.3	3.9	59,473,290	344.6	30.0	8.8
Paper goods, not elsewhere specified.	13,386	143.1	-5.2	-0.1	35,324	351.9	-1.1	-6.6	53,517,592	698.7	27.5	8.3
Liquors and beverages:												
Liquors, malt, including cereal beverages.	8,749	-77.9	-74.5	-22.0	106,839	-45.6	-66.8	-31.7	42,651,549	-76.9	-85.0	-13.4
Mineral and soda waters.	18,635	123.7	12.7	3.2	62,026	683.0	50.7	-4.3	96,643,138	581.3	50.1	20.9
Chemicals and allied products:												
Petroleum refining.	65,324	435.3	10.9	-2.1	383,753	989.8	64.8	7	486,978,537	2,211.1	26.6	32.1
Chemicals and acids.	57,890	230.6	-24.0	-25.1	676,987	652.1	42.9	1.2	287,597,638	1,021.7	-7.1	-12.0
Druggists' preparations, patent medicines and compounds, perfumery and cosmetics, and drug grinding.												
Gas, illuminating and heating.	33,823	73.8	-14.0	-2.9	58,163	236.5	23.8	10.3	308,233,501	436.5	40.0	18.1
Gas, illuminating and heating.	46,998	109.6	9.7	11.2	428,132	1,245.3	79.5	19.4	277,036,908	402.9	61.4	7.0
Oils.	22,700	62.3	-3.4	14.5	234,027	229.9	-16.3	7.1	104,213,882	328.6	-28.2	40.3
Paint and varnish.	25,490	163.3	18.7	11.7	143,111	372.2	68.7	25.2	176,793,224	612.3	43.5	13.9
Fertilizers.	19,644	69.9	-25.2	5.8	152,193	293.3	20.8	-5.9	68,964,719	336.6	-28.2	25.1
Coke, not including gas-house coke.	22,191	36.4	-20.9	-18.2	409,592	1,077.8	82.1	23.2	100,892,852	534.0	9.4	-38.1
Soap.	15,697	62.6	-24.5	-9.4	56,697	223.8	68.2	-24.2	93,399,570	398.4	19.5	-9.2
Explosives.	5,687	-88.4	-88.4	-10.8	37,808	96.9	-26.8	-7.3	31,791,419	308.4	-31.7	-10.5
Turpentine and resin.	29,413	-20.4	5.4	-14.3	3,193	266.7	37.9	62.4	30,477,018	116.3	-21.7	16.4

