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JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
ETHELBERT STEWART, Commissioner

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Contents

This Issue in Brief

The loss of business to the shoe industry in Haverhill, Mass., 1925 to 1928, was due largely to lack of cooperation between shoe workers and manufacturers and to higher wage rates in factories in Haverhill than in practically all other cities in which shoe manufacturing is important, according to a survey just made by the Bureau of Labor Statistics. Shoe workers in Haverhill in a representative weekly pay period in 1928 earned an average of 69.9 cents per hour, compared with an average of 52.7 cents per hour by workers in a group of cities near Haverhill, 67.7 cents in Boston, 61.5 cents in Brockton, 61.7 cents in Lynn, 64.1 cents in Chicago, 53.8 cents in Milwaukee, 77.1 cents in New York City, 53.7 cents in Philadelphia, 58.1 cents in Rochester, N. Y., and 54.2 cents per hour in St. Louis. Information is also given concerning small shoe manufacturers, contract stitching shops, wholesale prices of shoes, employment, pay rolls, and earnings in shoe factories in Haverhill in 1928, the shoe workers' union and the shoe manufacturers' association, strikes, and overtime work. Page 1.

Very great instability of employment exists in the automobile industry. Not only does the industry as a whole make a very bad showing in this respect, but irregularity and uncertainty of employment conditions are the rule among nearly all the establishments covered in the study made by the Bureau of Labor Statistics. This study shows the individual experience of 78 plants for each of the years 1923 to 1928 inclusive. Page 20.

Recent agreements made by the United Mine Workers of America with the bituminous coal operators in many of the districts comprising the central competitive field and the outlying districts show a reduction in the basic day wage rate provided in the Jacksonville agreement. The right of the coal operators to install mechanical loaders and conveyors is recognized, and a day wage scale is adopted to remain in effect until such time as a tonnage rate may be agreed upon. A summary of the new agreements is given on page 204.

The inadequacy of present provisions for rock-dusting in coal mines is disclosed in a recent survey by the United States Bureau of Mines. It was found that only 463 out of more than 7,000 operating bituminous and lignitic coal mines were using rock dust at all, and that few if any of the 463 were adequately protected by rock dusting. Page 46.

Although all trade agreements have a similar object, few of them are alike in their detailed provisions. An article on page 23, based on a bulletin recently issued containing specimens of agreements made in the various trades during the year 1927, gives a description of the different methods adopted by the unions in making agreements, also a brief account of the provisions affecting union and nonunion employees, wages, hours, conciliation and arbitration, apprenticeship, unemployment, and similar topics.

The results of rehabilitation work among disabled persons have been made the subject of a special study by the Federal Board for Vocational Education. Of the 6,391 persons studied, nearly 48 per cent were under 30 years of age, 10.2 per cent were women, and 4.4 per cent were negroes. In 53.6 per cent of the cases the disabilities were caused by work accidents. The cost of rehabilitating 4,669, or 73 per cent, of the cases, was less than $150 per individual. Attention is called to the "economic significance" of this low cost, when coupled with the fact that 47.5 per cent of the total persons rehabilitated have an industrial life expectancy of at least 20 years. Of 5,510 rehabilitated persons whose final wages are reported upon, 2,212 were receiving from $15 to $24 per week, 2,041 from $25 to $39 per week, and 507 from $40 to $50 and over per week. Page 91.

The operating efficiency of the railroads was 17.8 per cent greater in 1928 than in the period 1920–1924, according to a new index of operating efficiency published by the Bureau of Railway Economics. The index is based on a combination of 13 efficiency factors, such as car-miles per day, fuel consumption, etc. Page 41.

Reports upon various efforts to carry into effect the recommendations of the English Industrial Transference Board show that about 2,720 men were settled in Canada through the Canadian harvest scheme, and that the employment exchanges are transferring applicants whenever they can find suitable openings for them elsewhere, but that no large movement is as yet under way. The distress in the coal fields has become so great that the Government has felt it necessary to give direct relief. It has sanctioned a treasury grant of £100,000 to be used in transferring workers and their families, has furnished a secretary and clerical staff to coordinate the relief work, and has promised to pay into the relief fund opened by the lord mayor of London £1 for each £1 contributed by private philanthropy. Page 58.

