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FRANCES PERKINS, Secretary

BUREAU OF LABOR STATISTICS

ISADOR LUBIN, Commissioner

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EMPLOYMENT AND UNEMPLOYMENT SERIES

**REVISED INDEXES OF FACTORY
EMPLOYMENT AND PAY ROLLS
1919 TO 1933**

By

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and

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of the

Bureau of Labor Statistics



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Letter of Transmittal

UNITED STATES DEPARTMENT OF LABOR,
BUREAU OF LABOR STATISTICS,
Washington, October 8, 1934.

MADAM SECRETARY: I have the honor to transmit herewith a report giving the revised index numbers of factory employment and pay rolls, as compiled by the Bureau of Labor Statistics. The report presents such index numbers in detail, by months, from January 1919 to December 1933, inclusive, based on the 3-year average 1923-25 as 100 and adjusted to conform with the changes shown in the yearly averages of each of the manufacturing industries surveyed, the several groups of manufacturing industries, and all manufacturing industries combined, as published in the biennial Census of Manufactures reports from 1919 to 1931. This series of index numbers supersedes the series formerly published monthly by the Bureau. The estimated number of factory wage earners and their weekly earnings are also presented.

The revision of the Bureau's index numbers of employment and pay rolls was made largely as a result of the recommendations of the advisory committee appointed at your request by the American Statistical Association. The committee consists of Bryce M. Stewart, director of research, Industrial Relations Counselors, chairman; Ewan Clague, director of research, Community Council of Philadelphia, secretary; Morris A. Copeland, executive secretary, Central Statistical Board; J. Frederic Dewhurst, Twentieth Century Fund; Meredith B. Givens, Social Science Research Council; Ralph G. Hurlin, director of statistical research, Russell Sage Foundation; Arynnes Joy, office of the economic adviser to the National Emergency Council; Murray W. Latimer, Railroad Pensions Board; Howard B. Myers, Federal Emergency Relief Administration; and Sidney W. Wilcox, formerly chief statistician, New York State Department of Labor and now chief statistician of the United States Bureau of Labor Statistics. The entire membership of the committee took an active and helpful interest in the work of revision, and the assistance of Miss Arynnes Joy is particularly appreciated.

The adjustment of the index numbers to census figures, as made in this report, did not include the year 1933, as the results of the 1933 Census of Manufactures are not yet available. It is the intention of the Bureau to publish a supplement to this bulletin, bringing the adjusted figures down to 1933.

This report was prepared by Lewis E. Talbert, chief of the division of employment statistics, and Miss Alice Olenin, of the same division, under the general direction of Sidney W. Wilcox, chief statistician of the Bureau. H. O. Rogers assisted in preparing the manuscript for the printer.

ISADOR LUBIN, *Commissioner.*

HON. FRANCES PERKINS,
Secretary of Labor.

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REVISED INDEXES OF FACTORY EMPLOYMENT AND PAY ROLLS, 1919 TO 1933

Chapter 1.—Background of Factory Employment and Pay-Roll Indexes

In response to the demand for reliable information showing current fluctuations in the volume of employment, the Bureau of Labor Statistics has been collecting statistics of employment and pay rolls from representative manufacturing establishments since October 1915. Beginning with January 1916, the information has been published each month in the Monthly Labor Review, but to avoid delays incident to printing, the figures are first issued in the form of mimeographed press releases. In recent years this information has been presented in a pamphlet entitled "Trend of Employment," which is available about 2 months prior to the publication of the data in the Monthly Labor Review.

It is, of course, impracticable for the Bureau to attempt to cover all of the many thousand manufacturing establishments in the country in these monthly surveys. The cost of a complete canvass would be prohibitive, and compilation of such voluminous information would greatly delay the publication of the final figures. In consequence, the Bureau has relied on a sampling method and canvasses only a selected list of establishments which is believed to be typical of the industry as a whole. The results of these sample canvasses are published in the form of index numbers for industries and groups and total manufactures and as aggregates for groups and total manufactures. Additional data concerning average weekly earnings, average hourly earnings, hours worked per week, and wage changes are also compiled.

The Bureau's indexes of factory employment and pay rolls have proved reasonably accurate indicators of the labor market over a limited period of time. Not only have they reflected changes in factory employment, but they have likewise been important indicators of the course of manufacturing and valuable guides to the flow of purchasing power into the hands of the wage earners of the country. Moreover, while not showing directly the volume of unemployment, the series has been of help in measuring the relative intensity of unemployment during periods of business depression.

Outline of Development

As first compiled, the monthly employment index was based on only four industries. By the end of 1916 the Bureau had succeeded in obtaining reports for 9 additional manufacturing industries. Returns from these 13 industries formed the basis of the index of factory employment from 1916 to 1922.

The collapse of the post-war boom late in 1920 and the acute depression that followed emphasized the need for more comprehensive information on the trend of employment. As a result the coverage of the Bureau's monthly employment survey of manufacturing industries was again broadened in 1922 and extensive additions were made. In July of that year, 29 manufacturing industries were added to the survey and later 12 more were included. These additions brought the total number of industries surveyed to 54, a group that employed approximately 83 percent of the workers in all manufacturing industries of the country in 1925. The establishments surveyed monthly employed approximately 50 percent of this 83 percent of all factory workers.

Further improvements in the indexes of factory employment and pay rolls were effected in 1931. Important changes had taken place in manufacturing during the post-war decade. Industries such as rayon and radio manufacturing, which were of little significance at the beginning of the period, had grown enormously and were consequently added (see Appendix A, p. 97) to the list. Other industries (pianos and organs, and carriages and wagons) had dwindled to inconsequential proportions during the interval and were dropped. In addition, the industry groups into which the 54 manufacturing industries surveyed had been classified were imperfectly balanced. Some of the Bureau's groups represented all of the separate industries included in the corresponding census group, while in other groups there were important omissions. These obvious shortcomings were corrected by the addition of 36 industries and a reclassification of the Bureau's industry groups. The 90 industries at present covered in the monthly surveys appear to be sufficiently representative for gaging the trend of employment for manufacturing as a whole.

Sources of Original Material

In compiling the indexes of factory employment and pay rolls the Bureau of Labor Statistics makes a direct canvass of manufacturing establishments except where data are collected by State agencies, in which case the Bureau makes use of the statistics collected by these various cooperating agencies. In October 1915, when the Bureau first undertook the work, only three States—Massachusetts, New York, and New Jersey—were collecting satisfactory employment data. Although these three were important manufacturing States, the information failed to give an accurate cross section of manufacturing for the country as a whole, because of the high degree of industrial specialization in these States. This was especially true of Massachusetts, where manufacturing was restricted principally to the textile and boot and shoe industries. Manufacturing in New York and New Jersey is more diversified, with the machinery and metal-working industries fairly well represented, but to some extent the statistics

for these States are disproportionately weighted by specialization in particular branches of manufacturing. There was likewise the highly important factor of geographical variations within the same industry that had to be considered before an index typical of total manufacturing could be constructed. Consequently, from the beginning the Bureau was forced to rely on direct canvasses for a large part of its information.

In subsequent years other States have made provision for collecting employment statistics, the majority of them in cooperation with the Bureau. In 1915 the Wisconsin Industrial Commission began to collect employment data and similar work was undertaken by several other States during the post-war business depression of 1921. Among the important States entering the field during this period were Illinois and Connecticut.¹ Interest in employment languished from 1923 to 1929, and during this interval little was done by other States toward developing reliable employment statistics. Within the past 5 years, however, with the country in the grip of acute depression, the challenge of unemployment has revived interest, and agencies in a number of additional States have begun the collection of employment statistics. At present data are being gathered in the following States:

Arkansas. ²	New York. ²
California. ²	Ohio.
Illinois. ²	Oklahoma.
Iowa.	Oregon.
Kansas. ²	Pennsylvania. ²
Maryland. ²	Rhode Island.
Massachusetts. ²	Texas. ²
Michigan. ²	Virginia.
Minnesota.	Wisconsin. ²
New Jersey. ²	

There is still a large number of States which have yet to provide for the collection of employment data. Nearly 60 percent of the total number of wage earners employed in manufacturing in 1931 were in the States now collecting information in cooperation with the United States Bureau of Labor Statistics.

Industries Covered

To illustrate the typical industrial make-up of the Bureau's current index of factory employment, table 1 has been prepared. The figures given in the table show the percentage the "sample" is of the estimated total; that is, the actual number of wage earners reported to the Bureau in its survey for December 1933 compared with the estimated total number of wage earners employed in each industry and industry group and in total manufacturing in the same month.

¹ Berridge, William A. *What the Present Statistics of Employment Show*. New York, 1923, ch. IV, p. 51: "Business cycles and unemployment."

² Cooperating with the United States Bureau of Labor Statistics.

TABLE 1.—Percentage of estimated total number of wage earners in each industry, industry group, and total manufacturing covered in Bureau of Labor Statistics survey of factory employment for December 1933

Industry	Per- cent	Industry	Per- cent
TOTAL MANUFACTURING.....	50	Stone, clay, and glass products—Contd.	
Iron and steel and their products, not including machinery.....	70	Glass.....	
Blast furnaces, steel works, and rolling mills.....	89	Marble, granite, slate, and other products.....	80
Bolts, nuts, washers, and rivets.....	86	Pottery.....	36
Cast-iron pipe.....	64	Textiles and their products.....	69
Cutlery (not including silver and plated cutlery) and edge tools.....	88	Fabrics.....	50
Forgings, iron and steel.....	65	Carpets and rugs.....	60
Hardware.....	85	Cotton goods.....	72
Plumbers' supplies.....	48	Cotton small wares.....	82
Steam and hot-water heating apparatus and steam fittings.....	(¹)	Dyeing and finishing textiles.....	58
Stoves.....	54	Hats, fur-felt.....	45
Structural and ornamental metal work.....	62	Knit goods.....	57
Tin cans and other tinware.....	40	Silk and rayon goods.....	53
Tools (not including edge tools, machine tools, files, and saws).....	81	Woolen and worsted goods.....	46
Wirework.....	36	Wearing apparel.....	31
Machinery, not including transportation equipment.....	54	Clothing, men's.....	43
Agricultural implements.....	61	Clothing, women's.....	21
Cash registers, adding machines, and calculating machines.....	(¹)	Corsets and allied garments.....	38
Electrical machinery, apparatus, and supplies.....	79	Men's furnishings.....	37
Engines, turbines, tractors, and water wheels.....	71	Millinery.....	34
Foundry and machine-shop products.....	45	Shirts and collars.....	28
Machine tools.....	(¹)	Leather and its manufactures.....	49
Radios and phonographs.....	56	Boots and shoes.....	58
Textile machinery and parts.....	56	Leather.....	63
Typewriters and supplies.....	(¹)	Food and kindred products.....	43
Transportation equipment.....	77	Baking.....	38
Aircraft.....	76	Beverages.....	59
Automobiles.....	81	Butter.....	28
Cars, electric- and steam-railroad.....	49	Canning and preserving.....	76
Locomotives.....	65	Confectionery.....	70
Shipbuilding.....	84	Flour.....	68
Railroad repair shops.....	33	Ice cream.....	60
Electric railroads.....	85	Slaughtering and meat packing.....	83
Steam railroads.....	30	Sugar, beet.....	(¹)
Nonferrous metals and their products.....	51	Sugar refining, cane.....	73
Aluminum manufactures.....	30	Tobacco manufactures.....	62
Brass, bronze, and copper products.....	82	Chewing and smoking tobacco and snuff.....	81
Clocks and watches and time-recording devices.....	68	Cigars and cigarettes.....	59
Jewelry.....	50	Paper and printing.....	46
Lighting equipment.....	26	Boxes, paper.....	54
Silverware and plated ware.....	78	Paper and pulp.....	85
Smelting and refining—copper, lead, and zinc.....	63	Printing and publishing—	
Stamped and enameled ware.....	66	Book and job.....	40
Lumber and allied products.....	32	Newspapers and periodicals.....	47
Furniture.....	44	Chemicals and petroleum products ²	50
Lumber:		Other than petroleum refining.....	42
Millwork.....	53	Chemicals.....	47
Sawmills.....	48	Cottonseed oil, cake, and meal.....	34
Turpentine and rosin.....	5	Druggists' preparations.....	87
Stone, clay, and glass products.....	57	Explosives.....	83
Brick, tile, and terra cotta.....	65	Fertilizers.....	50
Cement.....	80	Paints and varnishes.....	71
		Rayon and allied products.....	66
		Soap.....	(¹)
		Petroleum refining.....	85
		Rubber products.....	83
		Rubber boots and shoes.....	93
		Rubber goods, other than boots, shoes, tires, and inner tubes.....	57
		Rubber tires and inner tubes.....	100

¹ Due to overlapping of products manufactured in certain establishments, and the inclusion of all wage earners in an establishment under one industry classification, the Bureau's survey shows a coverage in excess of 100 percent, when compared with estimated total employment in the industry, based on a more refined census industry total.

² This group is a combination of chemicals and allied products, and products of petroleum and coal except manufactured gas.

From table 1 it will be seen that a wide range of coverage has been established. The high percentage of coverage shown for some industries is due chiefly to technical difficulties encountered in classifying some of the reporting establishments. A number of reporting

companies manufacture a variety of products, and the classification of these establishments according to the principal products manufactured results in the inclusion of employees who are not directly engaged in the manufacture of products under the industry as classified by the Bureau of Labor Statistics. The Bureau of the Census, in its more detailed reports, secures a separation of such employees where possible and presents the data under a more precise classification. This difference in classification of employees results in a coverage in excess of 100 percent in certain industries in the Bureau's tabulations.³

Since the principal products of the establishments reporting in these industries is the basis of the Bureau's classification, and as it is not feasible for the reporting companies to make a detailed break-down each month, the employees engaged in the manufacture of allied products are necessarily included with those employed in the manufacture of the major product of the reporting company. This tends to distort the index for a few individual industries, but has little significant influence on the group and composite indexes.

In contrast, there are several industries which are insufficiently covered. This is notably true of the turpentine and rosin industry. Due to difficulties encountered in contacting companies manufacturing these commodities, the Bureau's sample for December 1933 included only 5 percent of the total number of wage earners employed in the industry. Less conspicuous but serious weaknesses are apparent in several other industries, especially in those which are comprised chiefly of small and widely scattered producing units. These deficiencies are expected to be corrected shortly by the addition of other firms to the list of reporting companies.

Coverage and Distribution by States

Although planned with primary reference to industries, the geographical composition of the Bureau of Labor Statistics index of factory employment is reasonably representative. The distribution of wage earners and the approximate coverage of the Bureau's sample, by States, in a typical survey is indicated in table 2. Analysis reveals a wide range; for example, 11 States show 60 percent or over of the total number of wage earners in these States, as indicated by census figures for 1931, covered in the Bureau survey in December 1933. In North Carolina the survey covered 74 percent of all factory wage earners; in Kansas, 72 percent; and in Connecticut, 71 percent. In Nevada, however, only 16 percent were covered and in Mississippi, 22 percent. The comparison of the Census of Manufactures State averages for 1931 and the Bureau's sample by States for the single month of December 1933 may show a disproportionate percent of coverage in certain instances, because of seasonal changes which would affect any comparison of average wage earners for an entire year with employment in the month of December. However, State figures were not available in the Bureau in 1931, the latest year for which census data were available, and the December 1933 sample

³ The Bureau's sample of the typewriters and parts industry, for example, includes some employees engaged in the manufacture of typewriter supplies. Several of the companies classified with the tire and inner-tube industry manufacture rubber goods other than tires and tubes. Similar difficulties of classification are likewise encountered in the steam fitting and steam and hot-water heating apparatus industry, the machine-tools industry, the cash register, adding machine, and calculating machine industry, the soap industry, and the beet-sugar industry.

was used for the comparison because the volume of reporting companies was greatest in that month.

As compared with the total number of wage earners in all manufacturing industries, only 8.9 percent of the wage earners covered in the Bureau's survey for December 1933 were in New York, while, according to the Census of Manufactures for 1931, factories located in New York accounted for 13 percent of the wage earners employed in manufacturing. The "sample" for Ohio, on the contrary, represented 10.4 percent of the Bureau's total, as compared to the 7.8 percent reported by the census. These differences, however, are not believed to be of sufficient significance to detract materially from the value of the index.

TABLE 2.—Bureau of Labor Statistics distribution of wage earners by States for December 1933 compared with census distribution by States for 1931; also percentage of Bureau of Labor Statistics "sample" by States for December 1933 compared with census totals for 1931

State	Census			State	Bureau of Labor Statistics		
	Percent of total, year 1931	Percent of total, December 1933	Percent of coverage in State		Percent of total, year 1931	Percent of total, December 1933	Percent of coverage in State
UNITED STATES.....	100.0	100.0	48	Montana.....	0.1	0.1	41
Alabama.....	1.3	1.5	57	Nebraska.....	.4	.4	52
Arizona.....	.1	.1	33	Nevada.....	(¹)	(¹)	16
Arkansas.....	.4	.3	34	New Hampshire.....	.8	1.0	58
California.....	3.3	3.2	47	New Jersey.....	5.1	5.1	48
Colorado.....	.4	.5	62	New Mexico.....	(¹)	(¹)	23
Connecticut.....	2.9	4.3	71	New York.....	13.0	8.9	33
Delaware.....	.3	.2	44	North Carolina.....	2.7	4.2	74
District of Columbia.....	.1	.1	23	North Dakota.....	.1	(¹)	27
Florida.....	.8	.5	33	Ohio.....	7.8	10.4	60
Georgia.....	1.8	2.2	59	Oklahoma.....	.3	.3	45
Idaho.....	.1	.2	57	Oregon.....	.6	.6	44
Illinois.....	7.4	6.3	41	Pennsylvania.....	11.9	12.2	50
Indiana.....	3.3	3.1	46	Rhode Island.....	1.5	1.3	43
Iowa.....	.9	.8	41	South Carolina.....	1.3	1.7	63
Kansas.....	.6	.8	72	South Dakota.....	.1	.1	40
Kentucky.....	.9	.8	44	Tennessee.....	1.4	1.5	50
Louisiana.....	.9	.7	39	Texas.....	1.5	1.3	43
Maine.....	.9	1.2	70	Utah.....	.2	.2	61
Maryland.....	1.7	1.9	58	Vermont.....	.3	.2	28
Massachusetts.....	6.6	5.3	38	Virginia.....	1.6	2.0	60
Michigan.....	5.7	7.7	66	Washington.....	1.1	1.0	44
Minnesota.....	1.2	1.0	39	West Virginia.....	1.0	1.4	70
Mississippi.....	.4	.2	22	Wisconsin.....	2.8	2.2	38
Missouri.....	2.4	1.8	37	Wyoming.....	.1	(¹)	32

¹ Less than 1/10 of 1 percent.

Chapter 2.—Method of Constructing Factory Employment and Pay-Roll Indexes

To aid in the interpretation of these statistics, the Bureau, since April 1924, has published its information on factory employment in the form of index numbers. Formerly, changes in employment had been shown by the simple and direct device of comparing the actual number of workers on the pay rolls of the reporting companies for the current month with the number reported by the same establishments in the month preceding or in the corresponding month of the previous year. Although this method had the advantage of giving a quantitative perspective, this favorable feature was more than offset by obvious defects. It was useful only in making short-time comparisons, since a relationship was established for no more than the preceding month and the corresponding month of the preceding year. This method of presentation was so cumbersome that only an expert thoroughly conversant with the industrial situation could form an intelligible picture of developments in employment over an extended period.

Because of the highly undesirable characteristics of the old method of presentation, the returns from the cooperating firms for the past decade have been expressed as index numbers; that is, as relatives stated in percentage of a selected base figure. This method not only has the definite advantage of enabling the user to see at a glance the relationship of the current level of employment with that of the month preceding or with that of the corresponding month of the previous year, but it also gives a coherent and continuous picture of the trend since the beginning of the record.¹

Link Relatives Employed

In translating the data into indexes the simplest form has been adopted. The industry indexes are month-to-month link relatives which, in turn, are compounded into chain relatives. The group and composite indexes are weighted by the proportional importance of the component industries and industry groups as shown by the Census of Manufactures. The result is an aggregative index covering total manufacturing.

The base period of the indexes of factory employment and pay rolls has been revised from time to time. The average for the census year 1919 was first selected. In subsequent series the averages for 1923 and later for 1926 were used as the base. The base for present indexes is, temporarily, the 3-year average for 1923-25.

Collection and Tabulation of Data

Information for constructing the Bureau's index is collected by means of questionnaires. Each cooperating establishment is requested to furnish pay-roll information covering the pay period ending nearest the 15th of the current month. If the pay period covers a

¹ Hurlin, R. G., and Berridge, W. A., Editors. *Employment Statistics for the United States*. New York, 1926, p. 137.

period of more than 1 week, the total earnings reported are reduced to the equivalent of 1 week's earnings.² The number of employees in the establishments in the current and the preceding month, together with similar information covering weekly pay rolls and weekly man-hours, is transferred to a punch card. These cards are tabulated about the 10th of the following month, by which time virtually all of the returns have been received.

The monthly tabulations are based on reports from identical establishments supplying information for both the current and the preceding month. The number of reporting establishments varies from month to month, as some firms fail to supply the information in time for inclusion in the tabulations. From time to time additional firms are included, as needed, to replace plants which have discontinued reporting and to strengthen groups that are underrepresented.

Computing Indexes

The tabulation of the information supplies a comparison of total employment in identical establishments for a pay-roll period of the current month and of the preceding month, and similar information for the amount paid in wages during 1 week of the two periods under review. From these totals the percentage change over the month interval is computed. This percentage change is added to or subtracted from 100.0, thus determining the relative percentage of employment or pay rolls in the current month as compared with employment or pay rolls in the month preceding. To obtain the current month's index number this percentage is multiplied by the index of the preceding month.

Industry Weight Factors

Because of the wide variation in the inclusiveness of the samples for individual industries (see table 1), and to avoid overrepresenting or underrepresenting the different groups, each industry covered is assigned a weight equivalent to its proportionate importance as an employer of wage earners in manufacturing as a whole. The weighting factors used in computing the revised employment indexes were the annual average number of wage earners employed by the industry in 1929. The weighting factors for the pay-roll indexes were the total annual pay rolls of the industry, reduced to an average weekly basis, as shown by the Census of Manufactures for 1929. The year 1929—the latest year for which census figures were available at the time the adjustment of the indexes was begun—was used as a temporary base period for both indexes and weighting factors in the adjustment, pending the selection of a more suitable base period. As stated heretofore, the average for the 36-month period, 1923–25, was subsequently selected as the base period and the indexes converted accordingly. The weight factors for 1923–25 are given in table 3.

Each industry index in a group is multiplied by its weighting factor, and the sum of the products thus obtained is divided by the total weight of the industries surveyed in the group. This procedure results in a weighted group index wherein each of the separate industries exerts an influence equal to its proper proportion of the group total.

² Where pay rolls of reporting establishments cover 2 or more weeks, the pay rolls are reduced to a weekly basis by dividing the total earnings for the period reported by the number of weeks covered. Pay rolls covering semimonthly or monthly periods are reduced to a weekly basis by dividing the total earnings by the number of days, omitting Sundays, in the calendar period reported and multiplying the daily rate thus secured by 6. No allowance is made for holidays or shut-downs during the period reported.

TABLE 3.—*Weight factors used in revised indexes of factory employment and pay rolls (average number of employees and average weekly pay rolls 1923-25)*¹

Industry and group	Average number of wage earners	Average weekly pay rolls
TOTAL MANUFACTURING ²	8,381,700	\$203,476,000
Iron and steel and their products, not including machinery	859,100	24,658,000
Blast furnaces, steel works, and rolling mills.....	406,400	12,827,000
Bolts, nuts, washers, and rivets.....	14,200	348,000
Cast-iron pipe.....	22,500	509,000
Cutlery (not including silver and plated cutlery) and edge tools.....	16,700	388,000
Forgings, iron and steel.....	23,800	679,000
Hardware.....	51,400	1,218,000
Plumbers' supplies.....	30,200	817,000
Steam and hot-water heating apparatus and steam fittings.....	43,200	1,227,000
Stoves.....	47,000	1,2696,000
Structural and ornamental metal work.....	49,400	1,4946,000
Tin cans and other tinware.....	30,200	6421,000
Tools (not including edge tools, machine tools, files, and saws).....	17,900	415,000
Wireworks.....	18,000	.....
Machinery, not including transportation equipment	878,100	23,655,000
Agricultural implements.....	28,200	709,000
Cash registers, adding machines, and calculating machines.....	13,900	417,000
Electrical machinery, apparatus, and supplies.....	222,400	5,729,000
Engines, turbines, tractors, and water wheels.....	50,000	1,397,000
Foundry and machine-shop products.....	408,700	11,394,000
Machine tools.....	28,300	782,000
Radios and phonographs.....	29,400	701,000
Textile machinery and parts.....	30,700	753,000
Typewriters and parts.....	14,000	330,000
Transportation equipment	563,500	17,214,000
Aircraft.....	2,800	84,000
Automobiles.....	402,700	12,618,000
Cars, electric and steam-railroad.....	63,500	1,930,000
Locomotives.....	19,400	594,000
Shipbuilding.....	54,400	1,547,000
Railroad repair shop	482,100	13,563,000
Electric railroad.....	33,600	933,000
Steam railroad.....	448,500	12,630,000
Nonferrous metals and their products	282,600	7,329,000
Aluminum manufactures.....	15,300	381,000
Brass, bronze, and copper products.....	65,100	1,752,000
Clocks and watches and time-recording devices.....	21,800	485,000
Jewelry.....	25,100	661,000
Lighting equipment.....	22,600	579,000
Silverware and plated ware.....	17,000	450,000
Smelting and refining—copper, lead, and zinc.....	33,900	953,000
Stamped and enameled ware.....	33,200	767,000
Lumber and allied products	918,400	18,523,000
Furniture.....	172,900	4,094,000
Lumber:	.....	.....
Millwork.....	106,500	2,682,000
Sawmills.....	478,500	8,930,000
Turpentine and rosin.....	31,900	295,000
Stone, clay, and glass products	350,300	8,878,000
Brick, tile, and terra cotta.....	102,100	2,426,000
Cement.....	36,960	1,011,000
Glass.....	69,800	1,672,000
Marble, granite, slate, and other products.....	38,300	1,165,000
Pottery.....	37,400	918,000
Textiles and their products	1,629,400	31,676,000
Fabrics.....	1,105,600	20,368,000
Carpets and rugs.....	33,900	855,000
Cotton goods.....	441,800	6,927,000
Cotton, small wares.....	15,700	291,000
Dyeing and finishing textiles.....	65,100	1,452,000
Hats, fur-felt.....	15,700	385,000
Knit goods.....	185,200	3,119,000
Silk and rayon goods.....	125,700	2,504,000
Woolen and worsted goods.....	178,000	3,941,000
Wearing apparel.....	474,100	10,336,000
Clothing, men's.....	182,200	4,144,000
Clothing, women's.....	127,700	3,286,000
Corsets and allied garments.....	15,300	247,000
Men's furnishings.....	20,000	304,000
Millinery.....	31,800	790,000
Shirts and collars.....	57,600	805,000

¹ Based on annual average number of wage earners and average weekly pay rolls, Census of Manufactures 1923 and 1925, and estimates for 1924.

² Less manufactured gas and motion pictures.

TABLE 3.—*Weight factors used in revised indexes of factory employment and pay rolls (average number of employees and average weekly pay rolls 1923-25)*—Con.

Industry and group	Average number of wage earners	Average weekly pay rolls
Leather and its manufactures.....	323, 500	\$6, 986, 000
Boots and shoes.....	212, 600	4, 471, 000
Leather.....	54, 700	1, 314, 000
Food and kindred products.....	668, 300	15, 240, 000
Baking.....	162, 400	4, 211, 000
Beverages.....	27, 900	695, 000
Butter.....	19, 000	454, 000
Canning and preserving.....	83, 600	1, 245, 000
Confectionery.....	62, 400	1, 047, 000
Flour.....	33, 500	786, 000
Ice cream.....	23, 300	633, 000
Slaughtering and meat packing.....	126, 700	3, 142, 000
Sugar, beet.....	8, 200	213, 000
Sugar refining, cane.....	14, 700	376, 000
Tobacco manufactures.....	138, 400	2, 225, 000
Chewing and smoking tobacco and snuff.....	15, 900	242, 000
Cigars and cigarettes.....	122, 500	1, 983, 000
Paper and printing.....	531, 100	14, 865, 000
Boxes, paper.....	56, 900	1, 067, 000
Paper and pulp.....	120, 600	2, 959, 000
Printing and publishing:		
Book and job.....	133, 100	4, 075, 000
Newspapers and periodicals.....	116, 900	3, 998, 000
Chemicals and petroleum products ³	333, 000	8, 321, 000
Other than petroleum refining.....	268, 200	6, 369, 000
Chemicals.....	57, 000	1, 517, 000
Cottonseed—oil, cake, and meal.....	14, 500	181, 000
Druggists' preparations.....	9, 200	192, 000
Explosives.....	5, 900	160, 000
Fertilizers.....	18, 500	318, 000
Paints and varnishes.....	23, 900	627, 000
Rayon and allied products.....	16, 000	390, 000
Soap.....	16, 200	378, 000
Petroleum refining.....	64, 800	1, 952, 000
Rubber products.....	134, 300	3, 468, 000
Rubber boots and shoes.....	25, 200	645, 000
Rubber goods, other than boots, shoes, tires, and inner tubes.....	33, 400	765, 000
Rubber tires and inner tubes.....	75, 700	2, 158, 000

³ Combination of census chemical and petroleum groups, less manufactured gas.

Indexes Not Adjusted for Seasonal Variation

Employment in many branches of manufacturing displays a distinct seasonal rhythm. For this reason a strong argument is presented for making an adjustment for seasonal changes. Such an adjustment would indicate more accurately the extent to which current fluctuations in employment were due to fundamental changes in economic conditions. In the past the Bureau has not made such adjustments, principally because of insufficient appropriations and personnel. The Federal Reserve Board, however, has computed measures of seasonal variation in factory employment, and publishes seasonally adjusted indexes of factory employment currently in the Federal Reserve Bulletin.³

³ For description see Federal Reserve Bulletin, Washington, D. C., November 1930 and June 1934. Data may be obtained on request from the Division of Research and Statistics of the Federal Reserve Board.

Chapter 3.—Revision to Conform with Census Trend

One weakness of chain indexes is the possibility of errors of a progressive and cumulative character. With a chain type of index, an error in calculating the percentage of change in any one month not only affects the index for that particular month but is carried to all subsequent items of the series. In part, the statistical hazards involved in using the chain type of index could have been avoided by employing an identical-establishment-fixed-base method. But this system likewise has its drawbacks. The value of the index depends largely on the promptness with which it is made available. An identical-establishment index would subordinate speed without furnishing a compensating degree of accuracy. Much of the statistical raw material now currently available could not be utilized under such a system. For these reasons, the chain method has been employed.

The Bureau's former series of indexes indicated fairly accurately the changes in employment and pay rolls over a limited period of time, but they tended to deviate from the true trend for an industry over an extended period. This is because they did not reflect the rise in employment occasioned by the entrance of new firms into the industries, nor the decline of employment due to industrial mortality. Since the industrial birth rate far exceeded the death rate during the life span of the Bureau's employment series, the index revealed a pronounced downward bias when compared with the biennial census trend. It was decided, therefore, to adjust the indexes to conform with the averages shown in the biennial Census of Manufactures report.

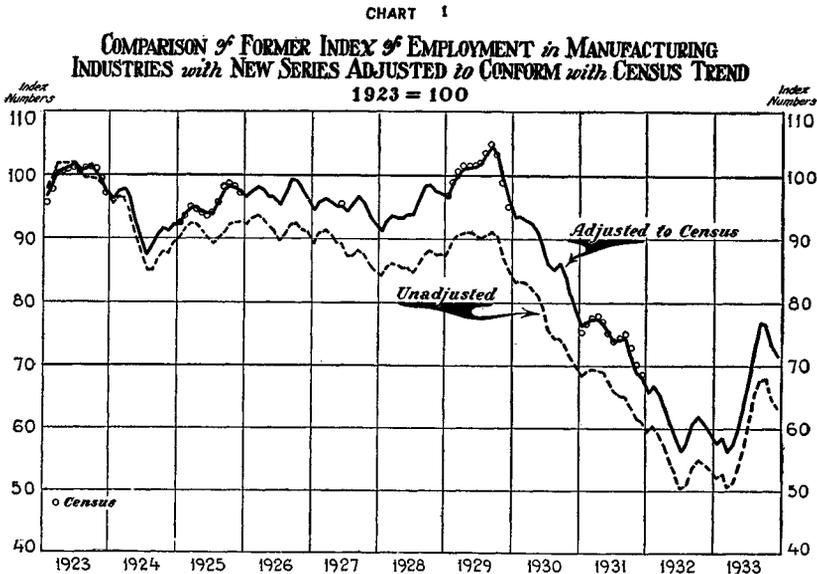
Pioneer Work of Federal Reserve Board

That the former series of unadjusted indexes of the Bureau of Labor Statistics resulted in inaccuracies in indicating total employment has long been recognized. Credit for measuring the discrepancies in concrete terms and developing a serviceable method for adjusting the current employment statistics to accord with the trend indicated by the biennial census data belongs chiefly to the work done for the Federal Reserve Board by William Berridge, Woodlief Thomas, and Aryness Joy and for the Federal Reserve Bank of Philadelphia by J. Frederic Dewhurst.

An index of employment, based on pay-roll data from several different bureaus but with information of the Bureau of Labor Statistics an important component, was constructed by the Federal Reserve Board in 1923. Like the Bureau's index, that of the Reserve Board was necessarily compiled by means of the shifting-base or chain method. A check of the Board's index against the census figures for the years 1919, 1921, and 1923 disclosed significant differences and accordingly the index was adjusted to conform with the more reliable information contained in the Census of Manufactures. Subsequent correction was made for changes between the years 1923 and

1925, but even after this preliminary fitting to the census curve it was found that the current figures developed imperfections at a surprisingly rapid rate. The census figures for 1927, for example, showed that employment in manufacturing industries was 5 percent less than in 1923, indicating a decrease of approximately 425,000 workers, whereas the Federal Reserve Board's uncorrected index over the same period indicated a decline of about 12 percent, which would represent a decrease of more than 1,000,000 workers.¹ These findings clearly indicated the necessity for periodic adjustments.

As the Federal Reserve index was based to a large extent on information drawn from the Bureau of Labor Statistics from 1923 on, it was apparent that the Bureau's index was similarly defective. The



decision to revise the Bureau's index was reached in 1932 and more than a year was required to complete the work.

Extent of Discrepancy

A comparison of the old series and the revised series of employment indexes revealed that between 1923 and 1929 the old index of employment developed a bias of about 11 percent. This means that the use of the Bureau's former index to calculate the changes in total factory employment from 1923 to 1929 would have underestimated total employment in 1929 by approximately a million workers. Although the discrepancy was most pronounced in 1929, the trend away from realities grew progressively throughout the period from 1923 to 1929. (See fig. 1.) Over the period 1929-31, the decrease shown in the composite index of factory employment differed only 0.3 percent from the decrease in total factory employment as shown by the census records. It must be borne in mind also that the former index did not include the canning and preserving industry, which in peak

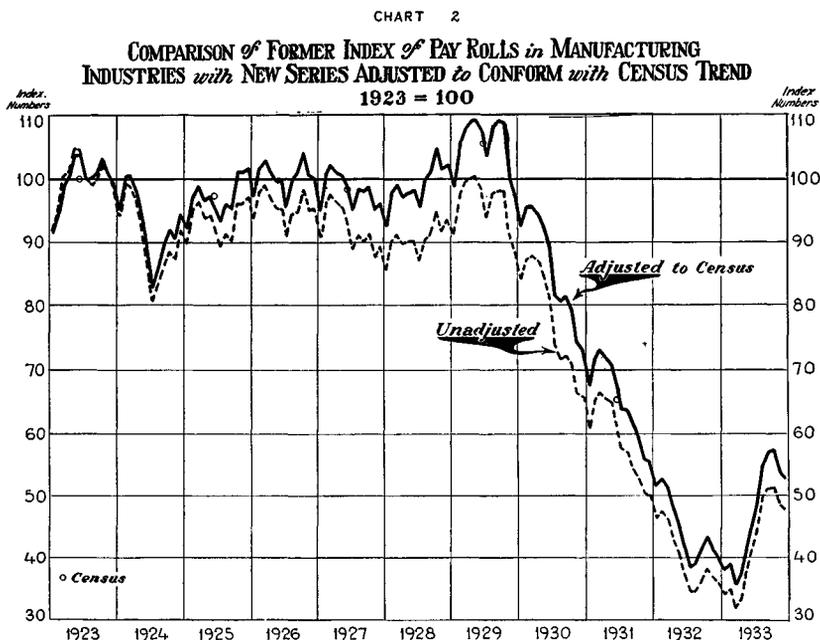
¹ Federal Reserve Bulletin, Washington, D. C., November 1929, vol. 15, no. 11, p. 707.

months represented from 2 to 3 percent of total manufacturing employment.

The indexes of factory pay rolls made a somewhat better showing. (See fig. 2.) Like the employment index, the departure away from realities was greatest in 1929. In that year the error amounted to 9 percent, which meant that, measured by the old pay-roll index, earnings of factory workers in 1929 were understated by, roughly, a billion dollars. Also, as in the case of the employment index, the margin of error diminished during the recent depression years.

Method of Revision ²

The method of adjustment to the census trend adopted by the Bureau of Labor Statistics differs slightly from that used by the Federal Reserve Board. Essentially, the method employed was a



straight-line adjustment between averages of numbers employed, or pay rolls, as shown in a pair of census years from 1923 to 1931. No attempt was made to use the monthly figures published by the census, as employment data by months were not available for each of the biennial census reports and monthly pay-roll data were not available for any year. From a standpoint of statistical technique, the method is open to some criticism, but on a large computation of this kind, simplicity was essential and, as it seemed to give reasonably accurate results, it was adopted despite its shortcomings.

The method of adjustment can best be illustrated by following step by step the procedure in a specific instance. For this purpose,

² For an alternative method of revision see paper by Sidney W. Wilcox, entitled "Adjustment of Indexes of Employment and Pay Rolls for Conformity to Census of Manufactures", in *Journal of the American Statistical Association*, March 1934, Supplement.

the revision of the employment indexes for the blast furnaces, steel works, and rolling-mills industry can be accepted as typical.

The first step in the process was to accept the 1923 indexes of employment for the blast furnaces, steel works, and rolling mills industry without change. In 1925 the annual averages of the monthly indexes showed a decline from 1923 of 4.1 percent, as against a decrease of 5.9 percent in the average number of wage earners shown by the census over the interval. By simple proportion, it is found that the Bureau's average index for 1925 should have been 96.1 instead of 97.9. To reconcile the index to conform with the census trend the procedure was to scale down each of the monthly indexes, beginning with January 1924, so as to reduce each monthly index number in 1925 to a point where the average for the year would be 96.1. This adjustment was made by arithmetic interpolation as illustrated by table 4. The process involves simply the application of a cumulative unit which, when applied over the 24-month interval, results in bringing the average index for 1925 into adjustment with the trend indicated by the census. For the blast furnaces, steel works, and rolling mills industry the unit was a decrement of 0.0973. It is hardly necessary to point out that the reason for apportioning the difference was to preserve the monthly fluctuations established by the original index numbers.

TABLE 4.—*Adjustment of indexes of employment in the blast furnaces, steel works, and rolling mills industry to trend shown by Census of Manufactures*

Month	1923 base series	1924			1925		
		Old series	Indicated decrement = -0.0973	Old series after decrement adjustment	Old series	Indicated decrement = -0.0973	Old series after decrement adjustment
January.....	96.5	101.0	0.697	100.9	100.2	1.265	98.9
February.....	99.3	105.8	.195	105.6	102.0	1.362	100.6
March.....	101.0	108.5	.292	108.2	102.7	1.460	101.2
April.....	101.3	107.8	.389	107.4	100.4	1.557	98.8
May.....	103.3	98.3	.487	97.8	98.2	1.654	96.5
June.....	105.9	91.4	.584	90.8	95.4	1.751	93.6
July.....	102.8	86.1	.681	85.4	94.0	1.849	92.2
August.....	105.4	83.8	.778	83.0	94.0	1.946	92.1
September.....	104.5	86.3	.876	85.4	94.5	2.043	92.5
October.....	104.2	89.9	.973	88.9	95.8	2.141	93.7
November.....	102.2	90.3	1.070	89.2	97.2	2.238	95.0
December.....	98.3	95.4	1.168	94.2	100.1	2.335	97.8
Average.....	102.1	95.4	-----	94.7	97.9	-----	96.1

Since the foregoing adjustments throw the series for the subsequent 2 years out of line, it is necessary to reestablish the relationship by working preliminary adjustments for the succeeding 24 months before proceeding with the next biennial census adjustment. This was done by dividing the new index for the same month by the original December 1925 index, thereby obtaining a multiplying factor which can be applied to each monthly index for the years 1926 and 1927, raising (or lowering) the monthly relatives to the level shown after adjustment to the 1925 census. In the case of the blast furnaces, steel works, and rolling mills industry the ratio for December 1925 between the relative arrived at by the process of adjustment (97.8) and the former

relative (100.1) was 0.977022. Applying this correcting factor to the original 1926 and 1927 series the new index numbers for 1926 and 1927 are shown as follows:

TABLE 5.—*Original and revised series of index numbers for the blast furnaces, steel works, and rolling mills industry, 1926 and 1927*

Month	(1) 1926 old series	(2) 1926 revised series (1)×0.977022	(3) 1927 old series	(4) 1927 revised series (3)×0.977022
January.....	100.5	98.2	95.0	92.8
February.....	102.0	99.7	96.4	94.2
March.....	101.7	99.4	97.7	95.5
April.....	102.3	99.9	97.3	95.1
May.....	101.0	98.7	96.4	94.2
June.....	99.3	97.0	94.3	92.1
July.....	97.8	95.6	92.3	90.2
August.....	98.8	96.5	91.2	89.1
September.....	100.3	98.0	90.6	88.5
October.....	100.2	97.9	89.5	87.4
November.....	99.1	96.8	87.8	85.8
December.....	96.7	94.5	86.5	84.5
Average.....	100.0	97.7	92.9	90.8

This series was then ready for the next biennial census adjustment. The same procedure was followed in adjusting the pay-roll indexes to the census trend. Unusual characteristics in some industries necessitated special handling.

Revision of Group Indexes

As previously indicated, the distribution of the 90 separate industries covered by the Bureau's factory employment surveys within the 14 major industry groups is not strictly proportionate to their relative importance to manufacturing as a whole. Except for the nonferrous-metals group from 1919 to 1930, it is believed that the coverage in each industrial group is fairly representative. The employment and pay-roll indexes for each group were, therefore, adjusted to the total wage earners and pay rolls in the group as shown in the respective census classification. The reason for adjusting each group to the trend shown by the census prior to the combination of all groups into a total index is that the missing industries, i.e., those not currently reported to the Bureau, are more likely to show employment fluctuations similar to those industries in the same group, using similar materials, than in all manufacturing industries. This is a refinement over the previous method, in which it was assumed that the trend in the missing industries was the same as in the reported industries combined.

After establishing weights for each industry, group indexes were computed for each group by multiplying the adjusted industry indexes by their respective weights (used as percentages), and dividing the sum of these products by the total weight of the industries surveyed in the group. This method of computing preliminary group indexes was used in all but two instances. Due to the highly seasonal character of the canning and preserving industry in the food group and the

fertilizer and cottonseed oil industries in the chemical group, the method of computing group indexes for these groups differed slightly and will be described in detail later.

The recent reinforcement of the factory employment surveys by the addition of industries not previously covered introduced complications that required special treatment in adjusting the group indexes to the census trend. For this reason, in explaining the procedure followed, the 14 industry groups are divided into the following three classifications:

- Class I. Groups not increased.
- Class II. Groups increased in 1931.
- Class III. Groups increased as of 1929 and again in 1931.

Only four groups are included in class I: railroad repair shops, tobacco manufactures, paper and printing, and leather and its manufactures. The Bureau's railroad-repair-shop group covers the same number of industries as are covered in the census classification, and the Bureau's tobacco group is comprised of two industries which the census reports list under "miscellaneous industries." The paper-and-printing and the leather-manufacture groups cover the major industries included in the corresponding census groups and therefore were not increased. For these groups the method of adjustment was identical with that used for separate industries.

Class II includes the following eight major groups and two sub-groups:

Iron and steel and their products. ³	Textiles and their products.
Transportation equipment.	Fabrics.
Nonferrous metals.	Wearing apparel.
Lumber and allied products.	Food and kindred products.
Stone, clay, and glass products.	Rubber products.

The original number of industries surveyed in each of these groups was used as a basis for computing the group indexes through January 1931, when the additional industries were added. Group indexes were also computed for January 1931, based on the expanded groups. The overlap in the original and expanded groups in January 1931 enabled the Bureau to make the necessary adjustment in shifting to the enlarged group. These group indexes were then adjusted to the census trends for the entire census grouping.

For the iron and steel group, indexes based on the six original industries surveyed were used for the adjustment to the census data through January 1931. The adjustment to this point was identical with that used for separate industries. Commencing with January 1931 indexes based on the expanded series of 13 industries were used. With the overlap for January 1931 available, it was possible to shift to the broader group by determining the relationship between the old index for the group and the new. For the six original industries in the group the employment index for December 1930 was 76.2, and for January 1931 it was 73.8. For the 13 industries the index for January 1931 stood at 73.3. By proportion, a theoretical index for December 1930 on the enlarged series was obtained. This index was 75.7, a difference of 0.5 percent less than the December 1930 group index based on the old series of six industries. By using an appropriate decrement this difference was spread through 1930. The

³ Does not include machinery.

revised series of group indexes for 1930 were then accepted as comparable with the 1931 series and the 1929-31 census adjustments were accordingly made.

Similar adjustments were made for the textiles, transportation-equipment, lumber, rubber, and stone, clay, and glass groups. In computing indexes for the textile group, adjustments were made for the fabric and wearing apparel subgroup indexes to conform with the census trend, and these subgroup indexes were used to construct weighted indexes for the major textile group.

On the other hand, a somewhat different procedure was adopted for the food-products group. Previously the canning and preserving industry had not been included in the food-group classification, partly because of its highly seasonal character and partly because a large number of the wage earners in the industry are casual workers, employed only at the peak season. In order to harmonize with the census data, this industry had been included in the revised indexes for the food group. It was found, however, that the trend of the combined industries surveyed in the Bureau's group, excluding canning and preserving, was more indicative of the trend of the industries not surveyed in the group than was the group including canning. Thus, to prevent the canning and preserving industry from unduly influencing the monthly trend of employment and pay rolls for the food group as a whole, a special group index was constructed in which the canning and preserving industry was omitted. This special group index was then adjusted to the census totals for all food industries except canning and preserving. The group index thus obtained was then multiplied by the food-group weighting factor (total number of wage earners, or amount of weekly pay rolls, exclusive of canning and preserving), thereby securing a preliminary food-group aggregate. The aggregates for the canning and preserving industry obtained by multiplying the industry index by its weighting factor were then added to the computed food-group aggregates and the sum of these two totals was divided by the total weight of all food industries, including canning and preserving, thereby arriving at the final food-group index.

Special handling was also required for the nonferrous-metals group. Until 1931 only the brass, bronze, and copper products industry, and the stamped and enameled ware industry were canvassed. As the monthly trend of employment and pay rolls in these two industries is not indicative of the trend of the nonferrous-metals group as a whole, no monthly group indexes are presented for this group for the period from 1923 to 1931 (table 8). In computing the general indexes for all manufacturing employment and pay rolls over the period 1923-30, the nonferrous-metals group was given a weight equal to the total employees and weekly wages in the brass, bronze, and copper products and the stamped and enameled ware industries, plus the combined weights of the smelting and refining and the sheet-metal-work industries, which are closely related. In January 1931, six additional industries were added to the nonferrous group, and since then the group indexes have been computed on the basis of returns from eight industries and the group is given its full weight in computing the composite index numbers. The increment adjustment of the group index began in January 1931. The remainder of the adjustments were

made as usual. The yearly averages shown in table 8 for the years prior to 1931 are based on census figures for the group.

Two groups—chemical and machinery—fall in class III. Both of these groups were increased by the addition of more industries, not only in 1931, but also in 1929. The expansion of these groups as of 1929, however, was not made until recently, and is essentially part of the present revision, but as a result of this difference, an additional step was necessary in handling these groups.

The chemicals group is a combination of the chemical and petroleum groups as classified by the census. As in the case of the food group, a special index was constructed for this group by eliminating the fertilizer and cottonseed oil industries, due to their highly seasonal characteristics, and then adding them after the group index was adjusted to all other industries in the group. From 1923 through January 1929, this special group index was computed by using the combined total of weights for the chemical and rayon industries, together with the druggists' preparations, explosives, and petroleum-refining industries which were used as weighting factor in constructing the group indexes. Beginning with January 1929, the individual indexes for the chemicals and rayon industries, each with its own weight, were used in the construction of the group indexes. The chemicals group was further increased in 1931 to include the paint and varnish and the soap industries. This expansion and the adjustment to the group indexes were accomplished in the same manner as is described for the iron and steel group in class II. Indexes for the chemicals group less the petroleum-refining industry were also computed.

Indexes for the machinery group were constructed in much the same way as the chemicals group indexes, using the combined weight of the electrical machinery and radio industry through January 1929, and then presenting these two industries separately. The radio industry, formerly classified with the electrical machinery industry, is now combined with the phonograph industry. As a result of this change the weights for the phonograph industry have been added to the radio weights. In adjusting the group indexes to all industries in the group, as shown by the census, it was also necessary to add the total reported for the phonograph industry to the machinery group to give the group its full weight. This was automatically taken care of in 1931 when the Census of Manufactures for that year set up the separate classification of "Radios and phonographs." To make the group indexes comparable over the whole period after the adjustments were made to census data, aggregates for the phonograph industry were added to the group aggregates from 1923 through 1928, and these totals were divided by the combined weight.⁴

Revision of Composite Index

After the adjustment of each group index, a preliminary general index was constructed by multiplying each group index by its group weight (total number of wage earners, or weekly earnings in the group as shown by the Census of Manufactures), except for the food, chemicals, and nonferrous-metals groups. In constructing the preliminary general index, the food-group weight does not include canning and

⁴ Indexes for the phonograph industry were computed from figures supplied by the Federal Reserve Board and then adjusted to census data.

preserving, the cottonseed oil and fertilizer industries are omitted from the chemicals-group weight, and the nonferrous-metals group, until its expansion in 1931, had the weight of only four industries. The combined sum of the group aggregates, with the exceptions cited, obtained by the multiplying process was divided by the total of the weighting factors assigned to the respective groups and the composite index was obtained.

The "preliminary" general index was adjusted to conform to the trend shown in the total of all manufacturing industries covered in the Census of Manufactures, with the exception of manufactured gas, which is included in the Bureau's power and light group; motion pictures, which the census eliminated from manufacturing in 1931; and the canning and preserving, cottonseed oil, and fertilizer industries, which because of their seasonal character require special handling. The aggregates for these last three industries, obtained by multiplying the index number by the weighting factor, were added to the "preliminary" general industry aggregates, and the sum of the aggregates was divided by the combined total of the weighting factors plus the weights of the canning and preserving, cottonseed-oil, and fertilizer industries to arrive at the final composite index.

Chapter 4.—Results of Revision

With the inclusion of 32 additional industries and the adjustment of the indexes to conform to the biennial Census of Manufactures trends, together with a broader base period and the adoption of group weights instead of industry weights in arriving at a composite index, it is believed that the indexes of factory employment and pay rolls are now broadly representative of manufacturing as a whole.

The results of the revision are shown by figure 3 (see also table 6). Since special care was taken to preserve the monthly fluctuations established by the former series, the revised indexes show no startling variations from the familiar pattern. Both curves start by reflecting the industrial unrest and uncertainty that characterized the months immediately following the termination of the war. Toward the middle of 1919 both curves, in response to the post-war boom, were featured by the vigorous rise that culminated in 1920 with the high-water mark for both factory employment and earnings. From this peak they slump abruptly as a result of the depression of 1921, but the recovery that followed was almost as rapid and by early 1923 both indexes were again above the 100 mark. Another dip is shown for the short-lived and relatively mild depression of 1924. Throughout most of the so-called "prosperity era", both earnings and payrolls fluctuated within a narrow range, and, in spite of the sharp increase in the physical volume of production, it was not until 1929 that the indexes showed any pronounced upward movement. From late 1929 until early in 1933 the trend was almost steadily downward. The direction of movements was revealed by the former series, and the difference in the revised indexes is that they measure more precisely the extent of the changes in employment and earnings as shown by census statistics.

One interesting feature shown by figure 3 is the fact that earnings have fluctuated much more widely than employment. This is true for both the depressions of 1921 and 1924 and is notably true of the depression of the thirties. On the other hand, in prosperous times, as in 1920 and 1929, earnings tend to outstrip the upsurge of the employment curve.