Stone, clay, and glass products:	69,371	31.4	-10.5	-5.4	271,639	413.3	31.0	12.9	182,305,988	357.7	6.5	-7.1
Glass	140,114	38.4	33.8	0.0	573,741	127.5	30.8	8.4	313,391,364	333.2	60.4	3.3
Brick, tile, pottery, and other clay products	38,437	223.9	50.6	9.5	871,650	944.1	78.3	35.6	186,726,101	95.0	14.3	14.3
Cement	36,575	-11.0	13.2	-3.7	240,237	190.7	42.0	12.7	126,070,531	205.0	61.3	1.1
Marble and stone work	8,762	320.2	-38.0	.6	127,649	594.0	.5	52.9	25,216,336	1,120.1	-15.2	14.6
Minerals and earths, ground or otherwise treated	62,942	131.8	-10.1	-2.7	361,242	655.2	36.1	18.1	182,084,106	563.6	2.7	1.3
Nonferrous metals and their products:	35,886	41.0	-14.0	-11.7	474,336	388.2	2.1	-14.6	167,936,261	107.4	26.4	13.3
Brass, bronze, and copper products	23,837	17.0	-22.4	-9.6	17,296	182.1	14.6	2.6	86,930,547	267.0	-6.2	-3.5
Smelting and refining	24,996	-9.5	-7.3	-13.4	35,273	133.6	46.2	3.0	90,963,299	227.4	17.7	-4.7
Jewelry	29,704	197.2	-13.2	-15.7	64,346	233.9	23.5	-5.8	76,609,293	962.4	-2.0	-11.3
Copper, tin, and sheet-iron work	29,901	102.3	-13.0	-2.0	48,728	60.9	61.2	18.1	84,531,368	443.9	23.0	5.7
Stamped and enameled ware, not elsewhere specified	13,915	102.3	-12.4	20.3	12,343	600.9	71.5	67.0	30,076,033	17.3	17.3	38.0
Tinware, not elsewhere specified	14,353	15.1	25.9	-11.9	62,366	493.1	106.0	7.0	42,845,833	64.8	6.4	6.4
Watches	117,108	-48.4	-14.3	-9.9	24,534	493.1	.2	-1.4	543,463,938	440.8	31.4	20.3
Aluminum manufactures	15,024	-48.4	-17.9	-7.8	17,541	-1.2	-7.2	-5.8	121,767,777	77.5	11.9	59.0
Tobacco, cigars and cigarettes	197,728	8,722.7	-6.1	-18.1	509,753	10,300.3	80.6	17.0	1,089,930,821	36,923.6	34.7	7.3
Tobacco, chewing and smoking, and snuff	425,234	145.0	-12.2	-13.0	871,769	822.2	47.5	17.2	714,959,063	538.4	-6.3	-14.3
Vehicles for land transportation, including railroad repair shops:	228,382	145.0	72.6	39.7	662,255	157.9	157.9	43.0	660,538,472	100.5	100.5	47.1
Automobiles	50,363	50.8	-3.5	-37.5	243,934	589.7	45.9	-2.5	124,717,706	319.1	-33.8	-34.6
Steam-railroad repair shops	32,521	364.8	4.4	-6.9	70,479	994.5	31.0	13.0	54,074,072	977.5	26.5	-7.7
Automobile bodies and parts	4,833	-91.4	-72.5	-37.6	20,449	-59.8	-49.3	-18.4	12,075,021	-78.9	-70.8	-30.2
Including operations of railroad companies	4,183	-76.1	-61.5	-36.2	12,609	-34.8	-12.6	-15.0	12,080,988	-20.0	-55.4	-15.3
Electric-railroad repair shops	38,308	23.6	-38.9	-26.3	259,463	568.1	-45.4	-7.5	82,857,361	209.5	-89.8	-21.7
Carrages and wagons, including repairs	239,921	471.2	13.0	2.1	589,398	1,251.5	34.5	22.7	903,309,965	2,002.1	57.7	21.4
Motor cycles, bicycles, and parts	116,122	423.6	-7.6	7.1	597,444	1,196.8	57.3	8.7	461,205,119	2,071.5	-3.4	24.4
Miscellaneous industries:	28,690	-35.9	-47.1	-7.3	115,335	63.2	-10.1	-6.5	96,617,906	67.2	-40.3	8.9
Shipbuilding, steel	11,918	-24.6	-72.5	15.4	44,007	92.8	-43.4	17.9	28,025,635	97.2	-71.6	22.5
Electrical machinery, apparatus, and supplies	11,267	733.6	-60.8	-45.0	45,732	4,132.1	14.0	11.2	36,210,033	2,450.3	-63.4	-41.7
Rubber tires, tubes, and rubber goods, not elsewhere specified, including belting and hose, rubber	24,915	268.2	-16.7	-7.2	922,134	824.4	62.0	9.2	142,243,764	1,288.4	62.2	20.5
Agricultural implements	16,566	38.8	22.2	-15.1	24,081	440.7	-6.4	16.0	94,960,015	722.5	41.5	32.1
Shipbuilding, wooden, including boat building	24,999	73.6	-24.1	-15.1	59,433	137.6	26.3	5.7	75,368,469	309.4	13.2	-12.8
Photographs and graphophones	14,727	323.2	-13.8	-9.7	52,338	1,494.8	31.9	4.1	113,252,413	2,462.9	58.0	4.5
Ice, manufactured												
Fur goods												
Boots and shoes, rubber												
Photographic materials												

See footnotes at end of table, p. 204.

1 Figures for earlier years from which these percentages were computed are given in Tables 29, 30, and 31, Appendix B. Methods of computing the percentages are explained in preliminary note, p. 196. See also preliminary note, Appendix B, p. 124.  
 2 Title changed to "Corn sirup, corn oil, and starch."  
 3 Includes data for metal-working machinery.  
 4 Includes "Window and door screens and weather strips for 1899 and 1910."  
 5 Includes "Cereal beverages only."  
 6 Includes "Sand-lime brick."  
 7 Includes "Photographic apparatus," and "Motion pictures."