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Conditions in the Shoe Industry in Haverhill, Mass., 1928

THIS article is a summary of Bulletin No. 483 of this bureau, which is the result of the following request to the Secretary of Labor, by the Haverhill Shoe Manufacturers' Association and the Shoe Workers' Protective Union, for a study of the shoe industry in Haverhill, Mass.:

HAVERHILL, MASS., *March 27, 1928.*

Hon. JAMES J. DAVIS,
Secretary of Labor, Washington, D. C.

DEAR SIR: We are herewith inclosing copies of votes of the Haverhill Shoe Manufacturers' Association and District Council No. 1 of the Shoe Workers' Protective Union, wherein the parties request the survey to be made in accordance with the suggestions offered by Mr. Stewart.

1. The manufacturers who are members of the association agree to show to your investigators the books showing in detail the cost of production, the cost of selling, and the cost of overhead.
2. The union agrees to furnish such information as your investigators may need.
3. We request that the names of the firms investigated be not made public in your printed reports.
4. It is agreed that your investigators may furnish the names of the firms to the local board of inquiry, at the request or with the consent of both parties, with the pledge of secrecy on the part of the members of the board.

Very truly yours,

HAVERHILL SHOE MANUFACTURERS' ASSOCIATION,
By FRED L. COOPER, *Manager.*
SHOE WORKERS' PROTECTIVE UNION,
By JAMES J. ROONEY, *President District Council, No. 1.*

In accordance with this request, agents of the Bureau of Labor Statistics were sent to Haverhill. They interviewed various officials of the Shoe Workers' Protective Union and the Haverhill Shoe Manufacturers' Association, individual members of the union and of the association, the chairman or neutral member of the Haverhill Shoe Board, the secretary of the Haverhill Chamber of Commerce, bank officials, and other organizations and persons interested in and informed as to conditions in the shoe industry in the city. They collected from them and their records such information covering conditions in the shoe industry as was available. The report is based on this information.

Factories that Moved, Liquidated, or Failed

TABLE 1 presents for each year, 1925 to 1927, and for the first seven months of 1928, the number of shoe manufacturers in business in Haverhill at the beginning of each year, the number

starting in business, the number moving out of the city, the number liquidating or going into bankruptcy during each year, and the number in business at the end of each period.

At the beginning of 1925, 108 shoe manufacturers were in business in Haverhill. Between January 1, 1925, and August 1, 1928, 123 shoe factories started in business, 23 moved out of the city, and 106 liquidated or went into bankruptcy, leaving 102 factories in business August 1, 1928.

Twelve of the twenty-three factories that moved located in other cities in Massachusetts, 8 in New Hampshire, 2 in Maine, and 1 in Vermont. The 23 that moved had a daily capacity of approximately 25,000 pairs and those that liquidated or went into bankruptcy had a capacity of 60,000 pairs—an aggregate daily capacity of 85,000 pairs. The 123 that started in business between January 1, 1925, and August 1, 1928, had a daily capacity of approximately 58,000 pairs. The loss to the city in capacity during the period was therefore 27,000 pairs per day.

The 102 shoe factories in operation on August 1, 1928, had a daily capacity of approximately 80,000 pairs. Only 40 of the 102 in operation on August 1, 1928, were in business on January 1, 1925. These 40 on August 1, 1928, had a daily capacity of approximately 47,000 pairs, or an average of 1,175 pairs per factory per day. By deducting 40 from 102 and 47,000 from 80,000, it is seen that the 62 factories that started in business since January 1, 1925, had on August 1, 1928, a capacity of only 33,000 pairs per day or an average of 532 pairs per factory per day, or less than half the average daily capacity of the 40 that were in business before January 1, 1925.

TABLE 1.—CONDITIONS OF SHOE INDUSTRY IN HAVERHILL, MASS., JANUARY 1, 1925, TO AUGUST 1, 1928

Year	Number of shoe manufacturers—					
	In business at beginning of year	Starting in business	Total in business	Moving out of city	Liquidating or in bankruptcy	In business at end of year
1925	108	18	126	1	15	110
1926	110	48	158	2	32	124
1927	124	35	159	10	40	109
1928 (Jan. 1 to Aug. 1)	109	22	131	10	19	102
Total		123		23	106	

Causes of Losses in Haverhill

THE loss of business in the shoe industry in Haverhill, in factories moving out of the city, in failure and liquidation of factories, in decrease of number of pairs of shoes produced, in number of shoe workers, and in amount of pay rolls or earnings of shoe workers was very largely due to the absence of friendly and helpful cooperation between the workers and the manufacturers in a large number of factories and insufficient cooperation between the Shoe Workers' Protective Union and the Haverhill Shoe Manufacturers' Association; also to higher wage rates in the manufacture of shoes in factories in Haverhill than in factories in cities near Haverhill and in almost all

other cities in the United States in which the manufacture of shoes is of material importance.