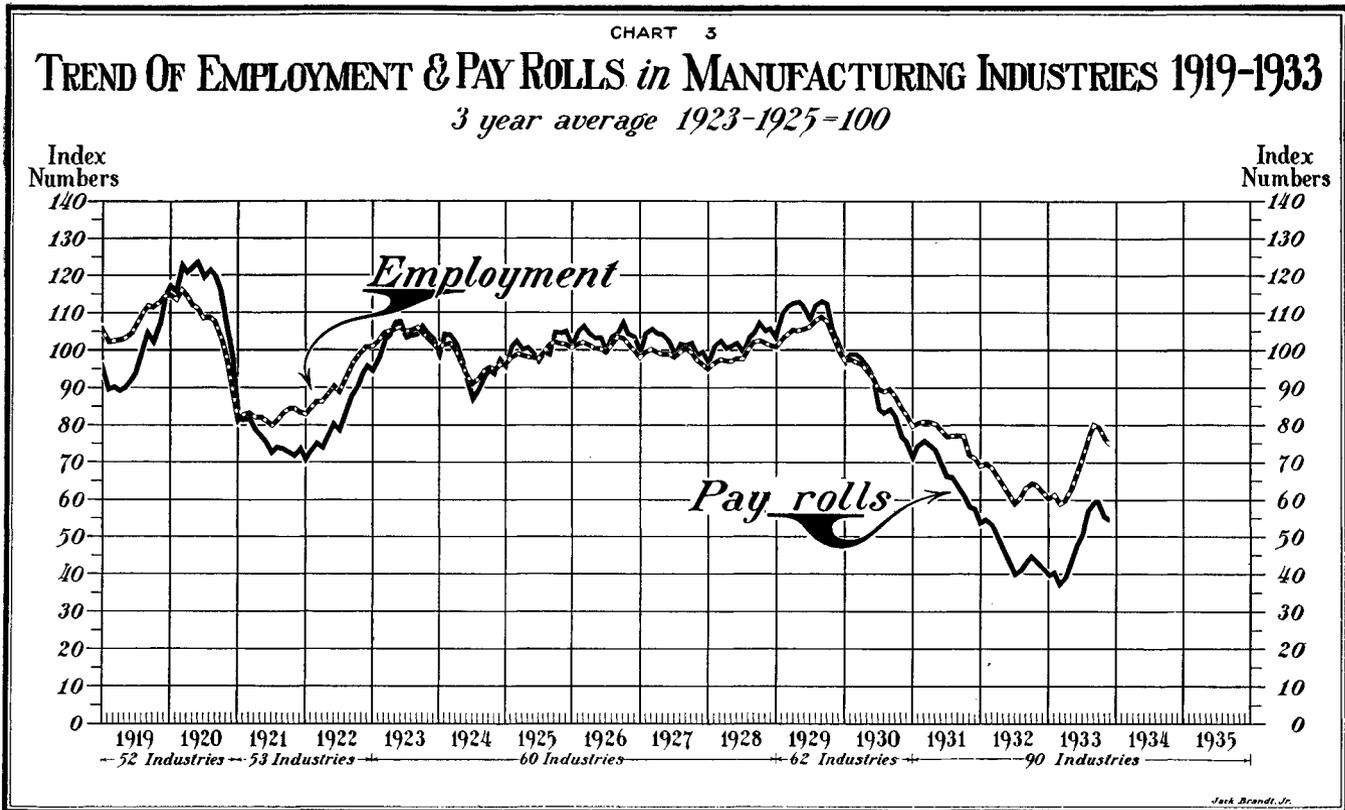


TABLE 6.—General indexes of employment and pay rolls in manufacturing industries, by months, January 1919 to December 1933

[3-year average, 1923-25=100]

Month and year	Employment												Average
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1919.....	105.3	102.0	102.4	102.5	103.1	104.3	106.9	109.7	111.7	111.3	112.6	114.4	107.2
1920.....	114.9	113.7	116.0	114.5	112.0	111.1	108.5	108.8	107.5	103.7	97.4	89.7	108.2
1921.....	81.0	82.6	83.2	82.1	81.9	81.0	79.8	81.2	83.4	84.1	84.2	83.3	82.3
1922.....	82.5	84.6	85.9	85.8	87.9	89.8	88.2	91.4	94.5	97.0	99.0	100.5	90.6
1923.....	100.7	102.5	104.6	105.0	105.3	106.0	104.9	105.2	105.7	104.5	103.2	101.4	104.1
1924.....	100.2	101.5	101.7	99.9	96.8	93.8	91.0	92.1	94.4	95.3	94.8	96.1	96.5
1925.....	96.3	98.1	98.8	98.7	98.1	98.0	97.8	99.5	101.5	102.2	101.8	101.5	99.4
1926.....	100.5	101.5	102.1	101.4	100.4	100.3	99.4	101.4	103.4	103.1	101.4	100.0	101.2
1927.....	98.2	99.7	100.2	99.6	99.1	99.1	98.1	99.3	100.5	99.6	97.4	96.1	98.9
1928.....	95.0	96.5	97.6	97.1	97.0	97.8	97.7	100.1	102.2	102.6	101.7	102.6	98.9
1929.....	100.8	102.9	104.1	105.3	105.3	105.6	106.1	107.9	109.0	107.7	103.6	99.8	104.8
1930.....	97.3	97.4	96.9	96.3	94.8	92.9	89.5	88.8	89.6	87.7	84.6	82.3	91.5
1931.....	79.6	80.3	80.7	80.7	80.1	78.4	77.0	77.1	77.4	74.4	71.8	71.0	77.4
1932 ¹	68.7	69.5	68.4	66.1	63.4	61.2	58.9	60.1	63.3	64.4	63.4	62.1	64.1
1933 ¹	60.2	61.1	58.8	59.9	62.6	66.9	71.5	76.4	80.0	79.6	76.2	74.4	69.0

Month and year	Pay rolls												Average
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1919.....	95.3	89.6	90.0	89.2	90.0	92.0	94.8	99.9	104.7	102.2	106.7	114.0	97.4
1920.....	117.2	115.5	123.7	120.9	122.4	124.2	119.3	121.6	119.8	115.8	107.0	98.0	117.1
1921.....	82.8	81.3	81.7	79.0	77.3	75.4	71.7	73.9	73.4	72.6	71.7	73.3	76.2
1922.....	69.6	72.4	74.9	73.8	77.2	80.5	78.5	83.0	87.0	89.5	93.4	95.7	81.3
1923.....	94.6	97.9	102.5	103.8	107.3	107.5	103.3	103.8	104.3	106.6	104.5	102.9	103.3
1924.....	98.8	104.1	104.1	101.8	97.5	92.4	85.7	89.3	92.5	95.1	93.7	97.6	96.1
1925.....	95.4	100.8	102.4	100.0	100.7	98.7	96.8	99.3	98.8	104.6	104.6	105.2	100.6
1926.....	100.9	105.0	106.5	104.4	103.1	103.3	99.0	103.4	104.4	107.6	104.1	103.5	103.8
1927.....	98.4	104.4	105.7	104.5	104.0	102.4	98.5	101.9	101.4	102.1	98.5	99.5	101.8
1928.....	96.0	101.2	102.5	100.5	101.3	101.7	99.0	103.3	104.7	108.2	105.0	105.6	102.4
1929.....	102.3	109.3	111.6	112.6	112.9	111.2	107.2	112.0	112.9	112.4	104.1	100.7	109.1
1930.....	95.9	98.8	98.8	97.7	95.4	92.3	84.3	83.3	84.1	82.2	76.8	75.2	88.7
1931.....	70.0	74.3	75.6	74.4	73.4	69.7	66.2	65.9	65.4	61.3	58.1	57.6	67.5
1932 ¹	53.5	54.6	53.1	49.5	46.8	43.4	39.8	40.6	42.9	44.7	42.9	41.5	46.1
1933 ¹	39.5	40.2	37.1	38.8	42.7	47.2	50.8	56.8	59.1	59.4	55.5	54.5	48.5

¹ Data subject to revision when census figures for 1933 become available.

Estimates of Total Employment and Pay Rolls Now Feasible

An outstanding improvement in the revised indexes is that they have been adjusted to reflect changes in the number of workers and average weekly pay rolls in such a way that it is entirely possible to make substantially accurate monthly estimates of the total number of wage earners employed and their weekly pay rolls for each of the industries covered, as well as for manufacturing as a whole, subject to subsequent revisions, as later census data become available.

Table 7 gives monthly estimates of the total number of wage earners and their average weekly pay rolls in all manufacturing industries from 1919 to 1933. Details by industry groups are given in table 9.

TABLE 7.—Estimated number employed and weekly pay rolls in all manufacturing industries, by months, January 1919 to December 1933

Month	Employment (expressed in thousands)														
	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932 ¹	1933 ¹
January	8,825.8	9,632.4	6,791.2	6,916.1	8,446.3	8,397.7	8,074.0	8,427.9	8,228.9	7,959.3	8,449.7	8,150.1	6,669.2	5,753.8	5,041.5
February	8,547.2	9,533.9	6,925.2	7,089.6	8,595.6	8,500.7	8,219.8	8,505.4	8,356.2	8,095.3	8,626.1	8,158.4	6,726.1	5,827.1	5,123.1
March	8,582.1	9,721.6	6,973.4	7,203.0	8,764.3	8,517.0	8,285.4	8,558.9	8,400.6	8,177.3	8,726.5	8,116.7	6,767.6	5,732.5	4,924.4
April	8,589.2	9,596.1	6,879.3	7,195.1	8,801.4	8,376.4	8,279.7	8,494.3	8,349.7	8,135.2	8,827.0	8,073.6	6,761.9	5,540.9	5,018.6
May	8,644.4	9,391.3	6,866.2	7,364.9	8,827.1	8,107.5	8,220.8	8,413.4	8,301.6	8,129.7	8,827.5	7,942.6	6,709.8	5,317.4	5,243.5
June	8,744.0	9,314.4	6,790.4	7,526.4	8,883.6	7,865.3	8,209.6	8,410.9	8,298.5	8,192.4	8,846.3	7,782.6	6,571.2	5,133.8	5,604.2
July	8,962.8	9,097.0	6,687.8	7,389.4	8,796.5	7,623.1	8,200.0	8,327.1	8,224.2	8,185.9	8,886.7	7,503.4	6,458.7	4,937.2	5,990.5
August	9,193.3	9,118.1	6,803.4	7,657.2	8,819.3	7,721.5	8,340.6	8,491.4	8,319.8	8,390.4	9,041.9	7,443.9	6,461.7	5,034.1	6,402.7
September	9,366.1	9,010.6	6,986.7	7,919.1	8,852.5	7,914.0	8,504.7	8,661.3	8,421.0	8,667.4	9,134.9	7,514.5	6,482.6	5,302.8	6,701.9
October	9,327.0	8,688.8	7,047.6	8,134.0	8,758.7	7,982.9	8,567.9	8,644.7	8,342.3	8,596.4	9,024.9	7,350.3	6,241.2	5,397.5	6,671.5
November	9,435.8	8,161.2	7,061.6	8,296.8	8,655.1	7,944.6	8,532.4	8,494.6	8,164.6	8,520.1	8,676.5	7,091.4	6,018.5	5,313.9	6,384.7
December	9,589.0	7,522.1	6,984.0	8,420.4	8,498.4	8,054.1	8,503.7	8,382.4	8,053.8	8,479.8	8,359.4	6,893.6	5,943.0	5,199.7	6,234.2
Average	8,983.9	9,065.6	6,899.7	7,592.7	8,724.9	8,083.7	8,328.2	8,484.4	8,288.4	8,285.8	8,785.6	7,668.4	6,484.3	5,374.2	5,778.4
Pay rolls (expressed in thousands)															
January	\$193,838	\$238,421	\$168,482	\$141,677	\$192,446	\$200,875	\$194,138	\$205,312	\$200,037	\$195,157	\$208,062	\$194,966	\$142,333	\$108,825	\$80,259
February	182,233	235,005	165,482	147,332	199,290	211,626	204,908	213,657	212,324	205,888	222,308	200,902	151,120	111,040	81,822
March	183,203	251,713	166,152	152,964	208,575	211,709	208,395	216,642	215,055	208,451	226,915	200,953	153,800	107,943	75,432
April	181,588	246,050	160,662	150,161	211,288	207,071	203,887	212,396	212,438	204,513	229,213	198,695	151,373	100,641	78,972
May	183,112	249,125	157,276	157,108	218,274	198,428	204,790	209,653	211,631	206,166	229,611	194,212	149,206	95,233	86,862
June	187,238	252,666	153,515	165,706	218,723	187,914	200,850	210,111	208,332	209,902	226,251	187,779	141,683	88,188	96,041
July	192,626	242,800	145,804	159,725	210,165	174,419	196,898	201,342	200,218	201,496	218,077	171,584	134,672	81,074	103,268
August	203,363	247,366	150,442	168,837	211,146	181,745	202,092	210,213	207,129	210,007	227,830	169,508	134,075	82,520	115,583
September	213,088	245,782	149,409	177,033	212,185	188,097	200,944	212,226	206,308	212,861	229,566	171,004	128,824	87,156	120,304
October	207,979	235,612	147,794	182,140	216,799	193,491	212,780	218,928	207,675	220,155	228,669	167,213	124,738	90,908	120,930
November	217,170	217,677	145,884	190,078	212,524	190,504	212,787	211,770	200,285	213,619	211,923	156,173	118,151	87,075	112,940
December	231,997	199,379	149,194	194,713	209,364	198,632	214,000	210,487	202,325	214,793	204,851	153,099	117,094	84,479	110,965
Average	198,145	238,300	155,008	165,406	210,065	195,376	204,665	211,061	206,980	208,334	221,937	180,507	137,256	93,757	98,623

¹ Data subject to revision when census figures for 1933 become available.

Shift of Base Period

In comparing the revised indexes with the old series, it should be noted that the base period has been changed from the 12-month average for 1926 to the 36-month average for 1923-25. This broader base, as previously stated, was selected partly because the broad base minimizes any unusual conditions which affect the relative position of any industry on a single-year base and partly because this change makes the Bureau's indexes comparable with other current barometers of industrial activity which were already established on the 1923-25 base. The change of base, however, is to be regarded as temporary. It will be used only until a much more recent common base can be selected by the various governmental agencies concerned.

Technical Difficulties Encountered

In presenting the industries by groups in the accompanying tabulations of index numbers (table 8) and estimated totals of employment and weekly pay rolls (table 9), the groups representing the durable-goods industries are given first, and the nondurable-goods industries follow. The Bureau's classification of "durable goods" industries is composed of the iron and steel, machinery, nonferrous metals, transportation equipment, railroad repair shops, lumber, and stone-clay-glass groups. The remaining groups are classified as "nondurable goods."

Before turning to the detailed statistics, however, several technical difficulties in the development of the revisions should be pointed out. Most of these difficulties were the outgrowth of changes in classification of certain of the industries, but some resulted from the recent addition of industries which were not formerly covered by the employment surveys.

The industries listed below have been covered in the monthly employment survey from 1923 to date and are similar to the corresponding census classifications or combinations of census classifications. These industries, therefore, were readily adjusted to the biennial census trends.

Blast furnaces, steel works, and rolling mills.	Woolen and worsted goods.
Cast-iron pipe.	Clothing, men's.
Hardware.	Clothing, women's.
Stoves.	Millinery.
Agricultural implements.	Shirts and collars.
Automobiles.	Boots and shoes.
Shipbuilding.	Leather.
Brass, bronze, and copper products.	Baking.
Stamped and enameled ware.	Flour.
Furniture.	Slaughtering and meat packing.
Lumber, millwork.	Chewing and smoking tobacco and snuff.
Lumber, sawmills.	Cigars and cigarettes.
Brick, tile, and terra cotta.	Boxes, paper.
Glass.	Paper and pulp.
Pottery.	Printing, book and job.
Carpets and rugs.	Printing, newspapers and periodicals.
Cotton goods.	Fertilizers.
Dyeing and finishing textiles.	Petroleum refining.
Knit goods.	Rubber tires and inner tubes.
Silk and rayon goods.	

On the other hand, statistics for the steam and hot-water heating apparatus and steam fittings, structural and ornamental metal work, machine tools, cement, confectionery, ice cream, cane-sugar refining, and rubber boots and shoes industries were missing for the early months of 1923. For these industries, index numbers were constructed for the missing months based on census figures which were available by months for that year. These indexes were then linked with the Bureau's index to make the year complete. Pay-roll figures by months were not available from the census records and the employment trend was used to estimate pay-roll indexes for the missing months of 1923.

When the Bureau expanded its general manufacturing index in 1931 to include 89 industries instead of the 54 previously used, four of the old industries were composite industries composed of 10 distinct census classifications. These four composite industries were broken down into smaller census classifications in 1931, when the additions were made. At that time the separation was carried back only to 1926, the old base year, but in present revisions the break-down of these industries has been extended back to 1923. The former composite industries, together with industries into which they are now separated are given below:

<i>Old industries</i>	<i>New industries</i>
Foundry and machine-shop products-----	{ Foundry and machine-shop products. Textile machinery. Engines, waterwheels, etc. Locomotives.
Chemicals-----	{ Chemicals. Druggists' preparations. Explosives.
Car building and repairing, steam ¹ -----	{ Car building, electric and steam. Electric-railroad repair shops. Steam-railroad repair shops.
Car building and repairing, electric ¹ -----	

All of the foregoing industries were adjusted to the census data by much the same method as that previously explained in detail for the blast furnaces, steel works, and rolling mills industry.² The Bureau had no indexes for the electric-car repairing industry for the early months of 1923 and the indexes for the missing months were computed by means of the monthly census figures for that year.

In 1929 three industries were added to the monthly employment survey. These were the canning and preserving, radio, and rayon industries. The canning and preserving industry had previously been treated as a separate industry in the nonmanufacturing group, but under the present classification it is included with the food-group industries. Although several establishments manufacturing rayon and radios were reporting to the Bureau prior to 1929, these industries were not separately classified until that time. Prior to 1929 companies manufacturing these products and reporting to the Bureau were grouped with other industries—the radio manufacturers with

¹ Indexes for steam and electric railroads now represent repairing only.

² In five instances, overlapping comparisons were made, as the census figures were not comparable over the entire period. In millinery, for example, 1925 was compared with 1927 on one set of census figures and 1927 with 1929 on another. This was due to a break-down made by the census in 1929 and for which comparisons were made only with the previous biennial Census of Manufactures. The foundry and machine-shop products, machine tools, chemical, and furniture industries were also handled in a similar manner.

the electrical-machinery industry and the rayon manufacturers with the chemical industry.³

The indexes of employment and pay rolls computed for the 29 industries listed below, beginning with January 1931 to December 1933, have been adjusted to the 1931 census level.

Bolts, nuts, washers, and rivets.	Silver and plated ware.
Cutlery (not including silver and plated cutlery) and edge tools.	Smelting and refining—copper, lead, and zinc.
Forgings, iron and steel.	Turpentine and rosin.
Plumbers' supplies.	Marble, granite, slate, and other products.
Tin cans and other tinware.	Cotton small wares.
Tools (not including edge tools, machine tools, files, and saws).	Hats, fur-felt.
Wirework.	Corsets and allied garments.
Cash registers, adding machines, and calculating machines.	Men's furnishings.
Typewriters and parts.	Beverages.
Aircraft.	Butter.
Aluminum manufactures.	Sugar, beet.
Clocks, watches, and time-recording devices.	Cottonseed—oil, cake, and meal.
Jewelry.	Paints and varnishes.
Lighting equipment.	Soap.
	Rubber goods, other than boots, shoes, tires, and inner tubes.

³ In conjunction with the reclassification of the radio industry, indexes were reworked because data for the first few months of 1929 were not available and also because in 1931 the census combined the radio and phonograph industries. From data available in the Bureau for a number of firms making radios and phonographs (as distinguished from firms making radios only), combined with data supplied by the Federal Reserve Board for other firms making the same products, it was possible to construct new indexes for the industry, commencing with January 1929. These indexes were then adjusted to harmonize with the census data.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933

[3-year average 1923-25=100]

Month and year	Iron and steel and their products, not including machinery									
	Group index		Blast furnaces, steel works, and rolling mills		Bolts, nuts, washers, and rivets		Cast-iron pipe		Cutlery (not including silver and plated cutlery) and edge tools	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923	103.9	103.2	104.5	104.5	112.5	111.5	96.0	94.6	99.6	97.9
1924	97.0	96.7	97.1	96.5	89.5	89.5	101.6	101.7	102.4	101.8
1925	99.1	100.1	98.4	99.0	98.0	99.0	102.4	103.7	98.0	100.3
1926	102.5	105.0	101.0	103.0	---	---	110.1	110.5	---	---
1927	97.2	98.6	95.7	96.7	96.0	95.6	101.8	98.2	94.6	93.7
1928	96.6	100.4	96.2	100.6	---	---	92.4	85.3	---	---
1929	102.6	107.8	103.2	109.6	114.0	122.0	87.8	85.2	89.5	87.5
1930	89.2	85.7	90.3	87.7	---	---	80.4	75.3	---	---
1931	69.7	55.0	68.4	53.6	74.2	56.2	71.5	55.1	74.2	60.4
1932 ¹	53.3	29.1	51.5	24.8	60.8	33.8	45.5	24.2	67.6	46.8
1933 ¹	58.6	36.2	58.5	35.4	71.0	42.1	39.2	19.7	65.1	42.8
1923										
January	98.8	93.2	98.8	93.5	---	---	87.0	78.3	---	---
February	101.2	98.1	101.7	98.9	---	---	89.3	80.6	---	---
March	103.4	101.3	103.4	101.4	---	---	92.1	87.3	---	---
April	103.8	99.7	103.7	98.8	---	---	93.9	95.1	---	---
May	105.1	109.2	105.8	111.8	---	---	95.0	96.2	---	---
June	107.4	110.9	108.5	113.4	---	---	98.9	102.5	---	---
July	104.5	98.2	105.3	97.8	---	---	101.1	100.1	---	---
August	106.8	105.8	107.9	108.7	---	---	100.2	101.8	---	---
September	106.2	104.6	107.0	106.1	---	---	98.2	100.5	---	---
October	105.7	109.5	106.7	111.5	---	---	98.9	102.6	---	---
November	103.7	106.2	104.6	108.4	---	---	98.8	98.1	---	---
December	100.2	102.2	100.6	103.1	---	---	98.2	91.7	---	---
1924										
January	100.8	101.2	103.4	104.5	---	---	99.6	98.9	---	---
February	105.5	111.2	108.3	115.2	---	---	102.4	104.5	---	---
March	107.3	113.4	110.8	117.6	---	---	103.8	104.9	---	---
April	106.8	110.8	110.0	114.2	---	---	105.4	103.5	---	---
May	99.9	101.9	100.2	102.2	---	---	105.7	105.4	---	---
June	94.7	88.8	93.1	84.6	---	---	103.6	104.5	---	---
July	89.0	77.6	87.4	75.2	---	---	102.4	96.8	---	---
August	88.2	84.1	84.9	80.9	---	---	103.0	101.3	---	---
September	90.4	87.2	87.4	83.6	---	---	99.4	110.0	---	---
October	93.0	93.0	91.1	90.4	---	---	101.2	103.2	---	---
November	92.9	91.7	91.4	91.0	---	---	98.3	96.8	---	---
December	96.0	99.0	96.6	100.4	---	---	94.9	90.0	---	---
1925										
January	98.9	101.7	101.3	105.4	---	---	96.0	94.5	---	---
February	101.5	105.2	103.0	106.6	---	---	99.2	101.4	---	---
March	102.3	105.6	103.6	106.8	---	---	101.1	102.4	---	---
April	100.1	101.6	101.1	103.6	---	---	100.9	103.2	---	---
May	98.9	101.6	98.8	101.3	---	---	102.6	104.8	---	---
June	97.2	96.4	95.9	94.3	---	---	101.8	105.0	---	---
July	95.4	90.5	94.4	87.5	---	---	103.0	103.5	---	---
August	96.6	95.7	94.3	92.4	---	---	104.8	107.4	---	---
September	97.4	93.9	94.8	90.6	---	---	105.1	103.8	---	---
October	99.2	102.3	96.0	98.1	---	---	105.4	110.3	---	---
November	100.0	101.4	97.2	97.5	---	---	103.8	107.8	---	---
December	101.7	105.8	100.1	103.9	---	---	105.0	100.6	---	---
1926										
January	101.1	102.4	100.6	101.6	---	---	104.3	106.3	---	---
February	103.3	106.4	102.4	104.9	---	---	106.9	110.5	---	---
March	103.2	108.2	102.2	106.8	---	---	108.7	112.1	---	---
April	104.0	107.5	102.9	106.0	---	---	110.3	113.0	---	---
May	103.0	105.1	101.8	103.0	---	---	110.4	113.3	---	---
June	101.9	104.5	100.2	102.1	---	---	112.2	114.4	---	---
July	100.7	98.7	98.9	96.3	---	---	116.2	115.9	---	---
August	102.3	101.9	100.0	98.4	---	---	114.3	109.7	---	---
September	103.8	105.2	101.7	102.7	---	---	114.2	111.8	---	---
October	103.9	109.7	101.8	107.4	---	---	111.7	110.4	---	---
November	102.7	106.2	100.7	104.2	---	---	108.2	108.4	---	---
December	99.9	104.1	98.6	102.6	---	---	104.3	99.9	---	---

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Iron and steel and their products, not including machinery—Continued									
	Group index		Blast furnaces, steel works, and rolling mills		Bolts, nuts, washers, and rivets		Cast-iron pipe		Cutlery (not including silver and plated cutlery) and edge tools	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1927										
January	97.4	97.3	96.9	96.5			102.6	93.8		
February	99.4	103.6	98.5	102.6			102.1	99.7		
March	100.6	106.2	100.0	106.0			105.3	105.1		
April	100.4	106.2	99.7	106.9			105.9	106.8		
May	99.9	102.7	99.0	101.5			108.2	107.6		
June	98.6	101.6	96.9	99.7			106.4	103.4		
July	96.1	91.9	95.3	89.3			104.8	104.1		
August	96.2	96.9	94.2	93.6			102.5	100.9		
September	96.5	95.2	93.8	91.6			98.6	96.1		
October	95.5	95.6	92.8	91.9			96.0	90.6		
November	93.6	92.5	91.3	90.0			94.2	82.8		
December	92.2	93.0	90.1	90.7			94.9	87.6		
1928										
January	90.9	89.4	90.7	89.8			92.0	74.7		
February	94.2	100.0	94.1	100.7			89.6	83.7		
March	95.8	101.4	96.1	102.7			93.1	90.4		
April	96.0	99.9	96.3	100.7			94.2	90.5		
May	96.6	102.4	96.3	103.1			97.3	93.4		
June	96.7	100.1	95.8	99.5			97.5	86.4		
July	95.1	94.4	95.1	94.0			93.2	85.4		
August	97.6	100.6	96.5	100.3			93.1	83.3		
September	98.3	100.0	97.1	99.1			93.5	82.7		
October	99.0	106.1	97.7	105.5			91.8	85.8		
November	99.9	106.0	99.6	106.6			87.5	82.8		
December	99.4	104.2	99.6	104.8			85.6	84.3		
1929										
January	99.4	102.3	100.4	104.6			84.5	75.5		
February	100.8	108.1	101.2	109.7			79.7	79.4		
March	102.1	109.7	102.6	112.2			84.7	78.9		
April	102.9	112.0	103.8	115.0			86.0	83.2		
May	104.1	113.1	105.3	116.4			87.8	84.7		
June	104.4	111.4	105.7	114.5			90.8	88.4		
July	103.5	105.3	105.3	107.8			92.8	92.4		
August	105.2	111.3	106.5	114.1			94.3	94.0		
September	105.4	111.3	105.5	112.5			94.4	94.1		
October	104.2	110.5	103.1	109.9			91.7	90.8		
November	101.7	102.6	101.8	102.7			85.6	82.3		
December	97.1	96.1	96.9	95.3			81.5	79.1		
1930										
January	95.9	92.7	97.7	95.0			77.4	68.4		
February	97.5	100.5	99.5	104.5			78.9	74.6		
March	96.6	99.2	98.6	103.5			82.4	81.2		
April	96.3	99.8	98.6	104.5			84.9	85.0		
May	95.6	97.3	97.9	101.6			85.7	85.9		
June	92.3	92.5	94.1	95.8			86.5	83.1		
July	88.0	79.8	89.5	81.6			83.9	77.7		
August	85.1	78.6	85.6	79.2			82.3	75.9		
September	83.4	76.3	83.1	76.2			81.0	75.5		
October	82.3	76.4	81.7	76.2			79.1	72.3		
November	79.9	69.0	79.7	68.3			74.0	64.2		
December	77.5	66.6	77.8	66.3			68.7	59.2		
1931										
January	75.1	62.0	76.5	62.7	77.3	59.8	67.3	54.9	76.1	65.0
February	75.1	66.4	76.3	69.3	78.0	63.5	71.1	59.3	76.7	65.4
March	75.9	68.6	77.1	72.3	78.8	65.8	73.4	64.0	77.4	68.1
April	75.5	67.7	76.6	71.4	78.4	65.6	76.3	68.3	78.5	65.4
May	73.4	63.7	73.8	65.4	78.7	64.5	77.1	65.6	74.9	64.8
June	70.6	57.0	69.5	56.2	78.2	61.8	75.4	57.6	73.7	60.0
July	68.9	52.4	67.9	49.5	74.0	54.2	74.4	57.8	72.4	59.6
August	68.0	50.8	65.7	47.0	73.2	53.7	73.1	53.0	71.4	55.6
September	65.7	45.5	62.3	40.3	68.9	46.9	69.8	45.7	72.4	52.5
October	64.0	44.2	59.4	37.6	69.3	46.9	67.7	44.8	72.7	57.4
November	62.5	41.4	58.0	35.2	67.8	45.3	66.4	44.3	72.6	56.6
December	61.3	40.8	58.0	35.8	67.7	45.8	66.0	45.4	71.8	54.6

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Iron and steel and their products, not including machinery—Continued									
	Group index		Blast furnaces, steel works, and rolling mills		Bolts, nuts, washers, and rivets		Cast-iron pipe		Cutlery (not including silver and plated cutlery) and edge tools	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1932 ¹										
January.....	59.4	36.3	57.6	31.8	67.8	44.2	61.2	37.4	70.3	52.1
February.....	59.6	37.1	57.8	33.1	67.2	43.1	56.6	34.1	73.9	56.3
March.....	58.5	35.5	56.8	31.7	64.5	39.3	51.3	31.1	74.4	54.9
April.....	56.5	32.3	55.1	28.4	62.9	36.3	47.1	28.0	74.8	55.4
May.....	54.3	30.7	53.0	27.3	56.7	32.1	45.4	24.5	73.4	53.1
June.....	52.4	27.2	50.6	22.5	60.8	33.1	42.1	21.5	68.5	46.3
July.....	49.4	23.4	47.6	18.9	59.4	29.3	43.2	20.9	61.8	40.3
August.....	48.7	23.5	46.4	18.8	57.2	27.0	41.3	19.4	62.6	39.4
September.....	49.8	24.8	47.3	19.6	57.8	27.4	37.8	19.4	63.2	39.0
October.....	51.1	27.2	48.8	22.3	59.1	31.1	39.9	18.2	64.0	43.7
November.....	51.1	26.4	49.0	22.2	58.3	31.9	40.5	17.5	63.7	42.2
December.....	49.3	24.6	48.0	21.1	58.4	31.1	39.1	18.2	60.9	39.2
1933 ¹										
January.....	46.8	22.8	46.5	20.7	56.8	28.6	36.4	16.1	57.4	35.2
February.....	49.0	24.8	48.7	22.8	57.9	30.2	31.6	13.7	58.9	37.4
March.....	46.8	22.7	46.0	20.6	56.1	26.0	26.1	13.5	53.8	26.6
April.....	48.1	24.6	47.2	22.6	57.8	27.2	31.7	15.2	55.5	31.2
May.....	51.0	29.8	49.8	27.8	61.5	33.7	33.0	16.2	57.7	36.8
June.....	55.7	36.2	54.6	34.8	69.2	43.8	39.6	19.7	60.2	41.6
July.....	61.8	41.4	62.1	41.4	78.2	49.3	43.2	22.1	61.4	44.4
August.....	68.4	50.0	69.8	53.1	84.2	53.4	44.1	23.3	68.6	46.8
September.....	71.4	47.5	71.8	47.9	86.0	54.3	45.9	22.3	74.9	50.8
October.....	69.8	47.6	70.2	48.0	84.2	54.5	47.3	23.2	78.5	54.2
November.....	67.9	43.3	67.9	42.2	81.4	53.6	45.0	23.8	78.0	54.1
December.....	66.6	43.7	67.0	43.0	78.4	50.8	47.0	27.5	76.3	54.9

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Iron and steel and their products, not including machinery—Continued									
	Forgings, iron and steel		Hardware		Plumbers' supplies		Steam and hot-water heating apparatus and steam fittings		Stoves	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923.....	116.5	113.9	101.6	100.1	89.9	89.5	102.2	101.7	106.0	103.5
1924.....	97.4	97.4	96.6	96.3	100.1	100.0	97.7	98.0	95.0	96.0
1925.....	86.1	88.7	101.8	103.6	110.0	110.5	100.1	100.3	99.0	100.5
1926.....	100.8	100.8	100.8	106.3	102.6	105.5	102.6	105.5	104.2	105.8
1927.....	65.5	66.7	93.0	96.1	96.7	94.6	99.3	101.6	96.2	97.5
1928.....	92.8	92.8	92.8	96.0	92.4	94.4	92.4	94.4	94.0	93.5
1929.....	87.8	97.8	101.7	106.9	92.5	87.2	91.6	92.4	99.3	98.8
1930.....	88.6	88.6	88.6	81.6	78.3	69.0	78.3	69.0	83.1	74.3
1931.....	41.9	32.5	70.3	58.9	65.1	48.0	67.1	46.3	69.4	53.4
1932 ¹	35.8	19.9	55.1	35.5	51.1	27.6	46.5	24.7	57.3	35.0
1933 ¹	40.8	25.0	55.8	36.1	58.2	31.1	49.5	26.4	68.7	43.9
1923										
January.....			99.4	86.5			99.5	100.3	107.4	98.9
February.....			101.0	93.8			101.6	102.4	109.1	104.3
March.....			102.8	96.7			105.0	105.9	111.6	111.5
April.....			104.4	97.4			104.8	105.5	110.3	110.1
May.....			102.3	102.9			104.8	105.5	109.5	110.1
June.....			102.5	104.3			104.6	105.3	109.1	108.6
July.....			103.7	100.1			103.8	101.5	100.0	90.1
August.....			103.4	103.5			104.2	96.4	100.3	92.4
September.....			101.5	102.8			103.4	100.6	103.6	101.4
October.....			101.2	106.7			102.0	102.7	105.0	105.9
November.....			98.0	103.4			98.0	97.2	105.4	104.9
December.....			98.4	103.5			94.7	97.0	101.0	104.3
1924										
January.....			99.8	102.6			96.6	95.2	85.6	80.9
February.....			102.9	105.8			98.4	103.2	99.2	102.0
March.....			101.4	107.6			101.5	107.9	99.8	106.6
April.....			102.0	104.9			103.4	107.8	97.3	102.9
May.....			99.0	102.4			101.1	105.2	97.0	99.5
June.....			96.0	94.3			99.3	100.5	95.0	94.4
July.....			89.7	83.3			95.8	93.4	79.5	73.1
August.....			88.3	82.3			96.8	94.2	90.5	85.0
September.....			91.8	86.4			97.3	97.0	95.4	95.9
October.....			94.4	92.5			97.6	100.2	101.0	106.3
November.....			95.8	96.2			95.4	85.3	100.8	101.2
December.....			97.5	97.8			89.7	86.6	98.4	103.6
1925										
January.....			98.9	99.6			96.2	97.0	86.8	81.8
February.....			100.5	104.0			98.4	104.2	100.0	102.7
March.....			101.6	104.9			98.4	103.7	100.8	104.4
April.....			101.3	98.5			97.3	95.1	95.1	92.5
May.....			101.5	104.4			97.0	98.0	96.9	99.3
June.....			101.4	101.2			97.0	94.2	97.9	98.0
July.....			98.1	98.0			97.3	94.8	85.4	81.8
August.....			101.4	104.0			99.8	99.9	97.3	96.3
September.....			102.3	98.9			102.1	96.0	102.7	102.0
October.....			103.9	107.6			106.0	109.4	107.8	115.9
November.....			104.8	108.8			106.0	105.1	110.5	118.0
December.....			105.8	112.7			105.6	106.2	106.6	112.7
1926										
January.....			106.4	110.8			103.8	106.0	94.7	94.0
February.....			106.7	111.7			106.0	108.9	103.0	104.5
March.....			105.2	115.2			104.9	109.4	104.5	107.5
April.....			104.4	108.8			104.4	107.1	106.2	110.8
May.....			101.6	107.7			102.9	105.6	104.1	105.7
June.....			98.9	103.4			103.7	109.1	103.4	103.1
July.....			97.2	97.9			100.7	101.8	95.5	88.6
August.....			98.0	104.2			103.3	105.9	103.6	100.4
September.....			98.7	102.9			103.8	107.3	107.2	109.0
October.....			98.5	106.3			102.8	107.9	111.4	119.3
November.....			98.1	105.1			99.6	100.1	111.3	117.8
December.....			95.4	101.9			95.0	96.9	105.3	109.0

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Iron and steel and their products, not including machinery—Continued									
	Forgings, iron and steel		Hardware		Plumbers' supplies		Steam and hot-water heating apparatus and steam fittings		Stoves	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January			95.9	100.2			95.7	96.8	91.3	90.0
February			96.8	103.7			100.1	105.6	97.6	101.2
March			97.0	104.1			99.5	104.7	100.3	103.3
April			96.1	101.4			99.8	103.2	98.3	101.5
May			94.7	99.1			99.2	103.4	98.9	100.7
June			93.8	97.4			100.2	104.2	98.6	100.2
July			90.7	89.5			101.0	100.8	83.0	80.1
August			87.9	89.4			101.7	106.1	94.5	96.5
September			91.7	92.0			103.7	105.5	99.1	99.5
October			91.1	93.2			101.6	104.6	101.0	103.7
November			90.2	90.9			96.6	93.1	98.8	99.0
December			89.8	91.9			91.9	91.6	93.1	93.9
1928										
January			89.4	88.4			89.4	86.3	77.7	73.1
February			90.7	96.2			92.2	97.2	88.5	90.4
March			91.3	95.1			93.8	97.3	90.5	90.0
April			90.1	92.2			94.0	94.4	92.7	93.0
May			90.7	92.4			94.4	99.0	94.6	93.8
June			91.9	94.7			94.4	98.5	95.4	94.7
July			88.9	89.4			90.8	92.7	88.0	82.7
August			92.8	93.7			97.9	101.3	95.3	89.9
September			95.3	96.8			94.0	95.3	99.3	99.0
October			95.7	101.9			94.3	95.9	104.3	111.1
November			97.7	104.2			90.5	90.7	102.8	104.8
December			98.9	106.2			83.6	84.1	98.8	99.3
1929										
January			99.3	103.7			93.0	91.3	88.1	83.0
February			102.3	110.7			96.8	102.4	96.0	95.7
March			103.5	110.3			95.1	99.8	98.6	98.1
April			101.4	107.8			94.1	96.8	100.7	100.9
May			102.4	109.8			90.8	93.2	101.3	102.7
June			102.3	109.0			89.4	89.6	100.7	100.5
July			101.6	102.8			85.4	83.5	94.0	91.2
August			99.9	104.7			89.9	89.7	100.3	97.4
September			103.3	107.6			90.8	92.1	106.4	106.0
October			103.6	109.0			93.2	97.6	109.9	115.9
November			100.8	103.7			92.8	90.5	102.0	99.8
December			99.9	103.6			88.1	82.6	93.7	93.9
1930										
January			100.1	97.1			83.0	75.8	81.0	74.6
February			98.6	99.0			85.4	80.9	89.8	84.0
March			96.6	93.5			83.7	78.0	89.0	84.5
April			94.4	88.6			82.2	76.7	88.4	81.6
May			92.9	86.8			81.0	72.7	87.0	79.1
June			89.6	81.2			75.2	66.3	86.7	81.3
July			85.4	73.2			72.6	62.2	78.1	65.0
August			81.7	71.7			74.6	63.2	81.8	69.8
September			82.7	72.2			75.2	62.8	81.6	73.4
October			81.9	73.6			75.9	65.6	83.1	75.7
November			80.0	71.0			76.1	62.6	80.2	66.6
December			79.3	70.7			74.6	61.3	70.1	56.0
1931										
January	45.2	36.1	76.6	65.0	70.1	50.7	73.8	57.8	60.0	45.7
February	42.1	34.4	75.9	65.9	70.0	52.7	72.8	57.7	68.2	55.7
March	40.9	35.2	75.8	67.4	69.0	50.7	73.0	54.6	73.5	59.4
April	40.5	38.0	75.0	65.7	65.2	47.5	70.2	51.3	74.5	59.1
May	39.9	35.2	73.8	65.3	64.5	48.6	68.1	47.9	73.9	59.6
June	38.5	30.0	72.0	60.3	64.6	48.4	66.7	45.6	71.6	54.8
July	39.2	29.9	69.3	55.3	65.6	51.0	65.3	43.6	63.2	47.4
August	42.2	32.1	66.3	55.3	63.8	50.6	63.2	42.1	69.0	52.1
September	43.2	28.4	65.4	49.7	62.3	45.1	62.8	38.4	73.3	57.5
October	42.3	29.2	65.5	53.4	63.8	47.9	65.7	43.1	74.1	58.3
November	45.0	31.3	64.7	51.8	62.2	42.4	63.5	38.3	69.4	49.7
December	43.3	29.8	63.6	51.2	59.5	40.5	59.5	34.8	62.3	41.5

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Iron and steel and their products, not including machinery—Continued									
	Forgings, iron and steel		Hardware		Plumbers' supplies		Steam and hot-water heating apparatus and steam fittings		Stoves	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1932 ¹										
January.....	41.3	26.6	62.4	48.2	60.1	34.8	54.7	29.7	51.7	32.4
February.....	41.1	26.5	61.5	46.0	58.6	34.3	55.7	31.3	58.9	37.7
March.....	41.7	25.3	60.6	44.4	55.7	31.5	54.1	28.7	59.9	37.5
April.....	36.1	20.4	58.8	39.9	55.0	30.2	48.6	26.1	60.1	36.0
May.....	37.0	20.5	56.1	35.9	54.5	30.1	41.9	22.5	58.1	34.5
June.....	35.8	19.8	55.1	34.4	54.1	30.0	41.8	22.6	53.9	30.8
July.....	33.7	19.2	50.1	27.5	52.2	24.8	40.3	20.4	47.5	26.6
August.....	32.6	15.9	48.8	26.7	50.2	27.6	41.1	20.7	50.8	29.2
September.....	30.7	13.9	50.9	28.9	42.7	22.1	44.0	22.5	60.2	38.7
October.....	33.9	16.4	51.8	31.0	43.5	23.0	46.2	26.0	64.4	45.6
November.....	32.6	16.7	52.5	31.2	47.2	25.5	47.7	24.6	64.1	38.9
December.....	32.8	17.7	52.4	32.0	39.2	16.9	42.2	21.0	57.7	31.7
1933 ¹										
January.....	32.5	17.2	50.9	28.7	37.5	15.5	38.9	18.4	43.9	22.7
February.....	31.7	15.9	51.5	29.6	46.4	20.7	43.2	20.1	50.0	28.4
March.....	30.9	14.6	49.4	26.4	50.0	26.2	37.9	17.7	48.8	26.7
April.....	31.2	14.9	49.6	26.8	45.5	22.0	42.2	19.9	52.5	30.6
May.....	34.6	20.2	51.2	31.4	56.8	33.6	45.6	24.0	56.6	35.8
June.....	38.9	25.0	55.3	37.6	65.6	41.7	49.6	27.6	62.1	41.2
July.....	41.3	26.6	58.8	42.4	69.6	39.0	53.3	30.2	70.0	46.8
August.....	46.8	31.9	63.0	44.2	68.9	39.1	57.8	33.7	80.4	53.8
September.....	51.2	31.0	62.2	42.5	74.6	42.9	59.9	33.5	91.1	61.5
October.....	47.2	31.6	58.2	39.1	69.5	37.4	55.4	30.7	96.2	69.3
November.....	51.1	34.4	57.9	38.9	58.6	27.6	56.3	30.6	93.5	61.2
December.....	52.0	36.2	61.0	45.1	55.8	27.3	54.4	30.8	79.1	48.8

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Iron and steel and their products, not including machinery— Continued								Machinery, not including transportation equipment	
	Structural and ornamental metal work		Tin cans and other tinware		Tools, not in- cluding edge tools, machine tools, files, and saws		Wirework		Group index	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1923	104.4	104.0	101.0	97.7	105.7	103.1	93.1	89.6	105.8	104.0
1924	97.7	96.6	100.0	100.0	102.2	101.8	100.0	100.0	95.1	95.3
1925	97.9	99.4	99.0	102.3	92.1	95.1	106.9	110.4	99.1	100.7
1926	107.5	109.9							107.8	111.2
1927	106.1	108.8	98.4	104.2	91.7	95.6	120.4	122.5	102.3	106.0
1928	106.5	111.0							105.1	111.3
1929	111.2	112.8	104.3	113.6	107.6	117.8	124.2	129.3	125.9	134.2
1930	98.9	94.2							104.6	102.2
1931	76.0	61.5	83.7	83.3	60.4	51.1	95.6	80.6	78.3	63.9
1932 ¹	50.8	31.1	73.8	67.3	46.5	32.2	90.3	61.9	56.3	36.1
1933 ¹	46.1	26.3	78.7	70.6	48.9	34.7	103.3	75.7	58.9	37.9
1923										
January	94.3	94.6							98.9	89.8
February	95.4	95.7							102.9	94.4
March	99.8	100.2							106.0	101.2
April	100.8	101.1							108.7	107.1
May	102.9	103.3							108.6	109.8
June	108.1	109.1							108.6	110.7
July	105.5	107.7							108.3	106.6
August	112.2	108.9							106.7	104.8
September	111.6	106.7							107.4	108.0
October	109.9	110.3							105.0	106.8
November	108.0	106.8							104.8	105.4
December	104.2	103.7							103.4	105.5
1924										
January	101.8	98.9							103.0	102.6
February	101.8	101.2							102.0	105.1
March	99.1	98.5							103.0	106.7
April	98.1	99.2							101.8	105.3
May	98.7	98.6							97.0	99.7
June	98.8	100.8							93.1	93.8
July	98.2	93.7							89.1	84.2
August	98.7	96.6							88.9	85.5
September	98.2	94.6							89.6	86.6
October	93.5	94.3							90.4	89.5
November	91.5	87.7							90.6	89.1
December	94.1	95.6							93.2	94.9
1925										
January	93.8	91.3							93.9	94.6
February	93.9	95.8							96.2	99.2
March	94.4	96.5							97.0	100.4
April	94.4	94.9							97.7	98.7
May	96.8	101.2							97.9	101.1
June	98.9	103.0							97.6	99.3
July	102.2	102.9							97.0	96.9
August	101.2	101.8							98.0	97.9
September	100.2	98.1							100.2	96.9
October	101.3	104.0							102.9	104.8
November	98.8	100.3							104.8	107.8
December	98.3	103.5							106.5	111.3
1926										
January	97.9	95.0							107.2	108.5
February	100.0	103.7							108.7	112.8
March	100.6	104.6							109.7	114.9
April	103.7	106.5							109.1	113.4
May	105.8	109.5							108.1	111.9
June	108.0	112.6							107.7	112.8
July	113.9	112.8							106.8	107.0
August	114.0	116.7							106.9	109.7
September	114.8	113.0							108.2	108.2
October	112.8	117.0							108.6	113.3
November	109.9	112.2							106.7	109.8
December	108.6	115.0							106.4	111.8

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Iron and steel and their products, not including machinery— Continued								Machinery, not including transportation equipment— Continued	
	Structural and ornamental metal work		Tin cans and other tinware		Tools, not in- cluding edge tools, machine tools, files, and saws		Wirework		Group index	
	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls
1927										
January	104.2	103.7							105.2	107.8
February	104.6	106.5							106.3	111.9
March	104.2	106.8							105.9	112.3
April	105.3	104.5							104.9	110.6
May	106.0	109.0							103.3	109.4
June	107.6	112.5							103.3	108.5
July	107.8	109.3							100.9	102.3
August	109.8	116.3							100.4	103.9
September	108.9	109.4							99.7	100.0
October	106.2	110.6							100.3	103.0
November	104.6	106.3							98.7	99.3
December	104.1	110.5							98.4	103.4
1928										
January	101.9	101.6							98.1	100.4
February	102.2	105.5							99.5	104.7
March	101.1	104.6							101.1	107.8
April	101.4	105.5							101.8	107.9
May	104.8	111.7							103.1	109.9
June	107.6	113.1							103.9	112.1
July	107.1	110.0							104.2	108.6
August	111.2	115.7							105.7	111.5
September	110.6	113.2							108.3	112.9
October	109.2	118.4							110.1	118.8
November	109.2	116.3							111.7	118.1
December	112.1	116.5							113.5	122.4
1929										
January	107.7	105.9							114.5	119.6
February	107.3	108.9							118.1	128.1
March	107.6	108.6							121.2	133.7
April	108.0	110.8							123.7	136.2
May	109.8	112.5							127.2	140.3
June	111.6	113.3							130.1	140.4
July	113.7	112.4							132.7	137.3
August	116.1	119.3							133.6	139.6
September	117.0	120.5							132.6	138.8
October	115.7	121.2							132.5	141.1
November	111.9	111.7							125.6	129.3
December	108.3	108.8							119.5	126.0
1930										
January	104.6	99.3							116.1	119.3
February	101.7	98.5							115.5	120.1
March	100.6	97.6							114.4	119.3
April	101.6	101.8							112.3	117.2
May	102.3	101.8							109.2	112.6
June	103.0	101.5							105.9	107.2
July	102.6	93.7							101.8	95.8
August	98.7	95.6							98.1	91.9
September	97.6	90.9							99.1	91.3
October	94.0	88.6							97.6	89.9
November	90.8	80.6							94.3	82.0
December	89.5	80.2							91.3	80.0
1931										
January	84.5	71.8	86.2	87.7	62.8	52.9	88.2	74.6	87.7	74.4
February	81.2	68.8	87.7	85.5	62.4	55.0	86.0	75.3	87.4	76.0
March	80.8	68.2	87.8	90.8	62.6	55.8	89.1	81.9	85.5	75.3
April	79.2	64.9	90.1	93.0	62.6	56.1	89.9	78.8	84.1	73.0
May	77.5	65.0	88.4	87.2	60.4	54.1	91.1	80.5	82.1	71.0
June	76.1	62.9	86.0	85.5	60.5	51.9	92.9	81.9	79.3	66.0
July	76.9	65.3	85.7	84.8	60.9	51.1	94.3	80.3	76.1	60.7
August	77.1	62.1	86.5	84.7	58.2	48.3	104.2	88.2	73.2	58.4
September	74.1	58.1	80.8	81.3	59.6	45.7	101.7	81.0	73.6	54.6
October	70.0	52.9	76.2	75.1	58.7	48.3	102.6	83.6	71.4	54.1
November	68.0	49.9	73.3	71.6	57.6	46.9	104.1	80.7	69.8	51.9
December	66.3	48.3	75.3	72.3	58.1	47.1	103.0	80.2	68.9	51.9

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Iron and steel and their products, not including machinery— Continued								Machinery, not including transportation equipment— Continued	
	Structural and ornamental metal work		Tin cans and other tinware		Tools, not in- cluding edge tools, machine tools, files, and saws		Wirework		Group index	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1932 ¹										
January.....	62.7	43.7	73.5	70.6	54.8	41.3	97.0	71.0	66.1	47.5
February.....	59.3	39.7	71.9	66.6	54.4	42.5	98.6	78.4	66.0	47.5
March.....	58.0	37.2	72.6	68.6	51.8	39.6	94.7	75.3	64.0	44.6
April.....	55.4	35.2	72.9	67.6	50.8	37.0	91.8	65.3	60.7	40.9
May.....	52.7	33.0	71.1	64.3	48.7	33.6	91.1	65.6	58.4	38.0
June.....	50.8	29.3	75.8	68.8	46.2	31.3	90.4	60.7	55.3	34.4
July.....	48.2	27.2	74.2	63.9	41.9	24.3	84.2	49.2	52.3	30.6
August.....	47.6	27.2	74.7	66.4	38.4	22.1	87.0	54.7	50.1	29.0
September.....	45.5	25.8	80.3	76.9	41.8	27.1	89.4	58.2	50.4	29.7
October.....	43.9	25.5	75.9	69.7	42.6	29.3	88.2	59.2	51.0	30.6
November.....	42.9	25.5	72.4	61.3	43.7	29.8	87.0	56.4	51.1	30.2
December.....	42.6	23.7	70.3	62.4	43.2	29.0	84.2	48.6	50.6	30.3
1933 ¹										
January.....	40.6	20.1	66.9	58.4	42.0	27.6	81.7	46.6	48.1	28.2
February.....	39.7	18.8	69.6	58.4	41.9	25.6	86.0	53.9	48.7	28.7
March.....	40.4	18.7	67.7	56.4	39.4	22.6	84.3	48.0	47.1	26.2
April.....	41.0	20.1	70.5	60.7	39.7	22.7	84.5	53.7	47.7	26.8
May.....	40.6	21.6	72.9	67.0	41.0	25.9	89.7	66.6	50.1	30.6
June.....	42.0	22.8	78.0	73.9	44.6	33.3	100.6	80.6	54.2	35.6
July.....	45.5	24.0	81.8	77.6	49.4	38.4	109.4	89.4	58.1	39.1
August.....	49.3	29.7	89.8	80.8	54.9	41.7	117.8	103.4	64.5	43.5
September.....	53.9	33.7	92.3	81.9	56.7	43.0	124.3	94.2	69.8	46.6
October.....	54.6	35.9	85.0	75.6	58.8	45.1	123.7	95.7	73.0	50.2
November.....	53.3	35.4	83.9	74.7	59.0	44.9	118.3	84.9	73.3	50.2
December.....	52.7	34.2	86.4	81.5	58.9	45.5	118.8	91.6	71.8	49.1