INDUSTRY	NUMBER OF WAGE EARNERS			PRIMARY HORSEPOWER				VALUE ADDED BY MANUFACTURE		
	Average number, 1925	Per cent of increase or decrease (-)		Amount installed, 1925	Per cent of increase or decrease (-)		Value, 1925	Per cent of increase or decrease (-)		
		1890-1925	1919-1925		1903-1925	1919-1925		1899-1925	1919-1925	
Miscellaneous industries—Continued.										
Musical instruments, pianos.	20,079	-5.7	-19.5	26,912	29.6	-6.2	\$51,885,134	119.3	-8.9	
Ammunition.	7,777	48.7	-45.9	1,723.5	17.3	30.4	18,837,409	237.6	-20.6	
Instruments, professional and scientific.	12,129	338.0	-23.7	77,593	634.2	30.4	55,410,623	1,682.9	-24.2	
Optical goods.	8,642	133.0	-41.2	11,017	434.7	-28.6	23,637,062		-33.1	
Mattresses and bedsprings, not elsewhere specified.	14,403	89.6	14.8	32,840	312.9	40.4	48,227,610	593.4	4.7	
Roofing materials.	8,310	9.6	-6.2	34,161	87.8	-13.0	44,994,134	561.7	56.1	
Fancy articles, not elsewhere specified.	14,552	156.2	4.9	9,071	262.7	4.8	40,614,462.7	719.9	22.7	
Packing materials, not elsewhere specified.	17,941	632.2	14.0	207,469	508.7	8.4	37,196,306	2,358.3	94.7	
Status and advertising novelties.	11,399	276.6	1.4	10,970	543.0	31.5	36,700,891	1,151.1	-14.6	
Signs and advertising novelties.	13,162	16.5	46.6	55.6	62.7	6.5	33,811,194		-43.1	
Toys and games.	330.4	-2.2	-2.2	50,394	558.6	43.8	34,914,566	1,399.4	8.3	
Buttons.	11,513	33.8	-25.4	13,540	232.5	.9	20,065,789	36.2	-19.2	

TABLE 44.—AVERAGE NUMBER OF WAGE EARNERS EMPLOYED, AND AMOUNT OF PRIMARY HORSEPOWER INSTALLED IN GEOGRAPHIC DIVISIONS AND STATES IN 1925, AND PER CENT OF INCREASE FROM 1899, 1919, AND 1923 TO 1925