There was in August, 1928, real effective cooperation between the workers and the officials in a few factories; in others, however, there was little or no cooperation, more or less suspicion and lack of confidence and, in some cases, the desire to take advantage of the other side rather than to cooperate and improve the industry.

Small Shoe Manufacturers

ALL McKay and turn shoe workers in Haverhill except about 250 are members of the Shoe Workers' Protective Union. The union is well organized, very strong, controls the labor market in the shoe industry in the city, and can usually enforce union prices and conditions. With these conditions prevailing and generally known in the city it would be expected that any person before engaging in the manufacture of women's shoes in Haverhill would, as an insurance against loss by strikes, go to the Shoe Workers' Protective Union and make an agreement and ask that he be furnished the best help available for each department in a shoe factory. Union officials, manufacturers, and others state, however, that except in a very few instances this is not done.

The small manufacturer begins in a small way. He opens a shop in a small room in a factory, at home or in a back yard, buys his factory supplies, takes orders for shoes, and lets contracts for the making and stitching. He does the cutting and he and his family do the packing, working long or short hours per day or week as necessary. The stitching in piece price or per pair of shoes costs him no more than is paid by larger factories. He saves much in labor costs, rentals, and other expenses, and consequently can and does undersell manufacturers who operate under union prices and conditions. As his business increases it becomes necessary for him to operate a real factory. He then rents a factory and usually, in order to obtain efficient help and avoid trouble, makes an agreement with the union and pays union prices. If no agreement is made with the union, agents of the union appear in a very short time and ask for union prices and conditions. In case of a refusal a strike is called, and this fact is publicly announced. When this happens, the manufacturer is usually unable to finish the shoes in process of manufacture and can not fill his orders on time because he can not get any other help. This leads to cancellation of orders and may be so serious as to cause him to fail or to move out of the city.

Contract Stitching Shops

A VERY large number of the shoe manufacturers in Haverhill have no stitching rooms, the work being given out to contractors. Consequently, there are many such shops in the city. The contract shops enable small shoe manufacturers to engage in business with little capital, often with not more than $1,000, and to have the assurance of getting the highest class of stitching and stitching-room work at a cost equal to that of the best shoe manufacturers who have their own stitching rooms.

Haverhill has a contract stitching shop which is probably the largest in capacity and number of employees in the United States. When working full time and at capacity with its full force of about 400 employees it does the stitching-room work on 10,000 pairs of shoes per day. It was working at capacity in August, 1928. It started in business in 1916 with a force of two workers and is now doing contract work for 15 different shoe manufacturers in Haverhill. It was not, at the time of the study, doing any work for firms outside Haverhill. Its employees are unusually efficient and skillful, due to the great variety of styles of shoes worked on in the shop. In times of slack work there is no reduction of the force. There is, however, short-time work, but this, as a rule, is not less than 50 per cent of full time. Work in the shop is available 52 weeks in each year. In addition to this shop there are from 12 to 15 other contract stitching shops in the city, ranging in number of employees from 6 to 125 or possibly 150 when working full time and at capacity. One reports that 50 per cent of its work is done for firms outside Haverhill, one 15 per cent, and the others that little or no work is done for such companies. In the aggregate these shops employ about 800 or 900 workers when working at capacity.

Many of the manufacturers and others who are well informed as to conditions in the industry, report shoe workers of Haverhill as being unusually skilled in making attractive, fancy, novelty women's shoes. A number of factories that moved out of Haverhill send work to the contract shops in Haverhill because the workers in these shops are more efficient than those in the cities and towns in which they are now located, also because it is cheaper for them to have the work done by contract than it would be to equip a stitching room and organize and train a force of employees. Some establishments are not financially able to establish stitching rooms. All employees in the contract shops are members of the Shoe Workers' Protective Union. A very considerable number of the members of the manufacturers' association contend that the union workers in these shops should not do any work for any factories outside Haverhill, especially for those that moved out, have no agreement with the union, and pay less for the work in their factories than is paid for the same work in Haverhill. It is not unusual to see an automobile or truck loaded with shoes in process of manufacture drive into the city to a contract shop.