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Machinery, not including transportation equipment—Continued									
	Agricultural implements		Cash registers, adding machines, and calculating machines		Electrical machinery, apparatus, and supplies		Engines, turbines, tractors, and water wheels		Foundry and machine-shop products	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923.....	110.0	109.9	107.4	105.1	103.0	100.1	99.1	99.5	108.4	106.7
1924.....	88.1	88.7	97.2	97.3	97.9	99.2	96.0	96.7	93.9	93.6
1925.....	101.9	101.4	95.4	97.6	99.1	100.7	104.9	103.8	97.7	99.7
1926.....	115.3	119.1	.....	.....	.....	.....	115.4	119.2	103.3	107.4
1927.....	118.5	125.9	103.1	100.4	(?)	(?)	111.3	119.3	97.7	99.9
1928.....	137.9	152.4	.....	.....	.....	.....	113.2	125.5	98.8	102.6
1929.....	147.9	160.0	120.8	137.3	127.3	134.4	125.3	138.9	111.3	117.9
1930.....	110.7	106.9	.....	.....	107.1	109.3	106.1	107.2	94.2	89.0
1931.....	62.3	51.9	87.3	69.1	80.9	68.7	68.1	54.0	69.7	55.4
1932 ¹	39.2	32.4	75.4	50.6	56.8	37.1	42.4	24.0	50.4	31.1
1933 ¹	44.5	37.7	79.5	56.4	51.3	33.6	44.8	25.7	52.6	32.8
1923										
January.....	107.0	99.4	.....	.....	.....	.....	90.1	83.5	101.1	92.1
February.....	120.0	114.4	.....	.....	.....	.....	90.1	83.3	106.0	97.8
March.....	125.3	123.7	.....	.....	.....	.....	96.9	94.0	108.7	104.4
April.....	124.9	125.0	.....	.....	.....	.....	101.8	105.0	112.2	111.7
May.....	122.3	125.9	.....	.....	.....	.....	103.3	105.8	111.7	114.0
June.....	116.7	116.3	.....	.....	.....	.....	105.1	107.9	112.5	115.1
July.....	108.3	106.2	.....	.....	.....	.....	103.9	101.3	111.9	110.1
August.....	103.4	102.9	.....	.....	.....	.....	103.0	103.3	111.5	108.4
September.....	98.8	98.2	.....	.....	.....	.....	101.4	101.1	110.6	109.0
October.....	95.6	98.2	.....	.....	.....	.....	98.6	103.9	106.3	108.6
November.....	97.8	102.1	.....	.....	.....	.....	98.9	103.1	105.5	105.1
December.....	99.4	106.2	.....	.....	.....	.....	96.4	101.8	103.3	104.4
1924										
January.....	103.1	108.2	.....	.....	.....	.....	93.0	96.8	103.2	100.5
February.....	105.3	111.2	.....	.....	.....	.....	97.8	102.8	101.1	103.9
March.....	105.6	111.4	.....	.....	.....	.....	99.0	103.8	102.2	106.7
April.....	98.4	101.9	.....	.....	.....	.....	100.5	105.8	101.7	105.7
May.....	88.8	93.6	.....	.....	.....	.....	100.1	104.7	96.0	98.6
June.....	77.6	78.4	.....	.....	.....	.....	98.3	103.6	92.1	91.2
July.....	71.2	66.4	.....	.....	.....	.....	97.1	92.7	87.5	80.8
August.....	73.4	70.6	.....	.....	.....	.....	96.1	94.3	87.6	83.5
September.....	75.3	71.4	.....	.....	.....	.....	92.6	89.8	87.8	84.5
October.....	81.0	77.4	.....	.....	.....	.....	92.0	90.7	87.9	86.9
November.....	85.7	81.8	.....	.....	.....	.....	92.2	86.0	88.5	87.5
December.....	92.3	92.5	.....	.....	.....	.....	92.7	89.9	91.4	93.9
1925										
January.....	94.1	90.4	.....	.....	.....	.....	93.7	91.1	93.5	94.7
February.....	99.7	100.3	.....	.....	.....	.....	99.2	99.9	96.2	100.4
March.....	103.1	105.0	.....	.....	.....	.....	102.5	104.3	97.1	101.8
April.....	104.1	105.3	.....	.....	.....	.....	102.9	101.4	97.9	99.6
May.....	101.3	102.2	.....	.....	.....	.....	105.1	105.7	98.2	101.9
June.....	97.9	96.3	.....	.....	.....	.....	106.4	105.8	98.6	100.1
July.....	94.2	90.9	.....	.....	.....	.....	107.6	106.1	96.9	95.9
August.....	99.7	97.9	.....	.....	.....	.....	108.9	106.4	96.7	96.9
September.....	101.6	93.6	.....	.....	.....	.....	108.3	101.4	97.7	94.0
October.....	104.9	105.6	.....	.....	.....	.....	108.4	105.1	99.2	102.0
November.....	109.5	111.5	.....	.....	.....	.....	107.3	109.2	99.7	102.8
December.....	112.7	118.2	.....	.....	.....	.....	108.1	108.6	100.6	105.9
1926										
January.....	118.0	120.6	.....	.....	.....	.....	109.5	109.6	101.0	103.2
February.....	120.7	125.3	.....	.....	.....	.....	112.2	114.4	103.8	109.3
March.....	120.0	125.1	.....	.....	.....	.....	113.5	117.1	105.6	112.4
April.....	120.0	125.1	.....	.....	.....	.....	116.2	121.0	105.6	111.0
May.....	116.4	121.6	.....	.....	.....	.....	117.5	122.6	104.6	109.8
June.....	114.3	118.9	.....	.....	.....	.....	116.7	122.4	104.3	110.4
July.....	108.6	110.7	.....	.....	.....	.....	117.5	119.4	103.3	103.8
August.....	111.7	117.1	.....	.....	.....	.....	119.0	123.1	103.7	107.0
September.....	111.8	109.6	.....	.....	.....	.....	118.0	121.0	104.0	104.7
October.....	112.7	115.5	.....	.....	.....	.....	117.0	122.2	102.7	107.8
November.....	114.3	116.5	.....	.....	.....	.....	112.9	116.7	100.0	103.3
December.....	115.4	122.9	.....	.....	.....	.....	114.9	120.3	100.6	105.5

¹ Data subject to revision when census figures for 1933 become available.² Not comparable.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Machinery, not including transportation equipment—Continued									
	Agricultural implements		Cash registers, adding machines, and calculating machines		Electrical machinery, apparatus, and supplies		Engines, turbines, tractors, and water wheels		Foundry and machine-shop products	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January	116.4	120.2					114.9	118.1	100.2	101.5
February	120.6	129.6					117.5	125.0	102.7	108.8
March	121.6	128.2					117.2	124.3	103.0	109.7
April	119.4	128.0					113.7	120.7	102.2	106.8
May	117.6	127.4					111.3	120.7	100.4	105.4
June	116.7	123.8					110.3	119.3	99.4	103.3
July	113.0	117.0					109.9	117.4	97.4	97.3
August	115.4	124.3					110.4	117.9	96.4	97.6
September	113.5	117.1					108.9	115.8	93.8	92.3
October	118.5	126.2					107.8	117.5	93.7	92.8
November	120.6	128.8					107.0	116.7	91.3	89.5
December	128.3	140.5					106.6	118.1	91.5	93.2
1928										
January	133.0	145.3					107.4	116.5	92.1	90.8
February	137.0	152.6					107.9	119.7	94.7	97.3
March	140.5	158.7					110.2	121.8	96.2	100.7
April	139.9	156.2					111.4	126.8	96.9	100.7
May	139.2	155.5					112.4	126.8	98.4	103.1
June	139.2	155.0					111.9	126.0	98.9	104.2
July	135.1	146.7					112.0	125.4	99.1	100.6
August	133.4	149.0					115.4	128.1	99.8	108.3
September	131.7	140.5					116.0	127.2	101.1	105.3
October	138.2	152.5					116.3	127.8	102.0	109.0
November	141.1	154.1					116.5	128.8	103.2	108.0
December	146.9	163.2					120.9	131.0	103.6	110.3
1929										
January	152.4	163.7			111.2	114.8	121.9	130.1	105.3	108.3
February	159.0	177.1			114.1	119.5	125.8	138.9	109.2	118.3
March	161.7	182.1			117.7	128.1	128.4	143.8	112.0	122.4
April	167.5	187.4			121.5	130.2	126.4	145.1	113.7	124.5
May	163.2	182.4			126.8	136.2	126.8	148.1	114.4	125.4
June	156.1	169.0			132.4	141.3	130.1	146.0	114.7	122.8
July	149.0	154.6			135.8	140.5	128.7	139.7	114.1	117.5
August	140.1	150.6			136.5	139.8	126.6	137.6	113.9	120.0
September	130.0	133.1			136.9	144.8	125.9	137.5	112.5	117.0
October	130.5	138.9			136.0	144.5	125.3	138.8	111.7	119.0
November	131.2	135.4			131.6	137.0	120.1	131.7	108.0	111.1
December	134.6	146.1			126.7	136.3	117.9	129.2	106.3	108.4
1930										
January	139.2	147.2			123.2	130.4	117.4	124.4	104.0	102.2
February	143.3	155.4			120.0	126.2	120.3	132.4	104.6	105.3
March	144.5	158.4			118.7	125.8	120.9	130.0	104.0	105.9
April	136.2	145.1			116.0	124.1	119.4	127.5	103.1	105.3
May	127.5	127.5			111.5	119.9	117.4	122.6	100.8	100.8
June	109.6	101.4			108.0	115.5	112.3	116.3	97.7	95.5
July	95.9	80.3			102.9	102.8	106.8	105.6	93.4	84.2
August	84.0	72.2			99.7	96.5	99.0	96.5	88.9	80.5
September	85.1	71.5			99.6	98.3	94.1	90.8	87.6	77.0
October	86.4	73.8			98.2	95.8	89.3	83.6	84.4	74.3
November	87.3	73.8			95.0	90.1	88.7	79.4	81.6	67.6
December	89.8	76.3			91.9	85.8	87.6	77.2	80.6	69.3
1931										
January	95.6	86.1	93.6	77.8	90.2	80.0	86.8	77.2	77.6	63.2
February	93.8	86.2	91.3	75.0	89.7	81.3	85.6	78.9	77.8	65.7
March	83.0	70.7	90.7	75.0	88.5	80.8	84.2	77.5	77.1	66.4
April	75.6	58.7	90.6	74.5	87.4	78.2	78.3	69.4	75.8	64.6
May	64.1	50.1	88.8	73.9	85.0	76.9	69.9	60.4	75.5	63.6
June	57.5	45.1	87.8	73.4	82.6	70.7	67.3	55.1	71.9	58.1
July	47.6	40.0	83.5	64.2	79.4	65.6	65.0	47.5	68.5	52.8
August	43.3	36.0	87.7	69.1	76.2	65.2	60.2	41.1	64.6	49.1
September	43.5	35.4	84.4	58.6	76.1	59.4	56.4	37.4	64.3	46.5
October	45.0	36.0	82.9	61.9	73.9	57.0	55.3	36.0	61.9	45.6
November	47.8	37.9	83.1	62.0	71.1	55.4	53.1	33.2	60.8	43.9
December	51.2	40.5	83.2	63.4	70.1	53.5	55.1	34.4	60.7	45.0

TABLE 8.—*Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued*

[3-year average, 1923-25=100]

Month and year	Machinery, not including transportation equipment—Continued									
	Agricultural implements		Cash registers, adding machines, and calculating machines		Electrical machinery, apparatus, and supplies		Engines, turbines, tractors, and water wheels		Foundry and machine-shop products	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	54.0	41.9	84.2	60.6	69.3	51.2	42.6	26.7	57.8	39.5
February.....	57.5	53.6	83.7	56.7	68.3	50.0	50.1	30.1	57.6	40.0
March.....	56.8	51.5	81.5	55.4	66.8	47.0	49.5	29.4	55.9	38.0
April.....	50.6	42.9	79.8	53.2	63.2	43.1	46.7	27.9	53.9	35.3
May.....	39.6	34.6	80.4	52.8	60.8	39.4	44.9	25.6	52.1	33.4
June.....	30.8	25.0	77.1	48.3	57.5	36.2	43.4	23.9	49.3	30.0
July.....	27.7	21.3	76.2	47.9	53.4	32.8	40.2	20.7	47.7	26.7
August.....	30.2	23.7	67.3	45.8	51.5	29.6	38.0	20.0	45.0	25.1
September.....	29.1	22.2	68.1	46.2	48.7	29.2	37.8	19.6	45.7	25.5
October.....	26.9	21.3	69.1	47.6	47.6	29.0	38.3	21.7	46.3	26.7
November.....	31.5	23.8	68.7	46.4	47.3	28.6	38.2	20.4	46.5	26.4
December.....	36.1	27.4	68.4	46.4	46.8	28.6	38.6	21.7	46.4	26.7
1933 ¹										
January.....	38.2	29.0	67.4	43.6	44.7	27.0	38.5	21.1	43.8	23.9
February.....	41.6	33.0	67.6	43.5	44.7	26.7	38.6	21.4	44.5	24.8
March.....	39.9	29.0	66.5	41.7	43.6	25.5	36.6	19.7	42.9	22.3
April.....	38.3	28.2	67.6	45.7	44.0	26.5	36.8	20.0	43.4	22.5
May.....	35.4	28.0	69.9	48.3	45.5	29.2	37.1	20.7	45.2	26.4
June.....	38.5	33.1	76.4	54.5	48.0	32.4	40.9	24.2	48.9	31.2
July.....	40.1	33.0	80.0	57.9	51.4	35.8	43.7	25.6	52.9	35.3
August.....	43.5	37.0	86.4	62.0	55.0	37.5	43.5	24.0	59.4	39.9
September.....	48.2	41.6	90.7	65.4	58.4	39.7	53.3	29.6	62.4	41.3
October.....	52.4	47.4	92.9	68.4	60.6	41.5	53.4	31.7	63.6	43.3
November.....	56.1	53.6	93.8	71.6	60.3	41.3	56.4	33.5	62.5	41.9
December.....	61.2	59.8	94.4	73.3	59.4	39.8	59.3	37.1	61.4	41.3

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Machinery, not including transportation equipment—Continued								Transportation equipment	
	Machine tools		Radios and phonographs		Textile machinery and parts		Typewriters and supplies		Group index	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1923.....	108.1	105.3	89.5	88.1	116.4	117.5	100.0	98.4	107.6	107.7
1924.....	92.0	90.8	105.9	107.5	92.7	86.8	100.0	100.0	93.1	90.8
1925.....	99.9	103.9	104.6	104.4	90.9	95.7	100.0	101.6	99.3	101.5
1926.....	119.3	125.3			90.1	95.7			99.1	99.5
1927.....	114.3	116.3	(¹)	(¹)	85.3	93.2	111.5	113.0	87.9	89.8
1928.....	127.9	139.8			78.5	84.2			96.2	101.6
1929.....	167.2	187.6	204.5	202.9	88.1	96.7	121.1	130.1	103.5	105.4
1930.....	126.0	121.9	141.0	139.8	71.2	66.0			80.2	70.2
1931.....	74.7	61.5	124.4	96.5	61.3	54.3	77.8	60.0	66.3	52.3
1932 ¹	40.5	27.5	100.0	62.7	48.7	35.4	58.7	35.2	56.0	40.7
1933 ¹	41.7	28.7	151.4	85.4	61.1	47.0	62.7	42.4	54.2	39.5
1923										
January.....	102.5	98.5			111.4	106.5			97.0	84.6
February.....	107.2	103.0			113.1	107.5			103.5	88.5
March.....	112.2	108.0			116.3	117.5			108.2	107.8
April.....	116.4	112.0			118.8	119.6			110.7	111.2
May.....	118.1	113.5			121.1	127.4			111.6	115.0
June.....	117.1	115.8			117.5	123.8			111.7	111.1
July.....	114.0	108.8			120.3	124.8			108.6	107.7
August.....	87.8	87.4			119.3	120.9			107.9	108.9
September.....	108.2	105.6			120.4	122.8			107.6	107.2
October.....	107.7	105.3			116.9	119.1			108.9	115.0
November.....	103.0	101.1			112.2	108.7			109.1	116.3
December.....	103.0	104.0			109.2	111.9			106.1	107.8
1924										
January.....	99.7	99.7			107.0	106.8			105.8	93.5
February.....	101.5	102.5			104.2	100.4			106.8	111.3
March.....	102.0	103.1			102.4	93.9			107.6	108.4
April.....	99.7	101.4			97.4	92.7			104.3	106.6
May.....	96.2	97.7			94.4	89.5			96.8	97.9
June.....	93.6	93.7			92.5	84.2			88.7	83.9
July.....	87.0	81.3			88.7	78.0			85.1	78.0
August.....	75.9	70.7			89.0	78.2			84.5	80.7
September.....	85.5	80.0			83.8	72.4			84.1	81.6
October.....	85.6	82.5			84.2	80.7			84.6	83.6
November.....	87.1	84.9			82.5	77.3			82.8	80.6
December.....	89.6	91.5			86.6	86.9			85.9	83.9
1925										
January.....	92.6	93.8			90.2	93.3			89.4	75.4
February.....	94.1	96.6			90.4	90.8			90.8	94.7
March.....	94.0	95.9			87.3	88.9			96.0	101.1
April.....	94.5	96.8			88.0	89.2			101.7	107.5
May.....	95.5	98.9			90.1	94.9			104.7	110.6
June.....	97.3	101.0			89.0	94.5			99.8	101.7
July.....	99.0	102.8			90.5	97.3			98.9	99.9
August.....	93.0	97.6			92.4	98.4			99.2	97.3
September.....	103.3	102.0			91.8	94.2			100.8	100.2
October.....	107.9	114.8			90.4	98.1			105.3	112.8
November.....	112.2	119.7			92.9	100.8			104.1	112.4
December.....	115.9	126.3			97.5	108.3			100.9	104.8
1926										
January.....	117.9	125.5			97.7	107.2			102.5	90.9
February.....	118.6	126.3			98.4	104.1			105.4	108.6
March.....	120.6	127.8			97.2	105.4			108.3	112.1
April.....	120.2	127.4			95.9	104.8			106.0	110.4
May.....	118.9	124.4			92.4	97.8			102.9	106.1
June.....	118.6	124.2			88.5	91.5			101.1	101.4
July.....	118.6	121.4			86.7	88.9			98.3	94.2
August.....	108.7	112.9			87.5	88.9			99.4	101.9
September.....	120.4	123.3			84.8	90.0			98.4	98.8
October.....	122.2	129.1			82.4	87.6			94.4	100.5
November.....	123.2	130.0			83.7	87.8			88.1	89.0
December.....	123.1	131.3			85.4	94.1			84.6	79.8

¹ Data subject to revision when census figures for 1933 become available.

² No data available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Machinery, not including transportation equipment—Continued								Transportation equipment—Contd.	
	Machine tools		Radios and phonographs		Textile machinery and parts		Typewriters and supplies		Group index	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1927										
January	122.1	125.7			82.7	90.3			84.1	69.2
February	121.4	125.3			85.4	95.1			92.7	94.2
March	120.2	124.8			86.6	95.8			95.9	101.7
April	118.4	120.1			85.6	94.0			96.8	105.1
May	115.7	119.3			86.2	94.0			96.8	105.6
June	114.7	117.6			86.5	94.2			92.4	90.1
July	111.7	109.9			86.4	95.1			86.4	85.7
August	100.8	102.1			87.1	96.1			88.2	90.9
September	112.2	113.1			85.9	94.1			85.0	85.4
October	112.2	112.9			85.6	93.0			82.9	87.9
November	110.7	111.4			81.9	85.7			75.6	78.1
December	110.9	113.9			83.3	91.3			77.5	83.2
1928										
January	110.9	112.4			80.6	86.0			81.7	80.7
February	114.2	120.3			81.8	89.1			88.1	97.2
March	116.7	126.1			81.6	90.0			91.8	102.6
April	120.2	130.6			78.8	83.8			94.3	104.7
May	123.6	134.5			78.3	84.4			99.5	108.5
June	126.1	138.1			78.9	85.1			99.1	103.5
July	123.1	135.1			78.7	84.8			98.9	100.4
August	121.4	132.3			76.2	79.5			103.3	108.5
September	136.0	148.8			77.4	78.9			105.1	109.0
October	140.5	158.9			75.7	80.5			103.0	111.7
November	145.8	165.3			76.2	80.0			94.9	96.3
December	151.0	175.0			78.1	88.6			94.3	95.4
1929										
January	153.8	170.9	131.1	131.0	79.1	86.9			103.0	96.1
February	159.2	182.7	128.6	128.6	82.3	92.2			111.9	122.2
March	165.4	188.7	127.8	136.5	84.8	94.5			114.4	124.2
April	166.4	191.6	136.6	140.2	88.4	100.3			116.8	129.1
May	167.4	191.0	175.9	194.1	92.5	103.5			116.3	126.0
June	170.2	192.9	201.4	211.4	94.4	104.6			109.2	113.4
July	171.6	188.6	261.1	245.0	95.6	105.6			107.2	97.3
August	169.2	185.7	301.6	292.7	92.5	102.7			105.0	110.2
September	174.2	194.2	298.6	291.9	91.5	97.7			103.5	104.6
October	175.6	198.1	315.5	319.1	86.7	93.8			94.3	94.9
November	171.1	187.2	234.2	194.1	85.0	88.1			81.2	76.5
December	162.0	179.7	141.7	150.1	84.4	90.1			79.1	69.7
1930										
January	155.2	161.9	111.2	125.8	84.0	87.8			84.3	69.1
February	150.8	157.0	107.6	115.4	85.5	87.1			87.3	82.3
March	147.7	155.3	91.4	92.5	82.6	80.8			88.0	85.0
April	142.1	146.3	83.8	89.9	80.1	74.5			90.7	88.0
May	137.6	139.6	93.0	99.8	73.5	64.9			91.3	88.0
June	133.3	133.2	104.1	107.5	70.8	63.5			86.0	79.1
July	121.7	113.3	130.3	129.6	65.2	57.8			79.8	67.1
August	104.5	93.6	162.8	169.8	65.1	57.4			76.2	58.3
September	112.4	100.2	203.5	203.0	61.9	53.0			73.7	60.1
October	108.2	95.9	230.5	240.4	61.1	54.0			69.8	56.2
November	101.5	84.4	209.4	177.7	61.2	53.7			67.0	54.8
December	97.5	82.2	164.4	126.6	63.4	57.1			68.1	53.8
1931										
January	92.1	74.3	126.0	102.4	62.1	56.5	86.7	70.4	67.6	43.1
February	90.0	75.2	121.5	94.5	62.9	57.1	85.4	69.3	68.6	56.3
March	89.5	76.0	100.4	82.8	63.8	57.6	85.2	66.6	71.3	60.5
April	86.3	72.8	109.6	90.7	63.1	55.7	80.5	66.1	72.9	62.8
May	83.1	70.2	103.9	88.6	63.2	57.6	79.3	66.1	73.9	65.8
June	78.4	64.7	112.5	91.9	61.9	56.2	78.9	64.1	71.1	57.3
July	72.6	62.3	122.9	94.7	56.9	51.0	75.1	57.5	67.1	51.1
August	63.4	55.2	133.5	104.3	62.6	55.0	73.0	53.7	65.3	49.2
September	65.1	49.0	151.1	107.1	61.4	50.4	73.2	51.1	64.7	43.9
October	62.7	49.3	149.5	119.7	59.5	49.9	70.3	52.3	55.2	44.2
November	56.9	44.1	142.5	98.0	59.1	49.6	72.5	52.8	55.3	44.8
December	56.5	44.7	118.8	83.6	59.0	54.5	73.8	50.3	62.9	49.0

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Machinery, not including transportation equipment—Continued								Transportation equipment—Contd.	
	Machine tools		Radios and phonographs		Textile machinery and parts		Typewriters and supplies		Group index	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	53.8	41.7	114.1	83.2	58.8	53.4	70.8	45.6	64.7	47.8
February.....	53.3	41.3	105.7	70.0	59.4	52.2	68.9	47.6	67.1	51.8
March.....	50.3	36.2	93.9	58.2	57.1	47.5	68.3	45.1	65.6	51.3
April.....	45.7	31.9	84.0	52.7	53.0	41.0	67.6	42.9	61.7	48.2
May.....	40.0	26.5	89.6	61.1	48.4	31.6	65.4	37.7	61.7	52.3
June.....	38.8	24.4	93.7	61.5	44.9	25.7	56.3	31.2	61.0	46.3
July.....	34.6	21.4	91.6	54.4	35.9	20.3	54.7	28.5	58.8	43.1
August.....	32.1	20.3	92.4	51.1	42.6	27.2	38.9	21.3	52.4	33.7
September.....	34.1	21.2	100.0	64.1	45.2	30.9	53.4	28.7	46.7	25.1
October.....	33.3	20.5	117.2	71.6	46.3	31.9	53.5	29.9	41.1	26.6
November.....	34.3	22.0	113.9	66.5	45.7	30.3	56.7	32.2	43.9	29.5
December.....	35.3	22.5	103.3	58.0	46.9	32.5	49.5	31.6	47.5	33.2
1933 ¹										
January.....	35.6	23.5	84.9	47.9	47.1	31.7	54.8	32.2	51.4	35.8
February.....	34.8	22.5	90.6	51.9	47.6	30.7	51.3	29.3	50.3	32.1
March.....	30.8	17.8	89.6	47.9	46.0	27.4	49.8	27.0	45.2	27.8
April.....	30.3	17.6	98.6	57.4	44.3	26.6	50.0	25.9	45.3	31.9
May.....	31.3	18.6	119.0	71.0	46.8	31.4	52.7	29.9	48.8	38.7
June.....	35.1	24.2	135.0	74.6	54.0	44.3	51.6	31.2	51.7	40.6
July.....	37.5	26.3	138.0	63.5	63.0	55.3	55.2	35.9	58.3	43.5
August.....	44.0	30.6	158.7	84.2	75.9	61.7	66.5	48.9	61.6	49.7
September.....	50.2	36.0	195.9	104.1	78.5	64.0	72.8	54.2	64.3	48.2
October.....	54.0	39.6	238.2	142.8	77.8	65.1	77.6	60.3	59.1	43.3
November.....	57.7	43.2	248.3	150.5	77.4	63.9	83.8	64.2	53.5	38.6
December.....	58.9	45.0	219.4	128.4	74.9	60.6	85.7	69.8	61.1	43.7

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Transportation equipment—Continued									
	Aircraft		Automobiles		Cars, electric and steam-railroad		Locomotives		Shipbuilding	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923.....	103.6	103.4	100.6	100.6	126.9	128.7	157.7	168.1	114.5	112.8
1924.....	100.0	100.0	93.6	90.6	93.8	94.3	76.4	72.9	93.2	94.9
1925.....	96.4	96.6	105.8	108.8	79.3	77.0	65.9	59.0	92.3	92.3
1926.....			104.8	104.8	75.0	70.9	86.2	80.6	97.4	100.9
1927.....	157.9	156.8	91.9	93.3	59.9	60.4	66.7	57.2	101.3	108.3
1928.....			108.1	113.9	48.4	48.2	45.4	39.6	79.5	85.0
1929.....	525.2	501.5	111.3	111.6	63.1	63.1	56.8	58.3	101.3	109.7
1930.....			80.3	65.7	54.7	53.2	52.3	51.5	107.3	113.5
1931.....	353.1	354.8	71.0	53.4	29.6	25.4	28.0	18.1	83.0	76.8
1932 ¹	253.7	251.0	60.8	42.3	26.3	23.5	19.4	8.9	66.0	52.5
1933 ¹	298.5	269.5	59.8	42.8	25.4	20.5	15.6	5.8	55.4	38.9
1923										
January.....			87.1	76.0	125.7	105.7	148.2	139.3	115.0	104.8
February.....			95.0	91.9	129.3	118.7	153.4	152.4	114.9	104.4
March.....			99.2	100.2	132.5	130.8	161.6	157.6	123.0	118.0
April.....			103.5	105.5	127.4	123.9	155.8	157.1	122.9	121.4
May.....			105.0	107.5	127.9	132.6	160.7	169.6	119.0	129.4
June.....			104.6	101.9	129.4	135.2	165.7	178.8	119.8	127.6
July.....			101.2	99.2	126.0	129.9	171.6	190.2	115.7	113.7
August.....			100.3	102.0	130.3	134.4	171.9	185.1	110.1	99.8
September.....			101.4	99.0	126.8	134.2	162.1	179.5	106.7	109.0
October.....			103.1	110.3	126.5	138.9	160.5	176.9	108.5	106.4
November.....			103.5	110.2	127.6	138.9	147.2	166.2	110.3	116.1
December.....			103.0	103.2	112.8	121.2	133.9	164.6	107.5	103.5
1924										
January.....			107.6	92.3	94.7	91.4	98.7	92.5	104.6	103.4
February.....			110.0	115.4	91.6	95.1	73.8	74.4	108.1	111.0
March.....			112.0	113.5	89.6	88.8	71.1	65.4	106.1	106.9
April.....			107.1	109.6	96.0	97.8	69.4	67.0	103.3	107.7
May.....			97.0	97.0	105.2	104.8	74.1	73.5	92.5	103.5
June.....			86.4	79.8	102.0	105.9	81.0	82.2	91.8	90.1
July.....			82.3	72.5	100.9	102.0	78.9	78.8	89.6	91.5
August.....			83.4	78.0	97.0	99.7	69.9	61.8	82.7	85.7
September.....			84.1	81.0	91.6	90.5	66.7	57.4	81.7	84.1
October.....			85.2	84.5	86.5	87.7	70.2	63.6	84.0	79.2
November.....			83.1	80.5	82.3	78.0	76.8	76.7	85.2	87.0
December.....			85.5	82.5	88.7	90.4	81.7	81.6	88.6	89.2
1925										
January.....			89.5	71.7	92.7	89.9	70.9	65.6	94.6	94.3
February.....			90.7	95.1	96.1	99.9	68.0	62.9	97.4	99.0
March.....			97.2	103.0	97.6	100.5	69.8	65.4	99.3	101.1
April.....			105.0	112.6	95.8	94.3	69.6	64.6	100.9	99.5
May.....			110.9	118.1	88.1	88.9	63.4	55.5	97.2	101.0
June.....			105.9	108.7	83.7	80.9	64.4	58.8	92.6	90.0
July.....			105.2	107.6	79.2	74.4	65.3	58.3	93.2	87.5
August.....			106.9	104.5	76.0	72.4	61.3	49.7	89.8	90.8
September.....			111.5	111.2	64.6	58.3	59.6	51.7	85.9	84.6
October.....			118.6	127.7	60.7	56.9	60.4	52.6	83.0	87.0
November.....			117.2	128.2	56.2	52.5	66.3	58.3	84.7	82.8
December.....			111.5	116.6	61.1	54.5	71.3	64.6	89.1	90.1
1926										
January.....			111.6	96.9	66.3	55.1	81.8	76.4	94.3	95.4
February.....			113.8	118.3	72.4	67.1	85.6	79.6	97.8	96.2
March.....			116.5	121.4	79.3	73.3	86.8	81.1	98.4	99.2
April.....			112.5	117.6	88.0	83.3	84.4	78.7	95.8	100.8
May.....			107.8	111.6	90.7	86.0	86.4	80.2	95.5	98.4
June.....			105.7	104.7	87.6	89.1	89.8	84.4	94.9	98.9
July.....			102.8	96.8	82.7	78.1	88.2	84.6	94.6	97.4
August.....			105.2	108.0	76.7	72.4	88.9	79.8	93.5	98.6
September.....			104.6	105.1	74.0	67.2	83.7	77.2	95.0	96.7
October.....			100.1	106.7	65.3	64.0	83.2	78.7	96.0	105.4
November.....			91.5	92.4	59.5	57.9	83.6	77.9	102.4	105.5
December.....			85.8	78.1	57.4	56.7	92.0	88.5	110.1	118.6

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Transportation equipment—Continued									
	Aircraft		Automobiles		Cars, electric and steam-rail-road		Locomotives		Shipbuilding	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1927										
January			85.7	65.6	56.0	53.8	77.1	68.2	111.1	117.0
February			96.7	98.3	55.7	55.1	77.4	70.6	115.4	118.6
March			100.9	107.7	57.1	56.6	75.5	67.7	115.8	123.1
April			101.3	110.6	66.3	66.3	69.9	60.3	113.1	125.2
May			101.3	111.3	70.6	73.8	67.4	56.4	108.5	116.5
June			95.3	91.6	73.8	74.7	67.7	52.8	104.7	109.2
July			89.0	87.3	68.3	67.0	69.1	57.1	98.0	105.7
August			92.4	95.1	63.8	67.2	71.9	59.6	93.5	96.8
September			89.2	89.5	60.3	58.1	68.2	60.0	90.2	92.9
October			87.9	93.0	55.6	56.7	58.2	50.1	88.7	97.1
November			79.6	81.5	48.6	51.1	50.5	43.2	87.5	93.6
December			83.2	88.5	42.2	44.3	47.5	40.2	88.7	103.6
1928										
January			90.0	87.5	36.3	34.4	46.5	40.2	85.8	95.2
February			98.4	109.7	40.7	38.2	48.6	43.4	81.2	84.9
March			102.6	115.4	47.4	48.7	48.9	42.2	78.6	83.6
April			105.0	116.9	53.0	55.0	48.2	38.8	79.9	88.5
May			110.9	121.2	58.6	61.0	47.0	40.0	79.4	83.5
June			110.7	114.2	57.5	60.3	48.2	44.6	78.6	85.7
July			110.5	111.2	58.2	56.7	45.7	40.5	77.1	82.0
August			117.2	123.7	54.3	56.2	44.8	39.1	75.2	78.2
September			120.5	123.9	48.5	48.2	42.7	39.7	75.4	80.6
October			118.5	128.5	42.6	42.2	42.0	36.3	76.7	81.3
November			107.5	108.4	41.7	39.6	40.9	34.5	79.4	81.8
December			105.7	105.6	41.9	38.4	41.4	35.4	86.6	95.2
1929										
January			116.5	107.3	42.2	32.2	41.5	38.8	90.4	95.3
February			127.5	139.4	47.0	44.7	42.4	41.8	90.7	97.8
March			129.0	139.7	51.8	50.8	48.1	49.4	97.2	104.6
April			129.1	142.9	62.0	61.8	57.3	58.9	103.5	111.6
May			127.4	137.5	65.9	67.2	63.4	64.3	104.4	113.8
June			117.7	120.9	67.4	65.8	62.2	63.3	103.3	115.0
July			114.6	90.4	69.1	67.7	66.2	68.4	103.3	111.5
August			111.6	116.7	70.2	71.1	64.4	67.7	101.0	105.9
September			109.5	108.5	72.4	72.4	60.2	64.5	101.7	112.1
October			97.4	95.6	69.2	72.7	60.3	63.8	101.9	111.3
November			79.5	71.5	67.0	69.0	57.7	59.4	106.6	115.5
December			75.2	59.5	72.4	82.3	57.7	59.3	111.1	122.3
1930										
January			81.4	60.8	73.3	69.8	56.5	59.2	116.0	121.7
February			85.7	76.7	70.9	74.2	57.4	60.7	115.4	124.8
March			87.3	80.8	67.2	69.0	53.5	62.6	113.6	124.4
April			90.5	84.2	67.9	70.6	60.3	64.4	115.1	124.8
May			92.4	85.4	64.5	63.9	60.4	62.8	111.0	123.6
June			86.8	75.8	57.4	57.3	61.3	61.0	109.8	116.5
July			79.8	62.4	55.4	51.0	56.0	52.4	105.0	110.1
August			75.8	51.3	52.1	49.8	50.1	47.4	105.5	111.0
September			73.4	55.2	47.5	43.1	47.3	44.2	104.6	107.0
October			70.3	52.5	39.8	35.1	42.7	36.2	101.4	100.7
November			69.2	52.2	29.6	27.0	39.3	33.9	94.8	98.7
December			70.6	51.1	30.8	27.2	37.7	32.9	95.0	98.6
1931										
January	405.8	381.9	70.4	38.8	31.8	27.5	30.3	19.6	93.3	90.9
February	386.3	376.9	72.5	56.7	31.2	27.3	31.0	21.3	89.6	88.0
March	392.6	419.1	76.4	62.5	32.0	27.3	33.5	25.0	86.4	83.4
April	378.9	386.4	78.3	65.4	32.7	28.2	32.1	23.8	88.6	85.4
May	391.6	400.0	80.9	70.0	28.1	23.7	29.5	21.1	86.0	86.5
June	411.1	426.6	76.9	59.4	29.3	24.5	28.6	20.5	85.3	78.9
July	354.7	351.8	72.2	52.6	29.1	23.8	28.2	18.8	81.8	72.4
August	306.8	303.0	71.0	50.7	29.9	25.4	26.6	16.2	75.6	69.2
September	315.8	307.0	70.0	44.1	29.8	26.1	25.3	15.1	76.7	64.4
October	291.1	288.4	57.7	44.4	27.6	24.3	23.7	12.7	75.5	68.4
November	297.4	312.1	57.6	45.6	26.2	23.2	23.1	11.4	78.3	65.8
December	304.7	304.5	68.0	50.8	27.0	23.9	23.8	12.1	78.4	68.4

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Transportation equipment—Continued									
	Aircraft		Automobiles		Cars, electric and steam-railroad		Locomotives		Shipbuilding	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1932 ¹										
January.....	295.3	292.0	71.5	50.4	22.8	19.8	23.0	11.2	75.3	65.4
February.....	290.5	284.9	74.1	55.0	27.7	26.4	23.3	11.5	75.2	63.9
March.....	297.4	293.0	71.9	54.2	29.6	28.5	22.8	11.7	74.1	60.6
April.....	277.4	273.4	66.4	49.8	28.6	27.2	23.6	11.9	76.1	66.0
May.....	269.5	258.3	67.3	56.7	26.7	25.0	22.3	11.0	72.6	57.3
June.....	254.7	253.3	67.3	49.8	24.7	21.7	19.9	9.2	70.1	54.3
July.....	233.7	226.6	65.3	46.0	25.6	22.0	18.4	7.8	63.6	52.3
August.....	221.1	229.1	57.4	34.6	24.2	21.4	17.6	7.5	59.7	43.1
September.....	208.9	209.0	49.9	23.4	25.1	21.4	16.0	6.1	57.5	42.4
October.....	215.8	217.6	42.0	24.8	27.4	23.9	15.2	6.1	56.5	43.0
November.....	237.4	232.7	45.8	29.2	27.4	22.6	15.6	6.2	55.7	39.4
December.....	242.6	241.7	50.9	33.8	26.0	22.4	15.3	6.1	55.7	42.3
1933 ¹										
January.....	236.3	226.6	57.0	38.5	23.4	19.3	14.0	5.4	54.2	37.7
February.....	240.5	234.7	56.1	34.2	22.4	17.3	13.0	4.9	51.1	35.7
March.....	254.2	246.7	49.5	28.7	22.4	17.7	11.4	4.2	48.2	32.5
April.....	267.4	257.3	50.1	34.3	22.6	18.5	11.0	3.9	44.4	30.1
May.....	316.8	290.5	53.9	42.9	22.8	17.9	10.9	4.0	47.5	32.5
June.....	325.3	291.5	58.2	45.9	19.8	14.5	11.7	4.4	48.0	32.5
July.....	325.3	279.4	65.9	48.8	24.7	18.1	13.1	5.3	52.3	36.2
August.....	313.2	282.4	68.7	55.7	29.4	24.2	17.5	5.9	57.5	40.0
September.....	308.9	259.3	71.6	53.1	28.5	23.1	18.6	6.6	64.2	45.9
October.....	320.0	278.4	64.2	46.1	27.9	24.2	22.6	8.5	66.1	47.5
November.....	337.4	299.0	56.6	39.6	28.5	24.4	22.4	8.7	63.5	46.8
December.....	336.3	288.4	66.1	46.0	31.8	27.2	20.7	7.8	67.3	49.4

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—*Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued*

[3-year average, 1923-25=100]

Month and year	Railroad repair shops						Nonferrous metals and their products			
	Group index		Electric railroad		Steam railroad		Group index		Aluminum manufactures	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923	108.6	109.6	104.0	101.5	108.9	110.2	105.4	103.7	106.3	100.2
1924	96.4	95.6	99.1	96.8	96.3	95.5	96.7	95.9	100.0	100.0
1925	95.0	94.8	96.9	99.7	94.8	94.3	97.9	100.4	93.7	99.8
1926	95.5	96.1	96.5	100.4	95.4	95.7	.....	.....	.....	.....
1927	89.0	92.0	94.1	99.8	88.6	91.4	96.5	100.5	96.6	105.5
1928	83.8	87.2	89.6	97.9	83.3	86.3	.....	.....	.....	.....
1929	82.6	90.4	87.8	97.2	82.2	89.8	111.4	116.4	138.4	150.0
1930	73.4	76.1	85.8	93.0	72.4	74.8	.....	.....	.....	.....
1931	64.1	61.7	79.3	80.2	62.9	60.4	74.0	63.1	90.2	81.3
1932 ¹	53.4	42.7	71.7	64.3	52.0	41.2	58.1	39.1	64.3	42.1
1933 ¹	52.0	41.7	66.3	55.1	50.9	40.8	62.0	41.5	71.8	50.9
1923										
January	110.5	108.1	101.7	99.2	111.1	108.8	.....	.....	.....	.....
February	105.2	101.9	102.3	99.8	105.4	102.1	.....	.....	.....	.....
March	106.4	105.8	103.4	100.9	106.6	106.2	.....	.....	.....	.....
April	106.2	108.0	104.0	101.6	106.3	108.4	.....	.....	.....	.....
May	106.9	110.4	103.3	100.8	107.1	111.1	.....	.....	.....	.....
June	110.3	114.8	104.3	101.8	110.8	115.8	.....	.....	.....	.....
July	110.4	111.1	104.8	100.5	110.8	111.9	.....	.....	.....	.....
August	111.8	113.3	105.4	103.0	112.2	114.1	.....	.....	.....	.....
September	111.1	109.8	106.2	99.9	111.4	110.5	.....	.....	.....	.....
October	111.5	115.6	104.3	102.3	112.0	116.6	.....	.....	.....	.....
November	108.8	111.6	104.7	104.3	109.1	112.1	.....	.....	.....	.....
December	104.3	104.8	103.5	103.5	104.4	104.9	.....	.....	.....	.....
1924										
January	101.0	95.7	101.8	101.2	101.0	95.2	.....	.....	.....	.....
February	98.0	97.6	100.4	100.3	97.9	97.5	.....	.....	.....	.....
March	97.6	98.4	100.6	101.6	97.4	98.3	.....	.....	.....	.....
April	97.4	99.9	100.3	101.0	97.1	99.9	.....	.....	.....	.....
May	94.9	96.0	99.5	99.0	94.7	95.8	.....	.....	.....	.....
June	93.8	95.6	98.9	98.9	93.5	95.3	.....	.....	.....	.....
July	93.4	86.2	98.1	93.1	93.1	85.9	.....	.....	.....	.....
August	93.5	90.5	97.7	97.5	93.2	90.0	.....	.....	.....	.....
September	95.0	91.0	96.7	95.3	95.0	90.7	.....	.....	.....	.....
October	97.7	99.6	98.6	97.3	97.5	99.8	.....	.....	.....	.....
November	97.8	98.4	98.6	99.2	97.6	98.3	.....	.....	.....	.....
December	97.2	98.8	98.5	101.7	97.0	98.7	.....	.....	.....	.....
1925										
January	95.9	92.0	96.9	98.2	95.6	91.5	.....	.....	.....	.....
February	96.0	99.8	97.3	101.0	95.8	99.6	.....	.....	.....	.....
March	96.0	100.1	97.9	102.7	95.7	99.8	.....	.....	.....	.....
April	95.2	95.8	98.0	101.3	94.9	95.2	.....	.....	.....	.....
May	92.1	92.7	97.3	100.4	91.6	92.0	.....	.....	.....	.....
June	92.8	92.6	97.9	99.5	92.4	92.0	.....	.....	.....	.....
July	93.3	89.4	95.6	97.0	93.0	88.8	.....	.....	.....	.....
August	93.7	91.0	92.4	94.8	93.8	90.7	.....	.....	.....	.....
September	95.5	90.1	95.6	94.8	95.3	89.7	.....	.....	.....	.....
October	95.7	95.7	97.3	98.3	95.5	95.4	.....	.....	.....	.....
November	96.2	99.3	97.9	104.0	96.0	98.8	.....	.....	.....	.....
December	97.5	99.0	98.6	104.2	97.4	98.6	.....	.....	.....	.....
1926										
January	96.4	91.8	97.8	98.4	96.2	91.2	.....	.....	.....	.....
February	96.6	96.3	97.4	102.9	96.5	95.7	.....	.....	.....	.....
March	96.8	97.8	97.5	102.7	96.6	97.4	.....	.....	.....	.....
April	96.2	96.9	97.6	102.2	96.0	96.5	.....	.....	.....	.....
May	95.4	95.8	97.2	101.1	95.2	95.2	.....	.....	.....	.....
June	94.4	96.2	95.8	100.9	94.2	95.8	.....	.....	.....	.....
July	94.1	91.0	95.7	97.7	93.9	90.5	.....	.....	.....	.....
August	94.5	96.7	95.3	99.9	94.3	96.4	.....	.....	.....	.....
September	95.3	93.0	95.2	97.3	95.2	92.6	.....	.....	.....	.....
October	95.7	99.0	95.9	95.3	95.6	99.0	.....	.....	.....	.....
November	95.8	99.0	95.9	101.0	95.7	98.8	.....	.....	.....	.....
December	95.3	99.5	96.6	102.9	95.2	99.1	.....	.....	.....	.....

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Railroad repair shops—Continued						Nonferrous metals and their products—Continued			
	Group index		Electric railroad		Steam railroad		Group index		Aluminum manufactures	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1927										
January.....	92.6	91.9	95.6	99.4	92.4	91.2				
February.....	92.2	97.0	96.0	100.0	91.9	96.7				
March.....	90.5	94.4	96.4	102.3	90.1	93.7				
April.....	89.1	93.5	95.9	101.6	88.6	92.8				
May.....	88.5	94.0	93.8	101.7	88.1	93.4				
June.....	88.4	92.0	94.5	101.6	88.0	91.2				
July.....	88.7	88.2	94.6	97.8	88.2	87.4				
August.....	87.9	91.1	94.4	99.1	87.4	90.5				
September.....	87.9	88.6	93.6	97.6	87.5	87.9				
October.....	88.1	91.6	92.0	96.7	87.8	91.1				
November.....	87.0	91.4	90.6	97.9	86.7	90.8				
December.....	86.5	90.7	91.7	101.7	86.0	89.8				
1928										
January.....	85.5	86.3	91.9	100.1	85.0	85.2				
February.....	84.4	88.9	92.4	98.9	83.8	88.1				
March.....	84.2	89.5	92.2	102.1	83.6	88.5				
April.....	84.0	89.1	91.5	101.0	83.4	88.1				
May.....	83.4	87.4	90.7	100.8	82.8	86.3				
June.....	83.9	88.0	89.8	98.4	83.4	87.2				
July.....	82.5	83.0	88.8	96.4	82.0	81.9				
August.....	82.8	83.6	88.2	96.6	82.4	82.6				
September.....	83.4	83.1	87.5	93.1	83.1	82.3				
October.....	83.8	89.4	87.9	96.9	83.5	88.8				
November.....	83.9	89.1	87.7	95.9	83.6	88.5				
December.....	83.6	88.8	86.5	95.0	83.3	88.2				
1929										
January.....	82.5	82.7	86.6	93.9	82.2	81.9				
February.....	83.0	88.9	86.6	94.4	82.7	88.4				
March.....	83.2	91.8	89.7	97.9	82.7	91.3				
April.....	83.0	92.5	87.2	97.8	82.7	92.0				
May.....	82.9	93.2	89.3	98.8	82.4	92.7				
June.....	82.5	90.8	86.5	97.1	82.2	90.2				
July.....	82.2	87.0	88.6	96.9	81.7	86.2				
August.....	82.6	91.0	89.0	97.7	82.1	90.5				
September.....	82.3	89.5	87.5	96.7	81.9	88.9				
October.....	83.2	93.1	87.9	98.1	82.8	92.7				
November.....	82.6	92.5	88.3	97.6	82.1	92.0				
December.....	81.1	91.9	86.8	99.4	80.6	91.2				
1930										
January.....	79.1	82.9	87.9	97.5	78.5	81.8				
February.....	77.9	84.1	87.6	95.8	77.2	83.2				
March.....	76.8	82.7	87.1	97.5	76.0	81.6				
April.....	76.0	82.6	87.7	98.0	75.1	81.4				
May.....	76.1	81.6	87.3	96.9	75.2	80.3				
June.....	75.1	79.5	86.6	97.0	74.2	78.1				
July.....	71.5	70.9	85.3	81.4	70.5	69.3				
August.....	70.9	72.7	84.5	80.1	69.8	71.3				
September.....	70.9	70.1	84.5	87.9	69.9	68.7				
October.....	68.8	69.2	84.5	87.9	67.6	67.8				
November.....	68.8	67.5	84.6	88.6	67.5	66.0				
December.....	68.6	69.5	82.3	86.8	67.5	68.3				
1931										
January.....	69.1	65.4	81.7	83.8	68.2	64.1	78.3	68.7	98.1	84.4
February.....	68.8	69.4	81.9	83.8	67.8	68.3	79.2	72.3	102.6	106.6
March.....	67.5	68.1	82.0	86.4	66.4	66.8	79.0	74.0	104.2	108.7
April.....	66.9	67.9	81.7	85.1	65.7	66.7	78.2	71.8	104.7	106.7
May.....	66.2	66.2	81.2	83.7	65.1	65.0	76.4	68.6	101.7	95.8
June.....	64.7	63.7	80.2	81.9	63.5	62.4	74.9	65.2	99.6	91.0
July.....	62.9	59.7	78.4	78.4	61.8	58.3	72.8	57.7	98.5	86.4
August.....	62.2	58.7	76.8	75.4	61.1	57.5	70.6	57.6	78.7	66.7
September.....	61.5	56.1	76.9	74.0	60.4	54.9	71.3	57.7	76.5	65.2
October.....	60.7	55.7	76.6	75.0	59.5	54.4	70.5	57.0	75.5	54.7
November.....	59.5	55.4	77.0	76.7	58.1	53.9	68.8	53.9	71.3	52.6
December.....	59.0	54.2	76.6	76.6	57.7	52.7	67.4	52.5	71.1	56.2

TABLE 8.—Indexes of employment and pay roll: in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Railroad repair shops—Continued						Nonferrous metals and their products—Continued			
	Group index		Electric railroad		Steam railroad		Group index		Aluminum manufactures	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	55.4	48.5	76.3	73.2	53.8	46.7	64.1	47.3	70.8	55.3
February.....	56.1	46.6	75.4	70.8	54.6	44.8	64.9	48.5	71.5	56.1
March.....	56.4	46.8	74.4	71.4	55.1	45.1	63.9	45.5	72.0	47.2
April.....	57.0	47.3	74.3	70.2	55.6	45.6	61.0	41.9	68.4	45.0
May.....	55.3	47.2	72.9	67.9	54.0	45.7	58.1	38.2	63.0	38.2
June.....	51.9	41.8	72.3	66.2	50.5	40.1	56.2	36.0	60.5	34.2
July.....	50.7	37.3	71.0	62.0	49.1	35.6	50.2	30.8	57.6	31.2
August.....	48.2	36.0	69.4	59.3	46.6	34.3	52.9	32.2	60.1	33.6
September.....	50.0	36.5	69.3	58.3	48.5	35.0	55.3	35.7	61.6	36.9
October.....	52.3	39.5	68.2	56.3	51.1	38.4	56.9	39.1	61.9	42.1
November.....	54.0	42.8	68.3	57.0	52.9	41.8	57.6	38.3	62.6	43.6
December.....	53.3	42.6	68.7	59.2	52.1	41.4	55.9	35.6	61.6	41.4
1933 ¹										
January.....	51.7	39.2	68.3	57.4	50.5	37.8	52.2	31.5	60.7	40.0
February.....	50.8	39.2	67.7	57.0	49.5	37.9	53.2	32.0	62.0	42.1
March.....	50.6	38.1	67.1	56.6	49.4	36.7	50.8	29.1	61.8	40.8
April.....	48.1	36.2	66.6	54.0	46.8	35.0	51.9	30.5	62.3	39.9
May.....	49.7	38.9	66.2	55.5	48.5	37.7	54.1	35.3	64.0	45.0
June.....	48.4	38.1	65.6	54.1	47.1	36.9	58.4	40.0	67.7	50.4
July.....	51.7	40.0	65.2	52.9	50.7	39.1	61.7	43.1	72.3	53.1
August.....	54.2	45.9	64.7	53.4	53.3	45.5	69.2	48.3	80.3	59.2
September.....	55.1	45.3	65.1	53.0	54.3	44.8	74.3	51.6	84.5	59.5
October.....	55.0	48.9	65.8	54.2	54.1	48.6	75.6	53.8	83.2	62.2
November.....	54.8	46.1	66.6	56.2	53.9	45.5	72.6	52.4	81.7	60.1
December.....	53.5	44.7	66.7	56.8	52.5	43.8	69.8	50.2	80.9	58.5