DIVISION AND STATE	WAGE EARNERS (AVERAGE NUMBER)				PRIMARY HORSEPOWER			
	1925	Per cent of increase or decrease (—)¹			1925	Per cent of increase or decrease (—)¹		
		1899-1925	1919-1925	1923-1925		1899-1925	1919-1925	1923-1925
UNITED STATES.....	8,384,201	79.9	-6.8	-4.5	35,772,028	256.5	22.0	8.1
GEOGRAPHIC DIVISIONS:								
New England.....	1,122,216	32.0	-10.8	-10.5	4,349,101	144.0	15.2	4.8
Middle Atlantic.....	2,491,089	65.7	-13.0	-7.5	10,106,300	223.4	18.9	5.0
East North Central.....	2,342,709	119.1	-1.9	-1.9	10,047,780	321.0	30.7	10.9
West North Central.....	452,820	72.0	-8.4	-3.6	1,855,278	209.8	17.6	8.2
South Atlantic.....	898,834	84.9	3.7	2.5	3,454,150	307.5	24.1	9.9
East South Central.....	355,995	103.0	9.0	2.5	1,615,183	215.7	14.5	10.5
West South Central.....	265,100	136.3	-6.1	-7.7	1,816,033	234.2	12.0	3.7
Mountain.....	100,374	128.5	-6.9	-5.4	757,974	522.8	11.6	-2.5
Pacific.....	415,024	238.7	-4.1	-1.3	2,269,749	734.8	30.4	20.3
NEW ENGLAND:								
Maine.....	73,849	6.4	-16.1	-11.4	690,787	132.7	10.3	5.3
New Hampshire.....	66,658	-1.1	-19.5	-11.5	370,740	84.0	6.3	5.1
Vermont.....	27,563	-1.2	-16.9	-10.5	178,806	42.7	-2.8	.9
Massachusetts.....	591,438	35.2	-17.0	-11.4	2,013,017	154.9	17.3	4.2
Rhode Island.....	120,346	36.9	-13.6	-10.6	395,754	159.0	23.9	1.0
Connecticut.....	242,362	52.1	-17.0	-7.9	790,087	208.8	19.1	8.7
MIDDLE ATLANTIC:								
New York.....	1,066,202	47.4	-12.8	-7.4	3,348,134	206.0	14.6	2.6
New Jersey.....	425,377	99.2	-16.2	-5.1	1,834,234	332.4	21.6	10.1
Pennsylvania.....	999,460	51.1	-11.7	-8.7	5,373,972	214.3	21.1	5.2
EAST NORTH CENTRAL:								
Ohio.....	676,742	120.4	-7.1	-3.2	3,482,618	347.0	20.9	5.3
Indiana.....	280,854	103.1	1.7	-3.5	1,420,989	337.2	30.0	3.6
Illinois.....	622,368	87.6	-4.4	-3.6	2,247,408	304.4	36.2	13.5
Michigan.....	515,494	231.5	9.6	2.4	1,887,750	418.4	53.3	23.3
Wisconsin.....	247,341	80.6	-5.9	-2.2	1,000,015	179.2	15.8	8.5
WEST NORTH CENTRAL:								
Minnesota.....	100,614	57.2	-12.2	-3.2	508,021	183.9	7.9	10.4
Iowa.....	74,976	70.8	-5.8	-3.7	308,016	103.0	28.6	9.1
Missouri.....	104,959	82.7	.0	-9.0	590,485	214.0	24.4	6.7
North Dakota.....	3,261	151.6	-23.0	-8.2	16,711	137.6	-1.8	-1.1
South Dakota.....	5,151	142.2	-15.6	.1	21,403	101.1	6.7	30.4
Nebraska.....	27,200	47.9	-24.4	-13.0	133,708	227.0	8.7	3.3
Kansas.....	40,659	73.8	-22.8	-9.0	270,874	309.7	19.4	8.3
SOUTH ATLANTIC:								
Delaware.....	20,704	1.1	-28.4	-10.4	107,391	167.8	26.2	-4.5
Maryland.....	125,787	34.4	-9.8	-2.4	544,558	313.6	34.3	9.4
District of Columbia.....	9,753	59.1	-6.6	-7.7	37,508	267.8	14.0	17.8
Virginia.....	112,135	72.1	-4.6	.5	441,807	223.8	5.4	2.5
West Virginia.....	80,700	145.7	-2.1	-5.8	431,081	371.7	31.9	16.2
North Carolina.....	182,234	155.3	17.1	4.9	800,051	419.8	46.0	13.8
South Carolina.....	100,144	114.6	27.0	3.5	423,350	276.6	7.3	3.8
Georgia.....	141,173	71.5	15.8	2.7	523,334	287.1	21.0	10.3
Florida.....	66,204	88.0	-10.4	1.8	144,161	206.3	4.1	4.3
EAST SOUTH CENTRAL:								
Kentucky.....	70,580	50.5	12.3	-2.2	257,905	80.6	5.2	2.5
Tennessee.....	107,645	137.5	14.7	1.1	447,529	244.5	32.5	14.3
Alabama.....	116,599	123.6	10.0	6.4	697,998	308.8	11.3	8.9
Mississippi.....	55,171	109.0	-2.7	1.5	211,601	222.9	5.7	19.1
WEST SOUTH CENTRAL:								
Arkansas.....	43,977	42.2	-10.3	-1.3	177,011	125.1	-10.4	7.2
Louisiana.....	88,058	116.6	-9.9	-7.0	410,298	117.0	6.2	1.8
Oklahoma.....	26,333	1,021.4	-9.5	3.3	156,826	1,269.4	13.2	2.6
Texas.....	106,762	179.3	.3	4.3	572,798	397.6	30.4	4.5
MOUNTAIN:								
Montana.....	14,777	52.5	-12.4	-7.3	160,528	284.1	9.3	-12.6
Idaho.....	15,794	931.2	15.0	-3.4	82,552	1,371.3	12.5	14.4
Wyoming.....	6,333	212.3	-8.0	-15.7	28,721	680.2	68.7	19.9
Colorado.....	31,967	66.0	-8.2	2.4	219,865	412.1	7.8	24.9
New Mexico.....	4,620	89.6	-17.7	-15.2	18,842	426.1	11.6	11.7
Arizona.....	9,127	194.6	8.0	1.3	102,127	1,100.7	-1.4	-20.5
Utah.....	15,077	182.0	-19.1	-5.2	124,735	902.8	35.3	-12.0
Nevada.....	2,670	432.8	-13.9	-42.8	14,604	840.9	-26.1	-47.8
PACIFIC:								
Washington.....	105,893	237.4	-20.0	-5.2	748,110	762.4	9.9	26.1
Oregon.....	59,579	314.7	2.4	-4.9	387,749	549.7	28.1	20.3
California.....	249,552	225.1	3.0	1.4	1,133,890	803.0	49.8	16.7

¹ Figures for earlier years from which these percentages were computed are given in Tables 35 and 36, Appendix B. Methods of computing the percentages are explained in prefatory note, p. 198. See also prefatory note, Appendix B, p. 124.