The manufacturers state that by working for outside shops the union helps competing companies and injures not only shoe manufacturers in Haverhill but the business of the city, and really injures the shoe workers in the city and in some cases other stitching-room workers.

Wholesale Price of Shoes, 1925 to 1927

FOR many years prior to 1925 the great majority of the manufacturers in the shoe industry in Haverhill produced turn shoes. The city was in those years generally known as "the turn-shoe city." A short time prior to 1925 the kind or make of shoes in the city was changed to extreme, fancy, novelty McKay shoes, or, as stated by an official of the Shoe Workers' Protective Union, to "millinery for the feet." There is now little or no demand for a standard make of women's shoes.

The experience of a successful retail shoe dealer illustrates the effect of the change from standard to fancy, novelty shoes. He had for a number of years sold the standard make of women's shoes and had a full and complete stock of that style on hand when the new novelty shoes were introduced. His stock had been bought at an average cost of $5 per pair, and as there were no outstanding bills against him he felt that he was in good condition financially and was well satisfied. His sales, which had been very satisfactory, decreased until he did very little business. He worried, wondered what was wrong, and after some investigation and thought purchased a small stock of fancy shoes and displayed them in his windows. His sales immediately increased. He purchased a much larger stock of the new style and planned to sell his entire stock of the standard make for whatever he could get for them. He had several jobbers come and look these shoes over and make an offer for them. His first offer was 17 cents per pair. He sold them at 47 cents per pair, or at an average loss of $4.53 per pair.

Each of the 23 shoe manufacturers in Haverhill that furnished data for this report gave the number of styles of sample shoes made in the factory and the number of styles sold from the samples in each of the years 1925, 1926, and 1927.

In 1925 the number of different styles of sample shoes of the factories in Haverhill ranged from 10 in the factory with the lowest number of samples to 5,000 in the factory with the highest number of samples. In this year the number of styles sold per factory from the samples ranged from 6 to 3,295. One manufacturer with 1,000 samples made sales for only 48 of them, and another with 1,660 samples made sales for 1,500 of them.

In 1926 the number of styles of sample shoes per factory ranged from 10 to 5,000 and the number of sales from them ranged from 10 to 2,840. One manufacturer with 1,500 samples made sales for only 60 of them and another with 1,549 samples made sales for 1,400 of them.

In 1927 the number of styles of sample shoes per factory in the 23 factories ranged from 10 to 5,000 and the number of sales from them ranged from 10 to 3,935. One manufacturer with 2,521 samples made sales for only 72 of them and one with 1,064 samples made sales for all of them.

Turn shoes only were manufactured in 5 of the 23 factories included in the study in 1927 and 1928, McKay shoes in 17, and both turn and McKay shoes in 1 factory.

Seven of the 23 factories covered in the report were not in business in 1925 and 3 were not in business in 1926.

The average wholesale price of shoes at the factory in 1925 ranged from $1 per pair for the factory with the lowest price to $5.90 per pair for the one with the highest price. In 1926 prices ranged from $1 to $6.10 per pair, and in 1927 from $1 to $6.30 per pair.

The kind and average wholesale price of shoes for each of the 23 factories are shown in Table 2.

TABLE 2.—AVERAGE SELLING PRICE OF SHOES AT FACTORY, HAVERHILL, MASS., 1925, 1926, AND 1927

Establishment No.	Kind of women's shoe made in 1927	Average factory selling price per pair			Establishment No.	Kind of women's shoe made in 1927	Average factory selling price per pair		
		1925	1926	1927			1925	1926	1927
1	McKay	$2.10	$2.35	$2.50	13	Turn	(1)	$3.60	$3.60
2	Turn	3.75	3.75	3.75	14	McKay	$2.55	2.55	2.55
3	McKay	2.00	2.00	2.00	15	do	2.00	2.25	2.50
4	do	1.00	1.00	1.00	16	Turn	5.90	6.10	6.30
5	do	(1)	1.71	1.75	17	McKay	(1)	2.11	2.34
6	do	(1)	(1)	2.55	18	do	3.10	3.10	3.20
7	do	2.29	2.45	2.48	19	do	3.50	3.50	3.50
8	do	(1)	(1)	3.50		Turn	4.15	4.15	4.15
9	do	2.50	2.85	3.00	20	do	3.75	4.00	3.65
10	Turn	3.75	3.84	3.92	21	McKay	(1)	(1)	2.25
11	McKay	2.00	2.00	2.00	22	do	3.30	3.40	3.35
12	do	(1)	3.05	3.05	23	do	3.75	3.75	4.00

[1]Not in business in this year.