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Nonferrous metals and their products—Continued									
	Brass, bronze, and copper products		Clocks and watches and time-recording devices		Jewelry		Lighting equipment		Silverware and plated ware	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923	103.4	101.3	97.6	95.7	105.1	105.9	101.3	96.7	100.6	98.1
1924	96.6	95.6	100.0	100.0	99.8	91.8	100.0	100.0	100.0	100.0
1925	100.0	103.1	102.4	104.3	95.1	102.3	98.7	103.3	99.4	101.9
1926	102.7	107.4								
1927	101.2	104.7	102.9	108.1	96.2	106.9	92.9	97.3	98.4	102.3
1928	107.3	115.6								
1929	121.5	128.3	98.2	102.2	111.4	113.3	104.2	110.6	92.6	96.5
1930	96.6	88.7								
1931	74.9	60.3	74.3	62.2	74.1	65.6	65.3	60.4	65.3	54.3
1932 ¹	57.8	35.8	54.5	35.4	57.6	43.5	49.5	38.8	54.3	37.2
1933 ¹	64.1	41.3	51.7	34.4	55.5	39.6	51.4	38.7	55.6	36.2
1923										
January	100.6	91.5								
February	105.0	97.6								
March	106.9	104.0								
April	108.5	109.6								
May	106.9	109.9								
June	106.3	107.4								
July	103.9	104.5								
August	104.0	99.4								
September	100.2	97.4								
October	98.9	96.9								
November	99.1	97.4								
December	100.0	100.3								
1924										
January	100.1	99.2								
February	103.4	104.4								
March	103.2	106.4								
April	102.9	102.3								
May	100.5	98.6								
June	95.7	91.4								
July	89.9	82.3								
August	87.8	84.6								
September	89.9	89.1								
October	92.8	92.0								
November	94.8	95.5								
December	98.5	101.9								
1925										
January	98.9	103.1								
February	99.9	104.2								
March	100.6	104.5								
April	98.9	98.6								
May	100.0	103.6								
June	99.8	102.4								
July	100.1	101.9								
August	99.5	104.9								
September	99.4	97.7								
October	99.9	101.5								
November	100.9	105.1								
December	102.3	109.2								
1926										
January	102.7	107.1								
February	104.6	108.7								
March	105.8	112.2								
April	104.0	110.0								
May	103.0	109.0								
June	101.6	106.8								
July	99.8	102.4								
August	100.5	104.5								
September	102.7	103.9								
October	102.2	108.0								
November	102.7	107.6								
December	102.8	108.9								

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Nonferrous metals and their products—Continued									
	Brass, bronze, and copper products		Clocks and watches and time-recording devices		Jewelry		Lighting equipment		Silverware and plated ware	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January	102.6	106.7								
February	101.9	108.1								
March	103.6	110.5								
April	103.8	103.6								
May	104.4	109.6								
June	101.5	106.2								
July	100.7	101.8								
August	101.9	103.0								
September	100.4	101.4								
October	99.0	101.3								
November	97.3	99.6								
December	97.7	104.1								
1928										
January	97.0	102.7								
February	100.0	106.5								
March	101.3	107.3								
April	103.9	108.7								
May	104.5	111.9								
June	105.5	111.9								
July	106.7	109.5								
August	108.7	116.7								
September	110.8	119.9								
October	113.6	128.1								
November	116.9	130.6								
December	118.6	133.6								
1929										
January	119.0	129.7								
February	123.3	136.3								
March	124.9	139.9								
April	126.6	140.3								
May	124.4	135.9								
June	123.0	130.2								
July	121.5	125.2								
August	121.6	126.6								
September	121.0	126.1								
October	121.4	126.8								
November	117.1	113.1								
December	114.3	110.0								
1930										
January	109.0	104.1								
February	106.7	105.1								
March	105.0	101.7								
April	103.0	99.0								
May	100.6	94.5								
June	98.9	94.6								
July	95.4	83.1								
August	92.5	79.6								
September	89.1	77.8								
October	87.6	76.9								
November	86.3	73.7								
December	85.3	74.2								
1931										
January	81.8	68.9	77.2	69.6	76.4	71.4	68.5	66.3	68.3	53.8
February	80.8	69.3	76.8	69.5	73.6	67.2	68.3	63.6	70.2	61.9
March	81.4	71.6	76.2	68.4	76.8	71.8	67.9	64.7	70.3	63.0
April	79.7	69.8	75.1	63.0	76.1	68.8	67.9	64.7	66.9	60.4
May	79.1	68.5	72.7	59.7	73.5	65.6	66.6	63.1	66.3	55.8
June	76.3	63.0	69.7	57.8	72.5	63.9	65.8	62.6	66.5	52.3
July	74.1	57.8	70.6	55.4	71.2	53.3	64.4	60.1	61.9	47.1
August	71.0	54.8	70.3	58.6	72.4	62.2	64.7	58.2	62.6	50.4
September	70.8	51.9	74.8	63.8	76.6	67.7	64.7	57.7	62.7	52.9
October	69.0	50.6	75.7	64.2	76.2	68.8	62.2	56.0	62.8	56.1
November	67.7	49.3	77.3	62.8	71.8	63.3	62.5	54.0	62.5	47.3
December	66.8	48.4	75.0	53.2	67.1	62.7	60.6	53.8	62.0	50.0

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Nonferrous metals and their products—Continued									
	Brass, bronze, and copper products		Clocks and watches and time-recording devices		Jewelry		Lighting equipment		Silverware and plated ware	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	65.2	46.1	68.1	44.7	60.8	52.3	56.7	46.5	56.4	40.4
February.....	65.1	46.1	66.5	44.9	63.9	54.3	55.8	46.2	57.2	42.8
March.....	63.9	42.5	63.2	39.1	63.1	50.1	54.6	45.4	56.7	42.8
April.....	60.4	38.1	58.0	38.3	59.2	43.8	53.2	42.1	56.0	39.8
May.....	57.7	34.9	54.3	31.7	54.1	38.0	50.2	39.4	54.4	35.9
June.....	55.7	32.6	51.7	30.8	52.2	35.9	50.1	39.8	53.2	33.4
July.....	53.3	30.3	37.2	22.5	45.2	30.7	35.3	26.9	46.8	29.2
August.....	52.9	29.5	50.6	31.3	51.7	34.4	44.3	32.5	50.5	31.2
September.....	53.9	31.2	48.7	31.8	59.4	43.8	46.3	35.4	53.1	34.8
October.....	54.8	33.4	50.6	37.2	64.1	51.2	48.8	36.7	56.0	41.8
November.....	55.7	33.0	52.8	38.4	62.2	45.8	49.4	38.1	56.2	39.8
December.....	54.7	31.3	52.7	33.6	54.7	42.1	49.2	36.6	54.6	34.7
1933 ¹										
January.....	52.0	28.8	47.4	27.3	48.2	32.9	45.8	33.4	48.4	27.5
February.....	52.1	28.1	46.1	26.5	50.7	33.1	44.3	31.7	51.5	29.1
March.....	49.3	25.8	42.4	19.6	48.4	30.0	40.8	27.5	50.9	28.6
April.....	51.3	28.0	40.8	19.7	48.2	31.4	42.3	28.8	49.8	27.8
May.....	55.2	35.7	43.3	23.2	49.3	33.6	44.3	32.9	51.8	32.1
June.....	61.8	42.6	48.5	28.3	52.4	35.9	47.4	37.6	52.8	33.9
July.....	69.1	48.8	49.3	33.1	49.9	34.5	50.2	39.0	44.3	28.8
August.....	76.2	52.9	55.8	39.2	58.5	40.8	55.5	42.0	49.9	32.9
September.....	78.3	54.0	60.5	45.8	65.9	49.0	60.1	46.0	61.9	42.2
October.....	77.5	52.5	63.9	51.8	69.6	54.3	61.6	46.7	67.9	50.6
November.....	74.8	49.4	64.0	52.8	64.9	51.8	62.6	48.8	70.7	52.1
December.....	72.1	49.0	58.3	46.0	59.4	47.3	62.4	50.2	67.2	48.6

¹ Data subject to revision when census figures for 1933 become available

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Nonferrous metals and their products—Continued				Lumber and allied products					
	Smelting and refining—copper, lead, and zinc		Stamped and enameled ware		Group index		Furniture		Lumber, mill-work	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1923.....	102.8	103.2	110.1	111.2	101.5	100.0	98.1	96.9	96.7	95.6
1924.....	100.0	100.0	95.7	92.8	98.1	98.4	96.2	96.4	98.8	99.3
1925.....	97.2	96.8	94.2	96.0	100.4	101.6	105.7	106.7	104.5	105.1
1926.....			96.9	98.3	100.4	102.5	110.3	113.4	102.7	103.3
1927.....	89.9	90.4	93.0	95.7	94.1	96.7	108.8	111.8	90.7	90.5
1928.....			104.1	108.0	92.4	94.2	106.7	107.5	86.7	86.1
1929.....	91.3	99.4	120.5	125.6	85.4	97.4	111.9	114.0	84.6	83.5
1930.....			106.3	104.9	76.1	72.6	89.0	80.7	64.4	61.1
1931.....	54.4	45.9	85.4	76.8	56.3	46.6	73.7	59.2	51.1	42.0
1932 ¹	45.3	27.3	69.8	49.0	41.1	25.1	57.8	34.8	35.6	21.7
1933 ¹	50.7	29.2	76.5	52.3	44.2	26.4	61.7	36.3	34.5	19.5
1923										
January.....			115.4	115.2	96.2	87.3	97.5	92.4	92.2	84.6
February.....			117.7	118.5	98.2	89.9	99.1	95.1	93.2	86.4
March.....			121.7	127.8	99.2	94.0	99.6	97.6	95.8	90.5
April.....			120.2	125.9	100.7	98.1	98.9	97.6	97.4	96.5
May.....			117.7	124.5	102.1	102.1	98.2	97.6	98.0	98.6
June.....			113.1	119.8	103.9	104.8	97.0	95.8	99.7	101.0
July.....			110.8	108.5	104.5	103.7	97.2	94.8	99.9	98.9
August.....			102.4	100.6	104.1	103.0	98.2	94.8	99.2	97.2
September.....			101.0	96.2	103.7	103.4	97.2	96.2	96.7	96.6
October.....			101.3	99.2	103.1	105.1	98.5	100.8	96.0	98.7
November.....			98.1	98.0	102.2	105.2	98.9	100.9	95.9	99.0
December.....			101.2	100.5	100.0	102.9	97.4	98.9	96.5	99.6
1924										
January.....			102.8	97.0	96.9	94.1	94.9	91.7	95.5	93.2
February.....			111.2	113.1	99.3	100.8	97.8	99.9	98.8	99.2
March.....			114.5	117.9	99.5	101.5	98.3	99.2	100.4	102.0
April.....			106.0	110.8	100.4	102.5	96.9	98.2	102.1	104.7
May.....			100.9	97.5	100.1	101.3	94.0	93.1	101.1	103.3
June.....			92.4	85.6	97.4	99.3	90.6	89.1	99.3	102.6
July.....			85.8	77.0	96.0	92.5	89.7	82.9	97.1	96.2
August.....			85.0	77.4	96.3	94.4	91.3	90.4	97.5	98.7
September.....			82.4	79.0	97.3	97.0	95.3	95.2	98.2	96.4
October.....			88.5	82.7	98.6	99.7	99.3	103.1	98.3	99.7
November.....			87.7	85.3	98.0	98.1	101.6	104.1	97.4	96.0
December.....			89.7	89.7	97.9	99.7	104.6	109.3	99.3	99.0
1925										
January.....			89.2	84.4	97.5	93.3	104.4	101.9	98.9	95.9
February.....			93.0	93.5	99.1	99.5	106.5	107.6	101.1	101.6
March.....			97.0	100.3	98.7	101.0	106.8	109.2	101.8	101.7
April.....			94.1	96.9	100.2	100.2	104.6	103.3	103.8	103.5
May.....			92.3	94.7	99.8	101.1	101.3	100.7	102.8	104.8
June.....			91.9	94.1	100.6	102.7	99.7	98.3	102.8	105.7
July.....			89.2	83.4	100.0	99.4	99.2	94.9	105.1	105.7
August.....			90.0	92.0	100.6	100.7	102.7	102.7	106.2	108.4
September.....			92.8	89.8	102.2	103.2	106.0	106.5	107.3	104.5
October.....			97.8	105.8	102.7	106.9	110.4	116.6	108.2	111.2
November.....			101.7	107.7	102.1	105.8	113.4	119.8	107.8	108.9
December.....			101.9	109.3	100.7	105.0	112.9	119.3	108.5	109.8
1926										
January.....			98.2	100.1	98.1	95.7	110.0	109.5	105.6	101.9
February.....			100.8	107.8	98.6	100.9	112.2	116.0	105.8	105.6
March.....			102.8	111.2	99.1	101.6	112.2	116.1	106.8	107.6
April.....			101.7	106.5	101.0	101.9	110.1	112.4	104.4	104.1
May.....			97.2	96.6	101.1	102.4	106.0	106.7	103.2	104.6
June.....			94.8	95.5	101.3	103.9	104.1	105.6	102.9	105.5
July.....			93.7	87.3	101.0	99.1	103.8	100.3	102.7	105.0
August.....			94.0	91.7	102.2	103.9	107.2	109.6	102.7	105.0
September.....			94.5	93.3	101.8	105.0	112.0	115.4	101.4	101.7
October.....			97.7	101.1	101.8	107.4	116.2	123.0	101.0	103.7
November.....			95.7	95.5	100.6	105.8	115.8	124.6	99.5	101.1
December.....			91.3	93.2	98.5	102.3	114.5	121.9	96.1	97.7

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Nonferrous metals and their products—Continued				Lumber and allied products—Continued					
	Smelting and refining—copper, lead, and zinc		Stamped and enameled ware		Group index		Furniture		Lumber, mill-work	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January			89.2	86.3	94.0	92.5	109.1	109.2	93.5	89.4
February			92.0	97.0	93.3	95.0	109.5	114.8	92.0	89.5
March			96.0	102.5	93.1	96.4	109.4	115.5	91.3	90.2
April			95.2	98.5	93.0	95.3	106.8	111.9	92.1	92.4
May			93.6	98.0	94.0	97.9	104.8	108.2	92.0	94.2
June			92.2	95.7	94.4	97.9	104.4	106.0	92.9	94.7
July			91.6	91.5	94.3	94.4	104.5	102.7	92.2	91.2
August			91.8	95.7	95.4	98.1	107.6	109.8	92.2	94.7
September			92.7	92.7	96.2	99.3	111.0	113.5	90.4	90.1
October			93.7	97.4	95.7	100.6	114.0	119.2	88.5	89.8
November			94.3	98.0	94.4	98.2	114.3	117.7	86.4	85.5
December			93.1	95.0	91.1	94.2	110.7	113.5	85.2	84.6
1928										
January			88.0	85.3	88.1	85.4	106.0	101.9	83.7	77.0
February			95.9	103.3	88.4	89.7	106.9	109.4	84.1	81.9
March			101.0	106.9	90.2	92.3	107.5	108.7	84.5	83.6
April			104.6	108.2	91.1	92.6	104.4	102.1	86.6	87.0
May			105.7	110.3	91.2	93.9	101.0	98.6	88.2	89.4
June			104.1	107.2	92.5	94.9	100.4	100.6	88.9	91.3
July			103.0	100.4	91.7	92.1	100.3	96.5	89.1	88.3
August			105.7	110.1	94.1	95.5	104.6	104.6	90.1	89.8
September			107.3	109.7	95.3	98.0	108.3	111.5	88.4	87.5
October			109.2	116.2	95.9	100.5	113.0	119.7	85.9	87.8
November			111.6	118.2	95.9	99.4	113.9	120.2	86.7	85.8
December			112.9	120.5	93.8	95.8	113.0	116.0	83.9	83.8
1929										
January			111.1	110.9	91.3	88.8	109.3	107.3	84.6	79.6
February			116.0	124.2	91.9	92.2	110.7	113.2	85.0	81.8
March			119.0	128.9	92.9	94.3	110.0	113.1	87.4	87.1
April			121.7	129.4	94.8	97.2	108.2	111.3	88.2	88.3
May			121.1	129.1	96.1	99.3	106.8	109.2	88.9	89.0
June			120.7	127.4	97.1	99.0	107.3	109.2	88.9	88.6
July			121.2	123.9	97.9	98.8	110.1	106.8	88.7	86.4
August			122.5	129.6	100.1	102.1	114.7	117.9	88.4	88.9
September			122.8	127.0	99.7	104.5	119.2	124.3	85.6	86.5
October			124.8	133.2	98.2	104.9	121.8	131.2	81.4	83.5
November			126.4	124.2	95.0	97.4	116.9	119.6	76.0	72.9
December			119.0	119.0	90.1	90.8	107.6	105.2	71.7	69.3
1930										
January			107.8	103.9	84.6	79.9	100.4	93.6	70.1	64.4
February			117.8	118.8	82.8	79.7	98.0	92.4	71.2	67.6
March			119.9	125.4	82.7	82.3	96.2	90.2	69.1	67.1
April			116.7	121.7	81.9	81.4	92.8	85.1	68.9	67.6
May			112.8	112.6	80.9	80.8	89.3	82.2	69.1	69.4
June			108.9	111.7	79.1	78.4	88.0	79.4	67.1	67.2
July			105.1	94.0	75.2	69.9	83.8	71.3	64.0	59.6
August			101.0	96.7	73.3	68.2	84.9	76.3	62.0	59.2
September			98.4	92.1	70.8	67.4	80.3	78.6	58.3	55.1
October			98.0	98.5	70.7	66.9	86.6	80.6	58.9	54.5
November			96.6	93.5	67.7	60.7	83.3	72.1	57.6	51.2
December			93.1	90.1	64.0	56.1	79.0	66.2	56.9	50.0
1931										
January	60.6	58.1	87.5	74.4	59.4	48.9	75.1	60.2	53.2	44.3
February	59.0	56.8	92.3	92.3	59.4	50.9	76.3	65.0	54.3	46.5
March	57.8	59.6	91.4	92.1	59.1	51.7	76.1	65.5	54.4	46.9
April	57.5	55.0	92.3	91.5	59.4	50.2	74.8	62.5	54.5	46.9
May	55.2	52.6	89.3	85.6	59.5	51.2	74.0	61.3	55.2	48.2
June	54.4	49.2	88.8	82.0	58.9	50.0	72.9	58.2	53.4	46.3
July	51.3	34.2	85.3	71.5	56.4	47.0	70.9	55.8	52.0	43.7
August	50.4	36.9	83.6	72.6	55.7	46.4	73.4	58.4	51.4	42.4
September	50.5	36.6	83.5	71.2	54.8	45.5	74.5	60.1	48.0	37.5
October	52.8	39.5	80.5	67.8	53.4	43.1	74.7	59.5	46.4	35.3
November	52.2	37.7	76.3	61.6	51.4	39.1	72.4	53.2	40.1	33.3
December	51.2	34.4	74.3	59.3	47.8	35.6	69.6	50.9	44.8	32.8

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Nonferrous metals and their products—Continued				Lumber and allied products—Continued					
	Smelting and refining—copper, lead, and zinc		Stamped and enameled ware		Group index		Furniture		Lumber, mill-work	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	51.3	33.4	70.7	51.8	45.1	30.4	65.1	44.0	41.7	28.8
February.....	51.2	34.0	73.7	57.3	45.0	29.9	68.8	44.5	39.8	26.3
March.....	49.5	30.4	75.4	58.8	43.0	28.1	63.3	41.4	38.9	24.0
April.....	47.9	29.2	73.3	55.5	42.0	26.3	59.2	36.3	37.1	23.1
May.....	45.7	28.4	72.2	52.1	40.7	25.0	55.0	31.7	36.7	23.0
June.....	44.8	26.5	69.4	48.2	39.9	23.5	52.6	29.2	35.2	21.4
July.....	43.0	24.3	63.7	40.2	38.5	21.3	49.8	25.2	33.5	19.9
August.....	39.9	21.9	64.0	41.2	38.3	21.9	50.8	28.7	33.3	19.0
September.....	40.6	23.7	69.3	47.6	39.9	23.9	55.4	33.9	33.2	19.1
October.....	43.5	26.0	67.8	47.7	41.5	25.6	59.2	37.9	32.9	19.2
November.....	42.2	24.9	70.7	46.6	40.6	23.9	57.9	33.6	32.6	19.1
December.....	43.5	25.0	67.0	41.2	39.1	21.6	56.2	31.5	31.7	17.4
1933 ¹										
January.....	43.5	24.4	61.6	36.7	36.4	18.8	51.7	26.1	29.3	15.4
February.....	41.4	23.2	68.0	42.7	36.0	18.8	52.8	27.9	30.0	15.0
March.....	42.0	22.1	62.8	37.7	34.3	16.4	48.9	22.1	27.7	13.1
April.....	42.2	23.2	67.1	41.7	35.0	17.8	49.1	24.4	29.4	15.3
May.....	41.9	24.1	70.0	46.6	37.9	20.7	53.6	28.8	31.8	17.4
June.....	42.1	25.5	75.3	51.6	42.7	24.8	59.4	34.0	34.9	20.1
July.....	47.3	30.1	80.0	54.0	46.6	27.6	62.4	36.0	38.7	22.7
August.....	55.1	33.8	89.3	62.3	50.4	32.4	68.7	43.9	39.8	23.8
September.....	62.5	35.6	92.4	62.7	54.3	37.3	77.2	52.8	39.9	24.1
October.....	64.0	37.0	93.3	66.6	55.2	38.1	78.5	55.0	38.7	23.5
November.....	64.2	36.6	79.8	63.6	52.3	33.6	72.4	45.0	37.2	22.1
December.....	62.3	34.3	78.2	60.9	49.8	31.0	65.9	40.1	36.3	22.0

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Lumber and allied products— Continued				Stone, clay, and glass products					
	Lumber, saw- mills		Turpentine and rosin		Group index		Brick, tile, and terra cotta		Cement	
	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls
1923	103.6	102.5	107.7	100.8	100.4	98.3	100.6	98.1	95.0	94.6
1924	98.8	99.2	100.0	100.0	98.9	100.5	98.7	101.1	101.0	102.9
1925	97.6	98.3	92.3	99.2	100.7	101.2	100.7	100.8	104.0	102.5
1926	95.5	96.6	—	—	103.8	104.2	102.9	101.8	102.1	100.9
1927	86.6	89.0	119.0	110.7	99.9	100.5	99.0	96.7	98.3	101.1
1928	84.4	87.2	—	—	95.7	96.2	92.3	87.5	92.6	96.9
1929	87.7	90.7	126.0	98.2	93.8	93.7	91.5	84.7	90.3	92.9
1930	41.1	67.6	—	—	80.2	76.9	72.2	62.2	64.6	83.4
1931	41.1	33.6	88.6	47.5	63.7	53.9	50.2	35.2	65.8	56.9
1932 ¹	26.1	14.2	71.9	32.7	44.6	29.1	29.6	14.0	44.9	27.7
1933 ¹	28.7	16.0	83.6	36.3	45.0	27.6	27.0	12.0	41.1	22.2
1923										
January	96.4	85.8	—	—	91.3	82.8	84.9	72.9	84.9	81.9
February	98.9	88.5	—	—	92.3	83.7	84.4	71.9	86.8	83.7
March	99.7	93.2	—	—	95.9	89.2	91.3	82.5	90.4	87.2
April	102.0	98.5	—	—	101.0	97.7	102.3	96.3	92.4	89.1
May	104.3	105.1	—	—	104.7	103.5	106.7	107.3	95.2	92.9
June	107.3	109.8	—	—	105.8	104.5	108.5	109.5	96.7	95.3
July	108.1	109.0	—	—	104.0	99.5	110.0	107.9	99.5	97.7
August	107.3	108.3	—	—	103.8	103.3	110.0	110.2	98.7	100.8
September	107.4	108.6	—	—	103.3	103.6	108.3	109.5	99.2	102.4
October	106.0	108.8	—	—	102.5	105.9	105.0	109.0	98.5	102.8
November	104.6	108.8	—	—	100.8	104.3	100.2	103.3	99.5	101.7
December	101.6	105.6	—	—	99.1	101.2	95.8	97.2	98.0	99.3
1924										
January	98.0	95.3	—	—	94.6	95.2	89.6	89.2	96.6	94.5
February	100.0	101.6	—	—	95.3	99.5	87.9	90.1	96.1	98.6
March	99.6	102.5	—	—	100.0	103.5	94.6	96.1	98.2	101.1
April	101.1	104.0	—	—	103.8	107.4	102.7	105.9	100.5	104.3
May	102.0	104.6	—	—	104.2	107.8	106.6	111.8	103.0	104.1
June	99.6	103.2	—	—	102.1	106.0	105.7	111.6	102.5	109.0
July	98.2	95.8	—	—	96.5	94.2	103.0	104.9	103.4	103.5
August	98.0	95.0	—	—	99.2	98.7	103.7	105.6	104.1	106.1
September	98.2	98.0	—	—	98.1	97.5	100.3	100.3	103.2	105.9
October	98.5	98.2	—	—	98.1	100.5	99.0	102.4	101.8	104.8
November	97.1	96.1	—	—	97.7	97.4	96.9	98.8	102.6	102.4
December	95.4	95.5	—	—	96.9	98.8	94.9	97.0	99.4	99.9
1925										
January	94.7	88.6	—	—	92.3	89.5	87.7	84.3	94.5	85.5
February	96.2	95.3	—	—	93.7	95.3	87.6	87.6	92.7	90.9
March	95.2	97.3	—	—	97.9	99.4	95.3	95.3	96.6	95.5
April	97.9	98.1	—	—	102.6	102.9	102.9	103.3	102.5	100.0
May	98.8	100.5	—	—	103.9	105.3	107.7	109.5	105.3	104.2
June	100.5	104.0	—	—	104.3	104.6	107.9	109.5	107.8	107.2
July	99.3	99.7	—	—	99.9	97.3	107.9	107.5	108.9	106.9
August	98.7	97.6	—	—	102.7	104.0	105.9	107.8	108.8	110.7
September	99.8	101.5	—	—	103.5	101.5	104.8	102.4	110.3	109.8
October	98.8	101.4	—	—	103.8	106.2	101.8	103.1	109.0	108.7
November	96.8	98.6	—	—	102.9	105.2	100.2	100.5	106.7	108.7
December	94.8	97.2	—	—	101.3	102.8	98.2	98.8	104.4	102.0
1926										
January	92.3	87.8	—	—	96.3	94.0	92.2	89.3	95.9	86.2
February	92.0	92.6	—	—	97.1	96.8	91.2	89.2	94.9	87.9
March	92.4	93.0	—	—	99.1	99.8	93.3	92.4	94.4	91.3
April	96.6	96.0	—	—	102.6	101.7	100.1	95.9	98.2	95.1
May	98.3	99.3	—	—	106.6	107.9	108.3	108.6	103.3	102.7
June	99.3	101.9	—	—	108.6	110.7	110.6	112.7	106.5	108.7
July	98.7	97.4	—	—	105.9	103.4	111.9	108.9	107.8	105.1
August	99.1	100.2	—	—	108.3	110.0	112.6	113.1	108.3	113.1
September	97.0	100.1	—	—	108.6	107.2	110.2	107.5	107.6	108.8
October	95.4	100.3	—	—	106.9	109.6	105.9	106.2	106.2	109.0
November	93.7	97.5	—	—	105.3	106.9	101.8	101.7	103.6	105.1
December	91.5	93.2	—	—	100.8	102.9	96.2	95.7	98.4	98.0

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Lumber and allied products—Continued				Stone, clay, and glass products—Continued					
	Lumber, saw-mills		Turpentine and rosin		Group index		Brick, tile, and terra cotta		Cement	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January	86.8	84.1			93.9	90.6	89.4	84.4	91.6	86.8
February	85.5	85.9			95.1	96.6	87.6	87.5	89.5	88.2
March	85.3	87.5			99.6	101.7	94.9	94.7	94.9	95.3
April	85.7	86.5			103.3	105.2	103.4	101.4	98.6	102.6
May	88.0	91.9			104.9	108.4	107.9	109.3	101.1	109.9
June	88.3	92.6			105.2	106.5	108.1	108.1	103.3	108.6
July	88.0	89.0			100.9	98.6	107.7	104.2	104.2	106.3
August	88.5	91.1			101.6	102.3	105.2	103.1	104.2	108.2
September	88.7	92.6			101.4	100.8	102.2	98.4	103.5	106.9
October	87.2	92.3			99.6	101.3	97.4	94.2	100.7	105.7
November	85.3	90.0			99.1	99.1	94.9	90.8	97.1	100.8
December	81.4	84.9			94.6	95.3	89.0	84.4	90.6	93.4
1928										
January	78.8	77.3			88.7	87.5	81.7	75.2	86.0	89.5
February	78.8	79.8			89.3	89.4	81.7	75.6	84.3	85.2
March	81.2	84.1			92.4	92.7	85.8	80.2	86.9	87.9
April	83.4	86.7			94.9	96.2	90.5	85.6	90.2	95.9
May	84.4	89.6			98.8	100.1	96.3	92.4	94.1	100.9
June	86.3	90.1			99.6	100.1	97.8	93.8	96.9	102.1
July	85.1	87.9			97.4	95.3	99.0	93.0	97.8	104.7
August	87.2	89.8			100.3	101.5	99.5	95.2	99.6	106.0
September	87.8	91.3			99.7	99.2	97.8	92.4	97.1	101.7
October	87.6	92.2			97.9	100.6	95.1	91.7	95.8	102.0
November	87.2	90.6			95.6	96.9	93.1	88.5	93.2	95.3
December	84.9	87.1			93.2	94.7	89.8	86.1	89.6	91.1
1929										
January	82.3	79.9			88.1	84.7	81.3	73.6	85.6	81.6
February	82.5	82.5			88.3	87.1	79.0	71.4	84.9	84.1
March	83.9	84.7			90.6	91.3	82.3	76.6	87.3	88.1
April	87.3	90.1			94.7	96.1	90.5	85.5	89.5	92.9
May	89.5	94.6			97.3	98.7	96.5	91.9	92.4	96.9
June	91.0	94.1			98.2	99.6	96.8	94.2	94.7	98.9
July	91.2	95.6			95.5	91.9	100.3	91.0	95.5	97.5
August	92.9	95.5			98.4	98.4	100.6	93.1	95.7	100.7
September	91.4	97.2			98.1	98.5	99.5	91.2	94.4	100.6
October	89.0	95.6			96.6	97.8	95.9	89.6	91.4	95.8
November	87.2	91.2			93.5	93.4	90.7	83.6	88.7	90.9
December	83.7	87.8			86.8	87.1	82.1	75.1	83.6	86.3
1930										
January	77.8	75.5			78.6	73.4	68.7	57.0	76.0	72.0
February	75.0	74.3			79.5	76.9	67.1	57.4	75.9	74.8
March	75.7	79.3			82.8	80.7	71.3	62.8	82.0	82.0
April	75.2	79.7			86.0	85.1	77.4	69.9	88.5	91.1
May	74.6	79.1			86.7	85.7	80.1	72.2	93.2	95.8
June	72.1	76.5			85.6	85.1	79.8	72.3	95.4	101.9
July	67.8	67.2			80.3	74.3	77.1	64.7	91.7	90.1
August	64.5	61.9			79.7	75.1	75.4	64.8	91.8	90.6
September	61.1	60.3			79.4	75.4	73.7	63.9	88.3	87.3
October	59.7	58.3			78.0	75.7	70.0	60.8	84.1	83.7
November	56.0	52.3			75.0	70.0	65.9	53.6	77.5	69.7
December	51.8	46.9			70.8	65.2	60.0	47.5	70.7	62.0
1931										
January	46.6	38.6	97.0	47.8	62.9	53.6	48.2	35.1	63.1	50.5
February	45.9	38.5	93.5	55.0	64.0	57.8	48.6	37.2	63.8	57.3
March	45.0	39.1	92.2	57.5	66.5	60.5	52.1	40.3	67.3	60.6
April	45.4	37.6	98.5	56.2	68.9	62.7	55.9	42.1	71.6	65.7
May	45.4	39.1	96.9	53.3	70.4	63.4	57.5	43.1	74.0	69.6
June	44.9	38.8	94.5	48.5	69.7	60.8	57.5	41.3	71.7	68.8
July	41.9	35.1	90.4	50.5	65.1	53.5	54.9	37.3	71.9	63.8
August	40.3	33.0	80.7	42.8	64.2	52.5	52.2	34.8	68.1	59.5
September	38.4	31.7	85.5	43.6	63.0	50.2	49.7	32.8	64.4	53.9
October	36.5	28.1	79.0	41.9	59.8	47.9	45.2	29.2	62.8	50.4
November	34.0	24.2	78.8	37.6	56.5	43.9	42.9	26.8	57.8	44.9
December	29.3	19.1	76.1	35.2	53.0	39.9	37.7	22.3	53.5	37.8

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Lumber and allied products—Continued				Stone, clay, and glass products—Continued					
	Lumber saw-mills		Turpentine and rosin		Group index		Brick, tile, and terra cotta		Cement	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	27.6	15.8	76.7	34.6	46.9	32.5	31.4	16.2	48.1	31.7
February.....	26.6	15.3	75.3	36.1	47.6	34.3	29.8	15.2	47.2	31.8
March.....	26.0	15.0	72.5	30.7	47.7	33.8	29.8	14.5	47.0	30.8
April.....	26.6	15.0	72.0	32.3	47.8	33.6	31.2	15.3	47.3	30.2
May.....	26.4	15.0	70.7	34.2	45.8	31.2	31.9	16.0	45.1	30.3
June.....	26.4	14.5	70.8	31.6	43.3	27.6	30.1	14.1	45.2	28.9
July.....	25.6	13.3	71.9	33.9	41.7	25.4	29.7	13.4	44.3	26.1
August.....	25.4	13.0	66.8	31.8	42.1	26.0	30.3	14.0	41.5	25.4
September.....	25.9	13.5	67.8	30.4	43.3	26.5	29.9	14.0	45.7	26.6
October.....	26.6	14.3	72.7	32.6	44.5	28.0	29.2	13.3	46.7	27.3
November.....	25.9	13.5	72.0	31.9	43.5	26.4	27.7	11.7	44.7	25.1
December.....	24.6	11.8	73.7	32.4	40.5	24.3	24.1	10.1	35.9	18.6
1933 ¹										
January.....	23.0	10.5	70.0	31.9	35.2	20.7	19.4	7.9	32.6	16.3
February.....	22.0	10.0	65.9	27.9	36.5	21.4	19.6	7.9	32.3	16.1
March.....	21.4	9.6	67.5	28.9	36.9	21.2	19.5	7.3	32.6	16.5
April.....	22.3	10.2	63.5	26.4	38.4	21.6	21.5	8.1	38.7	18.5
May.....	23.7	11.5	71.9	31.2	41.3	24.5	24.4	9.8	40.5	21.3
June.....	27.3	14.4	81.1	33.2	45.9	28.6	27.9	12.5	46.5	25.3
July.....	30.8	17.0	83.5	34.2	49.3	29.9	33.3	15.5	50.2	27.8
August.....	33.6	20.1	89.4	36.3	52.8	33.9	35.6	17.4	53.1	32.0
September.....	35.6	23.2	97.6	43.3	52.9	33.5	34.8	16.5	48.0	25.8
October.....	36.2	23.3	103.9	48.3	51.6	33.6	31.8	14.9	41.4	24.7
November.....	34.7	21.8	101.1	45.3	50.3	31.8	29.2	13.6	41.2	23.0
December.....	33.3	20.0	107.7	48.9	49.0	31.0	27.1	12.7	36.6	19.1

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Stone, clay, and glass products—Continued						Textiles and their products			
	Glass		Marble, granite, slate, and other products		Pottery		Group index		Fabrics	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1923.....	105.1	103.4	104.5	101.7	98.5	97.8	105.2	105.8	105.4	106.0
1924.....	95.5	96.9	100.0	100.0	103.8	104.3	94.9	93.8	94.2	93.4
1925.....	99.4	99.7	95.5	98.3	97.7	97.9	99.9	100.4	100.4	100.6
1926.....	103.8	103.9	.....	.....	99.7	99.3	99.9	100.2	99.2	99.4
1927.....	94.3	93.6	105.6	113.0	98.0	94.5	104.0	106.8	101.3	103.8
1928.....	92.6	94.5	.....	.....	98.8	93.9	101.3	101.7	96.2	95.8
1929.....	96.7	100.9	98.7	104.0	94.7	91.4	104.8	105.2	99.2	99.4
1930.....	83.8	82.9	.....	.....	82.9	74.1	92.9	85.6	86.0	79.4
1931.....	71.5	66.5	72.2	68.8	72.3	56.4	87.2	75.1	80.3	70.2
1932 ¹	58.9	45.9	43.2	31.8	57.0	35.1	76.7	53.5	71.9	50.9
1933 ¹	69.8	52.9	33.7	20.7	60.2	35.8	87.9	61.2	86.2	62.2
1923										
January.....	105.4	99.1	.....	.....	90.8	83.5	107.4	103.8	107.3	101.0
February.....	107.3	100.0	.....	.....	93.5	88.9	109.0	107.5	108.2	103.1
March.....	107.0	102.6	.....	.....	95.0	89.5	110.6	111.5	109.5	106.0
April.....	107.9	107.9	.....	.....	95.8	96.1	109.4	108.1	109.8	108.1
May.....	111.7	110.1	.....	.....	97.9	97.8	108.2	111.4	109.6	115.1
June.....	111.6	109.5	.....	.....	99.2	96.9	106.4	108.9	107.9	111.3
July.....	103.7	96.3	.....	.....	95.4	89.9	103.3	104.5	103.1	103.6
August.....	99.5	98.4	.....	.....	102.2	101.6	102.3	103.5	101.7	102.8
September.....	99.6	98.6	.....	.....	102.7	102.7	102.7	103.5	101.8	105.4
October.....	101.8	105.1	.....	.....	103.2	107.5	101.6	104.5	101.0	104.5
November.....	103.4	107.6	.....	.....	101.8	108.5	100.6	100.0	102.0	103.6
December.....	102.7	105.3	.....	.....	103.9	110.4	101.0	102.3	102.7	107.6
1924										
January.....	96.8	99.6	.....	.....	103.7	108.1	101.4	103.2	100.6	103.2
February.....	101.3	107.7	.....	.....	104.5	114.1	103.3	106.9	101.6	105.7
March.....	105.2	109.9	.....	.....	108.3	117.0	102.0	103.3	100.4	101.7
April.....	104.7	108.0	.....	.....	108.9	116.3	97.4	96.0	96.8	96.4
May.....	101.3	102.1	.....	.....	105.6	113.3	93.8	89.8	93.8	91.4
June.....	95.6	96.7	.....	.....	104.5	106.3	91.2	85.7	90.9	84.9
July.....	88.0	83.1	.....	.....	87.9	77.1	85.4	78.6	83.8	75.6
August.....	86.1	83.4	.....	.....	106.9	100.6	87.6	85.1	85.9	81.4
September.....	87.6	86.3	.....	.....	106.3	101.3	90.8	90.6	89.5	87.1
October.....	91.8	93.6	.....	.....	103.2	102.1	94.2	95.0	93.8	94.6
November.....	92.7	95.1	.....	.....	102.5	91.0	93.9	91.7	95.0	94.9
December.....	94.5	96.7	.....	.....	103.2	103.8	97.2	99.7	98.8	103.3
1925										
January.....	93.6	93.7	.....	.....	98.6	97.1	98.7	101.1	99.9	102.5
February.....	96.7	100.8	.....	.....	104.4	106.7	101.4	105.8	101.5	104.7
March.....	98.5	101.6	.....	.....	103.7	106.9	101.8	106.9	101.8	105.4
April.....	99.8	101.2	.....	.....	105.2	104.0	101.1	101.1	102.1	103.3
May.....	97.5	99.0	.....	.....	102.6	102.5	99.0	98.4	101.0	102.3
June.....	98.0	97.1	.....	.....	100.6	96.6	98.4	95.8	99.8	97.3
July.....	97.0	91.7	.....	.....	72.0	64.4	96.7	95.7	96.3	94.1
August.....	96.1	94.6	.....	.....	96.5	97.7	97.7	98.3	96.9	95.6
September.....	99.5	94.6	.....	.....	97.6	96.2	98.2	94.4	97.3	91.7
October.....	104.6	106.8	.....	.....	98.9	103.3	101.3	102.1	101.7	101.9
November.....	106.0	109.1	.....	.....	96.8	99.5	102.0	101.9	103.3	103.5
December.....	105.3	106.1	.....	.....	95.6	99.6	102.2	103.0	103.5	105.3
1926										
January.....	101.3	101.6	.....	.....	94.4	92.0	102.7	104.0	103.3	103.9
February.....	103.3	105.1	.....	.....	98.6	100.8	103.3	106.7	102.6	104.1
March.....	106.6	108.2	.....	.....	99.3	102.2	103.4	106.9	102.4	103.8
April.....	105.6	106.2	.....	.....	101.5	103.7	101.2	100.7	100.8	100.8
May.....	104.7	105.5	.....	.....	100.7	101.6	98.9	96.3	98.6	97.1
June.....	105.9	106.1	.....	.....	101.2	100.5	97.4	95.1	96.7	94.7
July.....	99.1	95.0	.....	.....	91.8	85.8	93.3	89.6	92.3	88.4
August.....	100.3	99.6	.....	.....	101.0	99.6	95.1	94.8	93.3	92.0
September.....	104.7	100.5	.....	.....	102.2	97.7	98.5	97.7	97.1	96.0
October.....	106.1	107.1	.....	.....	101.4	103.9	101.1	103.8	100.2	103.3
November.....	106.5	108.0	.....	.....	102.9	100.5	101.0	100.7	101.1	103.1
December.....	101.9	104.2	.....	.....	101.8	103.1	103.1	105.8	101.8	105.2

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Stone, clay, and glass products—Continued						Textiles and their products—Continued			
	Glass		Marble, granite, slate, and other products		Pottery		Group index		Fabrics	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1927										
January	92.2	90.7			99.1	89.4	103.6	105.5	101.7	102.9
February	97.1	97.5			104.3	105.2	105.8	111.5	102.8	107.0
March	99.0	99.5			104.3	106.7	106.0	111.7	102.7	107.1
April	98.5	99.5			101.7	103.1	104.4	106.2	102.1	104.5
May	96.5	98.2			100.3	95.6	103.1	104.6	101.2	104.4
June	96.2	95.9			99.5	90.8	102.7	104.3	101.0	103.4
July	91.1	85.8			80.5	70.3	100.9	101.5	98.7	97.9
August	89.8	88.5			92.9	89.0	102.4	105.1	99.5	101.2
September	92.7	89.3			94.9	90.0	104.3	107.6	101.1	102.9
October	93.3	94.1			97.0	95.7	105.2	109.7	101.7	105.7
November	95.2	93.6			99.5	96.5	104.9	105.7	102.1	103.7
December	89.7	90.2			102.5	101.2	104.6	107.7	101.1	104.6
1928										
January	85.6	83.9			98.5	94.2	104.1	104.9	99.7	99.0
February	86.8	88.5			102.9	102.8	105.6	108.5	100.1	100.5
March	90.9	91.8			101.4	102.6	104.8	107.1	98.8	98.8
April	92.6	94.8			99.7	97.1	101.9	99.2	96.5	93.9
May	95.3	95.9			99.6	96.5	99.3	97.3	94.4	93.6
June	95.4	96.1			99.8	92.2	98.9	97.5	93.9	92.6
July	90.8	88.6			90.2	77.0	95.8	93.2	91.2	87.8
August	95.7	97.6			97.7	92.3	97.1	96.5	91.5	89.5
September	97.8	97.6			98.2	91.0	99.1	99.7	92.9	91.8
October	95.4	101.5			100.2	94.8	102.4	106.2	96.5	99.2
November	92.6	100.0			99.1	93.0	103.3	103.1	98.7	99.7
December	92.4	98.1			98.4	93.8	103.8	106.6	99.6	102.8
1929										
January	90.8	93.4			96.2	85.6	103.5	103.5	98.8	97.8
February	95.2	99.2			97.0	93.1	105.7	109.9	100.1	102.6
March	97.3	103.2			98.6	94.5	107.2	112.3	100.4	103.0
April	98.3	103.0			97.7	97.3	106.1	108.2	100.0	102.9
May	97.8	103.0			97.3	93.8	105.3	106.1	100.1	102.4
June	98.4	103.0			94.4	91.0	105.0	105.2	99.6	100.0
July	91.2	90.7			87.1	77.7	102.1	98.6	97.4	95.0
August	98.1	102.0			92.0	89.0	103.1	103.1	97.3	98.3
September	100.0	104.8			92.5	91.5	105.4	106.4	97.4	98.8
October	101.1	106.3			93.7	95.0	107.0	108.8	100.9	102.7
November	99.6	104.2			94.8	94.2	104.4	101.2	99.3	97.1
December	92.6	98.1			94.6	93.8	102.3	99.0	96.9	94.3
1930										
January	88.3	87.6			90.8	84.1	100.7	96.7	94.5	89.6
February	92.2	95.0			91.3	86.7	100.9	98.4	93.9	90.7
March	95.1	95.9			89.8	85.4	100.3	98.0	92.3	88.3
April	93.4	95.1			89.2	84.5	98.1	91.7	90.8	85.2
May	91.1	92.9			84.8	76.2	95.0	86.1	88.6	81.9
June	87.3	89.0			81.3	70.9	92.8	83.0	86.6	78.8
July	77.1	72.3			74.5	61.4	86.0	74.8	80.5	69.5
August	75.0	71.6			78.0	64.2	86.4	77.5	79.4	69.8
September	77.5	74.2			78.2	64.9	89.4	82.9	80.7	72.9
October	78.4	77.0			79.5	71.0	89.9	83.3	81.7	75.9
November	76.5	73.7			79.5	71.5	88.2	77.9	82.4	75.3
December	73.9	70.2			77.8	68.9	86.6	76.9	80.9	74.6
1931										
January	68.8	62.9	76.3	76.6	75.7	58.6	84.9	73.4	78.2	69.0
February	71.6	71.3	77.4	75.8	76.5	63.7	88.6	82.0	80.8	75.1
March	73.7	73.3	80.1	79.0	75.9	65.5	91.2	85.7	82.6	76.5
April	74.3	72.3	81.2	83.0	77.2	68.6	90.5	81.1	81.9	74.6
May	75.3	73.3	81.4	81.6	78.6	66.9	89.9	78.1	82.9	75.4
June	77.4	73.8	79.7	78.1	74.2	56.2	87.4	74.5	81.0	71.7
July	70.1	65.1	71.7	66.0	67.9	46.4	85.6	73.1	80.1	69.6
August	72.0	65.7	69.9	63.8	69.9	51.2	87.3	76.1	80.5	71.1
September	73.3	65.2	68.6	61.7	69.7	49.0	88.4	75.0	80.5	68.2
October	70.0	61.8	65.2	59.8	69.2	52.4	86.4	71.7	78.8	65.9
November	65.9	57.1	59.9	52.4	67.9	51.2	83.6	65.7	78.1	62.8
December	65.9	56.0	55.5	47.7	64.4	47.5	82.7	65.2	77.8	62.9

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Stone, clay, and glass products—Continued						Textiles and their products—Continued			
	Glass		Marble, granite, slate, and other products		Pottery		Group index		Fabrics	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1932 ¹										
January	60.5	48.6	45.4	35.8	61.1	41.6	81.1	62.2	76.5	59.7
February	63.8	55.3	46.5	35.9	64.5	45.2	84.4	66.5	79.1	62.9
March	65.3	54.1	45.4	36.7	64.6	45.3	82.7	64.5	76.1	58.3
April	63.6	53.3	46.3	37.8	63.2	42.2	76.9	54.2	69.9	48.9
May	59.3	49.9	42.5	31.5	59.5	36.1	71.2	45.9	64.8	42.0
June	58.1	46.7	36.5	24.8	54.2	29.5	66.7	41.3	60.7	38.9
July	54.8	40.1	41.2	29.4	45.1	22.8	62.0	36.9	58.9	36.3
August	53.0	38.8	45.3	32.5	48.6	25.0	69.7	46.3	66.7	44.4
September	54.7	38.7	45.9	32.5	50.9	28.0	79.8	57.1	75.5	54.4
October	37.4	42.0	44.9	32.2	56.2	35.1	84.0	60.5	79.3	58.1
November	58.2	42.8	40.4	26.3	58.5	35.5	82.1	55.0	78.2	54.5
December	57.6	40.9	37.5	25.6	58.0	34.6	80.2	51.6	76.9	52.4
1933 ¹										
January	53.4	39.0	29.1	19.1	51.0	26.3	77.9	48.3	75.4	48.5
February	55.7	40.4	31.8	19.5	53.5	29.1	80.9	52.6	76.4	50.4
March	57.0	39.9	32.4	20.5	53.1	28.5	76.0	45.2	70.5	42.4
April	59.9	43.2	27.5	15.2	52.8	28.0	78.3	49.0	72.1	44.7
May	64.6	49.6	28.4	16.5	54.7	29.3	82.3	52.0	78.3	52.1
June	71.1	56.2	33.3	20.7	57.6	32.7	89.7	59.3	88.4	62.5
July	72.0	53.8	36.6	23.5	59.6	33.5	95.4	64.4	96.7	69.2
August	77.8	59.6	37.8	24.0	65.1	42.9	97.8	74.1	99.3	79.2
September	80.4	62.2	38.6	23.9	67.0	43.6	98.2	78.7	97.6	77.6
October	81.1	63.5	39.3	24.9	69.6	47.1	97.7	77.4	96.7	77.5
November	82.2	63.0	35.5	20.5	69.1	45.1	92.9	69.7	93.5	73.2
December	82.9	64.4	34.3	20.2	69.1	43.9	88.0	64.0	89.7	68.6

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Textiles and their products—Continued									
	Carpets and rugs		Cotton goods		Cotton small wares		Dyeing and finishing textiles		Hats, fur-felt	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923	103.8	109.2	106.7	110.1	104.4	105.5	97.4	96.1	106.4	107.4
1924	96.2	93.3	92.5	91.6	92.6	91.8	93.9	92.7	97.1	90.5
1925	100.0	97.5	100.8	98.3	103.0	102.7	108.7	111.2	96.5	102.1
1926	97.8	93.8	101.9	98.5			110.8	114.2		
1927	96.9	94.5	105.8	105.7	95.3	101.3	113.5	121.5	101.2	114.1
1928	92.8	85.7	95.5	88.4			114.9	121.8		
1929	96.2	90.1	96.1	90.1	97.4	102.1	121.8	124.8	105.3	112.3
1930	74.2	59.7	80.7	69.4			112.0	108.7		
1931	67.5	54.3	74.5	61.0	81.7	76.8	103.3	101.2	89.6	82.5
1932 ¹	52.0	32.2	67.8	44.6	68.7	52.4	89.3	72.3	71.7	57.6
1933 ¹	60.6	42.6	87.5	62.1	77.4	58.8	94.8	73.6	77.5	65.8
1923										
January	104.5	109.5	111.9	107.5			101.0	97.4		
February	102.8	103.7	112.4	107.7			99.8	97.9		
March	103.8	106.5	113.7	110.0			100.6	99.8		
April	103.4	103.7	113.4	113.4			101.2	100.5		
May	103.5	112.2	113.3	121.3			100.0	104.5		
June	103.6	111.8	111.3	115.9			96.1	96.4		
July	104.0	107.4	102.5	106.1			96.4	92.4		
August	103.9	108.0	100.2	107.8			90.7	84.1		
September	103.6	111.3	101.4	111.7			92.1	89.4		
October	104.2	114.6	98.5	103.5			96.5	96.1		
November	104.5	114.2	100.1	103.6			96.4	94.5		
December	104.3	107.2	102.2	112.8			98.3	99.9		
1924										
January	103.7	103.3	100.3	109.8			88.7	88.3		
February	104.6	111.6	100.6	107.9			94.5	95.5		
March	107.2	116.7	97.7	100.4			94.4	92.7		
April	101.3	102.2	94.2	95.2			94.1	92.2		
May	96.3	91.9	91.5	89.4			92.0	88.8		
June	88.0	75.5	89.7	83.0			90.0	84.0		
July	83.7	70.0	82.0	73.5			89.0	81.4		
August	87.4	74.6	84.3	78.0			87.5	84.8		
September	89.9	83.3	86.8	82.7			93.8	94.9		
October	93.8	92.7	91.6	89.7			98.0	99.5		
November	97.6	97.7	92.2	88.6			100.6	100.6		
December	101.4	100.5	98.9	101.5			103.6	110.2		
1925										
January	102.2	104.6	101.1	102.0			105.5	110.8		
February	102.8	104.1	102.5	103.3			107.9	113.3		
March	103.8	105.5	102.7	104.3			109.6	116.2		
April	104.1	102.5	103.5	104.1			110.5	112.5		
May	103.1	101.5	102.4	102.1			108.8	110.1		
June	99.6	95.3	101.2	96.5			104.5	103.2		
July	94.2	88.7	94.2	89.5			105.5	103.7		
August	95.8	90.6	95.1	90.4			105.4	104.2		
September	96.2	89.1	94.5	84.2			107.7	105.5		
October	96.7	93.8	101.9	97.6			111.9	119.0		
November	100.3	97.5	104.5	100.6			113.2	117.4		
December	101.1	96.8	105.6	104.9			113.3	119.0		
1926										
January	101.4	99.1	105.7	104.4			114.1	117.4		
February	101.0	95.9	106.1	105.6			114.3	119.9		
March	102.5	96.8	107.0	106.8			114.5	120.0		
April	101.8	95.3	105.9	105.0			112.5	116.1		
May	98.2	88.9	103.0	97.1			110.0	111.2		
June	93.6	88.4	100.3	94.2			108.5	107.5		
July	90.5	82.9	93.6	83.8			104.1	102.0		
August	93.7	89.1	93.3	86.5			106.9	107.0		
September	94.7	91.4	99.1	94.7			109.1	112.9		
October	97.3	94.8	102.0	99.2			111.1	118.4		
November	99.3	101.7	102.8	100.4			112.4	118.2		
December	99.6	101.6	104.4	104.7			112.5	119.2		