Average Hours and Earnings in Haverhill and in Other Cities, 1928

AVERAGE full-time hours per week, earnings per hour, and full-time earnings per week for 1928 are presented in Table 3 for all the shoe workers of 19 representative shoe manufacturers and of 3 cut sole companies in Haverhill. These averages are also given in the table for the shoe workers of a representative number of shoe factories in a group of small cities near Haverhill (Lowell, Newburyport, and Georgetown, Mass., and Derry, N. H.) and for workers in factories in Boston, Brockton, Lynn, Chicago, Milwaukee, New York City, Philadelphia, Rochester, St. Louis, and the United States. The averages for the United States are for 48,658 employees of 157 shoe factories in 14 States. Index numbers of these averages are also shown in the table, with the average for the United States as the base or 100 per cent.

The regular full-time hours per week in the factories in Haverhill as established by section 5 of the agreement between the union and the manufacturers are 48 except in June, July, and August. In those three months, the hours are 9 per day for 5 days, or 45 per week. The average for the city is given as 48, no weight being given to the short hours in the three summer months in computing full-time averages for Haverhill or to three months or less in computing these averages for any other locality. Average full-time hours for the United States were 49.1, and by cities ranged from 45.1 for New York to 49 per week for the group of cities near Haverhill.

Average earnings per hour for the shoe workers in Haverhill were 69.9 cents, as compared with 52.7 cents for those in the cities near Haverhill, the average for Haverhill being 32.6 per cent more than the average for the group of cities near Haverhill, 31.9 per cent more than for the United States, 3.2 per cent more than for Boston, 13.7 per cent more than for Brockton, 13.3 per cent more than for Lynn, and 9.3 per cent less than the average for New York City.

Average full-time earnings per week by cities ranged from $25.78 for Philadelphia to $34.77 for New York. The average for Haverhill was $33.55, or 29.9 per cent more than the average for the group of cities near Haverhill, and 28.9 per cent more than the average for the United States.

Average earnings in the table are for pay periods in the busy season, July to October, 1928, and are for factory workers only. Earnings or salaries of officials, supervisory foremen, salesmen, clerks, watchmen, teamsters, chauffeurs, and power-house employees were not used in computing the averages. The figures for Haverhill represent conditions after the 10 per cent reduction of wage rates in June, 1928. Two of the nineteen factories did not receive the 10 per cent reduction.

Fifteen of the nineteen shoe factories in Haverhill for which figures are shown in the table produce women's McKay shoes, 3 turn shoes, and 1 produces both McKay and turn shoes.

TABLE 3.—AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME EARNINGS PER WEEK FOR SHOE WORKERS IN ALL OCCUPATIONS COMBINED, BY LOCALITY, 1928

Locality	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers (United States average=100)		
				Full-time hours per week	Earnings per hour	Full-time earnings per week
Haverhill, Mass	48.0	$0.699	$33.55	97.8	131.9	128.9
Cities near Haverhill, Mass.[1]	49.0	.527	25.82	99.8	99.4	99.2
Boston, Mass	48.0	.677	32.49	97.8	127.7	124.9
Brockton, Mass	48.0	.615	29.52	97.8	116.0	113.5
Lynn, Mass	47.9	.617	29.55	97.6	116.4	113.6
Chicago, Ill	47.9	.641	30.70	97.6	120.9	118.0
Milwaukee, Wis	48.2	.538	25.93	98.2	101.5	99.7
New York, N. Y	45.1	.771	34.77	91.9	145.5	133.6
Philadelphia, Pa	48.0	.537	25.78	97.8	101.3	99.1
Rochester, N. Y	48.0	.581	27.89	97.8	109.6	107.2
St. Louis, Mo	48.0	.542	26.02	97.8	102.3	100.0
United States	49.1	.530	26.02	100.0	100.0	100.0

[1] Lowell, Georgetown, and Newburyport, Mass., and Derry, N. H.

The averages in Table 3 are for all shoe workers in 19 shoe factories in Haverhill and also for those in the factories in other cities in the United States that were included in the 1928 study of wages and hours of labor in the boot and shoe industry by the Bureau of Labor Statistics. The averages in Table 4 are for the employees in each of 14 of the most important occupations in the industry and are here shown to illustrate the differences in different localities.