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Textiles and their products—Continued									
	Carpets and rugs		Cotton goods		Cotton small wares		Dyeing and finishing textiles		Hats, fur-felt	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January	100.6	98.2	105.0	103.7			112.1	118.1		
February	100.5	100.9	106.5	107.6			113.6	123.8		
March	100.2	100.2	106.9	109.1			114.4	125.0		
April	99.2	95.8	106.4	107.5			114.5	123.8		
May	97.5	97.1	106.1	106.9			112.8	119.2		
June	96.6	95.3	106.2	106.6			111.6	117.7		
July	95.3	87.8	105.6	103.5			109.6	112.9		
August	94.2	92.8	104.7	104.2			111.1	117.1		
September	93.8	89.9	105.9	105.7			113.3	122.8		
October	93.4	89.5	106.2	107.0			115.5	126.6		
November	94.5	90.8	106.1	104.1			116.6	124.6		
December	96.6	96.1	103.7	102.9			116.4	126.2		
1928										
January	95.0	90.8	102.4	96.6			115.8	120.6		
February	96.0	89.6	101.4	94.7			117.7	126.8		
March	95.4	90.7	99.7	92.3			116.7	127.1		
April	94.1	83.5	97.3	88.2			114.4	120.8		
May	92.7	83.3	92.7	84.4			113.3	120.6		
June	89.2	77.6	92.0	82.5			111.3	115.4		
July	87.5	76.5	90.1	81.7			109.7	110.6		
August	88.2	80.0	88.9	79.5			111.0	113.7		
September	88.3	83.2	90.8	83.1			112.5	117.7		
October	94.0	89.2	94.4	89.5			116.0	125.8		
November	95.8	90.6	97.4	92.6			119.2	129.2		
December	97.0	93.2	98.7	95.9			121.2	133.0		
1929										
January	98.1	90.8	99.0	93.7			120.0	126.5		
February	98.5	92.0	99.6	96.1			123.4	133.6		
March	99.3	92.6	99.0	95.9			124.4	133.5		
April	98.9	92.2	97.2	94.6			123.8	130.7		
May	97.2	91.4	97.5	93.3			122.7	129.7		
June	95.7	88.7	97.4	91.0			121.4	123.0		
July	92.1	82.5	94.1	86.8			119.2	117.5		
August	94.3	87.3	92.1	84.3			118.0	119.2		
September	93.1	88.0	94.7	86.8			121.6	122.5		
October	97.8	96.2	95.6	89.7			123.8	126.8		
November	96.8	94.7	94.4	85.3			122.3	118.5		
December	93.1	84.2	92.8	83.5			120.7	116.1		
1930										
January	91.0	80.6	91.1	81.3			120.8	117.6		
February	88.9	76.6	89.2	80.3			121.9	122.2		
March	86.7	73.0	88.2	78.5			121.1	124.0		
April	85.5	69.6	87.4	77.9			118.6	118.9		
May	78.2	60.4	84.2	73.6			114.5	111.7		
June	71.3	51.3	81.5	69.6			108.9	99.0		
July	62.5	46.2	76.0	61.3			101.2	90.3		
August	66.9	50.0	72.9	58.2			103.9	94.8		
September	65.2	50.6	74.3	61.1			102.3	99.1		
October	67.9	55.9	74.2	63.1			109.3	107.9		
November	65.7	53.5	75.1	63.1			110.7	109.5		
December	60.2	49.0	74.4	65.2			111.0	109.6		
1931										
January	61.9	47.0	72.8	61.6	82.5	80.9	110.5	107.0	94.9	91.8
February	66.3	58.3	72.8	62.1	87.1	89.2	113.4	119.7	96.8	96.9
March	70.5	60.1	76.2	65.8	91.3	95.8	113.0	117.7	97.6	87.9
April	71.6	60.4	76.6	67.3	91.2	90.4	110.5	113.1	95.9	74.2
May	72.6	61.3	78.4	68.5	88.0	86.1	107.6	105.9	88.8	77.7
June	71.8	59.3	76.2	64.1	82.8	77.1	101.0	95.6	84.9	76.4
July	70.3	57.2	75.3	61.9	79.4	72.3	96.7	92.5	91.5	87.9
August	71.7	56.2	74.0	60.4	77.5	68.8	98.2	97.3	93.5	97.4
September	65.6	50.7	74.3	58.6	77.1	67.4	100.4	96.4	93.6	100.6
October	65.6	49.4	72.9	56.4	75.9	68.3	96.3	89.4	85.5	74.3
November	62.0	47.1	72.2	52.5	75.1	63.3	96.8	89.0	76.3	62.7
December	60.3	44.5	72.4	53.2	72.7	62.5	96.0	90.3	76.1	61.8

TABLE 8.—*Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued*

[3-year average, 1923-25=100]

Month and year	Textiles and their products—Continued									
	Carpets and rugs		Cotton goods		Cotton small wares		Dyeing and finishing textiles		Hats, fur-felt	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	60.2	44.1	71.5	51.7	74.4	65.3	96.0	88.5	75.4	61.5
February.....	59.1	40.2	74.1	54.8	76.7	68.2	99.6	95.3	73.1	58.5
March.....	59.8	40.9	73.7	53.3	75.9	63.5	99.3	91.4	73.1	60.4
April.....	55.6	35.9	68.0	45.3	71.8	53.8	93.3	75.4	67.8	42.4
May.....	52.6	29.8	62.4	38.3	65.9	47.5	86.6	62.4	62.0	35.8
June.....	49.8	25.9	56.3	32.9	62.8	43.5	82.7	62.5	61.5	40.3
July.....	42.5	23.0	54.4	30.8	60.8	40.7	74.2	47.7	64.7	47.5
August.....	45.0	23.9	60.1	35.9	60.1	40.2	78.8	59.8	74.1	64.0
September.....	45.1	25.0	70.6	47.0	64.0	48.2	90.0	75.8	81.2	82.9
October.....	51.9	34.3	74.4	50.2	71.0	55.9	90.1	72.7	80.8	75.2
November.....	52.7	32.9	74.1	48.3	72.2	52.2	90.4	68.2	75.7	62.4
December.....	50.1	30.7	73.8	46.7	69.1	49.6	90.3	67.3	71.1	60.4
1933 ¹										
January.....	49.0	26.7	73.5	45.2	66.6	46.2	89.4	66.3	70.7	56.5
February.....	47.4	25.0	73.0	44.9	69.9	51.6	90.4	71.7	72.5	54.0
March.....	45.6	25.4	70.7	41.2	65.6	43.6	87.1	62.4	70.0	48.6
April.....	45.2	25.0	72.2	42.7	66.9	44.4	88.3	67.5	72.5	49.6
May.....	49.0	32.6	77.9	49.2	71.2	53.5	89.2	69.7	73.3	53.0
June.....	56.5	41.9	90.1	61.0	78.3	60.4	93.7	76.0	74.6	63.9
July.....	67.1	50.1	99.5	69.0	87.1	69.5	102.3	81.6	76.8	67.1
August.....	71.3	56.7	101.6	82.2	92.4	74.8	107.7	83.0	90.1	83.5
September.....	75.0	60.7	99.6	80.1	89.3	71.3	89.5	66.5	92.4	92.8
October.....	79.1	65.1	100.8	80.8	87.3	70.4	87.5	68.2	83.7	83.8
November.....	73.6	53.8	97.0	76.1	79.1	60.9	107.1	86.4	77.4	71.2
December.....	68.4	48.3	94.1	72.2	75.1	58.5	105.6	83.3	75.6	65.9

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Textiles and their products—Continued									
	Knit goods		Silk and rayon goods		Woolen and worsted goods		Wearing apparel		Clothing, men's	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1923.....	104.8	103.7	99.7	97.4	109.3	109.1	105.4	105.6	107.0	109.3
1924.....	94.5	92.3	94.8	93.0	97.9	97.6	96.1	94.9	97.3	96.1
1925.....	100.7	104.0	105.5	109.6	92.8	93.3	98.5	99.5	95.7	94.6
1926.....	101.3	109.1	102.9	107.8	84.1	84.0	99.8	99.6	97.4	94.8
1927.....	102.6	116.0	101.5	107.6	86.7	84.7	105.8	107.6	102.5	99.5
1928.....	102.6	115.4	101.0	107.5	83.1	79.2	108.3	107.5	101.3	95.5
1929.....	112.5	129.8	103.8	105.6	82.6	80.1	113.3	111.0	103.2	95.8
1930.....	102.9	108.6	95.1	87.2	67.2	60.5	105.0	93.6	91.4	74.7
1931.....	96.0	92.2	86.9	74.8	67.1	57.3	99.6	80.7	84.9	62.8
1932 ¹	94.1	75.5	68.7	46.4	59.5	41.3	84.8	55.5	74.4	42.3
1933 ¹	102.2	81.4	75.5	51.8	78.2	54.5	88.2	55.7	80.3	47.3
1923										
January.....	104.5	95.5	98.1	88.6	107.8	101.7	108.0	109.7	109.6	110.2
February.....	105.8	101.7	100.3	94.4	109.4	103.6	111.4	116.3	112.2	116.4
March.....	107.4	106.8	102.1	98.4	110.6	105.3	113.7	122.5	114.2	121.7
April.....	108.1	109.5	102.4	99.3	111.8	107.0	108.9	108.6	106.5	107.0
May.....	108.0	111.8	102.0	103.5	112.0	118.9	105.3	104.2	105.7	110.2
June.....	106.7	107.9	100.3	101.9	110.9	117.3	103.4	104.3	103.2	117.9
July.....	102.5	97.5	98.8	96.1	109.7	111.9	104.4	106.7	108.3	115.6
August.....	102.9	98.6	99.2	97.4	108.7	106.4	104.3	105.2	107.8	109.5
September.....	101.9	99.2	99.1	98.7	106.9	108.2	105.5	100.1	107.4	105.4
October.....	102.9	103.9	98.7	99.9	107.3	110.6	103.5	104.7	104.2	103.7
November.....	103.9	105.1	97.6	95.6	108.6	108.6	98.1	93.1	99.6	96.4
December.....	103.1	106.8	97.4	95.0	107.7	110.0	97.7	92.1	100.3	97.5
1924										
January.....	102.5	101.0	96.8	93.5	105.5	104.3	103.5	103.7	105.9	107.7
February.....	103.8	106.3	99.0	100.3	105.1	106.8	107.4	109.8	109.3	111.5
March.....	105.0	106.6	98.4	97.4	104.0	102.8	105.9	107.1	106.5	105.9
April.....	102.9	103.9	95.4	94.4	98.3	94.3	98.7	95.4	93.5	88.6
May.....	98.7	96.9	93.0	90.7	95.4	91.6	93.3	86.8	90.8	85.6
June.....	93.7	88.7	91.1	87.6	91.7	86.0	91.9	87.2	98.6	98.5
July.....	80.1	69.0	88.2	80.5	87.0	80.9	89.0	84.2	97.6	98.0
August.....	82.8	75.5	91.9	89.3	88.0	87.2	91.4	82.4	86.7	97.5
September.....	87.1	80.4	94.4	91.8	93.7	94.8	93.9	97.7	95.0	95.9
October.....	90.0	88.7	97.1	98.6	100.2	104.3	94.7	95.8	93.7	91.5
November.....	92.4	92.1	96.4	93.3	102.0	106.3	90.7	85.3	89.6	81.6
December.....	94.4	97.9	96.4	98.0	103.3	111.4	93.3	92.8	91.8	90.6
1925										
January.....	95.4	96.1	97.5	98.4	100.8	107.6	96.1	98.2	94.4	94.3
February.....	99.6	103.8	100.1	105.3	99.4	104.6	101.1	107.6	99.1	102.9
March.....	101.3	106.9	102.1	109.1	96.8	99.5	101.8	109.4	97.4	102.0
April.....	101.8	103.9	102.7	108.0	95.2	95.4	98.8	96.4	92.6	86.1
May.....	101.2	105.2	103.6	110.1	91.9	92.8	94.1	90.5	88.8	83.9
June.....	100.2	101.4	104.8	105.5	90.8	88.9	95.0	92.3	95.1	95.0
July.....	98.4	96.8	106.2	108.6	89.3	88.7	97.3	98.5	96.4	97.8
August.....	98.7	101.7	108.0	114.1	89.3	86.5	99.3	103.2	98.6	102.6
September.....	100.3	99.2	109.0	107.3	89.3	84.3	100.0	99.3	98.3	95.6
October.....	103.5	109.7	110.3	116.8	90.2	89.4	100.2	102.1	97.0	92.3
November.....	104.5	111.4	110.4	115.2	90.8	91.2	98.8	98.3	95.4	89.8
December.....	103.7	111.3	110.9	117.2	89.8	90.6	98.9	97.8	95.7	93.0
1926										
January.....	102.9	105.6	110.8	116.1	88.7	90.0	100.6	103.4	96.7	96.8
February.....	104.2	112.2	110.1	117.1	82.8	82.8	104.2	110.7	99.7	101.2
March.....	104.5	113.1	106.9	113.2	81.0	80.9	104.8	111.8	98.9	99.6
April.....	103.0	109.6	103.3	106.3	80.4	78.7	100.7	99.0	93.7	87.0
May.....	101.5	110.1	100.2	105.3	80.1	78.8	98.2	92.9	92.0	83.6
June.....	100.3	107.4	97.9	100.2	79.9	79.6	97.3	93.8	97.1	94.3
July.....	94.6	98.1	97.2	98.7	79.9	79.2	93.5	89.6	95.3	94.1
August.....	97.2	104.7	99.1	104.8	80.3	79.6	97.2	97.9	99.3	101.1
September.....	98.9	104.3	100.6	104.3	84.3	82.1	99.2	98.2	99.0	96.0
October.....	102.0	114.3	103.1	112.2	89.4	92.8	100.7	101.9	99.3	95.8
November.....	103.0	114.9	103.0	107.8	91.1	90.7	98.1	92.8	97.1	89.3
December.....	103.3	114.9	102.8	107.8	90.7	92.7	103.1	103.3	101.1	99.2

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Textiles and their products—Continued									
	Knit goods		Silk and rayon goods		Woolen and worsted goods		Wearing apparel		Clothing, men's	
	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls
1927										
January	102.4	111.3	101.8	103.5	90.6	90.6	105.0	106.9	100.7	99.9
February	103.1	117.3	102.3	111.3	91.0	91.3	109.3	116.5	104.4	106.6
March	103.3	119.0	104.3	113.3	87.9	86.1	110.0	116.8	103.3	103.9
April	103.6	117.7	104.2	107.9	85.8	82.5	106.1	105.2	97.8	88.2
May	103.0	119.0	103.3	110.1	84.1	81.7	103.5	100.1	97.1	88.8
June	102.8	115.7	100.7	107.6	84.8	82.7	102.4	101.0	102.2	101.0
July	96.7	103.4	99.7	103.2	81.3	78.3	101.5	103.3	102.9	104.0
August	98.5	109.4	100.6	106.8	85.1	82.9	104.3	107.5	105.9	106.6
September	102.7	113.1	101.1	106.5	86.2	83.9	106.7	111.1	105.5	104.4
October	104.6	122.2	100.2	107.5	87.4	85.9	108.2	111.7	105.3	101.2
November	106.2	121.8	99.1	103.0	88.4	85.0	106.1	103.3	101.8	92.0
December	104.7	121.7	101.2	110.0	88.1	86.0	106.9	107.7	102.5	97.9
1928										
January	103.0	115.8	100.3	102.5	86.5	83.0	108.6	110.7	104.1	101.7
February	104.8	119.0	104.2	113.0	85.6	82.5	112.6	117.9	106.7	105.7
March	104.6	118.4	105.3	115.3	82.6	76.9	113.3	117.2	105.1	101.2
April	102.7	112.6	100.6	107.9	80.8	73.7	108.8	103.9	97.8	83.2
May	101.9	113.6	100.8	108.2	81.7	78.2	105.4	99.1	95.7	84.5
June	101.6	114.0	99.9	108.4	83.0	79.3	105.4	101.6	101.3	96.9
July	96.9	101.7	96.8	100.0	79.5	74.2	102.3	98.7	99.5	95.8
August	98.3	107.8	97.6	105.2	81.3	76.2	105.4	105.1	102.9	99.5
September	101.6	113.1	99.5	105.9	79.4	74.7	108.9	109.7	102.7	97.7
October	104.0	123.1	102.7	111.1	83.9	83.0	111.0	114.1	101.5	95.5
November	106.0	122.1	101.7	103.6	86.8	83.5	108.8	104.1	98.7	87.7
December	106.1	123.6	102.8	109.0	86.4	85.5	108.9	108.2	99.3	96.2
1929										
January	104.2	114.8	100.1	98.0	85.2	82.4	109.6	109.1	99.4	94.0
February	107.3	124.3	103.1	109.6	84.5	83.1	114.0	118.5	102.8	102.5
March	109.6	127.8	105.3	112.5	83.5	81.0	118.0	124.8	104.5	105.8
April	110.8	129.9	106.0	112.5	83.6	82.1	115.4	112.9	99.5	87.1
May	111.6	130.3	104.9	110.5	84.0	83.0	113.1	107.8	98.8	89.8
June	111.8	129.9	103.6	107.9	82.7	80.7	113.1	109.7	105.1	100.8
July	111.0	121.7	103.7	103.2	80.7	77.3	108.6	100.4	105.1	98.2
August	112.3	126.8	104.4	105.7	83.1	80.5	112.2	111.0	107.6	103.4
September	116.4	133.5	104.4	104.8	83.6	81.4	115.3	115.5	107.3	100.2
October	119.7	142.5	104.5	105.7	84.3	83.6	116.6	115.2	105.4	93.0
November	119.6	140.3	103.1	98.6	79.9	74.4	112.2	103.8	102.1	85.7
December	115.5	136.1	102.6	98.1	76.1	71.3	110.9	103.4	100.9	89.4
1930										
January	108.5	118.8	100.9	93.3	75.0	69.7	111.1	106.0	100.5	90.4
February	110.0	124.0	104.4	100.0	72.5	66.6	113.1	109.0	101.9	91.3
March	107.3	120.1	104.9	102.4	67.5	60.4	115.1	112.4	98.6	86.6
April	107.1	116.1	103.5	97.5	63.3	55.6	111.3	100.0	93.0	73.8
May	105.7	108.3	97.5	88.5	67.3	63.6	106.1	90.0	89.4	67.5
June	104.6	109.2	94.6	85.1	69.0	64.0	103.3	87.1	92.8	76.1
July	95.3	91.2	86.9	73.0	67.0	60.4	95.5	81.4	90.6	77.3
August	93.8	91.6	86.7	77.9	68.0	60.7	99.4	88.9	90.6	79.2
September	99.1	101.9	85.2	76.3	68.0	61.2	106.2	98.4	92.4	76.2
October	102.5	111.6	89.5	82.8	64.6	56.5	105.1	93.7	87.5	66.3
November	102.9	110.6	93.8	83.7	62.8	53.2	97.8	79.1	80.6	56.2
December	98.5	99.9	93.3	85.5	61.2	53.7	96.3	77.6	78.3	55.4
1931										
January	88.5	84.3	92.7	78.9	60.6	51.9	96.7	78.1	80.9	59.9
February	93.5	94.0	96.1	87.3	65.9	60.2	102.9	91.1	86.1	69.7
March	94.5	96.1	95.2	85.3	67.4	61.2	107.2	99.0	88.2	73.5
April	95.1	95.6	93.1	81.3	63.6	54.9	106.6	89.6	86.6	64.8
May	96.1	98.1	89.5	76.7	68.5	60.8	102.5	79.2	82.9	56.6
June	96.7	95.3	79.8	68.0	71.7	62.6	98.5	75.8	83.4	62.1
July	94.4	85.5	76.1	65.9	75.2	66.1	94.7	75.9	86.8	69.2
August	96.0	95.5	78.3	69.7	76.2	68.4	99.3	81.8	89.6	72.4
September	96.5	89.6	83.3	70.5	72.7	57.6	103.2	84.4	80.8	66.3
October	99.9	93.8	87.5	74.2	61.9	49.3	100.2	79.4	87.6	61.4
November	101.3	93.6	85.5	68.3	61.0	47.5	92.9	67.6	79.4	48.6
December	99.9	91.9	86.1	70.4	60.0	47.0	90.7	65.9	76.2	48.5

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Textiles and their products—Continued									
	Knit goods		Silk and rayon goods		Woolen and worsted goods		Wearing apparel		Clothing, men's	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1932 ¹										
January.....	94.7	79.1	84.4	64.3	61.2	48.5	88.4	63.5	76.0	49.1
February.....	96.5	84.7	84.1	62.4	67.1	54.0	93.3	69.6	81.8	54.1
March.....	96.5	83.5	70.4	47.0	60.4	45.5	94.7	73.0	81.1	53.6
April.....	93.7	75.8	64.3	41.9	49.1	32.1	89.8	61.4	74.7	40.9
May.....	89.5	66.9	55.9	34.7	46.1	29.4	83.4	50.7	68.2	34.2
June.....	88.2	65.6	50.1	30.3	44.8	27.8	77.7	43.7	63.8	29.3
July.....	79.8	54.0	50.3	31.4	51.8	32.7	66.5	36.0	64.3	29.4
August.....	85.9	61.8	65.2	44.8	64.0	42.9	74.0	47.2	71.0	40.4
September.....	95.6	77.9	74.4	50.3	69.2	48.0	86.4	59.3	77.8	48.6
October.....	102.6	89.1	78.7	54.6	69.9	48.4	91.4	61.6	80.8	49.6
November.....	105.3	88.3	73.8	48.2	64.9	42.4	87.8	52.6	79.5	43.0
December.....	100.7	79.2	72.5	46.9	65.1	44.0	84.4	46.9	74.1	34.8
1933 ¹										
January.....	93.7	64.7	72.6	43.6	65.0	42.5	80.6	45.0	70.8	35.4
February.....	94.2	66.9	72.5	44.5	71.3	48.7	87.9	53.9	77.7	44.3
March.....	91.2	61.4	62.3	35.8	54.6	30.3	85.5	47.9	75.9	40.4
April.....	93.1	65.1	62.8	35.9	57.0	33.6	89.5	54.3	75.2	36.8
May.....	97.8	72.2	69.2	43.4	68.9	44.8	88.2	48.8	73.7	35.2
June.....	105.4	79.6	72.6	47.8	84.9	61.5	89.0	49.5	79.6	41.8
July.....	107.1	79.0	82.8	56.7	96.0	70.1	88.3	50.9	86.9	51.3
August.....	105.2	91.7	89.8	70.7	98.9	73.8	90.3	59.5	88.6	58.7
September.....	112.4	100.6	88.1	66.1	93.6	70.0	95.6	75.9	89.8	63.9
October.....	114.2	106.2	79.2	61.4	90.7	66.5	95.8	72.7	87.8	62.6
November.....	109.2	100.0	79.3	60.0	80.5	56.2	87.7	58.6	81.2	52.4
December.....	102.6	88.8	74.9	55.3	77.3	55.7	80.4	51.2	76.5	44.4

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—*Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued*

[3-year average, 1923-25=100]

Month and year	Textiles and their products—Continued									
	Clothing, women's		Corsets and allied garments		Men's furnishings		Millinery ⁴		Shirts and collars	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923.....	104.3	103.2	105.2	103.4	94.6	93.6	103.2	100.8	107.9	109.7
1924.....	96.6	94.3	100.0	100.0	100.1	96.1	94.8	94.5	93.0	91.9
1925.....	99.1	102.5	94.8	96.6	105.3	110.3	102.0	104.7	99.1	98.4
1926.....	104.2	104.7					98.0	103.6	101.7	101.9
1927.....	121.0	123.6	90.0	96.7	125.7	139.5	104.8	113.9	105.1	109.9
1928.....	133.7	132.5					105.7	112.3	106.3	107.1
1929.....	146.8	142.6	89.2	97.0	132.7	145.5	101.3	104.0	109.1	109.2
1930.....	142.2	127.9					91.3	88.6	102.7	90.3
1931.....	135.8	110.5	91.3	89.6	120.1	109.5	83.7	79.2	104.0	82.7
1932 ¹	110.4	73.9	88.0	74.0	99.2	67.0	76.3	65.2	90.5	61.0
1933 ¹	110.0	68.0	88.9	71.0	101.5	62.7	75.9	57.9	99.0	72.1
1923										
January.....	107.2	113.0					107.2	100.7	110.0	110.3
February.....	112.5	123.3					111.1	103.7	111.5	109.9
March.....	116.0	129.1					113.0	115.8	111.8	115.4
April.....	112.0	110.4					111.4	110.4	112.2	116.8
May.....	104.1	96.0					106.6	104.4	110.0	115.6
June.....	97.1	88.4					100.0	100.2	108.1	112.3
July.....	100.9	98.7					100.1	97.6	106.9	109.7
August.....	102.8	105.1					102.3	99.4	101.7	96.9
September.....	106.3	93.9					102.0	101.4	103.5	105.5
October.....	104.3	107.6					98.8	95.8	106.3	114.1
November.....	95.4	89.3					92.1	87.8	106.5	104.1
December.....	93.2	83.6					93.7	92.5	105.8	106.0
1924										
January.....	103.2	101.3					96.8	99.1	104.2	103.2
February.....	109.5	112.4					100.1	102.1	103.3	104.0
March.....	110.7	111.9					98.6	101.2	103.0	104.3
April.....	106.8	102.1					97.2	99.3	100.3	102.4
May.....	95.9	84.6					94.2	92.5	96.3	96.8
June.....	83.7	73.8					89.4	85.0	91.2	88.0
July.....	78.8	67.6					89.2	85.1	84.3	79.6
August.....	90.6	92.9					91.1	85.1	77.4	69.9
September.....	95.2	102.3					97.4	100.7	85.6	83.6
October.....	98.2	103.1					96.0	94.0	89.1	88.3
November.....	91.9	86.0					93.0	93.6	89.9	89.0
December.....	95.2	93.0					95.1	96.8	91.9	94.2
1925										
January.....	97.7	102.2					101.6	106.3	92.7	91.0
February.....	103.8	114.3					106.8	110.2	96.4	97.2
March.....	106.6	117.6					109.5	117.0	97.5	101.0
April.....	102.9	102.4					108.9	114.9	99.3	100.2
May.....	95.3	89.9					102.6	106.5	100.2	102.9
June.....	89.7	83.2					99.2	102.0	98.9	96.7
July.....	95.4	98.0					98.8	97.2	98.7	96.3
August.....	99.0	104.7					101.2	101.0	96.2	92.4
September.....	100.4	104.2					99.4	97.2	98.9	90.6
October.....	102.2	112.3					98.3	100.2	100.9	101.3
November.....	98.5	103.9					97.7	101.5	104.0	104.3
December.....	97.1	96.7					99.6	102.7	105.0	107.2
1926										
January.....	101.9	107.4					101.2	107.0	104.5	105.7
February.....	107.6	120.1					105.9	114.1	105.9	106.6
March.....	111.3	124.5					107.1	118.5	105.5	106.9
April.....	108.5	107.3					106.1	116.9	102.0	106.6
May.....	105.3	99.4					102.6	105.2	101.1	101.7
June.....	99.4	92.6					91.2	91.8	99.6	98.8
July.....	92.2	84.2					88.3	89.1	98.3	93.7
August.....	99.9	98.1					90.1	93.3	94.8	91.3
September.....	104.0	103.1					95.0	102.2	99.0	95.0
October.....	107.2	112.3					93.8	100.1	102.6	104.9
November.....	102.1	95.7					95.2	99.1	103.9	106.9
December.....	111.5	111.7					99.3	105.7	103.3	104.8

¹ Data subject to revision when census figures for 1933 become available.⁴ Based on millinery and lace goods trend 1923 through 1926.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Textiles and their products—Continued									
	Clothing, women's		Corsets and allied garments		Men's furnishings		Millinery		Shirts and collars	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January	118.1	120.1					103.3	111.3	103.1	103.1
February	125.0	135.8					107.8	118.5	104.7	106.9
March	129.8	140.2					108.3	118.0	103.2	108.1
April	127.3	129.2					108.0	118.6	102.3	106.9
May	127.9	117.3					104.3	112.2	102.3	107.0
June	112.8	106.0					98.9	107.5	102.3	106.4
July	111.0	110.4					96.7	100.6	101.7	107.1
August	114.1	116.5					103.1	111.7	102.3	107.5
September	120.0	127.2					108.0	119.8	105.8	110.2
October	125.0	131.8					105.2	118.2	109.2	117.4
November	122.5	122.4					106.0	113.0	112.1	115.2
December	123.9	126.2					108.2	116.8	112.3	119.5
1928										
January	127.6	133.1					109.0	113.8	111.1	109.1
February	135.1	144.5					116.2	126.1	111.0	113.5
March	139.4	147.6					117.7	128.9	110.7	113.3
April	137.3	133.8					117.3	129.1	106.8	106.9
May	132.0	122.4					111.0	115.1	104.4	105.7
June	126.7	115.5					103.4	108.3	101.7	102.7
July	122.3	114.4					93.3	93.1	100.3	95.0
August	127.2	123.7					98.6	106.0	99.0	98.6
September	135.1	135.2					104.9	116.6	103.9	102.4
October	142.0	150.6					101.2	107.5	108.4	113.4
November	139.6	133.5					98.7	102.3	109.3	112.8
December	139.5	135.1					97.2	100.2	109.3	111.5
1929										
January	141.1	140.8					102.5	105.3	106.8	103.1
February	148.5	153.1					108.9	115.9	108.1	109.5
March	157.1	163.2					112.5	126.2	110.4	114.0
April	155.9	153.6					114.5	125.1	109.1	111.4
May	151.5	140.8					106.7	110.3	108.7	104.9
June	144.8	133.1					100.1	105.2	107.2	104.3
July	133.3	114.6					90.7	85.0	105.0	106.2
August	138.6	134.8					97.8	98.5	107.5	107.8
September	146.4	149.1					101.5	105.2	110.9	110.2
October	153.9	157.5					99.2	100.1	111.9	113.9
November	146.5	137.9					90.7	85.7	111.7	113.6
December	143.9	133.1					90.8	85.1	111.7	111.2
1930										
January	145.5	139.7					95.9	92.6	108.2	101.0
February	148.2	143.5					101.7	104.0	109.7	104.8
March	158.0	158.3					106.5	112.2	108.9	100.3
April	154.8	141.2					104.4	108.2	107.1	95.6
May	148.2	126.4					95.7	94.0	101.6	85.6
June	136.4	111.0					86.1	79.2	100.7	86.1
July	118.5	97.4					75.5	63.8	97.2	84.0
August	129.5	112.0					86.2	81.4	96.1	83.7
September	145.4	133.5					92.3	97.1	100.2	85.7
October	148.0	139.5					89.7	86.1	102.5	89.7
November	136.7	114.6					81.0	72.2	102.3	87.1
December	137.3	112.7					80.2	72.8	97.3	80.1
1931										
January	136.4	110.0	87.9	86.6	117.7	103.6	83.4	75.7	92.5	73.6
February	145.5	129.4	89.8	96.8	127.1	125.0	89.6	86.8	98.6	81.7
March	153.5	142.1	92.4	109.4	129.5	133.1	95.8	101.5	102.7	86.5
April	153.5	128.2	96.9	113.9	126.2	110.0	91.8	92.9	104.8	87.7
May	146.5	112.7	96.1	95.8	125.8	115.3	83.7	75.2	105.6	88.3
June	134.9	99.0	92.5	91.5	120.6	103.9	79.4	71.0	103.9	83.2
July	119.7	92.2	88.1	79.4	111.6	101.0	74.9	66.0	103.5	85.7
August	129.1	101.7	90.0	80.2	107.6	98.5	85.0	83.1	105.7	86.1
September	137.4	116.7	93.3	78.5	114.7	100.6	87.5	85.3	109.3	86.8
October	130.2	108.4	91.7	85.7	125.0	113.4	83.0	76.9	111.8	85.2
November	121.0	93.6	89.5	81.5	117.1	110.6	75.6	68.6	107.9	77.8
December	121.6	92.4	87.0	76.3	117.7	99.3	75.1	66.9	101.2	69.5

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Textiles and their products—Continued									
	Clothing, women's		Corsets and allied garments		Men's furnishings		Millinery		Shirts and collars	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1932 ¹										
January.....	118.4	83.6	80.9	80.5	101.3	77.6	85.7	81.7	92.9	64.8
February.....	123.1	92.4	93.8	89.2	104.5	80.4	91.2	88.4	94.2	67.9
March.....	128.2	103.3	96.0	88.9	107.4	84.6	93.7	90.3	93.3	66.6
April.....	126.0	90.4	93.4	81.0	100.3	67.2	84.3	78.4	88.4	59.7
May.....	118.5	74.3	90.0	74.8	92.4	57.7	69.7	55.9	85.9	54.3
June.....	107.2	61.2	87.9	66.9	92.3	59.2	62.0	47.3	85.3	55.3
July.....	75.0	42.8	80.7	59.1	75.7	47.1	52.5	38.3	79.4	49.5
August.....	88.4	58.3	82.2	57.6	75.2	43.2	69.4	57.8	78.5	51.5
September.....	110.6	76.0	85.4	66.1	97.7	62.5	84.2	79.8	89.0	56.3
October.....	116.7	80.2	89.7	80.0	111.8	75.3	85.4	66.9	98.8	68.1
November.....	107.2	64.2	88.5	72.0	118.9	81.4	71.3	50.5	101.2	70.9
December.....	105.6	60.2	87.2	71.6	112.9	67.4	66.7	47.4	99.0	67.1
1933 ¹										
January.....	105.1	58.2	85.7	64.1	100.3	53.2	72.2	53.4	82.7	49.0
February.....	115.0	70.6	91.1	75.4	102.9	56.0	80.1	58.1	90.1	56.0
March.....	110.9	60.0	90.9	63.6	98.0	53.3	77.8	50.3	89.5	56.3
April.....	123.3	78.2	90.0	67.6	96.1	51.3	86.3	73.2	90.9	57.0
May.....	122.8	65.8	89.2	71.2	94.8	54.7	79.5	59.6	91.7	58.6
June.....	112.8	56.6	89.5	72.4	102.4	61.9	76.6	57.0	100.7	69.8
July.....	98.1	51.9	88.2	68.6	108.4	61.8	65.3	45.1	109.4	72.1
August.....	98.8	56.9	89.9	78.4	111.0	79.1	80.7	66.5	107.1	88.1
September.....	116.7	98.6	93.8	82.3	101.9	69.8	80.4	77.2	107.6	88.6
October.....	118.6	91.2	84.7	75.3	109.2	81.0	77.5	59.0	113.5	101.9
November.....	104.1	67.6	87.2	65.9	107.3	74.1	67.4	47.6	107.7	90.7
December.....	93.7	59.9	86.4	67.6	86.2	55.8	66.5	47.3	96.9	77.0

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Leather and its manufactures						Food and kindred products			
	Group index		Boots and shoes		Leather		Group index		Baking	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923.....	106.6	106.9	106.0	107.6	109.1	107.9	102.1	100.4	100.1	98.0
1924.....	96.3	95.3	96.7	95.3	95.4	95.8	98.4	99.4	101.1	101.7
1925.....	97.1	97.8	97.3	97.1	97.1	95.5	96.3	99.5	100.2	98.8
1926.....	96.6	98.9	95.6	96.1	96.7	99.5	99.5	101.8	101.4	104.1
1927.....	97.7	100.3	95.6	96.8	96.6	99.3	101.7	104.0	105.9	107.8
1928.....	95.6	95.8	92.7	91.3	94.3	95.3	105.8	107.6	112.2	113.3
1929.....	98.5	99.0	96.7	95.6	91.1	92.8	112.8	113.9	123.6	125.3
1930.....	91.2	82.3	90.2	78.3	84.6	83.0	109.4	108.9	121.5	123.7
1931.....	84.3	72.1	85.3	70.2	76.9	72.5	97.4	93.0	112.6	109.0
1932 ¹	79.0	58.1	81.7	58.5	69.1	56.0	86.4	74.2	101.2	88.6
1933 ¹	83.3	62.9	83.9	61.5	81.3	66.8	94.4	76.2	101.2	82.7
1923										
January.....	110.9	111.7	110.1	114.6	114.6	105.1	89.5	89.8	91.0	86.5
February.....	112.1	113.7	111.0	116.2	116.2	108.9	90.5	90.6	95.3	91.6
March.....	111.8	116.1	111.0	118.9	115.1	110.6	92.7	93.4	98.3	94.4
April.....	109.5	112.7	108.6	114.6	113.3	109.5	92.4	93.3	96.8	92.2
May.....	106.9	110.8	106.5	111.7	108.9	111.1	93.8	95.6	97.4	97.4
June.....	103.9	106.1	102.9	106.0	108.4	109.8	100.6	100.7	101.4	101.5
July.....	102.2	99.5	100.8	98.4	107.7	106.5	108.5	104.3	105.6	104.4
August.....	105.7	103.9	105.5	104.6	106.3	104.5	116.1	107.6	104.2	100.0
September.....	105.1	103.8	105.1	104.1	105.2	105.6	121.4	113.7	103.6	103.8
October.....	104.2	102.9	104.2	102.2	104.9	108.5	114.0	108.9	105.6	101.9
November.....	104.1	99.7	103.8	98.3	105.7	107.4	106.1	105.6	101.2	102.1
December.....	102.5	102.3	102.3	101.9	103.0	106.7	99.1	101.5	100.4	100.6
1924										
January.....	102.7	102.8	102.7	102.8	103.1	105.6	94.0	96.2	98.1	98.7
February.....	103.1	104.1	103.1	103.8	103.5	107.0	94.8	97.6	102.0	102.0
March.....	103.3	103.2	103.8	103.2	102.4	104.8	94.5	96.9	102.1	102.0
April.....	97.7	94.0	97.8	93.0	98.1	99.3	91.9	94.4	99.9	100.8
May.....	93.3	89.0	93.3	88.4	93.2	92.9	91.4	95.3	100.1	101.4
June.....	88.2	85.0	87.7	83.3	90.2	91.1	95.3	98.4	102.6	103.4
July.....	88.3	83.8	88.6	83.9	87.4	83.6	101.0	101.4	102.0	103.3
August.....	92.8	94.2	94.0	96.3	88.2	87.4	107.4	103.9	100.5	99.9
September.....	96.3	99.4	97.1	101.9	92.9	90.3	113.2	109.4	101.5	105.5
October.....	97.5	100.0	98.5	101.3	94.0	94.3	104.4	101.7	102.2	101.4
November.....	96.8	91.8	97.4	90.7	95.2	94.1	98.0	98.8	101.6	101.9
December.....	96.1	95.7	95.8	94.4	96.8	98.8	95.3	99.3	100.0	100.0
1925										
January.....	99.3	99.4	99.6	99.1	97.8	98.8	91.0	95.0	97.7	98.0
February.....	101.1	104.1	101.5	104.0	99.0	102.8	91.4	94.5	99.0	97.7
March.....	101.1	104.5	101.5	104.4	98.7	102.4	90.8	94.3	97.7	98.7
April.....	96.9	95.8	97.0	95.5	96.0	94.3	88.6	90.8	96.4	97.0
May.....	94.7	95.1	94.8	94.1	93.3	94.9	89.3	94.5	96.7	100.1
June.....	90.5	89.8	89.7	88.0	93.0	92.3	96.4	99.4	99.5	102.0
July.....	93.4	93.7	93.6	94.1	91.4	88.3	105.3	103.2	99.1	100.5
August.....	95.2	103.8	99.3	105.6	93.1	93.4	114.2	109.0	97.4	98.7
September.....	100.1	99.8	101.2	100.6	95.2	92.6	121.9	112.7	98.8	100.6
October.....	99.7	101.2	100.5	100.7	95.8	98.1	109.4	107.3	103.3	105.5
November.....	96.8	93.7	96.6	90.5	96.3	98.6	100.2	102.2	100.5	102.3
December.....	93.7	92.4	92.8	88.7	95.9	99.1	94.9	99.8	98.9	102.1
1926										
January.....	96.1	95.9	95.2	93.3	97.4	98.5	91.0	96.4	96.8	100.0
February.....	98.0	101.2	97.4	98.9	98.4	101.6	90.1	95.6	96.9	100.9
March.....	96.9	100.3	95.8	97.5	98.6	102.2	90.9	95.8	99.5	102.8
April.....	92.5	91.3	90.7	86.8	96.4	99.4	89.1	93.3	98.8	100.5
May.....	91.2	88.3	89.5	83.6	94.5	97.3	90.6	97.2	100.1	104.5
June.....	91.1	93.0	89.9	90.1	92.0	94.7	97.1	101.5	103.7	107.1
July.....	94.8	98.3	94.0	96.8	93.6	94.7	104.4	104.4	103.7	106.3
August.....	99.4	106.4	98.9	105.6	96.4	99.6	113.3	109.9	101.9	103.5
September.....	101.1	106.5	100.6	105.4	98.3	100.6	119.7	114.4	103.7	106.0
October.....	101.0	106.7	100.3	104.8	98.1	103.1	110.1	109.2	105.8	107.6
November.....	99.8	100.0	98.5	96.7	98.4	100.4	101.7	103.3	103.6	105.5
December.....	97.8	98.3	96.0	94.1	98.6	102.4	95.5	100.6	102.1	104.8

¹Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Leather and its manufactures—Continued						Food and kindred products—Continued			
	Group index		Boots and shoes		Leather		Group index		Baking	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1927										
January.....	99.7	100.2	98.0	96.2	99.4	103.0	91.8	97.3	100.9	102.9
February.....	100.4	106.4	98.3	103.3	101.3	105.1	91.5	97.2	102.6	105.8
March.....	100.2	104.3	98.4	101.4	99.5	102.2	92.3	97.3	103.8	106.6
April.....	95.7	97.9	93.6	94.5	95.4	97.7	92.1	96.7	104.1	106.1
May.....	94.2	95.6	92.1	91.8	94.0	96.4	92.9	100.0	103.7	107.3
June.....	94.1	96.7	91.8	92.8	94.1	97.3	101.5	105.8	108.4	110.3
July.....	97.6	102.1	95.9	100.0	95.1	96.2	107.7	107.9	106.8	108.8
August.....	101.3	110.3	100.0	109.2	95.5	99.1	115.7	112.4	106.2	107.6
September.....	101.6	108.0	100.3	106.8	96.4	97.7	122.5	116.6	109.0	110.4
October.....	99.9	101.4	98.1	98.1	96.0	98.1	111.7	110.0	110.1	111.2
November.....	94.7	89.7	91.5	83.1	96.3	98.1	103.0	104.8	108.4	109.6
December.....	93.1	91.1	89.3	83.9	96.4	101.0	97.5	101.9	106.9	107.3
1928										
January.....	97.1	97.6	93.8	92.2	98.0	100.6	92.8	98.6	105.2	105.9
February.....	99.0	104.1	95.8	99.6	98.8	102.4	93.9	100.6	106.1	107.9
March.....	98.6	102.8	95.6	98.1	98.0	102.3	95.6	101.3	107.7	109.5
April.....	93.9	88.9	90.6	82.7	94.7	95.5	95.2	98.4	108.0	107.5
May.....	91.7	86.1	87.8	79.0	94.7	96.1	96.2	101.7	110.8	112.5
June.....	91.9	90.4	88.4	85.0	93.4	93.8	102.8	106.7	113.1	114.7
July.....	96.4	97.9	93.5	94.2	94.1	94.2	111.5	110.9	113.0	114.4
August.....	98.3	104.0	96.0	101.8	94.4	94.3	121.0	116.3	112.6	113.7
September.....	98.7	103.4	96.5	101.1	94.3	94.2	128.1	121.0	116.9	117.9
October.....	97.4	100.0	95.3	96.7	93.0	94.4	117.7	115.3	118.3	119.0
November.....	92.4	84.4	89.8	78.9	89.9	88.8	109.8	110.5	117.7	118.5
December.....	91.9	90.4	89.6	86.0	88.3	89.7	105.4	109.8	117.3	117.9
1929										
January.....	95.5	94.9	93.4	92.0	89.8	88.0	101.4	105.6	115.3	115.4
February.....	97.6	99.5	96.1	96.5	90.2	92.5	101.7	106.2	118.2	119.2
March.....	96.7	96.3	95.2	93.8	89.0	88.7	101.0	105.0	120.1	120.9
April.....	94.8	93.2	93.1	89.5	88.3	89.4	107.1	109.1	119.9	120.3
May.....	94.7	93.7	92.8	89.7	88.2	90.2	103.6	109.0	122.2	125.3
June.....	94.0	95.6	91.9	91.7	89.0	91.9	108.3	111.8	125.0	127.4
July.....	99.6	103.7	97.8	101.4	92.0	93.1	117.5	116.1	125.6	127.6
August.....	103.2	111.2	101.9	109.6	93.2	97.1	127.6	123.3	125.0	126.9
September.....	104.8	110.9	103.6	109.1	94.3	96.9	134.7	129.4	128.2	130.6
October.....	104.7	106.8	103.3	103.2	95.2	99.9	125.5	122.6	129.8	132.1
November.....	100.2	90.6	98.3	84.7	93.2	93.8	115.4	115.4	127.7	129.8
December.....	96.0	91.0	93.4	85.8	91.3	92.0	109.2	112.8	126.1	127.9
1930										
January.....	97.3	92.6	95.6	88.6	89.5	89.1	103.4	108.2	123.1	125.8
February.....	98.3	93.5	97.2	89.9	89.0	89.3	102.4	107.2	123.1	126.1
March.....	97.3	92.4	96.2	89.5	88.2	86.5	101.2	105.0	122.0	124.7
April.....	95.7	88.7	94.5	85.3	87.6	85.7	104.4	107.2	122.2	125.7
May.....	92.1	82.3	90.7	77.5	86.1	85.2	103.3	107.4	123.0	126.2
June.....	89.8	80.4	88.4	75.8	84.4	83.8	106.9	110.3	124.2	127.6
July.....	91.8	85.8	91.3	83.0	83.9	82.3	113.4	111.2	125.1	125.3
August.....	92.7	87.3	92.4	84.6	84.1	83.8	121.1	114.6	120.5	121.7
September.....	91.1	83.4	90.7	80.3	83.7	82.0	133.4	122.2	121.6	124.6
October.....	83.0	76.4	87.1	72.3	82.9	80.1	118.8	111.6	120.4	121.7
November.....	81.5	60.3	80.1	63.9	79.9	75.6	106.1	103.5	118.4	119.3
December.....	78.7	64.0	77.9	69.4	76.2	73.0	98.6	98.7	116.7	115.9
1931										
January.....	82.0	66.8	81.5	63.4	77.6	71.3	94.3	95.8	113.1	112.3
February.....	84.8	75.8	85.1	74.0	77.7	73.7	91.9	94.0	113.1	112.2
March.....	87.8	80.9	88.7	79.9	78.5	75.6	91.5	92.0	113.0	111.3
April.....	87.0	78.0	88.0	76.5	77.8	75.3	92.3	92.0	112.4	109.5
May.....	85.1	76.2	86.0	74.1	77.5	76.0	92.8	93.6	114.2	112.3
June.....	84.0	74.0	84.5	71.7	77.6	75.4	95.6	94.1	114.3	112.3
July.....	89.0	80.6	90.4	79.5	79.5	76.7	100.7	94.6	115.2	111.0
August.....	91.2	83.8	93.0	83.1	80.5	78.4	107.3	96.2	113.8	108.4
September.....	88.5	75.5	90.5	74.3	77.9	73.6	114.7	99.2	113.2	108.3
October.....	83.1	63.3	84.7	60.8	75.1	68.8	103.4	92.6	111.9	106.3
November.....	72.8	53.1	73.1	49.9	72.2	63.5	94.1	87.5	109.1	103.3
December.....	76.6	56.8	78.2	55.2	70.6	61.6	89.9	84.6	107.4	100.4

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Leather and its manufactures—Continued						Food and kindred products—Continued			
	Group index		Boots and shoes		Leather		Group index		Baking	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	79.1	60.2	81.3	60.3	71.0	58.9	83.7	78.7	104.3	97.1
February.....	83.7	69.4	86.7	71.2	72.5	62.6	82.3	76.7	103.1	95.4
March.....	84.8	70.6	88.5	72.9	71.5	61.4	81.5	75.1	103.5	94.6
April.....	82.4	63.0	85.4	64.1	71.0	58.3	82.8	74.6	102.7	91.2
May.....	76.1	51.6	78.2	51.1	68.0	52.7	82.2	74.8	102.6	90.5
June.....	73.8	50.6	76.4	50.9	64.1	49.5	84.9	74.5	102.0	89.2
July.....	74.9	52.3	77.9	53.1	63.7	48.9	86.2	72.3	101.0	86.0
August.....	79.6	58.4	83.5	60.2	65.1	51.3	91.2	74.0	99.9	84.5
September.....	81.5	61.7	85.2	63.5	67.7	54.8	97.9	77.4	99.5	85.8
October.....	82.6	62.3	85.8	63.0	70.6	58.9	93.8	75.3	100.1	85.6
November.....	76.1	49.4	77.2	46.7	72.5	57.6	87.3	70.2	98.3	82.7
December.....	73.3	47.5	73.9	44.6	71.5	56.5	82.8	67.3	97.7	80.7
1933 ¹										
January.....	76.7	49.3	78.2	47.9	70.8	53.2	79.1	64.6	95.8	79.2
February.....	80.9	56.5	83.2	56.2	72.4	56.5	78.2	63.0	95.4	77.6
March.....	80.1	53.1	82.7	53.2	70.5	52.6	77.0	60.8	94.6	75.3
April.....	78.3	51.8	81.6	52.9	66.4	47.5	83.0	67.5	95.7	76.8
May.....	79.9	57.3	81.6	56.5	73.8	59.2	85.1	70.4	96.8	78.1
June.....	83.4	64.8	84.0	63.1	81.1	69.5	89.7	73.5	98.1	79.6
July.....	89.5	72.4	97.3	71.4	86.3	74.8	94.5	76.8	99.5	81.8
August.....	92.9	78.2	93.2	77.7	92.2	78.6	105.4	82.1	102.7	83.1
September.....	90.7	77.5	90.3	77.1	92.5	78.2	120.9	94.8	108.9	90.2
October.....	88.9	72.3	88.3	70.1	91.4	78.8	115.9	91.1	110.1	90.6
November.....	79.1	60.1	77.0	55.6	87.8	74.3	104.8	85.3	109.1	90.4
December.....	78.7	61.1	75.8	53.7	90.8	78.8	99.2	84.4	107.7	89.6

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Food and kindred products—Continued									
	Beverages		Butter		Canning and preserving		Confectionery		Flour	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1923.....	104.9	104.4	106.7	105.7	97.7	97.8	101.7	100.9	104.9	101.9
1924.....	97.0	95.8	100.0	100.0	86.9	86.9	96.5	97.7	99.7	101.0
1925.....	98.1	99.8	93.3	94.3	115.4	115.3	101.8	101.4	95.4	97.1
1926.....							105.8	106.8	91.8	94.4
1927.....	96.6	100.0	105.6	108.2	112.0	108.7	101.1	104.7	89.4	91.8
1928.....							98.9	101.0	85.5	89.7
1929.....	101.3	106.1	100.3	102.5	134.6	129.4	101.7	103.7	80.6	85.7
1930.....					138.8	126.7	92.1	93.3	73.9	78.7
1931.....	85.5	83.1	82.0	79.1	106.1	91.5	82.0	77.5	68.1	66.7
1932 ¹	74.0	64.3	75.3	65.7	74.8	64.9	74.2	59.9	65.1	55.9
1933 ¹	127.9	118.0	76.1	58.7	90.3	75.5	79.7	59.5	67.7	53.9
1923										
January.....							97.3	100.0	104.0	96.9
February.....							98.8	101.6	102.9	95.6
March.....							99.7	102.4	103.1	98.4
April.....							93.0	95.5	101.3	96.4
May.....							89.1	86.3	98.8	95.8
June.....							91.2	83.5	98.0	96.3
July.....							88.3	79.6	100.2	98.3
August.....							95.2	85.9	111.8	107.5
September.....							112.5	113.4	111.8	109.3
October.....							124.4	129.5	112.9	114.2
November.....							123.6	121.6	109.0	108.7
December.....							106.7	111.1	105.1	105.8
1924										
January.....							93.6	95.9	103.3	103.2
February.....							93.1	95.0	104.4	103.4
March.....							94.0	96.3	100.3	101.8
April.....							86.6	87.9	97.2	101.7
May.....							83.0	84.9	93.6	93.7
June.....							87.3	88.9	94.5	95.6
July.....							85.8	86.8	96.8	96.9
August.....							94.0	93.4	99.9	101.6
September.....							109.0	111.6	102.5	106.9
October.....							117.6	116.8	103.4	105.9
November.....							107.2	106.0	101.4	101.1
December.....							106.2	109.4	98.5	99.6
1925										
January.....							96.0	97.6	99.6	99.7
February.....							98.9	100.2	100.8	102.7
March.....							97.3	100.9	95.6	96.3
April.....							91.4	88.1	90.9	89.0
May.....							91.1	92.5	87.3	88.5
June.....							91.8	91.7	89.6	90.7
July.....							89.3	86.9	94.3	96.8
August.....							98.9	97.2	94.8	97.0
September.....							111.0	106.7	98.7	98.4
October.....							120.7	119.5	100.1	105.5
November.....							119.5	117.6	97.6	100.9
December.....							116.2	118.3	95.7	99.4
1926										
January.....							106.7	105.0	93.9	96.3
February.....							107.5	106.8	91.1	93.1
March.....							104.3	105.3	90.3	91.9
April.....							96.4	97.1	86.4	87.8
May.....							95.8	97.8	85.2	87.6
June.....							94.1	97.5	86.2	88.8
July.....							93.1	93.0	91.0	93.8
August.....							97.7	98.7	96.7	100.8
September.....							116.0	114.8	96.5	99.7
October.....							126.5	128.2	96.9	102.5
November.....							120.0	120.5	95.6	97.8
December.....							110.9	116.8	91.2	92.4

¹ Data subject to revision when census figures for 1933 became available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Food and kindred products—Continued									
	Beverages		Butter		Canning and preserving		Confectionery		Flour	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1927										
January							101.5	104.7	89.3	90.8
February							99.5	103.5	88.7	90.1
March							96.7	101.8	88.3	89.9
April							92.6	94.1	84.9	85.8
May							91.3	96.7	86.6	89.6
June							94.3	100.2	87.7	91.1
July							88.8	92.3	89.9	90.5
August							94.7	98.0	90.9	92.4
September							113.4	115.6	93.2	94.3
October							118.8	119.6	93.3	99.7
November							113.1	114.6	91.1	95.1
December							108.7	115.2	88.7	93.3
1928										
January							96.3	98.9	88.4	93.1
February							97.1	100.2	88.0	90.7
March							95.2	98.9	87.7	91.0
April							90.8	89.0	84.0	86.0
May							89.9	92.9	83.3	86.9
June							88.8	93.9	80.8	84.5
July							85.9	86.7	83.1	88.0
August							80.2	91.3	85.8	90.7
September							106.0	106.6	86.5	91.9
October							119.4	122.3	87.3	96.2
November							116.4	115.7	86.1	89.1
December							112.1	115.5	85.2	88.3
1929										
January					68.4	74.1	98.6	100.4	82.9	85.4
February					65.8	76.6	98.5	100.5	85.1	87.2
March					66.5	71.0	96.7	99.7	82.0	85.8
April					121.9	127.9	92.3	94.4	78.2	80.5
May					83.4	92.1	92.8	96.2	76.7	82.9
June					103.1	93.0	91.8	95.9	76.4	82.1
July					170.7	141.3	90.2	88.9	81.1	85.1
August					248.7	233.0	95.2	98.1	82.3	89.7
September					282.8	269.0	110.2	112.6	83.1	93.1
October					192.9	174.0	122.2	124.3	82.5	90.4
November					128.0	118.5	117.5	116.6	79.3	83.3
December					82.5	82.0	113.9	117.1	77.2	83.3
1930										
January					61.9	65.5	101.4	103.1	76.1	81.1
February					61.2	67.3	97.0	90.5	76.7	82.4
March					66.5	66.8	94.3	96.5	76.0	82.5
April					100.0	95.3	90.5	92.9	72.9	79.2
May					87.6	88.4	86.8	87.9	72.4	77.4
June					110.8	107.5	85.0	89.4	72.8	79.4
July					168.9	148.3	81.5	79.3	74.5	78.4
August					248.7	225.4	79.7	80.6	74.5	79.6
September					330.6	281.0	96.6	100.9	74.5	79.6
October					220.2	184.7	100.7	100.0	74.3	78.5
November					128.5	111.3	97.2	93.4	71.9	73.8
December					81.0	78.5	94.5	96.0	70.7	72.3
1931										
January	79.4	76.6	75.5	76.1	63.8	64.3	85.7	85.4	69.5	69.3
February	80.3	78.3	75.2	78.1	62.9	67.9	86.1	82.9	68.4	69.5
March	81.7	80.6	77.0	77.6	69.0	70.5	83.7	80.5	67.4	67.4
April	86.0	85.6	82.6	80.7	77.8	79.6	78.6	75.6	67.7	66.8
May	89.0	88.9	83.4	82.2	72.8	78.5	78.7	75.4	66.6	66.6
June	92.8	91.9	85.9	83.9	92.3	82.3	76.6	74.2	65.9	64.7
July	97.3	98.9	90.1	84.0	134.6	102.7	67.1	59.8	69.9	68.7
August	94.2	94.4	88.0	81.8	189.2	142.6	71.8	67.5	69.5	68.5
September	89.3	87.4	88.1	82.2	239.2	174.9	88.6	84.3	68.8	66.1
October	83.7	77.7	81.6	75.6	142.1	108.2	92.0	84.9	68.6	66.6
November	76.8	69.9	80.3	75.6	78.3	70.4	88.5	79.8	68.2	66.2
December	75.1	66.7	76.0	71.7	51.1	56.3	86.8	79.4	66.5	59.9

TABLE 8.—*Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued*

[3-year average 1923-25=100]

Month and year	Food and kindred products—Continued									
	Beverages		Butter		Canning and preserving		Confectionery		Flour	
	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls
1932 ¹										
January.....	73.0	63.6	70.8	65.4	44.0	48.5	73.7	66.5	66.1	58.6
February.....	71.9	62.7	65.2	62.9	46.6	49.9	72.5	63.2	65.4	57.5
March.....	72.1	63.5	72.5	67.1	45.6	48.6	69.3	59.5	65.8	56.7
April.....	76.0	67.3	75.3	67.9	59.1	57.8	66.7	56.7	65.8	57.9
May.....	77.7	71.9	77.9	71.2	50.9	54.9	63.6	52.7	65.6	57.9
June.....	81.9	77.3	86.0	70.4	69.7	61.7	63.4	51.5	64.2	54.4
July.....	79.5	72.3	81.0	69.0	91.8	72.4	57.1	43.4	64.5	54.7
August.....	74.6	66.0	80.1	67.6	124.4	100.0	69.5	53.5	64.0	54.0
September.....	76.8	64.1	78.8	65.9	157.5	114.4	86.5	69.4	65.7	54.8
October.....	72.4	57.1	74.9	62.1	101.9	78.9	94.6	73.9	65.8	57.5
November.....	67.8	53.1	74.1	60.7	63.4	52.5	90.0	65.1	64.4	53.9
December.....	63.7	52.3	72.6	58.2	42.4	39.1	84.0	63.9	64.2	53.0
1933 ¹										
January.....	63.4	51.0	68.6	56.1	42.8	37.8	74.2	54.1	63.8	52.8
February.....	64.6	51.3	68.9	54.4	44.0	39.5	73.4	52.8	62.9	49.2
March.....	76.0	60.2	68.8	54.0	41.7	36.9	68.8	44.9	62.4	48.4
April.....	117.1	115.8	71.0	54.4	61.8	51.0	71.7	48.7	64.6	53.2
May.....	135.9	136.4	73.2	56.6	57.2	48.5	72.1	51.1	65.2	52.7
June.....	160.4	156.6	78.9	59.8	69.9	55.9	71.5	48.8	64.2	49.7
July.....	166.6	160.9	79.6	61.1	96.2	70.2	68.9	47.6	68.3	56.2
August.....	162.7	153.8	81.9	61.3	141.6	104.0	83.2	63.4	66.2	49.3
September.....	161.1	146.2	83.0	62.8	220.6	193.3	92.2	75.9	72.9	56.3
October.....	150.6	131.9	82.0	63.7	158.5	132.6	99.6	80.4	74.7	59.9
November.....	136.3	120.5	79.5	60.8	87.1	77.2	95.4	74.1	74.5	59.3
December.....	140.5	130.8	78.3	58.9	62.0	59.4	85.3	71.6	73.0	59.3

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Food and kindred products—Continued								Tobacco manufactures	
	Ice cream		Slaughtering and meat packing		Sugar, beet		Sugar refining, cane		Group index	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1923.....	99.2	98.7	104.7	102.6	92.1	91.1	103.4	102.6	105.7	104.1
1924.....	102.0	99.7	100.3	99.9	100.0	100.0	98.2	100.4	98.8	99.4
1925.....	98.8	101.6	95.0	97.5	107.9	108.9	98.4	97.9	95.5	96.5
1926.....	96.3	103.2	93.2	97.8	.....	.....	94.8	91.5	90.9	92.1
1927.....	94.0	100.6	94.0	96.9	90.0	87.5	94.9	90.6	93.4	91.0
1928.....	95.5	103.2	94.8	100.1	.....	.....	89.4	87.5	90.7	86.1
1929.....	96.0	102.7	96.7	101.5	91.2	90.3	94.3	91.4	83.9	81.8
1930.....	89.0	93.0	92.1	96.3	.....	.....	92.3	89.7	78.3	72.7
1931.....	76.0	76.9	84.1	82.2	75.8	68.1	80.3	79.6	72.1	60.1
1932 ¹	64.5	56.4	79.8	65.2	76.7	56.2	74.2	68.7	64.0	47.3
1933 ¹	62.9	48.6	87.6	67.7	102.6	73.7	78.6	67.0	59.7	42.5
1923										
January.....	69.6	78.0	103.5	101.5	.....	.....	98.6	93.6	108.6	108.6
February.....	70.6	79.2	99.0	94.2	.....	.....	116.3	110.4	107.9	104.1
March.....	76.1	85.3	97.8	95.6	.....	.....	123.4	117.2	108.9	107.8
April.....	84.6	94.9	97.4	97.3	.....	.....	120.4	114.4	105.5	103.0
May.....	108.0	103.4	100.7	98.8	.....	.....	117.5	116.5	105.5	101.8
June.....	125.8	115.7	103.5	103.4	.....	.....	111.7	112.4	105.5	104.5
July.....	127.3	119.2	106.2	104.1	.....	.....	104.2	100.2	102.9	100.6
August.....	120.1	114.7	107.1	102.3	.....	.....	91.0	89.4	99.7	90.9
September.....	112.7	105.5	107.5	104.4	.....	.....	94.7	98.2	104.7	101.0
October.....	103.3	99.6	109.2	105.4	.....	.....	96.4	103.2	105.9	108.3
November.....	96.8	94.9	111.6	111.3	.....	.....	95.2	96.5	107.1	108.3
December.....	95.3	93.6	113.0	112.4	.....	.....	71.7	79.1	106.0	110.8
1924										
January.....	92.7	89.3	110.4	106.5	.....	.....	73.5	74.9	101.9	103.7
February.....	92.8	91.1	106.5	103.4	.....	.....	104.0	108.0	102.6	102.7
March.....	95.6	94.4	102.1	99.3	.....	.....	104.2	106.5	100.9	102.0
April.....	102.6	100.7	97.7	94.3	.....	.....	101.6	103.1	97.4	93.5
May.....	110.5	106.5	96.2	96.0	.....	.....	109.0	112.3	97.0	96.1
June.....	113.1	112.7	97.2	97.9	.....	.....	110.1	117.6	96.6	99.3
July.....	120.6	120.7	98.6	100.0	.....	.....	108.9	108.0	97.8	96.6
August.....	118.6	116.0	97.4	95.5	.....	.....	103.7	107.8	96.9	96.4
September.....	110.0	104.3	97.1	96.2	.....	.....	106.5	107.9	99.4	100.5
October.....	96.8	92.5	95.9	96.1	.....	.....	94.4	94.3	92.3	91.5
November.....	87.6	85.4	99.0	101.7	.....	.....	84.3	84.0	101.6	104.4
December.....	83.6	82.9	104.9	111.3	.....	.....	78.7	80.9	100.6	106.6
1925										
January.....	81.3	80.6	103.8	106.1	.....	.....	80.3	81.1	95.8	99.7
February.....	83.4	82.8	99.0	100.0	.....	.....	98.8	97.6	96.8	93.0
March.....	86.0	87.8	94.2	94.2	.....	.....	105.8	108.1	97.5	94.2
April.....	93.0	93.6	89.0	89.1	.....	.....	101.9	99.9	89.8	79.3
May.....	101.6	102.8	89.5	82.2	.....	.....	102.4	103.1	85.5	96.7
June.....	125.0	128.3	92.3	95.7	.....	.....	102.7	101.4	94.0	96.1
July.....	121.4	128.6	93.5	96.2	.....	.....	103.7	99.5	94.0	96.6
August.....	114.5	119.3	93.7	96.1	.....	.....	101.0	100.8	93.0	95.7
September.....	110.7	115.8	94.1	93.8	.....	.....	99.0	97.4	95.2	95.7
October.....	96.3	98.3	94.9	99.4	.....	.....	96.3	90.5	98.3	102.9
November.....	87.4	92.7	97.7	103.6	.....	.....	92.5	92.1	97.8	104.7
December.....	84.9	89.1	98.5	103.9	.....	.....	93.8	92.3	98.2	105.3
1926										
January.....	82.6	87.9	96.6	103.7	.....	.....	92.6	86.8	88.3	91.4
February.....	84.1	89.4	94.9	97.9	.....	.....	102.8	100.1	92.8	89.6
March.....	85.9	93.0	90.6	94.4	.....	.....	101.4	99.8	92.3	94.1
April.....	90.6	96.6	87.0	90.2	.....	.....	100.3	97.4	88.7	87.8
May.....	103.6	110.7	89.1	94.1	.....	.....	97.6	96.2	88.5	87.2
June.....	113.2	119.9	91.3	96.6	.....	.....	98.4	95.2	91.8	93.0
July.....	115.0	124.3	92.1	96.6	.....	.....	94.5	89.1	88.9	89.5
August.....	113.3	122.6	93.2	95.9	.....	.....	94.8	91.8	86.8	88.7
September.....	101.9	110.7	93.9	100.0	.....	.....	92.7	86.4	91.2	93.9
October.....	94.5	103.2	95.0	99.9	.....	.....	89.8	89.9	93.7	97.9
November.....	86.1	90.9	95.6	101.3	.....	.....	90.6	84.3	93.7	97.1
December.....	84.4	89.1	97.2	103.5	.....	.....	82.3	81.4	93.5	95.0

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Food and kindred products—Continued								Tobacco manufactures—Continued	
	Ice cream		Slaughtering and meat packing		Sugar, beet		Sugar refining, cane		Group index	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1927										
January	82.5	87.7	97.3	102.1			84.9	80.1	85.1	82.4
February	83.4	87.9	95.6	98.1			86.2	84.1	91.4	85.5
March	86.2	92.3	91.6	94.2			91.9	87.8	91.6	87.2
April	90.9	97.4	89.7	93.6			95.2	90.7	89.9	84.3
May	95.8	105.1	90.8	97.3			98.7	96.7	91.4	90.3
June	106.8	113.1	96.9	102.5			101.0	100.2	93.9	93.7
July	111.0	119.3	97.1	103.5			102.5	96.8	94.3	92.7
August	108.0	115.1	93.2	98.4			101.3	96.2	88.3	86.7
September	99.9	108.1	93.2	98.6			97.8	91.4	98.3	97.9
October	91.3	98.5	92.7	97.6			98.8	93.5	100.6	98.9
November	86.2	92.6	93.0	99.1			93.0	87.4	100.3	98.0
December	83.4	89.9	96.2	102.3			87.6	82.8	96.0	94.5
1928										
January	81.4	90.1	95.5	101.0			80.9	79.2	87.8	84.4
February	81.7	88.3	98.1	104.8			85.3	84.1	91.3	84.3
March	85.3	92.0	95.7	100.6			87.3	89.2	91.9	85.1
April	92.2	99.3	92.2	94.8			90.1	87.7	89.1	78.8
May	99.4	106.4	91.3	95.7			84.8	82.0	89.9	82.3
June	107.0	114.6	94.3	100.6			83.4	81.4	90.3	87.6
July	116.6	128.9	94.8	100.5			93.2	91.1	84.8	82.5
August	114.4	123.9	92.7	95.9			94.2	92.3	91.2	86.0
September	104.3	111.8	92.2	97.8			92.1	89.0	92.8	89.9
October	93.4	99.6	93.4	98.4			95.1	93.9	94.9	91.8
November	86.7	92.9	96.3	102.1			94.9	89.6	94.2	90.4
December	84.1	90.8	101.2	108.9			91.4	90.4	90.7	90.2
1929										
January	83.2	87.3	101.2	107.1			89.9	85.9	78.7	72.2
February	82.6	89.5	98.9	102.5			92.0	88.7	86.1	77.7
March	84.0	91.3	94.1	96.5			97.6	96.3	85.7	79.4
April	93.9	101.2	92.2	96.5			97.8	97.9	84.6	80.8
May	97.7	105.4	93.6	98.0			94.4	95.0	83.3	80.6
June	110.7	118.6	95.9	101.5			97.6	96.1	83.9	82.7
July	114.9	123.7	96.7	103.6			96.8	90.8	82.8	81.8
August	112.7	118.7	95.7	99.4			99.7	97.3	84.7	84.2
September	107.0	114.1	96.4	102.3			90.5	85.6	85.2	86.7
October	94.9	100.6	97.3	101.8			97.7	95.8	85.9	87.2
November	86.4	92.2	97.8	102.4			92.1	84.3	86.7	86.9
December	83.4	89.7	100.8	106.4			85.8	83.4	79.4	81.2
1930										
January	80.2	83.7	99.3	104.4			92.1	88.8	75.0	70.5
February	80.3	81.9	98.3	101.8			91.3	86.2	79.3	73.1
March	83.2	85.2	93.4	96.2			95.1	94.3	79.9	74.0
April	88.8	93.9	90.7	95.6			95.9	88.7	79.7	70.5
May	100.3	106.8	91.2	96.4			98.5	97.2	79.8	75.1
June	101.4	107.2	93.6	96.6			94.2	94.2	79.8	77.3
July	104.8	109.1	91.8	96.6			100.2	98.4	79.0	74.9
August	102.5	106.5	89.3	92.5			93.1	90.5	75.4	70.6
September	92.4	97.4	89.1	94.2			91.6	91.4	78.7	73.3
October	83.7	87.3	88.7	92.7			87.4	85.6	79.0	71.4
November	76.7	81.0	89.9	93.6			87.9	84.2	78.4	70.3
December	73.4	75.7	90.3	92.9			79.4	77.1	76.5	71.1
1931										
January	71.9	74.8	90.6	95.6	125.3	89.7	80.9	77.4	68.3	59.0
February	71.9	76.9	88.0	90.1	29.9	37.6	79.2	80.5	75.4	59.9
March	72.9	77.2	84.1	83.8	26.6	34.2	81.4	82.8	75.0	62.6
April	74.9	79.4	83.2	83.2	26.7	31.8	82.5	82.2	72.7	60.3
May	79.8	82.4	84.2	84.6	27.4	33.0	77.9	78.7	73.2	62.6
June	86.4	87.1	83.7	83.7	31.4	36.4	79.4	80.9	72.5	62.9
July	90.4	90.3	82.4	81.7	36.1	39.0	82.8	86.1	72.1	62.0
August	88.5	86.4	81.3	78.5	47.8	46.9	82.8	82.1	72.0	60.8
September	81.3	80.3	81.3	77.1	49.8	52.4	81.1	80.1	72.4	57.6
October	70.2	68.1	81.8	76.3	161.3	121.9	77.8	76.3	72.8	59.4
November	62.8	61.3	83.0	74.0	184.3	166.6	80.2	75.6	72.5	59.3
December	60.8	58.3	85.7	77.9	163.4	127.2	77.8	72.4	65.9	54.2

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average, 1923-25=100]

Month and year	Food and kindred products—Continued								Tobacco manufactures—Continued	
	Ice cream		Slaughtering and meat packing		Sugar, beet		Sugar refining, cane		Group index	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1932 ¹										
January.....	60.4	57.5	84.0	74.2	46.2	39.8	77.0	70.0	63.5	49.0
February.....	60.6	57.5	82.5	70.9	23.2	28.6	73.6	69.2	66.0	49.4
March.....	60.5	57.5	78.8	66.9	24.1	26.6	74.5	71.5	64.8	48.1
April.....	62.9	58.8	77.9	66.4	26.3	28.0	72.4	69.2	62.9	45.5
May.....	67.9	61.5	79.7	68.0	30.4	32.6	73.9	70.5	61.8	44.7
June.....	75.0	64.8	79.1	65.9	36.0	33.5	72.6	68.5	63.4	48.1
July.....	73.9	63.1	78.2	62.5	37.0	31.1	73.7	71.2	62.8	47.3
August.....	72.3	60.7	78.1	60.6	47.4	38.5	74.3	70.7	62.7	45.6
September.....	67.8	56.3	80.0	63.2	56.8	46.3	75.3	70.3	64.3	46.9
October.....	60.7	50.3	80.5	63.2	194.0	118.0	75.7	66.4	66.0	48.4
November.....	56.7	46.1	79.1	59.8	216.2	146.7	74.3	64.2	66.8	48.2
December.....	54.8	42.9	79.1	60.8	182.3	105.1	72.6	62.8	63.3	46.4
1933 ¹										
January.....	54.3	43.0	77.6	59.9	103.7	62.6	69.8	57.7	55.7	35.7
February.....	54.7	42.6	77.7	58.9	44.5	31.5	72.0	59.2	58.6	37.1
March.....	54.8	42.1	75.7	54.8	32.2	28.3	72.5	66.7	53.3	33.4
April.....	56.0	43.0	76.4	58.9	35.6	30.2	72.9	66.7	52.0	33.4
May.....	59.7	46.5	80.4	62.1	39.6	31.7	75.8	69.9	59.2	42.1
June.....	69.1	53.7	82.9	64.9	44.3	34.0	76.1	70.6	61.2	43.7
July.....	70.8	54.7	85.2	66.5	47.7	37.7	78.1	73.4	60.3	43.6
August.....	73.0	56.2	94.2	72.1	73.9	55.6	81.9	69.7	62.2	44.5
September.....	74.3	55.9	102.2	78.2	83.2	62.8	84.2	66.8	61.7	48.2
October.....	68.0	52.6	101.5	77.7	225.7	153.0	90.5	69.7	64.6	51.2
November.....	61.8	47.5	98.9	76.6	262.3	191.6	89.2	70.8	66.0	50.1
December.....	58.6	45.5	98.0	82.0	238.7	164.8	79.9	62.9	62.1	46.5

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Tobacco manufactures—Cont.				Paper and printing					
	Chewing and smoking tobacco and snuff		Cigars and cigarettes		Group index		Boxes, paper		Paper and pulp	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923.....	102.7	101.4	106.2	104.5	99.2	96.2	100.0	97.3	100.0	98.4
1924.....	102.7	101.6	98.2	99.2	99.7	99.5	99.5	97.7	97.3	97.5
1925.....	94.6	97.0	95.6	96.3	101.1	104.3	100.5	103.0	102.7	104.1
1926.....	93.1	94.0	90.4	91.8	104.1	110.8	102.1	106.9	105.3	109.1
1927.....	82.6	84.8	94.9	91.8	104.1	111.0	99.2	104.0	102.2	105.3
1928.....	75.6	77.4	94.8	87.2	105.0	112.3	96.3	102.0	100.8	105.3
1929.....	68.0	71.3	86.0	83.1	111.3	119.5	97.9	102.9	106.1	112.5
1930.....	69.8	71.3	79.4	72.9	108.0	114.6	90.7	91.6	102.5	104.6
1931.....	71.9	69.0	72.1	58.9	96.3	97.3	81.8	79.0	89.5	82.1
1932 ¹	76.2	66.0	62.5	45.0	85.0	74.8	70.5	60.1	82.4	61.7
1933 ¹	74.5	63.1	57.9	39.9	86.2	69.3	77.0	62.7	90.3	64.9
1923										
January.....	105.7	105.7	109.0	109.0	96.9	92.4	93.9	87.7	95.5	91.6
February.....	105.6	98.9	108.3	104.7	97.3	93.2	94.5	88.7	97.1	93.9
March.....	98.4	94.8	110.4	106.4	99.6	96.1	98.1	94.2	102.3	96.4
April.....	98.5	96.9	106.6	103.7	99.7	96.8	97.3	95.5	104.0	101.8
May.....	104.4	101.9	105.8	101.8	98.9	97.6	96.8	96.2	102.9	103.9
June.....	104.8	102.0	105.8	104.8	99.6	97.2	98.3	98.0	103.7	104.0
July.....	106.4	105.7	102.7	100.0	98.9	96.3	99.6	97.8	101.2	100.9
August.....	100.4	97.4	99.7	90.1	98.9	92.8	100.9	96.7	101.8	99.0
September.....	101.3	99.8	105.2	101.2	99.1	95.6	102.7	99.3	98.7	97.3
October.....	104.7	108.1	106.2	108.4	100.0	98.1	106.4	103.7	98.0	96.9
November.....	104.1	103.8	107.7	108.8	100.6	98.1	106.9	104.6	97.2	95.4
December.....	98.4	102.1	107.1	111.9	101.0	100.4	104.3	104.9	97.9	96.9
1924										
January.....	106.7	107.9	101.3	103.2	100.7	99.8	100.1	98.9	97.0	95.6
February.....	110.8	115.5	101.5	101.2	100.4	100.1	100.0	99.3	98.4	100.2
March.....	109.1	112.0	100.0	100.8	100.4	100.7	100.6	102.4	98.3	100.6
April.....	107.3	99.3	96.1	92.9	99.9	100.6	99.2	100.0	98.5	99.4
May.....	103.4	95.9	96.1	96.1	99.4	99.8	95.6	96.6	98.2	98.3
June.....	96.8	96.4	96.5	99.6	98.8	98.5	95.4	95.3	97.7	95.8
July.....	99.9	92.9	97.6	97.1	97.0	94.5	93.3	89.6	94.4	89.3
August.....	97.3	96.9	96.9	96.3	97.1	94.9	96.5	94.1	94.8	93.1
September.....	101.2	103.3	99.2	100.2	99.6	99.1	100.8	101.8	96.1	95.8
October.....	101.1	101.0	91.1	90.4	100.1	100.9	104.9	106.0	97.6	100.3
November.....	100.2	94.1	101.7	105.6	100.9	101.3	105.1	106.9	98.0	99.3
December.....	98.0	103.6	100.9	106.9	101.5	104.3	102.9	106.0	98.0	101.9
1925										
January.....	96.3	103.9	95.8	99.1	100.7	103.0	98.8	101.0	98.2	101.3
February.....	102.0	105.8	96.0	91.4	100.7	102.7	100.3	100.2	100.4	103.9
March.....	95.8	97.6	97.7	93.7	101.5	104.4	98.8	101.6	103.3	106.6
April.....	91.8	91.1	89.4	77.7	100.6	102.9	98.5	99.1	103.4	105.2
May.....	92.9	96.2	95.8	96.7	99.9	102.6	97.2	99.4	102.8	103.3
June.....	91.4	96.9	94.3	95.8	99.6	101.8	96.1	97.8	101.4	101.1
July.....	94.2	96.2	93.9	94.3	99.7	100.7	96.4	98.3	102.7	100.7
August.....	95.5	97.6	92.6	95.4	99.4	101.0	97.1	100.7	102.5	102.2
September.....	94.1	97.3	95.4	95.4	100.6	102.4	102.1	101.4	102.1	98.7
October.....	96.4	98.1	98.5	103.5	102.3	107.5	106.4	109.9	104.7	107.1
November.....	92.9	90.2	98.4	106.3	103.5	110.2	108.1	114.4	104.7	109.1
December.....	92.1	93.2	98.8	106.7	104.1	112.3	106.4	112.4	105.6	110.0
1926										
January.....	92.2	92.4	87.6	91.2	103.8	109.9	102.1	106.4	105.7	108.5
February.....	99.3	106.3	91.7	87.4	108.1	109.4	100.9	105.9	105.9	110.0
March.....	102.3	103.1	90.8	92.9	103.6	111.4	100.7	106.2	106.2	110.2
April.....	96.7	96.7	87.4	86.6	103.1	110.6	99.1	104.6	106.7	109.9
May.....	92.9	93.7	87.9	86.4	103.1	110.4	98.4	104.0	106.9	109.4
June.....	92.4	96.1	91.7	92.6	103.1	110.3	98.5	102.5	106.3	109.6
July.....	92.6	95.2	88.4	88.7	102.7	107.8	100.0	103.1	105.1	104.6
August.....	93.9	90.9	85.8	88.4	103.0	108.1	101.2	103.6	105.3	108.4
September.....	89.9	91.8	91.3	94.1	104.6	109.9	103.5	106.2	105.9	108.1
October.....	90.5	93.6	94.1	98.4	105.9	113.0	106.8	114.8	106.3	111.2
November.....	88.3	82.9	94.3	98.8	107.0	113.9	108.3	114.5	105.6	110.1
December.....	86.1	85.6	94.3	96.2	106.6	115.2	105.2	110.6	104.0	109.4

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Tobacco manufactures—Cont.				Paper and printing—Continued					
	Chewing and smoking tobacco and snuff		Cigars and cigarettes		Group index		Boxes, paper		Paper and pulp	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January	86.1	92.7	84.9	81.1	104.7	111.5	100.0	102.3	103.9	106.4
February	92.1	94.8	91.4	84.4	104.8	111.8	98.1	102.7	104.0	108.5
March	90.3	89.2	91.8	87.0	104.8	112.7	97.2	102.2	103.7	108.4
April	82.2	80.1	91.0	84.8	104.1	111.5	96.6	101.0	103.5	106.6
May	79.9	82.5	92.9	91.2	103.1	111.0	95.7	100.1	101.2	104.9
June	79.5	86.4	95.8	94.6	102.8	109.3	95.8	98.7	100.8	103.1
July	76.7	83.4	96.6	93.8	102.2	107.2	96.4	99.4	101.1	101.3
August	79.9	81.7	89.4	87.3	103.0	108.6	97.7	102.6	102.1	104.2
September	79.5	79.1	100.8	100.2	103.9	109.7	101.1	106.0	102.1	102.8
October	83.2	87.3	102.9	100.3	104.6	111.5	104.4	112.4	102.0	105.8
November	81.8	79.1	102.7	100.2	105.5	112.4	105.3	112.1	101.8	105.3
December	80.4	81.3	98.1	96.2	105.8	114.7	102.2	108.0	100.7	106.1
1928										
January	82.9	84.6	88.6	84.4	104.6	111.8	97.4	101.4	100.0	103.7
February	84.2	87.0	92.3	84.0	104.4	111.2	95.7	98.9	99.4	104.9
March	80.9	79.8	93.4	85.7	103.7	111.4	95.6	100.7	99.8	105.3
April	77.4	75.4	90.7	79.2	102.8	110.9	93.4	97.5	99.4	104.3
May	74.1	74.9	92.1	83.1	103.6	111.2	92.7	98.0	99.3	103.8
June	73.9	78.5	92.5	88.7	103.7	111.4	93.1	101.0	100.2	103.8
July	68.5	71.3	87.1	83.9	103.9	109.8	92.4	96.3	99.9	101.2
August	72.5	75.1	93.7	87.4	104.6	110.3	92.9	97.5	101.3	104.7
September	72.9	76.5	95.5	91.5	105.1	112.2	96.8	102.9	101.9	104.9
October	72.7	77.9	97.8	93.6	106.9	114.7	101.7	109.9	102.2	108.3
November	73.3	71.9	97.0	92.8	108.3	115.1	103.7	113.1	103.5	109.0
December	73.3	75.5	92.9	92.0	108.6	117.2	99.9	107.2	102.3	109.2
1929										
January	73.9	78.3	79.4	71.5	107.8	115.2	94.2	98.1	103.1	108.1
February	74.6	77.5	87.6	77.8	109.0	117.1	94.6	99.7	104.0	111.5
March	72.8	72.2	87.4	80.3	109.0	119.2	94.5	101.7	104.4	111.7
April	67.6	71.3	86.8	82.0	108.8	117.7	94.8	100.8	105.0	112.0
May	65.3	67.6	85.6	82.3	109.3	119.0	94.4	100.2	105.1	111.9
June	64.4	72.9	86.2	84.0	110.0	118.5	95.0	99.3	106.1	111.8
July	62.9	67.9	85.4	83.5	110.8	116.5	96.0	99.4	106.2	110.0
August	63.7	69.3	87.5	86.1	111.5	118.0	96.9	99.8	107.1	113.6
September	67.4	68.4	87.4	88.9	113.8	122.0	100.9	107.1	107.6	113.7
October	64.5	70.5	88.7	89.3	114.3	123.5	105.7	112.6	108.7	116.4
November	66.1	66.0	89.4	89.5	115.1	123.1	106.1	111.0	108.2	114.6
December	71.0	73.1	80.5	82.2	115.7	124.5	101.7	104.6	108.0	114.7
1930										
January	72.6	76.9	75.3	69.7	113.5	120.8	94.3	94.8	108.4	112.1
February	71.3	77.1	80.3	72.7	112.1	120.7	92.3	93.8	108.4	115.4
March	71.5	74.8	81.0	74.0	111.7	120.5	91.9	94.8	107.7	114.6
April	68.2	70.0	80.1	70.6	110.2	118.8	90.5	91.9	106.9	113.5
May	67.6	69.4	81.4	75.8	109.8	118.5	88.8	89.6	106.4	111.9
June	68.4	71.7	81.3	78.0	108.5	116.7	88.9	90.7	105.4	109.6
July	67.8	69.2	80.5	75.6	107.2	111.6	88.3	89.2	100.8	97.9
August	68.8	71.4	76.4	70.6	106.1	111.1	89.8	89.5	100.8	100.6
September	70.1	71.8	79.9	73.5	104.7	110.0	91.3	92.4	98.5	97.4
October	70.3	66.2	80.2	72.0	104.4	108.8	92.2	94.0	97.2	96.6
November	70.1	67.6	79.4	70.7	103.8	108.5	91.4	91.8	94.8	93.3
December	70.5	69.0	77.3	71.4	103.8	108.8	88.1	86.4	94.7	92.4
1931										
January	75.4	73.2	67.4	57.2	101.2	104.1	83.0	79.0	91.9	87.3
February	75.9	74.3	75.4	58.1	99.7	103.2	81.8	79.7	91.6	90.9
March	75.2	71.7	75.0	61.5	99.2	104.3	81.9	82.2	91.1	90.0
April	66.3	63.8	73.6	59.8	98.6	102.7	81.9	81.4	91.0	88.1
May	70.2	67.9	73.6	61.9	98.3	101.8	81.2	81.0	91.6	87.7
June	68.5	67.0	73.0	62.3	96.0	98.1	80.5	79.2	89.7	87.1
July	68.1	67.2	72.7	61.3	95.1	94.7	79.7	76.3	89.8	79.4
August	70.4	68.9	72.2	59.8	94.5	93.9	80.6	77.6	89.8	81.1
September	70.1	66.6	72.7	56.4	93.3	90.9	82.6	77.3	87.8	74.9
October	72.4	69.2	72.9	58.1	93.7	91.9	84.1	82.2	87.8	76.4
November	74.7	67.0	72.2	58.3	93.0	90.7	83.3	78.0	86.3	74.2
December	76.1	70.9	64.6	52.1	92.5	90.8	80.7	74.3	85.2	71.9

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Tobacco manufactures—Cont.				Paper and printing—Continued					
	Chewing and smoking tobacco and snuff		Cigars and cigarettes		Group index		Boxes, paper		Paper and pulp	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹										
January.....	78.8	74.9	61.6	45.8	90.7	85.5	73.9	65.3	85.0	67.7
February.....	79.3	72.6	64.3	46.6	89.0	83.5	72.6	64.8	85.4	71.5
March.....	76.2	65.0	63.3	46.0	88.2	82.3	72.5	65.6	85.6	71.3
April.....	74.6	64.6	61.5	43.1	87.0	79.8	71.8	63.2	84.0	66.9
May.....	74.6	64.1	60.2	42.3	85.3	76.9	68.4	58.3	82.5	64.1
June.....	76.7	65.6	61.7	45.9	83.6	72.8	68.4	57.5	80.6	58.3
July.....	75.2	62.6	61.1	45.5	82.1	68.9	65.9	52.6	79.4	53.7
August.....	76.1	64.3	61.0	43.3	80.8	67.1	65.9	52.6	79.4	54.6
September.....	75.0	66.4	62.9	44.6	82.3	69.8	69.1	58.7	81.4	57.7
October.....	77.0	65.6	64.7	46.2	83.9	71.7	72.8	63.6	82.7	60.9
November.....	76.5	64.3	65.5	46.2	83.6	70.0	73.4	61.3	82.5	58.7
December.....	74.4	62.1	61.8	44.4	83.1	69.5	71.2	57.7	80.1	54.6
1933 ¹										
January.....	77.1	66.4	53.0	31.8	81.6	66.7	66.6	51.1	79.3	52.5
February.....	73.7	58.5	56.7	34.5	81.5	65.6	67.6	53.5	79.6	54.3
March.....	71.7	53.2	50.9	30.9	80.0	63.1	68.3	51.1	79.5	52.9
April.....	69.1	55.6	49.8	30.6	79.8	62.2	66.3	50.8	79.7	53.3
May.....	72.5	62.6	57.5	39.6	80.6	64.9	68.4	55.6	82.1	58.7
June.....	74.9	63.4	59.4	41.2	82.3	66.4	72.9	61.1	84.9	63.2
July.....	72.0	61.0	58.8	41.4	84.1	67.9	77.1	65.3	89.9	68.3
August.....	75.8	68.0	60.4	41.6	88.7	71.0	85.2	71.1	97.6	76.2
September.....	76.7	68.9	59.8	45.6	92.7	74.7	90.0	75.9	103.1	77.6
October.....	78.6	68.9	62.9	49.0	94.5	76.0	91.6	75.6	104.1	77.5
November.....	77.6	64.7	64.7	48.3	94.2	75.6	87.5	71.9	102.2	72.4
December.....	75.2	66.1	60.4	44.1	94.5	77.2	82.8	69.0	101.1	71.9

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Paper and printing—Con.				Chemicals and allied products							
	Printing and publishing				Group index		Group index less petroleum refining		Chemicals		Cottonseed—oil, cake, and meal	
	Book and job		Newspapers and periodicals									
	Em- p- loy- ment	Pay roll	Em- p- loy- ment	Pay roll	Em- p- loy- ment	Pay roll	Em- p- loy- ment	Pay roll	Em- p- loy- ment	Pay roll	Em- p- loy- ment	Pay roll
1923	98.3	95.5	98.9	94.7	102.9	102.2	102.9	102.1	105.7	101.8	87.8	83.9
1924	100.7	100.0	101.0	100.6	96.7	96.3	96.9	96.8	98.0	98.1	100.5	94.9
1925	101.0	104.5	100.1	104.7	100.4	101.5	100.2	101.0	96.3	100.1	111.7	121.2
1926	104.9	112.5	101.7	110.3	106.7	108.8	105.6	107.6				
1927	106.9	114.1	102.2	111.1	104.1	107.9	102.7	106.7			127.0	151.3
1928	107.4	113.6	104.5	113.6	102.9	108.1	102.4	108.1				
1929	113.1	118.7	111.0	121.8	115.6	121.0	113.4	118.5	109.2	120.0	109.0	118.9
1930	110.9	115.6	109.9	119.4	109.5	112.2	105.8	106.6		99.5	103.5	
1931	100.7	99.1	101.8	108.0	95.1	91.8	92.5	87.5	85.1	84.2	84.5	88.5
1932 ¹	85.8	73.4	92.8	88.6	84.0	70.4	81.1	65.8	72.9	63.0	89.7	79.0
1933 ¹	79.4	62.5	93.3	80.0	94.7	74.3	93.5	71.6	87.2	71.9	87.2	74.2
1923												
January	98.3	94.5	98.2	91.6	101.7	96.4	102.8	96.3				
February	98.5	94.8	97.5	92.0	104.0	97.5	105.4	97.7				
March	98.8	96.3	98.0	93.4	105.0	101.5	106.0	101.4				
April	98.3	95.6	97.7	94.4	103.1	103.3	102.6	102.5				
May	95.9	94.8	99.1	95.7	104.4	105.8	103.1	104.8				
June	97.1	94.1	98.4	95.0	102.4	104.5	100.9	102.9				
July	98.0	95.1	97.2	93.3	100.6	104.8	98.7	103.2				
August	96.7	88.3	97.2	91.7	101.0	101.0	99.7	100.0				
September	98.0	95.0	98.9	93.7	102.8	102.8	102.5	102.3				
October	98.5	98.1	100.7	97.3	103.2	105.7	103.8	106.7				
November	99.8	98.0	102.0	98.1	104.0	101.2	105.4	103.5				
December	101.4	100.8	102.4	100.6	102.3	101.3	103.9	103.8				
1924												
January	102.5	103.8	102.3	98.9	101.0	97.9	102.4	100.7				
February	101.1	109.9	101.8	99.3	102.1	99.6	103.5	101.9				
March	101.2	101.1	101.7	100.4	102.7	101.9	104.2	104.0				
April	99.3	100.4	102.3	102.1	101.4	100.8	102.4	102.5				
May	99.9	99.8	102.0	101.5	96.6	98.3	96.4	98.7				
June	99.4	98.2	100.7	101.3	90.0	93.0	88.1	91.3				
July	98.8	94.7	99.5	99.4	89.4	90.0	87.3	88.4				
August	97.9	94.7	98.9	96.6	90.2	91.7	88.6	90.5				
September	100.9	99.4	100.8	100.2	94.2	93.0	93.9	92.8				
October	100.9	100.4	100.0	101.0	96.8	94.7	97.5	95.5				
November	101.6	100.8	101.0	102.2	97.9	97.5	98.8	97.5				
December	104.3	105.2	101.5	104.8	98.6	97.2	99.7	98.2				
1925												
January	104.6	106.4	100.2	101.5	97.9	96.6	98.9	97.9				
February	102.9	103.8	99.2	101.6	98.7	99.4	99.6	100.1				
March	102.7	105.6	100.1	102.3	100.5	102.7	101.8	103.4				
April	100.5	101.4	99.3	103.7	100.7	99.4	101.7	99.9				
May	99.0	101.5	99.4	104.3	94.1	98.9	93.4	97.8				
June	99.2	101.3	100.2	103.9	93.8	97.3	92.2	95.6				
July	99.1	100.7	99.0	101.7	95.4	97.2	93.5	95.5				
August	98.8	100.0	98.6	101.2	96.6	99.5	94.8	96.8				
September	100.0	103.4	99.3	104.5	103.5	101.2	102.8	100.1				
October	100.3	106.4	100.7	108.5	106.7	107.0	107.0	106.2				
November	102.1	110.0	101.8	109.9	107.7	109.2	108.1	108.8				
December	103.3	113.2	102.9	113.3	108.6	109.2	108.9	100.6				
1926												
January	105.1	112.5	101.3	109.1	107.3	108.7	107.6	108.6				
February	103.1	109.7	101.2	109.1	107.6	107.7	107.9	108.1				
March	104.2	114.0	101.7	110.2	108.4	109.8	109.0	110.0				
April	102.9	111.6	101.3	111.0	106.8	108.8	106.5	108.4				
May	102.7	110.9	101.7	111.4	102.4	106.9	100.9	105.3				
June	103.6	112.0	100.8	109.9	102.1	108.0	99.8	105.8				
July	103.5	110.3	99.8	107.8	101.5	104.5	98.8	102.4				
August	103.5	109.8	99.8	106.3	102.8	106.0	100.3	103.1				
September	106.1	112.2	100.8	108.4	103.8	109.4	107.4	107.6				
October	106.3	113.0	103.1	112.4	111.6	112.3	110.8	111.2				
November	108.6	114.9	104.3	113.5	111.1	111.7	110.4	110.6				
December	109.7	119.2	104.2	114.6	109.4	111.7	108.3	110.3				

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Paper and printing—Con.				Chemicals and allied products—Continued									
	Printing and publishing				Group index				Group index less petroleum refining		Chemicals		Cottonseed—oil, cake, and meal	
	Book and job		Newspapers and periodicals		Group index		Group index less petroleum refining		Chemicals		Cottonseed—oil, cake, and meal			
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls		
1927														
January	107.2	116.6	103.2	110.6	110.1	111.1	108.8	110.3						
February	107.7	115.9	103.4	110.6	109.5	114.4	108.3	112.5						
March	108.5	117.7	103.2	111.6	110.5	115.5	108.9	113.6						
April	106.2	114.0	103.2	112.8	108.4	112.9	106.9	111.2						
May	105.9	113.0	102.8	113.5	100.9	106.0	98.3	103.8						
June	105.5	112.2	102.0	111.0	98.5	106.8	95.4	103.8						
July	104.2	109.5	100.9	108.4	98.0	102.3	95.0	99.8						
August	105.5	111.6	99.9	107.2	97.9	103.3	95.3	101.2						
September	106.8	112.6	100.0	109.5	103.0	105.2	102.1	104.6						
October	105.9	112.0	102.0	111.3	104.6	106.0	104.8	106.2						
November	108.5	114.2	102.2	112.4	104.6	105.1	105.5	105.7						
December	110.4	119.6	103.2	114.3	102.9	106.0	103.4	107.1						
1928														
January	109.8	117.3	102.3	111.4	100.7	104.1	100.7	104.3						
February	110.1	114.9	102.3	111.3	101.8	105.4	102.0	105.9						
March	106.8	114.1	102.9	111.8	102.7	106.8	102.9	107.5						
April	104.1	112.2	103.9	113.3	101.7	106.9	102.0	107.4						
May	106.2	112.7	104.1	113.5	95.6	102.8	94.4	102.5						
June	105.4	112.2	104.1	113.8	96.2	103.3	94.4	102.3						
July	107.1	112.7	103.4	111.4	96.8	105.1	94.7	103.6						
August	107.7	112.0	103.3	110.2	97.8	106.3	96.6	104.5						
September	106.2	113.6	104.4	112.9	104.9	110.4	103.7	109.6						
October	107.1	113.3	106.3	116.0	110.6	114.5	111.3	115.2						
November	108.5	111.4	108.0	117.5	112.0	115.2	112.9	116.1						
December	110.2	116.5	109.3	120.3	113.4	116.6	114.3	117.8						
1929														
January	110.3	115.5	108.2	117.8	112.7	115.6	113.5	116.8	108.4	119.4				
February	112.7	118.0	108.4	117.9	113.9	118.5	114.2	119.1	110.0	121.7				
March	112.4	121.5	108.3	119.7	116.9	119.8	117.3	120.1	110.9	122.4				
April	109.7	116.3	109.1	120.3	118.5	123.0	118.4	122.6	111.7	125.2				
May	111.1	119.0	109.8	121.4	110.4	118.7	107.7	116.1	108.6	122.1				
June	111.2	117.6	110.3	121.4	109.1	117.9	105.5	114.6	108.3	119.6				
July	113.5	115.2	109.8	118.8	111.2	119.0	107.1	114.8	107.6	118.8				
August	113.8	116.3	110.2	119.6	114.0	120.3	110.1	115.9	109.3	116.3				
September	116.7	121.6	112.3	123.4	118.6	124.1	115.1	119.2	109.0	117.2				
October	112.9	119.8	114.5	126.4	122.1	126.6	119.2	122.5	109.3	119.1				
November	115.3	119.9	115.2	126.4	120.8	125.4	117.8	121.6	107.6	119.3				
December	117.9	123.5	116.2	128.0	118.5	122.7	115.3	118.4	108.7	119.2				
1930														
January	116.5	121.9	113.4	123.5	116.1	119.0	112.4	114.7	104.5	112.4				
February	114.4	120.5	112.4	122.7	115.7	120.2	111.8	114.7	102.9	109.8				
March	114.1	120.5	112.1	123.0	116.2	120.4	112.8	115.5	100.7	109.8				
April	111.9	117.2	111.4	122.9	114.3	118.3	111.0	112.9	100.0	107.0				
May	112.2	118.9	111.1	122.2	108.1	115.0	103.7	109.1	99.7	106.5				
June	110.5	117.4	109.7	120.3	105.4	112.5	100.2	105.2	97.4	103.5				
July	111.8	115.5	109.0	116.3	105.7	110.2	100.5	103.3	98.8	100.4				
August	109.6	113.3	107.2	115.1	105.9	107.9	101.0	100.5	98.6	98.0				
September	106.3	110.9	107.8	116.6	108.1	108.3	104.6	102.2	98.5	98.7				
October	106.8	108.5	108.0	116.0	108.2	107.7	105.7	102.8	99.3	99.5				
November	107.1	109.5	108.7	116.7	106.0	104.4	104.0	100.2	97.8	98.1				
December	109.5	112.6	107.4	117.2	104.3	102.2	101.8	97.8	96.2	97.7				
1931														
January	108.3	109.8	105.7	111.9	100.9	97.9	97.9	92.9	93.4	90.4	128.0	130.9		
February	106.1	106.2	103.9	110.6	99.7	99.3	96.7	93.9	92.2	92.1	107.7	105.5		
March	104.1	106.6	105.7	113.6	97.2	96.4	96.2	93.4	89.6	90.9	89.5	87.3		
April	103.1	104.6	104.9	113.0	100.7	98.7	98.4	94.3	86.7	87.4	83.3	84.4		
May	102.6	102.8	104.7	112.7	97.1	97.2	93.7	92.5	85.2	86.4	58.9	65.2		
June	99.5	99.1	102.7	109.6	93.5	93.0	90.0	88.4	84.6	84.9	47.8	53.7		
July	98.9	96.4	100.4	105.8	92.4	90.6	89.0	85.7	84.3	83.3	45.7	50.9		
August	99.3	96.2	98.0	102.7	91.0	88.4	87.8	84.0	80.7	79.5	44.6	53.0		
September	96.7	91.6	98.1	103.3	92.6	87.7	90.2	83.9	83.3	81.9	70.3	77.3		
October	96.0	90.5	98.8	104.9	93.3	88.0	91.3	85.0	83.4	83.0	98.3	104.5		
November	96.5	91.3	99.2	103.7	92.3	83.0	90.3	79.0	80.6	76.6	124.4	128.8		
December	97.6	94.4	98.9	104.0	90.9	81.9	88.4	77.5	77.6	74.1	115.4	120.6		

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Paper and printing—Con.				Chemicals and allied products—Continued							
	Printing and publishing				Group index		Group index less petroleum refining		Chemicals		Cottonseed—oil, cake, and meal	
	Book and job		Newspapers and periodicals									
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1932 ¹												
January.....	96.8	90.4	96.8	97.6	89.8	78.1	87.2	73.4	76.6	70.1	97.7	97.4
February.....	92.8	84.5	95.4	94.9	89.8	78.7	87.5	74.4	75.9	69.7	103.5	98.3
March.....	90.3	81.6	95.1	94.4	89.1	77.5	87.0	73.7	75.9	69.9	99.9	89.9
April.....	88.7	78.4	94.6	93.5	89.0	75.6	86.9	71.9	74.8	67.0	88.2	80.1
May.....	87.2	75.9	93.6	91.1	84.7	73.0	81.7	68.1	73.5	64.7	74.6	68.1
June.....	84.6	71.3	91.9	87.5	77.1	67.7	72.3	61.3	71.4	60.7	51.0	52.3
July.....	83.3	68.0	90.3	84.3	75.7	63.5	70.9	56.9	70.1	57.7	60.3	56.1
August.....	79.9	64.4	89.6	82.2	75.1	63.0	70.5	56.6	69.4	57.7	58.9	55.8
September.....	80.8	66.5	90.7	83.8	82.5	66.5	79.5	61.9	70.2	57.6	99.5	80.0
October.....	81.8	67.6	91.8	84.7	84.6	67.6	82.7	64.5	72.3	60.9	116.2	89.2
November.....	80.9	64.7	92.1	84.8	85.2	67.5	83.5	64.3	72.8	60.7	117.4	93.3
December.....	81.9	67.4	92.2	84.9	85.0	66.4	82.9	63.0	72.3	58.9	109.7	87.9
1933 ¹												
January.....	80.8	65.4	91.5	81.7	84.0	66.4	82.0	62.3	72.9	59.5	78.5	65.8
February.....	80.0	62.4	91.0	79.3	85.4	66.4	83.4	62.5	74.0	60.5	87.2	67.7
March.....	76.0	59.0	90.1	77.0	84.9	65.3	82.6	61.0	73.7	59.3	82.4	65.5
April.....	75.1	57.1	90.9	76.2	86.4	65.1	84.4	61.0	72.7	58.5	59.7	46.3
May.....	75.1	59.0	90.8	76.7	85.7	68.0	83.3	64.2	75.4	62.8	49.7	43.6
June.....	76.0	59.3	90.5	76.6	87.9	71.3	85.6	68.2	80.5	68.2	60.0	55.1
July.....	75.5	59.5	90.1	75.5	92.3	74.1	91.1	71.9	87.9	74.4	67.3	61.2
August.....	79.1	60.6	90.8	76.4	99.1	77.9	99.1	76.6	96.8	81.0	80.2	71.5
September.....	81.6	64.3	94.8	81.6	106.0	81.5	106.4	80.2	101.2	80.6	116.7	98.9
October.....	82.9	65.6	98.0	84.4	109.1	85.5	109.2	84.3	103.2	85.7	134.9	119.9
November.....	83.9	67.0	99.6	86.4	108.4	84.6	108.1	83.1	104.0	85.1	117.1	101.1
December.....	87.1	71.2	100.9	88.2	107.6	84.9	106.7	83.5	103.5	86.6	112.2	94.3

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Chemicals and allied products—Continued									
	Druggists' preparations		Explosives		Fertilizers		Paints and varnishes		Petroleum refining	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923.....	97.7	91.8	108.5	109.5	100.5	99.1	95.6	91.6	103.0	102.3
1924.....	96.8	97.5	94.8	97.6	95.1	93.6	97.6	99.8	96.1	94.6
1925.....	105.5	110.7	96.7	92.9	106.4	107.3	106.8	108.6	100.9	103.1
1926.....	108.3	113.4	98.7	92.2	112.8	118.4	-----	-----	110.8	112.7
1927.....	110.4	119.2	98.5	97.6	100.8	106.9	117.5	123.3	109.9	111.9
1928.....	106.6	113.1	95.4	92.0	107.6	109.1	-----	-----	104.7	108.3
1929.....	116.4	124.4	95.3	102.0	113.4	108.3	122.3	129.6	124.4	129.2
1930.....	108.2	116.3	79.7	74.7	111.0	104.2	-----	-----	124.9	130.4
1931.....	103.2	105.3	80.4	66.9	75.8	73.4	94.4	90.3	106.2	105.8
1932.....	90.3	82.4	66.4	45.3	62.4	49.6	82.2	66.8	96.1	85.4
1933 ¹	90.7	81.0	76.3	52.3	82.5	55.8	85.7	64.3	99.8	83.1
1923										
January.....	98.2	91.0	102.0	93.9	97.5	87.2	-----	-----	97.6	96.6
February.....	99.3	89.3	102.6	96.9	114.2	95.1	-----	-----	98.9	96.8
March.....	99.0	91.8	107.8	97.6	130.7	113.7	-----	-----	100.9	101.7
April.....	96.9	89.6	108.8	106.7	121.3	116.8	-----	-----	105.7	105.9
May.....	93.9	88.3	108.3	111.9	89.2	95.1	-----	-----	110.0	108.9
June.....	93.6	87.3	108.5	107.3	76.1	83.9	-----	-----	108.7	109.3
July.....	93.6	86.7	110.1	110.6	83.4	94.0	-----	-----	108.0	110.5
August.....	95.1	88.3	109.5	113.1	90.9	91.8	-----	-----	106.7	104.0
September.....	97.6	91.2	111.7	119.3	102.9	108.5	-----	-----	104.1	104.5
October.....	101.6	99.2	118.6	123.4	103.4	103.9	-----	-----	100.9	102.2
November.....	100.7	100.9	108.9	120.7	100.0	98.2	-----	-----	98.4	93.8
December.....	103.1	97.4	105.1	112.2	96.5	100.5	-----	-----	96.0	93.3
1924										
January.....	102.6	95.5	103.5	97.9	98.1	98.8	-----	-----	95.4	88.9
February.....	101.4	97.9	102.1	105.4	110.9	103.6	-----	-----	96.3	92.1
March.....	98.6	98.9	102.1	107.4	139.8	128.5	-----	-----	96.5	95.1
April.....	96.5	95.5	98.8	105.7	131.3	126.0	-----	-----	97.4	95.1
May.....	92.4	92.9	93.7	100.3	87.0	88.6	-----	-----	97.5	97.1
June.....	90.1	92.3	90.1	92.5	61.9	68.0	-----	-----	97.9	98.7
July.....	90.7	90.7	89.9	90.8	60.2	66.2	-----	-----	90.7	95.1
August.....	93.3	95.9	90.1	90.2	65.9	71.4	-----	-----	97.0	95.7
September.....	96.4	98.6	89.3	91.2	89.9	92.1	-----	-----	95.4	93.5
October.....	99.4	102.5	91.2	97.0	89.9	92.1	-----	-----	94.1	92.0
November.....	99.5	102.6	92.9	99.3	89.8	92.3	-----	-----	94.2	97.5
December.....	101.2	106.1	93.6	94.0	93.0	95.0	-----	-----	94.1	93.8
1925										
January.....	100.8	103.9	93.5	88.4	96.5	96.9	-----	-----	94.0	92.5
February.....	100.3	107.2	93.4	94.1	103.9	99.2	-----	-----	95.0	97.0
March.....	102.7	109.3	94.7	98.3	143.8	134.8	-----	-----	95.0	100.5
April.....	102.8	108.3	98.0	94.3	160.0	148.9	-----	-----	96.5	97.7
May.....	103.1	109.8	99.2	97.8	85.8	90.9	-----	-----	97.3	102.5
June.....	103.4	108.0	97.3	92.9	69.5	76.0	-----	-----	100.1	103.1
July.....	102.3	109.7	99.3	93.2	75.3	84.6	-----	-----	103.0	102.7
August.....	106.4	107.6	99.9	96.2	89.8	95.7	-----	-----	104.4	108.4
September.....	111.2	108.0	99.0	93.4	114.3	117.0	-----	-----	106.1	105.0
October.....	110.4	118.2	96.7	93.5	116.3	116.0	-----	-----	105.7	109.4
November.....	111.8	119.3	95.5	88.0	110.3	110.7	-----	-----	106.2	110.2
December.....	110.6	119.2	93.9	84.1	111.3	116.9	-----	-----	107.0	107.9
1926										
January.....	106.2	112.6	90.6	76.7	117.5	122.7	-----	-----	105.7	108.9
February.....	108.3	116.8	89.9	80.6	133.6	133.3	-----	-----	106.5	106.7
March.....	109.3	116.9	90.2	87.4	167.2	166.5	-----	-----	106.3	109.0
April.....	108.8	118.3	91.0	88.2	150.0	151.4	-----	-----	108.3	110.8
May.....	106.8	115.3	90.4	88.1	99.1	106.0	-----	-----	108.7	112.0
June.....	108.8	114.9	94.6	89.4	81.0	89.9	-----	-----	111.3	115.4
July.....	98.7	104.7	99.9	92.9	80.3	90.7	-----	-----	112.7	111.1
August.....	106.8	103.0	100.5	94.5	89.2	96.9	-----	-----	112.9	115.6
September.....	110.5	107.5	106.6	98.2	117.5	126.4	-----	-----	114.6	115.6
October.....	112.5	116.3	110.2	104.0	113.4	118.0	-----	-----	114.9	115.9
November.....	113.3	117.7	111.2	104.1	108.6	112.8	-----	-----	114.2	115.2
December.....	112.2	117.2	109.5	102.8	96.0	106.5	-----	-----	113.9	116.5

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Chemicals and allied products—Continued									
	Druggists' preparations		Explosives		Fertilizers		Paints and varnishes		Petroleum refining	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927										
January	110.6	111.8	103.6	95.9	104.2	110.0			115.2	113.8
February	111.5	121.9	101.0	100.5	113.5	117.7			116.2	120.5
March	110.4	125.5	96.5	98.7	144.9	140.8			117.3	121.7
April	109.9	121.5	96.6	95.9	153.4	155.0			114.8	115.7
May	105.9	114.8	92.2	94.9	95.7	99.5			112.2	113.2
June	107.5	119.7	95.6	94.6	68.9	77.9			111.2	116.5
July	101.9	106.1	98.9	95.5	67.6	77.9			110.9	110.6
August	109.7	116.0	99.9	95.9	75.4	85.8			109.0	110.2
September	112.5	117.7	99.4	95.7	109.8	115.4			106.8	107.1
October	116.3	122.0	100.5	102.7	97.2	101.8			103.9	105.4
November	115.5	122.1	98.6	101.8	94.2	99.1			101.2	103.0
December	113.5	131.6	99.6	99.5	93.8	101.3			100.5	102.6
1928										
January	99.5	108.8	96.4	89.2	99.2	103.7			100.9	103.6
February	106.5	112.6	99.7	89.9	116.0	114.2			101.1	103.6
March	105.4	112.4	92.9	89.4	161.2	148.7			101.7	104.1
April	103.7	110.4	92.9	91.2	164.3	154.3			100.7	105.4
May	100.9	108.8	91.2	87.1	93.7	101.8			100.9	103.5
June	103.1	110.2	89.8	84.1	75.1	83.9			103.5	106.5
July	97.6	100.7	91.6	85.3	75.7	84.3			105.2	110.1
August	106.9	113.6	88.8	82.6	82.0	88.6			107.0	112.0
September	112.8	114.6	96.3	90.4	107.8	113.4			109.3	113.2
October	114.8	121.9	100.0	104.8	107.4	108.8			108.2	112.4
November	114.9	122.4	101.0	106.2	102.6	102.9			108.5	112.3
December	112.9	120.3	103.7	106.5	106.0	104.4			109.6	112.9
1929										
January	114.1	118.7	101.8	97.9	107.1	102.6			109.5	111.5
February	120.8	129.6	103.9	108.9	111.0	102.6			112.4	116.9
March	119.4	127.4	101.4	114.3	159.1	141.8			115.5	119.3
April	115.7	123.8	101.6	110.8	191.2	171.9			118.7	124.8
May	111.4	120.3	98.2	112.2	107.0	105.8			121.6	127.1
June	110.2	117.7	95.8	105.9	78.6	84.6			124.1	128.7
July	111.1	119.8	93.0	97.1	83.1	88.3			128.1	132.6
August	113.4	120.9	93.0	102.0	90.6	90.2			130.6	134.8
September	119.0	125.6	92.5	99.5	109.9	106.0			133.0	139.7
October	122.4	131.6	92.7	97.5	111.3	106.5			134.1	140.2
November	121.4	129.0	88.8	95.3	108.3	100.8			133.6	137.7
December	117.8	128.0	80.8	82.1	103.1	98.2			131.3	136.8
1930										
January	115.6	124.8	76.9	74.3	114.3	104.2			131.7	133.1
February	113.0	123.8	76.5	75.9	123.1	109.0			132.3	137.9
March	111.6	123.9	75.2	75.4	172.1	143.1			130.5	136.3
April	107.3	118.4	75.4	73.5	180.5	163.6			128.2	135.7
May	106.2	116.8	75.2	75.9	105.2	104.8			126.6	134.2
June	105.2	115.2	78.5	78.4	78.0	84.5			127.0	135.9
July	103.5	107.5	79.7	72.0	81.5	85.4			127.2	132.6
August	104.7	109.1	81.1	74.0	87.1	85.4			126.1	131.9
September	108.3	112.6	83.9	75.9	104.9	103.9			122.6	128.7
October	109.2	117.2	84.9	77.5	100.2	94.3			118.3	124.2
November	107.9	115.4	84.4	74.9	91.6	85.6			114.2	118.0
December	105.4	111.4	84.4	68.7	93.2	86.7			114.6	116.4
1931										
January	106.1	110.8	83.3	61.2	91.6	83.0	94.9	90.4	113.2	114.5
February	107.9	115.0	83.0	70.5	92.5	83.3	95.8	95.1	111.9	116.7
March	107.3	114.6	81.1	70.2	115.6	97.4	97.1	97.5	101.6	106.1
April	102.0	107.8	81.4	68.3	144.8	129.2	98.5	98.3	110.6	112.9
May	100.0	104.1	78.6	66.3	91.0	84.7	101.1	101.9	111.4	112.8
June	96.5	99.3	76.9	65.3	56.0	59.4	100.2	99.0	108.3	107.8
July	98.8	99.6	80.1	67.2	52.0	55.8	94.7	90.8	106.6	104.6
August	102.1	101.2	80.2	69.1	55.7	56.4	91.9	86.3	104.4	102.6
September	107.3	104.4	80.2	68.6	63.0	60.6	91.7	84.2	102.7	100.3
October	107.2	108.2	80.4	69.4	61.8	57.9	90.8	82.9	101.9	98.2
November	103.7	100.6	80.6	67.3	59.1	54.9	88.1	78.9	100.5	95.5
December	99.4	98.5	78.6	59.7	61.1	58.7	87.4	78.1	100.9	95.9

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Chemicals and allied products—Continued									
	Druggists' preparations		Explosives		Fertilizers		Paints and varnishes		Petroleum refining	
	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls
1932 ¹										
January.....	99.8	93.8	75.9	49.8	64.6	57.9	85.9	73.3	100.7	93.4
February.....	97.4	91.9	73.7	52.2	71.4	57.6	86.5	74.6	99.5	92.5
March.....	98.5	90.3	68.1	50.3	80.5	60.8	86.9	75.4	97.8	89.9
April.....	91.7	84.3	65.9	45.9	113.5	82.9	85.2	72.9	97.6	87.7
May.....	90.7	83.1	65.5	48.3	73.5	58.5	85.6	74.7	97.1	89.3
June.....	87.2	80.0	62.3	40.5	41.0	35.7	84.7	71.8	97.0	88.8
July.....	81.7	72.6	58.2	38.1	38.3	34.1	80.7	61.5	96.0	85.0
August.....	84.3	74.4	60.4	38.8	43.1	35.8	77.2	56.5	94.2	84.0
September.....	86.1	77.1	62.5	39.9	53.6	42.1	78.3	59.8	95.0	81.7
October.....	88.7	79.7	66.2	45.6	56.8	43.0	79.8	63.3	92.7	78.0
November.....	88.9	81.3	69.0	48.1	57.9	43.8	78.6	60.0	92.2	77.6
December.....	88.2	80.2	69.3	46.1	54.9	43.3	76.9	57.3	93.7	77.4
1933 ¹										
January.....	91.4	82.1	66.3	41.5	62.9	46.2	74.4	53.2	92.9	79.6
February.....	87.2	79.2	66.5	41.8	71.5	46.4	75.2	54.9	93.9	79.1
March.....	86.3	75.2	66.2	42.5	85.0	51.7	74.1	50.5	94.0	79.5
April.....	83.7	70.5	65.6	40.0	148.1	84.5	76.4	56.5	94.2	73.6
May.....	81.8	71.4	65.5	41.8	84.9	52.3	83.8	67.1	95.3	80.2
June.....	82.9	74.9	65.9	45.6	55.9	39.7	89.4	72.3	96.9	81.5
July.....	86.4	75.4	72.8	52.1	58.6	42.4	92.0	71.2	96.9	81.4
August.....	88.7	81.0	79.9	60.3	64.2	46.4	93.5	69.8	98.9	82.2
September.....	95.1	85.4	90.8	63.8	82.3	60.6	94.1	68.7	104.9	86.0
October.....	99.8	91.0	92.6	68.9	91.0	68.4	94.0	70.7	108.8	89.4
November.....	101.9	92.8	92.9	66.5	90.8	63.0	91.1	68.3	110.0	89.3
December.....	103.0	92.9	90.3	62.7	94.8	68.5	90.1	68.8	111.2	89.4

¹ Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Chemicals and allied products—Continued				Rubber products							
	Rayon and allied products		Soap		Group index		Rubber boots and shoes		Rubber goods, other than boots, shoes, tires, and inner tubes		Rubber tires and inner tubes	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1923.....	87.3	91.3	104.9	105.7	102.6	101.0	117.0	118.7	103.1	100.1	97.7	96.8
1924.....	93.1	95.5	100.0	100.0	91.8	92.9	83.6	82.3	91.6	92.7	94.5	95.7
1925.....	119.6	113.2	95.1	94.3	105.6	106.1	99.4	99.0	105.3	107.2	107.3	107.5
1926.....					105.1	107.0	103.0	101.7			105.4	107.2
1927.....	164.8	141.2	82.9	100.3	105.7	110.0	106.8	113.2	110.3	115.5	103.3	107.0
1928.....					111.1	117.5	105.0	107.1			109.9	116.8
1929.....	244.4	220.2	88.6	96.7	111.0	115.1	102.1	105.6	120.3	120.4	110.0	113.2
1930.....	242.2	214.1			85.9	87.7	82.0	77.4			79.0	79.3
1931.....	241.9	188.4	87.4	90.2	73.9	62.5	63.2	48.6	102.3	89.9	64.9	56.2
1932 ¹	217.0	140.4	83.3	75.0	65.4	44.9	52.5	37.7	64.1	70.0	57.1	37.7
1933 ¹	281.9	178.8	89.8	73.3	73.9	50.2	50.9	42.5	112.2	79.5	64.7	41.7
1923												
January.....					111.1	103.8	114.0	111.0			110.0	102.3
February.....					115.8	111.7	116.7	113.6			115.3	111.4
March.....					116.9	116.9	118.1	115.0			116.3	117.6
April.....					117.0	120.9	123.8	120.5			114.6	121.4
May.....					116.5	119.2	127.0	125.8			112.9	117.8
June.....					111.3	114.0	126.5	129.5			106.2	110.4
July.....					102.1	94.6	122.9	117.0			95.2	89.1
August.....					90.5	85.0	115.0	109.6			82.3	79.0
September.....					85.8	84.6	108.2	119.5			78.3	76.0
October.....					85.0	84.1	109.1	122.3			77.0	74.6
November.....					87.3	86.3	111.7	121.3			79.2	77.7
December.....					91.3	91.0	110.7	119.5			84.8	84.0
1924												
January.....					92.3	92.0	105.1	108.1			88.0	88.2
February.....					93.5	94.6	100.4	95.7			91.1	94.5
March.....					93.2	94.1	93.8	89.3			93.0	95.5
April.....					92.2	93.7	90.1	84.1			92.7	96.3
May.....					91.0	93.0	87.7	84.2			92.1	95.5
June.....					88.2	86.8	83.9	80.1			89.7	88.4
July.....					83.9	82.6	73.9	75.0			87.2	84.6
August.....					84.5	84.4	52.6	48.6			95.2	93.4
September.....					93.5	95.9	62.7	57.6			104.0	105.7
October.....					92.9	97.4	63.9	61.9			102.7	106.2
November.....					97.1	99.5	93.6	99.7			98.2	99.3
December.....					98.7	101.3	96.0	103.6			99.5	100.5
1925												
January.....					99.6	99.8	100.3	106.9			99.3	97.6
February.....					102.8	105.3	104.8	108.3			102.3	104.2
March.....					103.6	106.4	102.8	103.8			104.0	106.9
April.....					104.8	107.4	100.8	99.7			106.3	109.1
May.....					108.1	112.2	98.1	98.6			111.7	115.2
June.....					108.9	109.4	96.8	96.6			113.2	112.1
July.....					109.5	110.4	95.4	91.4			114.5	114.7
August.....					110.0	110.5	90.2	86.9			116.8	116.0
September.....					108.9	106.1	96.2	87.6			113.3	110.2
October.....					102.6	100.0	96.8	96.0			104.6	100.5
November.....					102.1	99.1	102.0	102.0			102.3	97.8
December.....					106.1	106.7	108.2	110.0			105.8	105.3
1926												
January.....					108.5	108.6	111.1	112.1			107.9	106.9
February.....					108.7	111.7	108.4	103.5			108.8	113.1
March.....					108.2	109.7	110.9	108.4			107.2	109.1
April.....					107.5	109.8	109.3	108.8			106.9	109.3
May.....					104.6	105.9	106.6	105.8			103.5	104.8
June.....					103.1	103.6	103.6	97.5			102.6	104.0
July.....					97.8	100.8	77.0	76.2			104.2	105.8
August.....					104.8	104.9	96.4	90.4			106.8	107.4
September.....					108.4	112.9	100.2	96.4			110.3	115.7
October.....					107.2	110.2	101.1	101.7			108.4	111.0
November.....					101.7	101.7	104.5	105.0			99.7	99.3
December.....					100.9	103.9	106.0	114.3			98.2	99.7

¹Data subject to revision when census figures for 1933 become available.

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Chemicals and allied products—Continued				Rubber products—Continued							
	Rayon and allied products		Soap		Group index		Rubber boots and shoes		Rubber goods, other than boots, shoes, tires, and inner tubes		Rubber tires and inner tubes	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1927												
January					102.0	103.5	107.8	114.0			98.9	99.1
February					103.3	109.3	107.7	111.2			100.6	107.1
March					104.2	110.5	105.4	108.9			102.2	109.1
April					108.2	116.3	104.2	109.2			107.9	116.1
May					111.5	119.6	104.9	112.8			112.0	119.1
June					110.5	115.8	104.4	109.7			109.9	115.2
July					106.7	110.0	97.3	102.8			107.8	109.9
August					106.1	110.4	97.7	103.8			106.8	109.7
September					106.3	109.7	108.0	115.3			103.8	108.8
October					104.0	106.4	111.2	119.1			99.1	100.9
November					101.3	100.2	114.1	124.4			94.6	91.5
December					104.4	108.1	110.1	126.8			96.8	100.7
1928												
January					107.4	111.4	115.0	123.0			102.1	105.7
February					109.9	117.7	112.2	115.3			106.2	115.4
March					108.4	116.9	102.8	104.3			107.3	116.9
April					108.1	115.2	106.0	107.3			105.6	114.3
May					107.9	111.7	103.6	103.9			106.2	110.6
June					107.9	115.0	95.3	96.9			108.8	116.3
July					113.1	117.5	101.6	99.7			113.6	118.7
August					114.1	120.7	97.7	95.9			116.3	123.6
September					116.0	126.9	103.4	107.1			116.0	128.3
October					115.8	123.6	106.4	108.3			115.3	123.6
November					112.4	115.5	108.4	110.7			110.2	113.0
December					112.1	117.3	107.6	112.9			110.1	114.6
1929												
January	238.4	211.7			115.0	115.1	104.1	102.1			114.7	114.6
February	242.1	215.6			115.0	127.0	100.2	96.7			116.1	130.6
March	248.4	212.8			116.1	127.4	98.6	97.3			118.0	130.8
April	249.1	212.3			117.1	128.5	97.2	98.7			119.7	131.6
May	226.4	202.9			118.0	129.8	95.8	101.5			121.5	132.5
June	232.3	214.3			117.9	124.7	97.6	104.0			120.6	125.6
July	241.8	217.8			117.1	119.2	100.9	106.1			118.3	118.1
August	247.4	228.0			114.3	115.1	104.9	109.1			113.2	112.2
September	246.5	224.2			111.0	109.4	108.1	115.9			107.9	103.5
October	253.5	233.7			105.3	105.2	108.4	114.4			100.2	98.5
November	255.7	240.5			93.7	90.0	104.0	109.6			86.5	81.1
December	251.3	228.9			91.7	89.2	105.2	111.7			83.4	79.5
1930												
January	248.9	233.3			92.2	93.3	99.2	101.8			85.4	86.5
February	247.9	239.2			90.7	96.8	96.3	98.5			83.5	90.9
March	252.3	240.7			90.0	94.5	92.9	92.8			83.2	89.1
April	251.1	228.2			91.6	99.2	88.9	87.6			85.7	95.7
May	246.2	230.8			91.3	100.3	80.2	79.6			87.6	98.4
June	244.0	214.1			91.2	92.9	76.1	73.4			88.1	90.5
July	243.3	221.4			86.1	85.2	73.6	67.8			81.4	81.9
August	238.4	195.4			84.6	81.7	75.5	66.8			78.2	77.6
September	237.4	193.2			80.9	75.4	73.2	64.9			73.6	70.0
October	233.0	195.4			79.0	69.4	75.9	65.9			69.5	61.8
November	233.5	194.1			76.5	61.8	75.8	63.6			65.5	52.8
December	229.8	183.9			77.2	65.9	75.6	66.4			65.9	56.5
1931												
January	216.1	179.3	86.2	96.0	76.5	66.7	68.6	55.0	103.2	93.2	67.3	60.2
February	218.8	179.7	86.6	94.4	75.4	66.4	66.6	47.0	103.0	92.7	66.1	61.9
March	229.8	191.0	86.5	93.9	73.0	66.2	53.5	33.4	104.0	94.9	65.9	64.2
April	235.9	190.1	88.6	95.5	74.3	68.4	59.2	42.8	103.6	93.3	66.3	65.8
May	242.5	201.3	90.1	98.2	76.5	71.3	60.8	44.4	104.1	93.8	69.5	70.1
June	248.4	200.2	87.2	92.4	77.2	72.0	63.3	46.7	104.2	93.0	70.1	70.9
July	252.8	199.3	87.6	84.8	75.5	64.4	63.8	49.6	102.8	90.5	67.3	58.9
August	257.2	201.1	86.4	90.1	72.8	63.0	58.6	50.1	100.8	87.4	65.2	55.9
September	251.6	183.8	89.6	83.3	72.8	55.0	55.0	55.5	101.6	84.3	62.5	44.4
October	253.1	193.6	88.6	89.0	71.3	54.9	65.3	55.2	100.8	88.5	60.3	42.8
November	248.9	168.3	86.3	80.5	71.1	50.7	68.1	52.7	100.0	83.9	59.4	38.4
December	248.2	168.1	85.1	79.2	70.0	51.7	65.0	50.5	99.2	83.1	59.0	40.8

TABLE 8.—Indexes of employment and pay rolls in manufacturing industries, by years 1923 to 1933, and by months January 1923 to December 1933—Continued

[3-year average 1923-25=100]

Month and year	Chemicals and allied products—Continued				Rubber products—Continued							
	Rayon and allied products		Soap		Group index		Rubber boots and shoes		Rubber goods, other than boots, shoes, tires, and inner tubes		Rubber tires and inner tubes	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1932 ¹												
January.....	251.6	162.8	83.6	76.9	68.7	50.9	61.1	43.0	95.7	77.1	59.3	43.5
February.....	250.4	172.9	84.1	78.6	68.7	51.6	57.8	39.4	97.5	76.9	59.7	45.5
March.....	241.3	168.7	84.4	78.3	67.6	49.4	55.7	41.3	96.2	75.2	59.1	42.2
April.....	233.0	159.0	84.1	79.2	66.5	46.3	53.4	36.4	93.6	70.0	59.0	40.2
May.....	218.1	140.1	82.1	74.8	65.7	45.8	51.8	37.0	91.9	66.5	58.7	40.5
June.....	156.7	99.1	83.4	79.2	66.5	49.8	52.0	33.7	92.9	66.8	59.7	47.8
July.....	155.7	90.1	81.1	72.3	64.4	43.0	47.1	27.3	89.4	62.6	59.1	40.0
August.....	155.7	94.3	81.8	71.3	63.2	39.7	50.1	31.8	88.0	59.5	56.5	34.5
September.....	219.8	140.3	82.4	72.9	61.6	38.1	46.1	35.5	91.0	66.5	53.8	28.5
October.....	234.5	149.8	84.5	73.9	63.5	41.9	48.5	37.7	97.4	76.4	53.6	30.6
November.....	239.9	152.2	85.6	72.7	64.3	40.9	51.4	43.0	98.6	72.4	53.4	29.1
December.....	246.7	155.1	82.4	69.3	64.2	41.2	54.8	46.5	96.5	70.3	53.0	29.6
1933 ¹												
January.....	250.6	156.4	82.1	67.3	61.8	36.9	47.9	33.7	94.2	64.7	52.1	27.9
February.....	250.4	153.3	82.9	68.2	62.2	37.2	45.8	32.4	94.7	64.5	53.2	28.7
March.....	238.4	144.9	81.6	66.8	59.8	32.6	42.1	25.4	92.1	57.6	51.5	25.5
April.....	223.7	130.6	81.8	67.1	59.6	35.0	42.4	26.9	90.7	59.5	51.6	28.2
May.....	246.9	149.1	83.5	68.9	62.4	43.7	37.0	30.9	94.1	65.1	56.8	39.3
June.....	260.1	164.8	86.7	72.8	69.3	53.3	39.3	34.2	101.7	76.5	65.0	49.7
July.....	281.4	177.3	88.4	74.3	77.4	60.4	45.5	42.1	110.8	85.6	73.2	55.9
August.....	316.1	197.8	96.6	75.3	86.6	61.9	53.1	50.3	131.5	94.1	78.0	53.3
September.....	330.3	213.2	101.1	80.4	88.8	61.4	62.8	56.4	136.9	96.0	76.3	50.4
October.....	331.3	218.3	101.7	81.1	88.7	62.9	63.9	58.6	139.4	103.2	74.7	49.7
November.....	332.0	218.9	97.7	80.1	86.7	58.3	65.1	58.6	135.2	96.1	72.5	44.8
December.....	322.0	220.9	93.1	77.2	83.9	59.0	65.6	60.2	125.2	90.9	71.8	47.3

¹ Data subject to revision when census figures for 1933 become available.

TABLE 9.—Estimated number of wage earners and weekly pay rolls in industry groups—yearly averages 1919 to 1933, and months January 1929 to December 1933

[All figures subsequent to 1931 subject to revision]

Year and month	Iron and steel and their products		Machinery, not including transportation equipment		Transportation equipment		Railroad repair shops	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1919	858,600	\$23,937,000	1,026,800	\$24,534,000	(1)	(1)	(1)	(1)
1920	926,300	30,531,000	1,131,700	31,982,000	(1)	(1)	(1)	(1)
1921	572,400	14,049,000	680,700	16,450,000	(1)	(1)	(1)	(1)
1922	722,500	17,400,000	717,400	16,982,000	(1)	(1)	(1)	(1)
1923	892,400	25,442,000	928,600	24,618,000	606,200	\$18,532,000	523,700	\$14,856,000
1924	833,700	23,834,000	835,400	22,531,000	524,500	15,636,000	464,900	12,972,000
1925	851,200	24,680,000	870,500	23,843,000	559,600	17,478,000	458,100	12,847,000
1926	880,200	25,875,000	946,700	26,310,000	558,600	17,126,000	460,700	13,025,000
1927	834,900	24,289,000	897,800	25,095,000	495,100	15,450,000	428,900	12,475,000
1928	829,800	24,740,000	922,500	26,334,000	541,900	17,494,000	404,000	11,817,000
1929	881,000	26,568,000	1,105,700	31,761,000	583,200	18,136,000	398,200	12,255,000
1930	766,200	21,126,000	918,700	24,197,000	451,800	12,076,000	353,800	10,316,000
1931	698,400	13,562,000	687,000	15,135,000	373,800	9,008,000	309,000	8,366,000
1932	458,100	7,164,000	494,600	8,546,000	315,700	7,012,000	257,400	5,793,000
1933	503,400	8,925,000	517,100	8,975,000	305,600	6,799,000	250,600	5,552,000
1929								
January	853,600	25,203,000	1,005,100	28,306,000	580,500	16,543,000	397,800	11,214,000
February	865,900	26,637,000	1,037,100	30,308,000	630,700	21,041,000	400,200	12,048,000
March	876,500	27,035,000	1,063,700	31,642,000	644,700	21,386,000	401,400	12,440,000
April	883,500	27,593,000	1,085,800	32,246,000	658,100	22,220,000	400,200	12,538,000
May	894,100	27,885,000	1,116,800	33,199,000	655,200	21,694,000	399,800	12,636,000
June	896,800	27,460,000	1,142,200	33,230,000	615,500	19,518,000	397,800	12,305,000
July	888,800	25,946,000	1,165,400	32,500,000	604,400	16,742,000	396,200	11,790,000
August	903,800	27,433,000	1,173,100	33,040,000	591,600	18,973,000	398,200	12,342,000
September	905,600	27,433,000	1,164,300	32,849,000	583,400	18,012,000	397,000	12,133,000
October	895,000	27,221,000	1,163,200	33,389,000	531,500	16,343,000	401,000	12,624,000
November	873,800	25,282,000	1,102,400	30,594,000	457,400	13,169,000	398,200	12,538,000
December	834,200	23,689,000	1,049,300	29,831,000	445,700	11,990,000	391,000	12,452,000
1930								
January	823,600	22,839,000	1,019,500	28,243,000	474,900	11,899,000	381,500	11,239,000
February	837,700	24,778,000	1,013,900	28,433,000	491,800	14,167,000	375,500	11,398,000
March	829,800	24,459,000	1,004,000	28,243,000	495,900	14,638,000	370,300	11,214,000
April	827,200	24,592,000	986,300	27,734,000	511,100	15,146,000	366,300	11,202,000
May	821,000	23,981,000	958,600	26,654,000	514,600	15,146,000	366,700	11,055,000
June	792,800	22,786,000	929,900	25,383,000	484,800	13,622,000	362,000	10,773,000
July	755,800	19,679,000	893,400	22,683,000	449,800	11,555,000	344,800	9,609,000
August	731,100	19,360,000	861,300	21,762,000	429,400	10,031,000	341,700	9,854,000
September	716,200	18,802,000	870,200	21,603,000	415,400	10,339,000	342,100	9,498,000
October	705,500	18,829,000	856,900	21,285,000	393,200	9,668,000	331,700	9,376,000
November	686,200	16,996,000	828,200	19,411,000	377,500	9,432,000	331,700	9,165,000
December	665,000	16,412,000	801,600	18,934,000	383,900	9,269,000	330,900	9,425,000
1931								
January	644,800	15,270,000	769,600	17,600,000	381,000	7,419,000	333,300	8,861,000
February	644,800	16,359,000	767,400	17,981,000	386,800	9,686,000	331,700	9,413,000
March	651,900	16,917,000	750,800	17,822,000	402,000	10,412,000	325,300	9,229,000
April	648,300	16,678,000	738,600	17,282,000	410,700	10,811,000	322,500	9,204,000
May	630,700	15,695,000	720,900	16,806,000	416,500	11,319,000	319,400	8,971,000
June	605,100	14,049,000	696,600	15,630,000	400,800	9,868,000	311,800	8,640,000
July	592,000	12,907,000	667,800	14,360,000	378,000	8,797,000	303,400	8,089,000
August	584,000	12,508,000	642,400	13,820,000	368,100	8,471,000	299,800	7,954,000
September	564,700	11,207,000	645,700	12,930,000	364,600	7,564,000	296,700	7,611,000
October	549,700	10,888,000	626,900	12,803,000	311,000	7,600,000	292,700	7,550,000
November	536,500	10,198,000	612,600	12,295,000	311,500	7,709,000	286,700	7,513,000
December	526,800	10,065,000	604,800	12,295,000	354,700	8,435,000	284,700	7,354,000
1932								
January	510,000	8,950,000	580,500	11,246,000	364,600	8,235,000	287,200	6,569,000
February	511,800	9,136,000	579,400	11,246,000	378,000	8,924,000	270,400	6,312,000
March	502,100	8,737,000	561,700	10,547,000	369,900	8,334,000	272,000	6,349,000
April	485,400	7,967,000	532,900	9,690,000	347,700	8,280,000	274,800	6,410,000
May	466,000	7,569,000	513,000	8,991,000	347,700	8,997,000	266,800	6,398,000
June	450,100	6,692,000	485,400	8,133,000	345,600	7,963,000	250,500	5,682,000
July	424,600	5,763,000	458,900	7,243,000	331,400	7,419,000	244,500	5,082,000
August	418,400	5,789,000	440,100	6,862,000	295,200	5,804,000	232,500	4,875,000
September	428,100	6,108,000	442,300	7,021,000	263,100	4,317,000	240,900	4,951,000
October	438,700	6,692,000	447,800	7,243,000	231,600	4,571,000	252,100	5,356,000
November	438,700	6,506,000	448,900	7,148,000	247,400	5,079,000	260,400	5,797,000
December	423,700	6,055,000	444,500	7,180,000	287,800	5,714,000	256,800	5,773,000

1 Data not available.

TABLE 9.—*Estimated number of wage earners and weekly pay rolls in industry groups—yearly averages 1919 to 1933, and months January 1929 to December 1933—Continued*

[All figures subsequent to 1931 subject to revision]

Year and month	Iron and steel and their products		Machinery, not including transportation equipment		Transportation equipment		Railroad repair shops	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1933								
January.....	401,700	\$5,630,000	422,400	\$6,671,000	290,000	\$8,167,000	249,300	\$5,307,000
February.....	421,100	6,108,000	427,900	6,799,000	283,500	5,532,000	244,900	5,307,000
March.....	401,700	5,604,000	413,500	6,195,000	254,900	4,789,000	244,100	5,160,000
April.....	413,100	6,055,000	419,100	6,354,000	255,500	5,496,000	232,200	4,902,000
May.....	437,800	7,356,000	440,100	7,243,000	274,800	6,657,000	239,700	5,270,000
June.....	478,300	8,923,000	475,500	8,419,000	291,100	6,984,000	233,300	5,160,000
July.....	531,200	10,198,000	511,900	9,277,000	328,500	7,491,000	249,300	5,417,000
August.....	587,600	12,322,000	567,200	10,325,000	347,100	8,562,000	261,200	6,226,000
September.....	613,100	11,712,000	612,600	11,024,000	362,300	8,290,000	265,600	6,140,000
October.....	599,900	11,738,000	641,300	11,882,000	333,100	7,455,000	265,200	6,630,000
November.....	583,200	10,676,000	643,500	11,882,000	301,600	6,639,000	264,400	6,251,000
December.....	571,700	10,782,000	630,200	11,627,000	344,200	7,528,000	258,000	6,054,000

TABLE 9.—Estimated number of wage earners and weekly pay rolls in industry groups—yearly averages 1919 to 1933, and months January 1929 to December 1933—Continued

All figures subsequent to 1931 subject to revision]

Year and month	Nonferrous metals and their products		Lumber and allied products		Stone, clay, and glass products		Textiles and their products	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Fabrics	
							Employment	Pay rolls
1919.....	(1)	(1)	863,800	\$16,549,000	302,700	\$6,397,000	1,052,600	\$17,494,000
1920.....	(1)	(1)	821,200	20,358,000	314,500	8,239,000	1,045,300	21,005,000
1921.....	(1)	(1)	703,000	13,161,000	253,000	5,907,000	994,300	17,235,000
1922.....	(1)	(1)	894,300	15,234,000	299,600	6,442,000	1,054,900	17,747,000
1923.....	(1)	(1)	932,100	18,526,000	351,400	8,726,000	1,164,400	21,590,000
1924.....	(1)	(1)	901,300	18,228,000	346,400	8,926,000	1,041,900	19,014,000
1925.....	(1)	(1)	921,600	18,824,000	352,700	8,985,000	1,109,500	20,497,000
1926.....	(1)	(1)	922,300	18,997,000	363,500	9,257,000	1,095,700	20,241,000
1927.....	(1)	(1)	864,100	17,916,000	349,800	8,929,000	1,119,200	21,135,000
1928.....	(1)	(1)	848,100	17,454,000	334,900	8,541,000	1,062,400	19,510,000
1929.....	(1)	(1)	876,500	18,062,000	328,500	8,323,000	1,095,900	20,251,000
1930.....	(1)	(1)	699,400	13,464,000	280,800	6,828,000	950,400	16,167,000
1931.....	209,000	\$4,622,000	516,900	8,641,000	222,800	4,786,000	886,700	14,808,000
1932.....	164,200	2,865,000	377,800	4,656,000	156,000	2,588,000	794,100	10,367,000
1933.....	175,200	3,039,000	406,100	4,900,000	157,500	2,455,000	952,600	12,664,000
1929								
January.....	(1)	(1)	838,700	16,457,000	308,400	7,524,000	1,091,700	19,925,000
February.....	(1)	(1)	844,000	17,089,000	309,000	7,732,000	1,106,000	20,897,000
March.....	(1)	(1)	853,600	17,487,000	317,200	8,107,000	1,109,200	20,978,000
April.....	(1)	(1)	871,100	18,011,000	331,400	8,531,000	1,104,900	20,958,000
May.....	(1)	(1)	882,500	18,408,000	340,600	8,764,000	1,106,000	20,856,000
June.....	(1)	(1)	892,200	18,354,000	343,800	8,847,000	1,100,500	20,370,000
July.....	(1)	(1)	899,200	18,318,000	334,300	8,165,000	1,076,400	19,358,000
August.....	(1)	(1)	919,300	18,932,000	344,500	8,739,000	1,075,300	19,621,000
September.....	(1)	(1)	915,800	19,366,000	343,500	8,747,000	1,098,300	20,128,000
October.....	(1)	(1)	901,800	19,438,000	338,300	8,689,000	1,114,700	20,917,000
November.....	(1)	(1)	872,900	18,047,000	327,400	8,298,000	1,097,200	19,783,000
December.....	(1)	(1)	827,300	16,837,000	303,800	7,732,000	1,070,900	19,216,000
1930								
January.....	(1)	(1)	777,400	14,813,000	275,200	6,517,000	1,044,600	18,244,000
February.....	(1)	(1)	760,700	14,777,000	278,200	6,825,000	1,038,000	18,467,000
March.....	(1)	(1)	759,800	15,247,000	290,000	7,166,000	1,019,400	17,981,000
April.....	(1)	(1)	752,000	15,084,000	301,100	7,557,000	1,002,900	17,353,000
May.....	(1)	(1)	743,200	14,976,000	303,400	7,607,000	978,800	16,685,000
June.....	(1)	(1)	726,500	14,524,000	299,800	7,557,000	956,900	16,057,000
July.....	(1)	(1)	690,600	12,953,000	281,100	6,900,000	888,300	14,154,000
August.....	(1)	(1)	673,100	12,646,000	279,100	6,667,000	876,900	14,215,000
September.....	(1)	(1)	650,300	12,501,000	277,800	6,700,000	801,100	14,843,000
October.....	(1)	(1)	649,400	12,393,000	273,200	6,725,000	903,200	15,470,000
November.....	(1)	(1)	621,400	11,254,000	262,400	6,217,000	910,900	15,349,000
December.....	(1)	(1)	588,100	10,405,000	247,900	5,793,000	893,300	15,187,000
1931								
January.....	221,200	5,032,000	546,000	9,069,000	220,000	4,761,000	863,700	14,053,000
February.....	223,800	5,296,000	546,000	9,430,000	224,000	5,135,000	892,200	15,308,000
March.....	223,100	5,424,000	542,500	9,574,000	232,800	5,377,000	913,100	15,592,000
April.....	220,900	5,262,000	546,000	9,303,000	241,000	5,568,000	905,400	15,187,000
May.....	215,900	5,023,000	546,900	9,484,000	246,300	5,626,000	916,300	15,369,000
June.....	211,800	4,776,000	540,700	9,267,000	244,000	5,402,000	894,400	14,600,000
July.....	205,800	4,230,000	518,000	8,707,000	227,900	4,752,000	884,600	14,174,000
August.....	199,500	4,221,000	511,800	8,599,000	224,600	4,661,000	888,900	14,478,000
September.....	201,400	4,230,000	503,100	8,436,000	220,700	4,461,000	888,900	13,891,000
October.....	199,200	4,179,000	490,800	7,985,000	209,500	4,253,000	870,300	13,405,000
November.....	194,500	3,948,000	472,400	7,244,000	197,700	3,895,000	862,600	12,818,000
December.....	190,400	3,846,000	439,100	6,594,000	185,500	3,546,000	859,300	12,818,000

¹ Data not available.

TABLE 9.—Estimated number of wage earners and weekly pay rolls in industry groups—yearly averages 1919 to 1933, and months January 1929 to December 1933—Continued

[All figures subsequent to 1931 subject to revision]

Year and month	Nonferrous metals and their products		Lumber and allied products		Stone, clay, and glass products		Textiles and their products	
							Fabrics	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1932								
January.....	181, 300	\$3, 462, 000	414, 500	\$5, 636, 000	164, 200	\$2, 888, 000	845, 100	\$12, 170, 000
February.....	183, 500	3, 556, 000	413, 700	5, 546, 000	166, 500	3, 046, 000	873, 600	12, 818, 000
March.....	180, 600	3, 334, 000	395, 300	5, 203, 000	167, 200	3, 005, 000	840, 700	11, 866, 000
April.....	172, 500	3, 070, 000	385, 600	4, 878, 000	167, 500	2, 988, 000	772, 800	9, 963, 000
May.....	164, 300	2, 797, 000	374, 200	4, 625, 000	160, 300	2, 772, 000	715, 800	8, 565, 000
June.....	158, 900	2, 635, 000	366, 300	4, 354, 000	151, 700	2, 455, 000	670, 800	7, 917, 000
July.....	141, 900	2, 260, 000	353, 200	3, 956, 000	146, 100	2, 256, 000	651, 100	7, 391, 000
August.....	149, 500	2, 362, 000	351, 400	4, 065, 000	147, 500	2, 305, 000	736, 600	9, 051, 000
September.....	156, 400	2, 618, 000	366, 300	4, 426, 000	151, 700	2, 355, 000	834, 100	11, 076, 000
October.....	160, 800	2, 865, 000	381, 200	4, 751, 000	155, 700	2, 489, 000	875, 800	11, 825, 000
November.....	162, 700	2, 806, 000	372, 500	4, 426, 000	152, 400	2, 347, 000	863, 700	11, 096, 000
December.....	158, 000	2, 610, 000	359, 300	4, 010, 000	141, 900	2, 156, 000	849, 500	10, 671, 000
1933								
January.....	147, 600	2, 311, 000	333, 900	3, 487, 000	123, 200	1, 839, 000	833, 000	9, 882, 000
February.....	150, 400	2, 345, 000	330, 400	3, 487, 000	127, 700	1, 898, 000	844, 000	10, 266, 000
March.....	143, 500	2, 132, 000	314, 600	3, 035, 000	129, 100	1, 881, 000	779, 300	8, 646, 000
April.....	146, 700	2, 234, 000	321, 600	3, 306, 000	134, 300	1, 923, 000	796, 900	9, 112, 000
May.....	152, 900	2, 584, 000	347, 900	3, 830, 000	144, 500	2, 172, 000	864, 800	10, 610, 000
June.....	164, 900	2, 934, 900	391, 800	4, 589, 000	160, 600	2, 539, 000	976, 600	12, 737, 000
July.....	174, 300	3, 155, 000	427, 700	5, 112, 000	172, 700	2, 655, 000	1, 068, 700	14, 093, 000
August.....	195, 400	3, 539, 000	462, 700	5, 998, 000	184, 900	3, 013, 000	1, 097, 200	16, 138, 000
September.....	209, 900	3, 778, 000	498, 700	6, 919, 000	185, 200	2, 971, 000	1, 078, 600	15, 814, 000
October.....	213, 700	3, 940, 000	506, 600	7, 063, 000	180, 700	2, 988, 000	1, 068, 700	15, 794, 000
November.....	205, 200	3, 838, 000	480, 300	6, 232, 000	176, 000	2, 821, 000	1, 032, 500	14, 903, 000
December.....	197, 300	3, 676, 000	457, 500	5, 745, 000	171, 400	2, 755, 000	990, 900	13, 972, 000

TABLE 9.—Estimated number of wage earners and weekly pay rolls in industry groups—yearly averages 1919 to 1933, and months January 1929 to December 1933—Continued

[All figures subsequent to 1931 subject to revision]

Year and month	Textiles and their products—Continued				Leather and its manufactures		Food and kindred products	
	Wearing apparel		Group		Employment	Pay rolls	Employment	Pay rolls
	Employment	Pay rolls	Employment	Pay rolls				
1919	507,800	\$10,121,000	1,609,400	\$28,440,000	349,600	\$6,978,000	733,600	\$14,879,000
1920	519,400	12,124,000	1,612,400	34,115,000	318,600	7,437,000	713,000	15,698,000
1921	473,900	10,266,000	1,509,400	28,284,000	280,100	6,040,000	626,400	14,333,000
1922	487,800	10,438,000	1,585,500	28,962,000	314,600	6,711,000	651,400	14,142,000
1923	499,300	10,919,000	1,714,300	33,511,000	344,800	7,472,000	681,900	15,296,000
1924	455,800	9,804,000	1,545,500	29,712,000	311,700	6,654,000	657,800	15,155,000
1925	466,500	10,284,000	1,627,400	31,795,000	314,200	6,831,000	664,400	15,268,000
1926	472,800	10,297,000	1,628,000	31,731,000	312,700	6,909,000	664,400	15,503,000
1927	501,400	11,123,000	1,694,400	33,817,000	316,000	7,009,000	679,400	15,838,000
1928	513,100	11,114,000	1,651,300	32,199,000	309,400	6,696,000	707,100	16,388,000
1929	536,700	11,476,000	1,706,900	33,321,000	318,600	6,915,000	753,500	17,344,000
1930	497,700	9,680,000	1,513,000	27,115,000	295,100	5,748,000	731,100	16,593,000
1931	472,000	8,338,000	1,421,000	23,799,000	272,800	5,035,000	650,500	14,173,000
1932	401,800	5,733,000	1,250,300	16,947,000	255,500	4,060,000	577,100	11,308,000
1933	418,100	5,757,000	1,432,700	19,394,000	269,400	4,394,000	631,000	11,604,000
1929								
January	519,400	11,279,000	1,686,400	32,785,000	308,800	6,629,000	677,400	16,079,000
February	540,400	12,254,000	1,722,300	34,812,000	315,900	6,953,000	679,800	16,172,000
March	559,100	12,397,000	1,746,700	35,572,000	312,700	6,732,000	675,200	15,993,000
April	546,800	11,669,000	1,728,800	34,273,000	306,600	6,511,000	715,800	16,623,000
May	536,100	11,141,000	1,715,800	33,608,000	306,300	6,546,000	692,600	16,602,000
June	536,100	11,336,000	1,710,900	33,323,000	304,100	6,684,000	723,800	17,038,000
July	514,600	10,384,000	1,663,600	31,233,000	322,200	7,244,000	784,700	17,686,000
August	531,800	11,474,000	1,679,900	32,658,000	334,000	7,769,000	852,500	18,797,000
September	546,300	11,944,000	1,717,400	33,703,000	339,100	7,748,000	900,200	19,717,000
October	552,700	11,910,000	1,743,500	34,463,000	338,800	7,465,000	838,500	18,676,000
November	531,800	10,728,000	1,701,100	32,056,000	324,100	6,331,000	771,500	17,576,000
December	525,300	10,694,000	1,666,900	31,359,000	310,400	6,359,000	729,600	17,169,000
1930								
January	526,400	10,958,000	1,640,800	30,631,000	314,900	6,470,000	690,600	16,474,000
February	536,100	11,267,000	1,644,100	31,169,000	318,100	6,532,000	684,300	16,324,000
March	545,200	11,623,000	1,634,300	31,042,000	314,900	6,456,000	676,500	16,003,000
April	527,500	10,338,000	1,598,400	29,047,000	309,500	6,200,000	697,500	16,327,000
May	502,800	9,305,000	1,547,900	27,273,000	298,000	5,751,000	659,700	16,366,000
June	489,400	9,007,000	1,512,100	26,291,000	290,400	5,619,000	714,200	16,793,000
July	452,400	8,410,000	1,401,300	23,694,000	297,100	5,993,000	757,000	16,939,000
August	471,100	9,191,000	1,407,800	24,549,000	299,900	6,103,000	809,000	17,458,000
September	503,300	10,177,000	1,456,700	26,269,000	294,800	5,827,000	890,800	18,608,000
October	498,000	9,684,000	1,464,800	26,386,000	284,700	5,336,000	794,100	17,000,000
November	463,700	8,181,000	1,437,100	24,676,000	263,600	4,216,000	709,100	15,770,000
December	456,100	8,020,000	1,411,100	24,359,000	254,700	4,472,000	659,200	15,048,000
1931								
January	458,300	8,078,000	1,383,400	23,250,000	265,200	4,666,000	629,400	14,587,000
February	487,800	9,420,000	1,443,700	25,974,000	274,500	5,295,000	613,900	14,318,000
March	508,200	10,235,000	1,486,000	27,146,000	284,000	5,654,000	612,000	14,019,000
April	504,900	9,260,000	1,474,600	25,689,000	281,500	5,454,000	616,800	14,022,000
May	485,600	8,192,000	1,464,800	24,739,000	275,400	5,322,000	619,600	14,261,000
June	466,800	7,837,000	1,424,100	23,599,000	271,600	5,170,000	638,500	14,339,000
July	448,600	7,848,000	1,394,800	23,155,000	287,800	5,633,000	672,600	14,420,000
August	470,600	8,456,000	1,422,500	24,105,000	295,200	5,854,000	717,000	14,665,000
September	488,800	8,720,000	1,440,400	23,757,000	286,200	5,274,000	766,400	15,115,000
October	474,900	8,204,000	1,407,800	22,712,000	268,700	4,424,000	691,000	14,110,000
November	440,000	6,988,000	1,362,200	20,811,000	235,600	3,712,000	628,700	13,325,000
December	429,800	6,816,000	1,347,500	20,653,000	247,700	3,967,000	600,200	12,898,000
1932								
January	419,100	6,563,000	1,321,400	19,702,000	256,000	4,209,000	559,000	11,983,000
February	442,200	7,194,000	1,375,200	21,065,000	270,600	4,852,000	550,300	11,670,000
March	448,600	7,550,000	1,347,500	20,431,000	274,500	4,935,000	544,400	11,433,000
April	425,500	6,345,000	1,253,000	17,168,000	266,500	4,403,000	553,100	11,359,000
May	394,900	5,244,000	1,160,100	14,539,000	246,100	3,608,000	549,400	11,401,000
June	368,100	4,521,000	1,086,800	13,082,000	238,800	3,539,000	567,100	11,344,000
July	315,000	3,718,000	1,010,200	11,688,000	242,300	3,656,000	576,500	11,022,000
August	350,400	4,876,000	1,135,700	14,666,000	257,600	4,078,000	609,500	11,270,000
September	409,400	6,127,000	1,300,300	18,087,000	263,600	4,313,000	653,900	11,795,000
October	433,000	6,368,000	1,368,700	19,164,000	267,100	4,355,000	626,600	11,464,000
November	415,900	5,439,000	1,337,700	17,422,000	246,100	3,449,000	582,900	10,695,000
December	399,800	4,854,000	1,306,800	16,345,000	237,200	3,318,000	552,600	10,260,000

TABLE 9.—Estimated number of wage earners and weekly pay rolls in industry groups—yearly averages 1919 to 1933, and months January 1929 to December 1933—Continued

[All figures subsequent to 1931 subject to revision]

Year and month	Textiles and their products—Continued				Leather and its manufactures		Food and kindred products	
	Wearing apparel		Group		Employment	Pay rolls	Employment	Pay rolls
	Employment	Pay rolls	Employment	Pay rolls				
1933								
January	382, 100	\$4, 647, 000	1, 269, 300	\$15, 300, 000	248, 000	\$3, 442, 000	528, 600	\$9, 835, 000
February	416, 400	5, 576, 000	1, 318, 200	16, 662, 000	261, 700	3, 947, 000	523, 200	9, 588, 000
March	405, 100	4, 957, 000	1, 238, 300	14, 318, 000	259, 200	3, 712, 000	514, 800	9, 272, 000
April	423, 900	5, 611, 000	1, 275, 800	15, 521, 000	253, 400	3, 622, 000	554, 700	10, 282, 000
May	418, 000	5, 049, 000	1, 341, 000	16, 472, 000	258, 500	4, 002, 000	568, 800	10, 724, 000
June	421, 800	5, 117, 000	1, 461, 600	18, 784, 000	269, 700	4, 527, 000	599, 900	11, 193, 000
July	418, 500	5, 267, 000	1, 554, 400	20, 399, 000	289, 400	5, 060, 000	631, 500	11, 687, 000
August	427, 700	6, 150, 000	1, 593, 600	23, 472, 000	300, 600	5, 467, 000	704, 700	12, 501, 000
September	452, 900	7, 848, 000	1, 600, 100	24, 929, 000	293, 600	5, 419, 000	807, 900	14, 431, 000
October	454, 000	7, 515, 000	1, 591, 900	24, 517, 000	287, 500	5, 053, 000	774, 600	13, 880, 000
November	415, 300	6, 058, 000	1, 513, 700	22, 078, 000	256, 000	4, 202, 000	700, 800	13, 001, 000
December	381, 000	5, 290, 000	1, 433, 900	20, 273, 000	254, 700	4, 272, 000	663, 200	12, 858, 000
Year and month	Tobacco manufac-tures		Paper and printing		Chemicals and allied products		Rubber products	
	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls	Employment	Pay rolls
1919								
1919	157, 000	\$2, 386, 000	510, 100	\$10, 873, 000	(1)	(1)	(1)	(1)
1920	154, 000	2, 772, 000	549, 100	14, 729, 000	(1)	(1)	(1)	(1)
1921	149, 900	2, 325, 000	467, 100	12, 259, 000	(1)	(1)	(1)	(1)
1922	146, 400	2, 206, 000	489, 400	12, 762, 000	(1)	(1)	(1)	(1)
1923	146, 300	2, 317, 000	527, 400	14, 304, 000	342, 700	\$8, 499, 000	137, 800	\$3, 500, 000
1924	136, 700	2, 213, 000	529, 200	14, 797, 000	322, 200	8, 013, 000	123, 200	3, 223, 000
1925	132, 100	2, 147, 000	537, 100	15, 606, 000	334, 200	8, 444, 000	141, 800	3, 676, 000
1926	125, 700	2, 049, 000	553, 600	16, 478, 000	355, 100	9, 055, 000	141, 200	3, 707, 000
1927	129, 300	2, 025, 000	558, 500	16, 501, 000	346, 700	8, 378, 000	142, 000	3, 810, 000
1928	125, 600	1, 916, 000	558, 300	16, 091, 000	342, 500	8, 397, 000	149, 200	4, 069, 000
1929	116, 100	1, 819, 000	591, 500	17, 771, 000	384, 800	10, 067, 000	149, 100	3, 985, 000
1930	108, 300	1, 617, 000	574, 100	17, 036, 000	364, 700	9, 334, 000	115, 500	2, 934, 000
1931	99, 700	1, 336, 000	511, 800	14, 461, 000	316, 800	7, 643, 000	99, 200	2, 165, 000
1932	88, 600	1, 052, 000	451, 700	11, 126, 000	279, 700	5, 861, 000	87, 800	1, 555, 000
1933	82, 700	944, 000	458, 400	10, 299, 000	315, 400	6, 179, 000	99, 300	1, 740, 000
1929								
January	108, 900	1, 606, 000	573, 100	17, 124, 000	375, 500	9, 616, 000	154, 500	3, 987, 000
February	119, 100	1, 728, 000	579, 600	17, 409, 000	379, 300	9, 866, 000	154, 500	4, 402, 000
March	118, 700	1, 766, 000	579, 600	17, 728, 000	389, 400	9, 977, 000	156, 000	4, 414, 000
April	117, 000	1, 797, 000	578, 400	17, 498, 000	394, 500	10, 237, 000	157, 300	4, 453, 000
May	115, 300	1, 794, 000	581, 300	17, 693, 000	367, 700	9, 878, 000	158, 500	4, 497, 000
June	116, 100	1, 841, 000	584, 900	17, 622, 000	363, 500	9, 813, 000	158, 400	4, 322, 000
July	114, 600	1, 819, 000	589, 000	17, 320, 000	370, 300	9, 900, 000	157, 300	4, 131, 000
August	117, 300	1, 874, 000	592, 600	17, 551, 000	379, 800	10, 011, 000	153, 600	3, 987, 000
September	117, 800	1, 925, 000	605, 000	18, 137, 000	395, 000	10, 322, 000	149, 100	3, 792, 000
October	118, 900	1, 939, 000	608, 000	18, 368, 000	406, 500	10, 542, 000	141, 500	3, 644, 000
November	120, 000	1, 934, 000	612, 100	18, 297, 000	402, 400	10, 437, 000	125, 800	3, 118, 000
December	109, 800	1, 806, 000	615, 100	18, 510, 000	394, 500	10, 210, 000	123, 200	3, 090, 000
1930								
January	103, 800	1, 568, 000	603, 200	17, 959, 000	386, 700	9, 902, 000	123, 900	3, 233, 000
February	109, 700	1, 626, 000	596, 100	17, 942, 000	385, 600	9, 999, 000	121, 800	3, 353, 000
March	110, 500	1, 646, 000	593, 800	17, 924, 000	387, 100	10, 019, 000	120, 900	3, 273, 000
April	108, 900	1, 568, 000	586, 100	17, 657, 000	380, 900	9, 841, 000	123, 000	3, 437, 000
May	110, 400	1, 670, 900	583, 700	17, 622, 000	360, 100	9, 571, 000	122, 700	3, 477, 000
June	110, 400	1, 719, 000	576, 600	17, 355, 000	351, 000	9, 357, 000	122, 600	3, 218, 000
July	109, 400	1, 666, 000	570, 100	16, 592, 000	352, 000	9, 169, 000	115, 700	2, 950, 000
August	104, 400	1, 572, 000	564, 200	16, 521, 000	352, 600	8, 980, 000	113, 600	2, 531, 000
September	108, 900	1, 630, 000	556, 500	16, 361, 000	360, 000	9, 020, 000	108, 700	2, 611, 000
October	109, 400	1, 588, 000	555, 300	16, 183, 000	360, 200	8, 969, 000	106, 200	2, 404, 000
November	108, 400	1, 564, 000	551, 800	16, 130, 000	352, 900	8, 683, 000	102, 700	2, 141, 000
December	105, 900	1, 583, 000	551, 800	16, 183, 000	347, 200	8, 500, 000	103, 800	2, 285, 000

TABLE 9.—Estimated number of wage earners and weekly pay rolls in industry groups—yearly averages 1919 to 1933, and months January 1929 to December 1933—Continued

[All figures subsequent to 1931 subject to revision]

Year and month	Tobacco manufac- tures		Paper and printing		Chemicals and allied products		Rubber products	
	Employ- ment	Pay rolls	Employ- ment	Pay rolls	Employ- ment	Pay rolls	Employ- ment	Pay rolls
1931								
January.....	94,500	\$1,311,000	538,200	\$15,472,000	336,000	\$8,151,000	102,700	\$2,312,000
February.....	104,400	1,333,000	529,900	15,348,000	331,900	8,258,000	101,200	2,300,000
March.....	103,800	1,393,000	527,500	15,508,000	323,900	8,023,000	98,100	2,293,000
April.....	100,700	1,341,000	524,000	15,277,000	335,500	8,214,000	99,700	2,368,000
May.....	101,200	1,393,000	522,800	15,135,000	323,500	8,095,000	102,700	2,472,000
June.....	100,300	1,399,000	510,400	14,584,000	311,600	7,737,000	103,800	2,496,000
July.....	99,800	1,379,000	505,600	14,087,000	307,700	7,540,000	101,400	2,233,000
August.....	99,600	1,353,000	502,700	13,963,000	303,000	7,356,000	97,800	2,149,000
September.....	100,200	1,281,000	496,200	13,518,000	308,500	7,299,000	97,800	1,906,000
October.....	100,800	1,321,000	498,000	13,661,000	310,900	7,330,000	95,700	1,902,000
November.....	100,300	1,319,000	494,400	13,483,000	307,200	6,898,000	95,600	1,758,000
December.....	91,100	1,206,000	492,000	13,501,000	302,400	6,810,000	94,100	1,790,000
1932								
January.....	87,900	1,090,000	482,000	12,719,000	299,100	6,500,000	92,300	1,762,000
February.....	91,400	1,099,000	473,100	12,417,000	299,100	6,548,000	92,300	1,786,000
March.....	89,600	1,070,000	469,000	12,239,000	296,800	6,448,000	90,800	1,710,000
April.....	87,100	1,013,000	462,500	11,866,000	296,300	6,291,000	89,300	1,603,000
May.....	85,600	995,000	453,600	11,440,000	282,100	6,078,000	88,300	1,587,000
June.....	87,800	1,070,000	444,700	10,818,000	256,700	5,635,000	89,300	1,726,000
July.....	86,800	1,053,000	436,500	10,250,000	252,300	5,285,000	86,500	1,491,000
August.....	86,700	1,015,000	429,400	9,983,000	250,200	5,242,000	84,800	1,376,000
September.....	89,000	1,044,000	437,600	10,374,000	274,700	5,534,000	82,800	1,320,000
October.....	91,400	1,077,000	445,900	10,658,000	281,900	5,630,000	85,300	1,451,000
November.....	92,400	1,073,000	444,700	10,410,000	283,700	5,611,000	86,300	1,415,000
December.....	87,500	1,031,000	441,800	10,339,000	283,100	5,524,000	86,200	1,427,000
1933								
January.....	77,100	793,000	434,100	9,912,000	280,000	5,521,000	83,000	1,280,000
February.....	81,000	826,000	433,500	9,752,000	284,600	5,526,000	83,500	1,288,000
March.....	73,700	742,000	425,200	9,379,000	282,600	5,434,000	80,400	1,128,000
April.....	72,000	742,000	424,000	9,255,000	287,400	5,418,000	80,100	1,212,000
May.....	82,000	937,000	428,800	9,646,000	285,100	5,653,000	83,800	1,515,000
June.....	84,600	937,000	437,500	9,877,000	282,400	5,938,000	93,000	1,846,000
July.....	83,500	970,000	447,100	10,090,000	307,200	6,167,000	103,900	2,093,000
August.....	86,000	990,000	471,900	10,552,000	329,900	6,483,000	116,300	2,145,000
September.....	85,300	1,073,000	492,600	11,103,000	353,200	6,787,000	119,300	2,139,000
October.....	89,400	1,139,000	502,700	11,298,000	363,400	7,115,000	119,100	2,181,000
November.....	91,400	1,115,000	500,900	11,245,000	361,100	7,045,000	116,400	2,021,000
December.....	85,900	1,035,000	502,700	11,476,000	358,300	7,060,000	112,700	2,045,000

Appendixes

Appendix A.—Industries Surveyed by the Bureau of Labor Statistics, and Date When Monthly Survey Began

- 1915
- Oct. Boots and shoes.
Cotton goods.
Dyeing and finishing textiles.
Knit goods.
- Nov. Blast furnaces, steel works, and rolling mills (formerly called "Iron and steel").
- Dec. Silk and rayon goods (formerly called "silk goods").
Woolen and worsted goods.
- 1916
- Feb. Clothing, men's.
Steam railroad repair shops. (*See* Cars, electric and steam railroad, under 1931.)
- Mar. Cigars and cigarettes.
- Nov. Automobiles.
Leather.
Paper and pulp.
- 1922
- July Agricultural implements.
Boxes, paper.
Brick, tile, and terra cotta.
Carpets and rugs.
Carriages and wagons (dropped in 1931).
Chemicals. (*See* Explosives and druggists' preparations, under 1931.)
Chewing and smoking tobacco and snuff.
Clothing, women's.
Electrical machinery, apparatus, and supplies.
Fertilizers.
Flour.
Foundry and machine-shop products. (*See* Engines, turbines, tractors, and water wheels; Locomotives; Textile machinery and parts; under 1931.)
Furniture.
Glass.
Hardware.
Lumber, millwork.
Lumber, sawmills.
Millinery and lace goods. (Lace goods dropped in 1931.)
Petroleum refining.
Pianos and organs (dropped in 1931).
Pottery.
Printing and publishing, book and job.
Printing and publishing, newspapers.
Rubber tires and inner tubes.
Shipbuilding.
Shirts and collars.
Slaughtering and meat packing.
Stamped and enameled ware.
Stoves.
- Oct. Baking.
- 1923
- Apr. Cement.
Confectionery. (Combined with Ice cream until December 1923; then separated.)
Ice cream. (Combined with Confectionery until December 1923; then separated.)
Rubber boots and shoes.
Sugar refining, cane.

- May Machine tools.
Steam and hot-water heating apparatus and steam fittings.
Structural and ornamental metal work.
- June Electric railroad repair shops. (*See* Cars, electric and steam railroad, under 1931.)
- 1925
- Oct. Brass, bronze, and copper products.
- 1926
- May Cast-iron pipe.
- 1929
- Feb. Rayon. (Part of the Chemicals industry up to 1929; then separated.)
- Apr. Radios (and phonographs). (Part of Electrical machinery up to 1929; then separated. In 1931 Census of Manufactures combined it with Phonographs.)
- May Canning and preserving. (Not carried under manufacturing industries until recent revision of manufacturing industries; now shown under food group.)
- 1930
- Mar. Aircraft.
Jewelry.
Paints and varnishes.
- Apr. Rubber goods, other than boots, shoes, tires, and inner tubes.
- Oct. Beverages.
Cash registers, adding machines, and calculating machines.
Sugar, beet.
- 1931
- Jan. Engines, turbines, tractors, and water wheels. (Part of Foundry and machine-shop products until 1931; then separated. Separation of data carried back through 1923.)
Locomotives. (Part of Foundry and machine-shop products until 1931; then separated. Separation of data carried back through 1923.)
Textile machinery and parts. (Part of Foundry and machine-shop products until 1931; then separated. Separation of data carried back through 1923.)
Explosives. (Part of Chemicals until 1931; then separated. Separation carried back through 1923.)
Druggists' preparations. (Part of Chemicals until 1931; then separated. Separation carried back through 1923.)
Cars (building), electric and steam railroads. (Separated from Electric railroad repair shops and Steam railroad repair shops in 1931. Separation carried back through 1923.)
- Feb. Typewriters and parts.
- Aug. Aluminum manufactures.
Bolts, nuts, washers, and rivets.
Butter.
Clocks and watches and time-recording devices.
Corsets and allied products.
Cotton small wares.
Cottonseed oil, cake, and meal.
Cutlery (not including silver and plated cutlery and edge tools).
Forgings, iron and steel.
Hats, fur-felt.
Lighting equipment.
Marble, granite, slate, and other products.
Men's furnishings.
Plumber's supplies.
Silverware and plated ware.
Smelting and refining, copper, lead, and zinc.
Soap.
Tin cans and other tinware.
Tools (not including edge tools, machine tool, files, and saws).
Turpentine and rosin.
Wirework.

Appendix B.—Adjustment of Index Numbers of Employment and Pay Rolls for Specified Industries and Groups, 1919 to 1922

In the accompanying table are presented monthly index numbers showing the trend of employment and pay rolls in 21 separate manufacturing industries, 9 industrial groups, and 2 subgroups during the period January 1919 to December 1922. These index numbers are based upon material assembled by the Federal Reserve Board from reports of employment and pay rolls collected by the Bureau of Labor Statistics and certain State departments of labor.¹

The indexes for individual industries, computed from these data, have been adjusted by the Federal Reserve Board to conform with annual trends shown by the Census of Manufactures, through the use of a method similar to that employed by the Bureau of Labor Statistics in its revised indexes described in preceding chapters. Indexes for individual industries were combined into industrial groups by the use of weights representing average number employed and average weekly earnings, as reported by the Census of Manufactures. Indexes for employment in all manufacturing industries were derived from these weighted figures and are likewise adjusted to the trend of employment and earnings as shown by the census for all manufacturing industries.

In linking these index numbers compiled by the Federal Reserve Board to the Bureau of Labor Statistics indexes in January 1923, it was necessary to make certain adjustments in the later months of the year 1922, in order to effect a smoother transition.

The separate industrial indexes shown in the following table are comparable with similar industry and group indexes appearing in table 8. Together these present a continuous series over the entire period 1919-33.

¹ For a description of the basis for these indexes see the Federal Reserve Bulletin, Washington, D. C., December 1923, May 1925, and November 1929.

100 REVISED INDEXES—EMPLOYMENT AND PAY ROLLS

Indexes of employment and pay rolls in manufacturing industries—yearly averages 1919 to 1922, and monthly indexes January 1919 to December 1922

[3-year average, 1923-25=100]

Month and year	Iron and steel and their products, not including machinery				Machinery group		Transportation group		Lumber and allied products	
	Group index		Hardware		Group index		Autos		Group index	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1919.....	99.9	97.1	103.5	93.6	116.9	103.7	85.1	74.8	94.1	89.3
1920.....	107.8	123.8	102.5	98.0	128.9	135.2	88.1	90.3	89.4	109.9
1921.....	66.6	57.0	68.0	58.4	77.5	69.5	52.9	48.7	76.6	69.7
1922.....	84.1	70.6	88.9	72.4	81.7	71.8	71.9	65.7	97.4	82.2
1919										
January.....	109.0	110.1	97.7	89.7	120.8	103.3	72.4	59.7	84.1	74.4
February.....	103.9	104.0	98.3	88.6	117.9	99.6	73.2	64.0	84.3	73.4
March.....	100.1	97.1	101.1	90.7	114.2	98.3	74.9	65.2	87.0	74.5
April.....	95.3	88.3	99.5	88.7	113.0	95.5	78.1	67.7	87.1	77.9
May.....	93.2	83.0	101.7	88.7	110.0	92.3	79.7	71.2	89.3	83.6
June.....	94.0	85.5	95.1	83.8	107.7	88.4	83.4	69.1	89.8	87.8
July.....	100.1	89.6	99.7	87.8	108.4	89.9	87.3	72.9	92.9	92.2
August.....	102.7	103.6	105.2	95.3	113.9	100.0	89.6	74.8	97.3	95.0
September.....	102.5	102.3	108.7	98.1	117.7	109.6	93.9	83.6	101.0	96.0
October.....	91.3	90.3	110.0	101.4	122.1	113.4	96.8	92.4	104.4	99.2
November.....	100.5	100.3	112.6	103.8	126.6	123.2	97.0	90.4	105.2	105.6
December.....	106.7	110.7	112.4	106.3	130.9	131.1	94.8	86.5	106.2	109.5
1920										
January.....	110.9	116.8	111.5	104.9	134.5	134.4	99.2	96.4	103.4	116.1
February.....	112.0	122.5	111.4	100.6	132.9	128.0	100.8	94.5	103.8	114.8
March.....	114.1	131.7	112.0	107.4	135.4	140.8	101.4	101.0	104.3	121.6
April.....	112.9	125.5	109.7	105.4	134.2	138.6	99.8	97.2	98.5	115.1
May.....	107.4	122.5	101.7	98.3	131.8	139.3	96.7	102.7	92.4	114.2
June.....	110.1	128.7	105.7	103.7	133.0	143.6	94.0	97.6	86.6	113.8
July.....	110.0	121.5	105.5	103.8	133.7	145.2	94.5	97.1	79.7	109.0
August.....	108.0	124.1	103.2	102.5	131.0	143.0	88.4	96.8	88.4	114.3
September.....	108.5	130.1	100.1	98.8	128.0	138.7	82.8	92.5	85.1	110.0
October.....	107.4	132.6	97.1	96.8	123.4	129.8	73.1	88.0	82.8	106.0
November.....	102.1	124.0	89.9	87.1	118.0	123.7	65.2	62.4	76.8	95.5
December.....	90.5	105.8	82.6	78.1	110.7	117.3	61.4	56.8	71.2	88.5
1921										
January.....	73.7	81.6	66.0	61.7	103.3	105.4	30.7	25.2	70.9	69.8
February.....	76.7	80.0	68.2	61.4	95.1	88.0	37.8	28.4	73.7	72.3
March.....	73.9	73.5	71.0	62.5	90.1	84.5	46.1	38.7	75.4	74.0
April.....	66.8	60.5	71.0	61.0	84.4	79.2	57.5	57.6	76.3	72.3
May.....	66.6	58.2	72.5	62.5	79.0	73.3	60.9	61.8	77.0	70.5
June.....	61.9	48.9	71.2	69.5	74.9	66.1	58.2	60.3	73.3	73.6
July.....	54.6	38.3	65.4	54.7	69.2	60.0	58.3	60.3	75.3	65.6
August.....	58.9	43.8	64.8	54.4	67.7	57.6	58.8	57.9	75.7	71.6
September.....	61.2	43.5	66.9	55.0	66.7	56.1	58.5	55.3	76.9	67.7
October.....	65.6	49.0	69.1	55.0	65.6	53.5	58.2	49.9	78.4	65.4
November.....	69.5	52.0	70.6	54.5	66.1	54.1	56.4	45.9	81.1	65.6
December.....	70.1	54.4	71.3	58.4	68.1	56.7	53.0	42.6	80.6	68.0
1922										
January.....	66.5	49.0	71.3	56.6	70.5	57.4	52.2	31.0	87.4	70.9
February.....	71.7	54.5	76.9	60.6	71.3	59.0	56.0	46.4	91.7	75.6
March.....	74.1	57.7	80.8	64.5	74.7	62.5	60.1	49.8	95.5	80.0
April.....	79.2	61.0	84.6	65.6	76.9	64.0	65.1	59.7	94.6	78.5
May.....	82.1	65.6	87.8	69.7	79.7	67.4	72.3	67.8	99.3	81.8
June.....	86.2	70.3	90.4	71.9	80.2	70.1	77.1	72.9	102.4	84.7
July.....	86.9	66.2	92.8	72.2	80.3	70.8	78.8	72.7	101.0	82.2
August.....	87.9	73.0	94.3	75.5	81.1	73.6	80.0	78.1	101.2	85.9
September.....	88.2	78.3	93.4	78.2	86.1	76.8	80.1	75.5	99.1	85.5
October.....	92.5	85.6	96.1	81.1	89.2	81.3	78.9	76.4	99.9	86.4
November.....	95.6	91.5	98.4	85.4	92.9	85.8	80.3	78.2	99.7	88.0
December.....	98.3	94.1	100.4	87.9	97.5	92.8	82.1	80.1	96.7	87.4

Indexes of employment and pay rolls in manufacturing industries—yearly averages 1919 to 1922, and monthly indexes January 1919 to December 1922—Continued

[3-year average 1923-25=100]

Month and year	Lumber and allied products—Contd.		Stone, clay, and glass products						Textiles and their products	
	Furniture		Group index		Cement		Glass		Group index	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1919.....	82.3	69.0	86.4	72.1	69.0	62.5	112.7	100.8	98.8	89.8
1920.....	90.7	90.9	89.8	92.8	83.3	91.7	119.6	128.5	99.0	107.7
1921.....	73.0	69.2	72.2	66.5	69.6	65.2	82.7	78.7	92.6	89.3
1922.....	86.5	82.4	85.5	72.6	89.9	83.9	97.4	84.7	97.3	91.4
1919										
January.....	73.1	58.0	70.0	58.7	46.4	39.4	113.8	106.2	91.3	72.9
February.....	74.5	58.8	67.4	55.8	45.5	36.8	114.8	104.0	85.5	64.3
March.....	76.9	60.7	72.2	60.9	55.3	47.8	116.9	106.8	88.1	69.5
April.....	77.9	61.8	83.4	66.1	60.1	51.8	115.8	103.4	92.0	74.7
May.....	79.6	64.4	93.1	69.1	65.9	55.4	116.9	94.9	95.5	79.8
June.....	78.0	61.3	96.1	78.9	76.6	66.7	112.8	100.8	98.7	88.6
July.....	81.0	64.7	88.9	73.3	79.5	71.0	83.6	73.7	103.4	96.9
August.....	85.4	71.8	96.3	77.4	78.5	72.7	109.7	90.4	103.5	101.6
September.....	85.9	75.4	91.8	80.6	80.4	76.5	107.7	102.9	105.0	104.9
October.....	89.0	79.5	94.9	81.0	82.3	81.1	121.8	104.7	106.5	102.4
November.....	92.3	83.8	92.2	82.9	83.3	82.9	118.9	108.2	106.8	103.9
December.....	93.6	87.2	90.6	80.0	73.7	67.9	119.9	114.1	109.0	117.9
1920										
January.....	93.0	88.0	86.4	78.8	76.6	74.7	113.8	108.3	110.6	122.7
February.....	93.0	85.6	83.2	74.1	67.9	63.3	113.8	106.3	109.7	121.5
March.....	93.3	92.2	86.3	80.0	72.7	64.0	119.9	118.6	112.0	128.0
April.....	93.0	91.9	89.8	88.0	85.3	91.3	115.8	115.8	110.9	124.5
May.....	91.0	91.3	95.7	97.8	90.1	102.4	117.8	130.2	108.7	121.4
June.....	91.9	95.5	95.7	100.9	88.2	99.3	118.9	128.6	104.8	119.0
July.....	92.2	95.7	93.9	98.6	85.3	98.6	118.9	127.0	96.8	106.9
August.....	92.4	95.1	90.7	98.2	84.2	97.6	114.8	128.0	94.7	105.1
September.....	91.9	95.0	89.4	98.1	86.2	103.4	115.8	132.7	94.4	102.2
October.....	90.0	94.4	88.0	100.0	86.2	106.8	123.8	143.8	91.0	93.0
November.....	85.9	85.3	90.9	102.4	88.2	102.2	132.9	156.2	81.3	78.8
December.....	81.0	80.6	87.4	96.7	88.2	96.2	128.9	146.6	72.6	69.3
1921										
January.....	65.2	60.3	71.6	73.8	70.8	73.0	106.7	110.5	70.9	65.9
February.....	69.4	67.0	61.7	59.9	48.5	46.6	89.6	82.1	83.7	81.8
March.....	71.8	68.6	66.0	63.2	61.1	59.5	91.6	85.6	89.0	90.3
April.....	73.5	70.3	72.1	68.5	76.6	74.3	79.5	80.1	92.3	92.0
May.....	73.2	69.2	77.0	72.0	76.6	73.2	82.5	81.1	93.3	90.5
June.....	73.2	69.6	76.7	71.1	72.7	68.4	75.6	73.8	93.9	91.8
July.....	72.5	63.3	75.4	64.1	75.6	68.8	67.5	54.1	94.5	91.8
August.....	72.7	67.3	73.3	67.1	62.0	58.5	71.5	68.1	95.8	95.0
September.....	72.4	69.3	74.5	64.9	73.7	67.9	69.5	66.7	100.2	97.0
October.....	73.8	71.5	73.0	64.3	74.7	66.6	73.6	67.9	101.1	92.8
November.....	78.1	75.3	72.9	64.1	72.7	63.8	87.7	80.6	98.7	83.5
December.....	79.9	78.6	72.4	65.4	69.8	61.4	96.7	93.4	98.2	94.1
1922										
January.....	70.6	73.0	68.2	57.6	64.6	50.2	100.6	90.5	98.2	90.4
February.....	82.1	77.8	67.1	53.3	72.0	54.4	100.6	80.8	100.6	95.4
March.....	83.6	81.0	74.9	57.8	79.5	63.0	100.2	83.4	97.0	91.5
April.....	83.0	79.4	82.3	63.2	88.2	73.3	96.5	76.3	93.8	83.9
May.....	82.8	79.7	90.6	73.2	92.6	84.8	96.3	74.6	92.5	83.3
June.....	83.7	80.1	91.3	76.7	96.4	88.8	88.6	72.3	91.8	84.9
July.....	84.3	76.5	90.8	78.4	96.6	91.8	92.4	78.8	92.0	88.1
August.....	86.0	80.5	91.5	79.3	98.8	95.4	90.5	79.9	94.5	90.9
September.....	87.6	82.0	92.0	81.2	99.3	102.8	92.2	83.0	98.1	94.7
October.....	91.6	86.4	92.2	81.3	98.9	101.5	98.3	92.2	100.6	94.6
November.....	95.1	94.0	93.2	83.9	99.3	101.3	105.1	100.9	102.8	98.5
December.....	98.3	97.8	92.2	84.9	93.0	99.2	107.0	103.3	105.8	101.0

Indexes of employment and pay rolls in manufacturing industries—yearly averages
1919 to 1922, and monthly indexes January 1919 to December 1922—Continued

[3-year average 1923-25=100]

Month and year	Textiles and their products—Continued									
	Fabrics		Cotton goods		Dyeing and finishing textiles		Knit goods		Silk and rayon goods	
	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls	Em- p- loy- ment	Pay rolls
1919.....	95.2	85.9	97.4	96.4	85.4	75.6	92.8	77.2	101.9	82.9
1920.....	94.6	103.1	97.7	122.7	80.8	88.5	96.7	98.6	104.5	97.3
1921.....	89.9	84.6	93.1	89.0	78.2	76.6	87.4	81.4	97.8	87.1
1922.....	95.4	87.1	93.8	86.6	83.8	77.6	104.4	94.1	95.2	79.2
1919										
January.....	88.3	72.2	94.3	86.9	84.2	64.2	86.4	63.4	94.8	76.8
February.....	79.6	56.7	90.1	69.7	73.4	51.3	80.7	55.4	92.2	70.1
March.....	82.5	60.8	90.3	70.9	73.6	53.5	81.2	55.9	94.5	73.8
April.....	87.4	69.9	90.8	76.9	77.1	59.2	82.1	57.1	102.2	82.1
May.....	93.8	80.6	97.9	92.0	82.1	67.5	86.3	65.3	104.8	86.0
June.....	88.3	92.0	99.5	105.5	88.0	81.8	92.2	76.3	101.8	81.4
July.....	101.1	95.8	101.1	107.9	90.0	85.4	96.6	83.5	104.8	81.0
August.....	101.6	97.4	101.1	107.2	88.7	83.8	98.8	88.9	106.3	85.7
September.....	100.5	97.2	100.0	107.9	89.6	83.8	97.6	88.3	100.1	80.1
October.....	101.6	96.4	100.5	104.8	80.0	84.8	101.9	93.0	102.7	85.0
November.....	102.1	96.8	98.7	99.6	83.0	87.0	103.1	94.4	107.5	93.0
December.....	105.7	114.9	104.7	127.0	95.5	104.4	106.7	104.4	111.2	100.0
1920										
January.....	106.8	117.9	104.3	129.6	93.9	102.4	107.7	109.3	112.5	101.0
February.....	105.2	113.6	102.5	124.6	90.9	91.2	106.8	105.2	112.9	102.7
March.....	106.6	118.3	103.9	128.1	89.5	93.9	110.3	116.3	111.1	108.1
April.....	106.1	118.9	102.4	127.5	84.5	92.3	111.6	120.9	113.7	107.9
May.....	105.0	118.5	100.5	127.9	83.3	89.8	111.6	117.6	114.1	109.2
June.....	102.2	119.3	101.7	142.4	84.2	106.1	107.4	116.6	110.8	106.4
July.....	92.9	104.7	102.9	142.7	83.3	101.9	102.9	105.2	104.9	94.9
August.....	90.1	102.4	100.1	141.9	82.1	97.9	100.5	101.2	101.2	94.7
September.....	88.8	100.8	97.2	134.6	76.8	85.1	92.8	94.0	97.2	90.6
October.....	85.1	84.0	93.5	103.4	69.6	68.8	81.5	77.3	96.0	91.0
November.....	76.8	73.6	84.8	91.0	67.0	62.5	69.5	63.6	93.0	81.1
December.....	69.0	65.5	78.7	78.1	64.9	70.4	58.1	55.9	86.3	80.4
1921										
January.....	65.4	57.8	76.8	71.0	61.9	57.3	54.0	47.6	82.3	71.1
February.....	78.9	72.9	91.7	89.9	69.8	68.5	67.6	61.3	86.2	80.6
March.....	83.6	79.0	90.5	87.6	74.6	75.2	77.2	70.1	92.5	89.2
April.....	88.0	84.8	90.0	87.5	75.2	76.7	83.3	76.6	96.6	92.7
May.....	91.3	88.9	91.9	90.3	78.9	78.2	87.6	81.6	99.3	94.8
June.....	92.8	91.1	92.6	91.9	80.3	81.1	90.3	84.6	101.0	94.3
July.....	92.9	88.3	93.7	90.7	79.6	79.1	87.3	78.4	102.3	91.1
August.....	94.1	88.2	95.4	88.9	81.2	79.0	91.1	85.1	100.8	87.7
September.....	97.0	91.8	97.6	93.2	83.3	82.9	96.6	91.4	103.9	88.9
October.....	98.3	88.9	99.0	87.4	84.7	79.9	102.3	99.0	104.2	89.6
November.....	98.6	88.8	99.3	90.0	85.4	75.7	105.6	99.5	101.8	79.8
December.....	98.3	94.9	99.2	99.3	83.7	85.9	105.3	101.7	102.5	85.6
1922										
January.....	98.0	89.1	101.1	97.2	83.7	80.9	104.5	92.6	102.6	82.6
February.....	97.3	88.5	98.0	92.1	78.0	69.3	108.2	99.0	102.6	83.9
March.....	91.2	80.8	83.2	73.2	80.8	73.2	108.8	100.3	102.5	81.2
April.....	89.2	78.3	83.7	72.6	71.9	65.8	108.0	96.1	95.2	71.5
May.....	89.8	80.9	85.9	76.5	73.4	66.7	105.3	95.6	92.1	70.6
June.....	90.0	81.6	85.9	77.2	75.2	68.7	104.7	94.9	89.9	70.4
July.....	90.0	82.1	87.1	79.6	79.4	72.5	99.0	86.0	89.3	74.4
August.....	92.3	84.2	90.2	83.2	80.8	71.4	102.2	89.7	88.9	77.0
September.....	95.1	88.9	95.0	90.1	89.8	81.9	100.4	87.3	90.7	78.1
October.....	99.6	89.9	98.8	90.1	84.3	86.8	102.5	92.8	93.2	84.1
November.....	104.2	99.2	105.8	102.0	97.5	94.8	104.1	96.8	96.1	87.2
December.....	107.3	102.1	110.4	110.7	100.8	99.6	105.1	97.8	98.7	89.4

Indexes of employment and pay rolls in manufacturing industries—yearly averages 1919 to 1922, and monthly indexes January 1919 to December 1922—Continued

[3-year average 1923-25=100]

Month and year	Textiles and their products—Continued									
	Wearing apparel		Clothing, men's		Clothing, women's		Millinery		Shirts and collars	
	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls	Em- ploy- ment	Pay rolls
1919.....	107.1	97.9	96.5	91.8	128.9	114.4	96.9	88.6	92.3	79.5
1920.....	109.6	117.3	101.6	117.1	122.3	124.2	100.1	99.8	107.1	114.1
1921.....	100.0	99.3	90.7	93.6	112.6	108.2	102.5	95.0	98.1	96.3
1922.....	102.6	100.6	100.2	99.4	103.8	103.1	101.7	94.5	109.3	105.3
1919										
January.....	98.4	74.7	79.9	60.7	128.0	95.1	99.8	83.5	85.9	61.5
February.....	99.3	79.6	84.3	63.3	123.2	103.3	102.5	90.5	86.6	62.2
March.....	101.2	86.8	85.0	65.8	126.4	117.7	108.3	99.0	87.3	65.2
April.....	102.7	84.4	86.8	70.8	126.6	106.3	104.5	89.4	87.1	66.2
May.....	99.6	78.7	83.9	74.6	115.4	86.2	105.4	84.0	90.0	70.9
June.....	99.6	82.4	93.6	82.9	110.7	86.5	97.9	79.9	89.7	73.2
July.....	108.6	99.8	100.1	92.8	132.7	121.8	87.6	80.5	88.0	73.4
August.....	108.0	110.4	99.8	98.8	132.7	140.5	84.7	90.6	86.7	75.1
September.....	115.5	120.8	105.3	113.2	140.6	145.7	98.8	97.0	94.9	92.1
October.....	117.8	114.7	109.4	113.6	142.3	129.5	88.5	86.5	99.9	97.8
November.....	117.7	118.4	115.3	129.3	131.1	117.5	89.4	87.5	104.8	106.7
December.....	116.8	124.3	109.4	135.5	134.3	122.8	95.9	95.2	106.5	110.8
1920										
January.....	119.4	132.8	110.8	140.6	137.5	134.5	106.4	116.9	107.3	113.0
February.....	120.1	137.7	112.1	137.2	139.0	152.7	103.6	111.4	107.1	115.3
March.....	124.6	147.7	117.0	151.3	142.3	158.6	109.5	116.4	112.0	126.3
April.....	122.5	136.1	119.2	149.0	131.1	128.8	110.5	114.5	114.8	129.9
May.....	117.6	127.7	119.1	146.6	118.6	111.3	100.2	101.6	114.6	131.9
June.....	111.2	118.9	114.8	135.4	107.4	102.2	96.6	99.6	112.2	128.0
July.....	106.3	111.7	109.7	123.3	102.7	103.7	83.6	82.4	111.9	119.1
August.....	105.6	111.0	104.5	112.5	112.2	118.9	81.8	80.7	103.2	106.5
September.....	107.9	105.7	98.5	99.0	121.6	115.8	100.8	99.9	107.1	108.6
October.....	105.3	111.5	87.4	90.7	128.0	140.4	103.7	97.6	109.9	118.0
November.....	92.3	89.5	71.4	68.0	115.4	116.2	101.9	88.5	99.1	94.5
December.....	81.8	77.3	54.5	51.7	112.2	107.1	102.0	88.5	87.3	77.5
1921										
January.....	84.5	82.4	61.0	56.1	113.8	114.6	102.1	91.4	82.8	77.8
February.....	95.6	100.2	75.2	74.7	120.2	130.4	113.0	114.9	94.0	95.9
March.....	102.3	113.4	79.9	89.3	129.6	144.2	119.9	121.6	100.1	106.7
April.....	103.3	107.0	84.6	94.9	124.8	119.1	119.4	121.6	103.0	106.2
May.....	99.1	94.4	83.5	85.7	116.8	103.3	102.9	89.1	104.8	107.3
June.....	97.5	94.0	91.1	94.2	104.3	93.1	100.4	94.4	99.5	95.4
July.....	99.2	99.5	98.6	104.6	104.3	103.2	84.3	73.8	95.8	83.5
August.....	100.8	109.4	104.9	117.2	112.2	115.0	86.9	82.4	68.2	71.4
September.....	108.8	110.4	104.4	112.6	120.2	116.4	99.8	91.1	101.5	92.6
October.....	109.0	99.1	103.1	96.6	120.2	103.9	100.6	88.5	106.5	100.3
November.....	100.3	88.8	100.0	93.2	96.4	79.8	98.4	82.7	109.3	105.2
December.....	99.2	93.3	101.7	103.8	88.5	75.5	101.8	88.3	112.2	113.4
1922										
January.....	100.0	93.9	102.1	103.5	90.0	78.7	106.4	94.8	111.5	103.6
February.....	109.5	110.1	101.8	101.1	118.5	124.3	107.6	95.3	114.6	110.0
March.....	111.6	113.7	101.9	100.3	123.1	131.9	115.4	109.1	115.1	112.6
April.....	105.5	95.6	93.2	81.4	115.2	105.7	118.6	113.7	115.6	109.7
May.....	99.8	89.0	91.5	81.7	104.1	92.7	106.8	93.5	113.3	108.9
June.....	97.1	92.4	98.0	98.5	91.3	82.6	93.0	85.8	111.2	108.2
July.....	97.2	100.5	100.5	111.2	91.3	93.1	86.9	78.2	107.6	101.5
August.....	100.3	104.6	101.3	107.8	99.6	107.0	92.1	86.9	104.5	100.6
September.....	103.2	106.8	101.9	106.3	106.9	112.6	99.0	98.0	103.4	98.4
October.....	103.4	104.2	101.6	99.1	107.9	115.0	100.6	95.9	103.4	100.2
November.....	100.3	97.5	101.1	96.6	99.9	101.0	96.0	89.8	104.6	100.9
December.....	102.7	99.4	106.9	105.7	97.3	92.7	98.5	92.5	106.7	109.3

Indexes of employment and pay rolls in manufacturing industries—yearly averages 1919 to 1922, and monthly indexes January 1919 to December 1922—Continued

[3-year average 1923-25=100]

Month and year	Leather and its manufactures						Food and kindred products			
	Group index		Boots and shoes		Leather		Group index		Baking	
	Em- p- loy- ment	Pay- rolls	Em- p- loy- ment	Pay- rolls	Em- p- loy- ment	Pay- rolls	Em- p- loy- ment	Pay- rolls	Em- p- loy- ment	Pay- rolls
1919.....	108.1	99.9	101.8	92.3	133.2	127.3	109.8	97.6	87.3	73.3
1920.....	98.5	106.5	94.0	100.0	119.3	131.7	106.7	109.6	95.7	96.6
1921.....	86.6	86.5	87.1	88.7	92.4	84.6	93.7	94.1	92.4	92.1
1922.....	97.3	96.1	95.9	97.7	106.8	95.4	97.5	92.8	92.3	87.3
1919										
January.....	104.8	94.0	100.6	90.5	121.9	107.9	106.6	92.7	84.4	65.2
February.....	105.0	90.9	100.8	85.5	122.2	110.7	103.0	91.5	84.3	68.9
March.....	104.3	89.8	99.4	83.1	124.4	113.8	101.9	91.7	85.7	69.4
April.....	103.0	86.9	97.4	79.5	125.4	113.4	99.3	88.6	85.7	68.9
May.....	104.6	90.9	98.5	83.0	129.2	118.9	98.4	89.9	85.1	70.6
June.....	105.6	94.4	98.8	86.5	133.1	123.2	103.8	94.3	87.3	73.4
July.....	106.3	98.3	100.0	89.9	131.9	128.7	112.3	96.9	89.0	73.0
August.....	109.5	105.1	102.2	95.2	138.9	140.7	120.9	103.7	88.7	74.4
September.....	111.0	106.8	103.3	98.2	141.8	137.7	127.2	108.8	87.6	76.5
October.....	112.0	109.1	104.6	100.0	141.8	141.5	122.1	104.9	88.2	72.5
November.....	114.3	111.7	107.1	103.5	143.4	141.5	112.4	103.5	90.4	80.7
December.....	116.3	120.7	109.3	112.8	144.4	150.0	109.3	105.1	91.4	86.1
1920										
January.....	117.5	123.8	110.5	115.9	146.5	153.5	101.9	101.7	92.3	85.4
February.....	115.1	117.4	108.8	108.7	141.5	149.1	98.3	98.3	92.4	83.2
March.....	115.7	123.2	109.9	115.3	140.0	151.5	100.3	104.3	94.8	94.1
April.....	112.7	121.4	107.8	115.2	134.4	145.7	99.1	97.9	94.1	84.1
May.....	109.4	119.0	104.7	112.3	130.2	144.6	100.2	109.1	94.4	96.7
June.....	104.2	119.4	100.2	113.4	123.2	142.9	106.7	115.1	96.4	101.5
July.....	96.1	110.6	90.6	103.7	120.5	137.5	114.5	117.2	100.0	104.4
August.....	93.6	107.2	89.4	100.9	114.1	132.0	123.2	122.0	100.9	104.9
September.....	84.2	92.3	79.8	87.0	105.4	113.7	127.1	123.2	97.2	103.5
October.....	81.2	85.1	77.7	78.0	99.8	112.8	112.9	115.1	96.4	101.7
November.....	77.1	80.0	74.6	74.7	91.2	102.0	102.4	109.3	95.9	102.4
December.....	74.9	78.1	73.7	74.4	84.8	94.6	93.6	101.7	93.4	96.8
1921										
January.....	73.3	71.7	72.4	70.1	82.1	81.6	84.1	93.0	88.7	91.0
February.....	79.5	85.5	79.8	81.8	84.3	81.6	85.8	93.7	87.4	92.3
March.....	82.3	84.8	82.5	80.9	88.1	82.3	87.4	94.1	89.2	93.4
April.....	81.4	81.2	83.3	84.1	80.8	76.6	84.8	88.2	88.8	84.6
May.....	84.6	82.7	86.1	85.2	86.3	79.6	86.1	91.2	89.6	92.3
June.....	87.8	88.7	88.4	91.1	93.3	86.3	90.5	91.7	93.6	94.2
July.....	89.7	89.0	89.9	91.1	96.6	87.4	95.7	94.0	97.0	96.2
August.....	92.9	94.0	94.0	97.2	97.1	89.7	102.4	97.1	97.0	93.8
September.....	92.9	92.3	94.0	95.5	97.2	87.3	107.4	100.1	95.2	95.9
October.....	91.5	88.1	92.3	90.9	97.6	85.1	104.9	100.3	96.3	96.6
November.....	90.5	84.9	90.3	87.3	100.6	83.2	101.7	95.2	95.1	89.8
December.....	92.5	94.6	91.9	97.0	104.7	93.9	94.1	90.0	91.4	85.5
1922										
January.....	94.7	96.3	93.9	99.1	106.5	94.3	86.7	85.5	89.4	81.2
February.....	95.6	97.5	94.4	99.3	109.0	98.2	87.3	84.2	89.7	83.9
March.....	93.8	92.2	92.5	94.4	105.4	90.6	89.6	86.3	92.2	86.3
April.....	89.6	86.6	88.0	88.0	101.9	86.9	85.9	81.0	88.4	81.7
May.....	89.5	86.2	88.0	87.2	100.2	87.3	86.9	86.6	88.9	84.2
June.....	91.2	89.5	89.7	90.1	101.3	91.9	93.1	91.4	91.7	88.1
July.....	95.0	92.6	93.6	94.2	104.4	91.7	102.4	95.6	97.8	92.3
August.....	99.7	98.7	98.3	100.8	108.1	96.1	112.7	100.1	94.5	88.1
September.....	102.3	100.4	100.8	102.8	110.5	96.8	115.5	105.1	92.8	90.4
October.....	102.8	99.8	101.5	100.7	109.7	100.8	107.5	100.3	93.8	91.0
November.....	105.3	103.8	103.9	105.0	111.9	103.6	104.0	101.3	95.2	93.1
December.....	107.5	109.1	106.4	111.0	112.6	106.1	98.0	96.1	92.7	87.8

Indexes of employment and pay rolls in manufacturing industries—yearly averages 1919 to 1922, and monthly indexes January 1919 to December 1922—Continued

[3-year average 1923-25=100]

Month and year	Food and kindred products—Continued						Tobacco man- ufactures		Paper and printing	
	Flour		Slaughtering and meat packing		Sugar refining, cane		Group index		Group index	
	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls	Em- plov- ment	Pay rolls
1919.....	135.0	124.0	127.2	128.3	123.8	116.2	113.4	107.3	96.0	73.1
1920.....	121.7	130.1	111.8	124.6	117.0	132.2	111.3	124.6	103.4	99.1
1921.....	105.3	104.6	94.4	93.5	105.5	99.3	108.3	104.5	88.0	82.5
1922.....	106.9	98.2	91.7	87.1	122.6	110.4	105.8	99.1	92.2	85.9
1919										
January.....	134.2	125.2	148.2	140.8	112.9	96.0	126.7	110.0	95.3	69.1
February.....	129.0	105.3	135.4	134.6	126.4	114.3	125.2	105.0	94.6	68.4
March.....	118.5	103.7	128.8	135.0	132.1	115.1	125.4	109.5	94.7	68.9
April.....	127.1	113.9	119.1	123.4	126.4	105.2	123.0	102.5	93.5	68.4
May.....	127.9	114.3	119.6	124.1	131.1	120.2	121.2	107.4	92.0	67.4
June.....	125.6	114.1	124.3	128.8	134.4	128.0	111.7	97.2	94.2	71.9
July.....	131.0	113.3	124.8	126.3	137.7	132.9	98.1	89.8	95.5	73.5
August.....	141.6	134.4	123.4	123.9	128.7	117.8	88.3	84.7	96.4	76.3
September.....	150.8	140.2	121.7	119.4	132.1	138.9	97.8	102.0	97.2	80.5
October.....	150.4	143.5	122.7	124.7	114.0	106.8	103.8	106.1	97.4	69.6
November.....	142.6	138.1	125.5	125.7	111.7	119.7	120.3	134.5	99.4	73.0
December.....	141.2	142.1	132.5	133.3	98.3	99.8	119.8	138.4	102.3	90.7
1920										
January.....	135.9	143.5	125.5	132.9	111.7	124.0	116.1	126.8	103.6	93.1
February.....	123.4	118.7	119.0	129.7	123.1	133.6	110.3	115.5	102.1	91.9
March.....	122.3	125.4	116.3	127.3	125.3	137.5	112.4	129.2	103.7	97.5
April.....	116.2	116.4	113.1	118.3	125.3	148.3	112.9	126.5	103.1	95.5
May.....	111.2	126.2	112.5	131.4	128.7	152.2	108.9	128.9	102.9	99.1
June.....	119.9	130.9	113.8	134.5	131.1	153.4	109.5	130.0	102.7	99.7
July.....	121.8	128.2	111.4	128.6	134.4	157.4	106.6	118.3	104.4	99.8
August.....	125.5	133.5	107.4	121.2	135.5	158.6	106.3	117.3	104.4	102.3
September.....	127.2	138.4	105.4	118.5	112.9	127.7	111.5	123.7	104.7	103.0
October.....	126.1	141.8	104.9	119.6	100.4	102.0	110.9	125.1	104.9	105.3
November.....	113.8	127.6	107.0	118.4	91.4	98.4	114.8	128.5	103.7	103.6
December.....	117.5	131.1	104.7	114.3	83.6	92.8	115.1	125.1	106.5	98.2
1921										
January.....	108.3	121.5	97.9	108.2	88.8	87.7	107.6	108.3	95.4	92.3
February.....	108.3	119.7	97.2	100.9	104.7	108.1	103.5	100.9	94.1	88.2
March.....	106.5	113.5	94.0	97.7	123.7	131.2	100.0	100.9	92.8	87.4
April.....	104.7	110.5	90.1	92.2	116.1	119.4	106.3	102.5	87.7	82.4
May.....	95.0	93.4	96.5	96.8	103.4	102.1	108.6	110.5	82.1	75.7
June.....	92.4	89.2	93.3	90.5	104.0	105.6	110.6	112.5	82.5	77.6
July.....	104.0	95.7	96.0	93.1	104.0	101.1	107.1	104.9	83.0	77.9
August.....	106.5	103.7	91.6	86.9	110.1	107.8	107.6	104.6	84.4	78.9
September.....	111.7	108.4	90.0	84.6	97.7	87.5	112.0	108.5	85.8	80.0
October.....	112.6	104.4	94.8	90.6	97.7	83.0	113.6	104.0	87.6	81.5
November.....	109.1	97.7	100.0	95.0	105.7	81.6	111.9	95.8	89.8	82.6
December.....	104.0	96.9	91.2	85.0	109.8	76.7	110.8	100.4	90.3	85.1
1922										
January.....	104.7	96.3	94.0	88.7	118.8	100.7	97.1	87.3	92.2	83.0
February.....	104.0	94.6	89.4	77.6	130.0	113.5	102.0	85.8	91.7	80.4
March.....	107.4	95.4	85.6	74.4	136.9	121.1	103.9	92.5	90.5	84.1
April.....	101.3	89.2	84.2	71.6	132.3	117.1	98.2	80.6	88.0	82.2
May.....	102.2	92.8	87.2	83.3	128.9	113.6	101.7	93.5	90.2	84.1
June.....	102.2	95.6	89.8	88.0	133.5	121.2	102.8	98.9	89.7	84.3
July.....	101.3	88.3	91.6	90.0	133.5	119.2	108.4	104.4	90.2	83.5
August.....	106.9	94.0	89.4	86.2	132.3	117.7	107.8	104.1	92.1	85.3
September.....	112.6	98.8	91.1	91.0	123.3	112.0	110.9	107.8	93.5	88.3
October.....	112.7	110.6	94.2	92.0	99.6	91.2	112.4	107.8	94.7	89.9
November.....	115.3	114.1	99.7	99.5	102.9	99.7	112.0	113.7	95.5	91.3
December.....	112.0	108.7	104.1	103.3	99.6	97.8	112.3	113.1	97.5	93.8

Indexes of employment and pay rolls in manufacturing industries—yearly averages 1919 to 1922, and monthly indexes January 1919 to December 1922—Continued

[3-year average 1923-25=100]

Month and year	Paper and printing—Continued			
	Boxes, paper		Paper and pulp	
	Employment	Pay rolls	Employment	Pay rolls
1919.....	97.8	77.9	94.0	88.1
1920.....	103.8	97.5	108.6	125.0
1921.....	81.5	72.3	87.1	84.1
1922.....	87.1	80.7	90.7	83.4
1919				
January.....	101.8	77.5	93.3	85.6
February.....	100.2	71.7	90.7	81.6
March.....	97.4	73.0	91.4	79.0
April.....	94.8	70.1	88.5	75.6
May.....	95.2	71.6	82.4	69.2
June.....	93.5	73.2	90.4	83.7
July.....	94.3	73.1	93.2	86.4
August.....	95.9	78.4	94.7	91.4
September.....	91.1	79.3	98.8	95.5
October.....	99.9	80.8	99.7	101.6
November.....	103.4	90.7	102.0	101.4
December.....	106.0	95.5	103.0	106.1
1920				
January.....	103.2	92.9	103.9	107.5
February.....	99.5	88.1	102.7	106.5
March.....	102.1	96.0	107.5	114.8
April.....	102.5	96.9	107.5	114.8
May.....	101.9	96.8	108.8	129.2
June.....	101.3	99.4	109.5	132.0
July.....	108.0	102.1	111.6	130.9
August.....	109.4	102.7	112.3	139.4
September.....	112.0	107.6	112.1	136.7
October.....	108.2	102.5	112.3	137.7
November.....	102.4	97.3	109.8	132.1
December.....	95.6	88.2	105.2	118.4
1921				
January.....	86.5	76.4	100.2	105.2
February.....	87.0	79.4	97.9	102.3
March.....	86.7	77.1	95.5	96.3
April.....	85.4	72.2	87.9	87.6
May.....	78.8	65.2	78.7	71.4
June.....	71.0	62.5	77.7	73.6
July.....	71.5	63.3	80.1	74.8
August.....	77.4	69.0	81.7	78.2
September.....	80.2	71.0	83.1	75.4
October.....	80.9	72.6	84.6	77.9
November.....	86.6	79.0	89.1	82.7
December.....	86.4	80.3	89.0	83.2
1922				
January.....	81.7	73.8	88.2	80.9
February.....	81.8	69.7	89.8	82.4
March.....	83.0	74.9	88.8	80.2
April.....	80.6	74.2	86.0	75.6
May.....	81.9	76.5	88.3	79.8
June.....	82.0	77.9	89.4	80.9
July.....	85.6	80.0	91.1	80.7
August.....	89.3	81.3	90.6	83.5
September.....	91.6	86.2	91.4	84.7
October.....	94.5	89.7	94.6	89.9
November.....	96.7	90.7	94.5	90.9
December.....	96.9	93.2	95.6	91.5