Hand cutters of vamps and whole shoes in Haverhill earned an average of 89.8 cents per hour, as compared with 73.3 cents in the group of cities near Haverhill, 94 cents in Boston, 89.9 cents in Brockton, 89.5 cents in Lynn, 90 cents in Chicago, 74.2 cents in Milwaukee, $1.209 in New York City, 67 cents in Philadelphia, 93.9 cents in Rochester, 95 cents in St. Louis, and 82.4 cents in the United States.

Female top stitchers, in Haverhill earned an average of 69 cents per hour, compared with 48.6 cents in the cities near Haverhill.

Like comparisons of earnings per hour in other occupations in this table, and of average full-time hours per week and of full-time earnings per week may be made.

TABLE 4.—AVERAGE HOURS AND EARNINGS IN 14 SPECIFIED OCCUPATIONS IN THE BOOT AND SHOE INDUSTRY IN 11 CITIES AND THE UNITED STATES, 1928

Average earnings per hour

Occupation	Haverhill	Cities near Haverhill	Boston	Brockton	Lynn	Chicago	Milwaukee	New York	Philadelphia	Rochester	St. Louis	United States
Cutters, vamp and whole shoe, hand, male	$0.898	$0.733	$0.940	$0.899	$0.895	$0.900	$0.742	$1.209	$0.670	$0.939	$0.950	$0.824
Skivers, upper, male	.925	.542	.573	.663	------	.458	------	.893	------	------	------	.653
Skivers, upper, female	.654	.444	.537	.621	.573	.576	.440	1.047	.554	.443	.532	.458
Cementers and doublers, male	.444	------	.596	------	------	.415	------	.733	------	.703	------	.636
Cementers and doublers, female	.440	.362	.366	.402	.403	.440	.352	.424	.313	.365	.360	.330
Lining makers, female	.586	.405	.489	.424	.467	.523	.480	.604	.428	.506	.438	.398
Top stitchers, male	.961	.519	1.041	------	.830	.912	------	.923	.834	------	------	.830
Top stitchers, female	.690	.486	.573	.476	.587	.633	.549	.789	.603	.540	.511	.451
Vampers, male	.830	.698	1.081	.669	.693	.845	.683	.909	.887	.521	------	.727
Vampers, female	.783	.609	.706	.615	.552	.626	.636	.752	.602	.519	.589	.505
Assemblers for pulling-over machine, male	.690	.573	.572	.672	.773	.750	.539	.765	.551	.659	.827	.577
Assemblers for pulling-over machine, female	1.002	.354	.799	------	------	------	------	------	------	------	------	.501
Bed machine operators, male	.817	.698	.991	.646	.805	.860	.776	.947	.697	.878	.834	.682
Turn lasters, hand, male	.818	.729	------	.967	.787	------	.654	.958	.833	.853	------	.831
Goodyear stitchers, male	1.206	.496	.846	.788	.817	1.024	.780	.943	.837	.911	.994	.766
Edge trimmers, male	.986	.685	.982	.873	.751	.992	.844	.899	.742	.984	.930	.764
Edge setters, male	1.048	.770	.985	.832	.868	.892	.802	1.030	.716	.873	.782	.755
Treers, male	.785	.604	.863	.708	.645	.702	.623	.947	.676	.669	.683	.624
Treers, female	------	------	------	.635	.754	.424	.383	------	------	.373	.330	.386
Repairers, male	.529	.756	.585	.593	.600	.625	.632	.756	.561	.636	------	.569
Repairers, female	.535	.414	.454	.559	.464	.406	.449	.579	.403	.425	.333	.376
All occupations, male	.810	.597	.805	.712	.692	.743	.622	.833	.637	.690	.617	.625
All occupations, female	.555	.425	.487	.455	.485	.481	.435	.576	.383	.445	.396	.397
All occupations, male and female	.699	.527	.677	.615	.617	.641	.538	.771	.537	.581	.542	.530

Average full-time hours per week

Cutters, vamp and whole shoe, hand, male	48.0	48.4	48.0	48.0	48.2	48.0	48.0	44.3	48.0	48.0	48.0	48.6
Skivers, upper, male	48.0	50.0	48.0	48.0	------	48.0	------	45.3	------	------	------	48.1
Skivers, upper, female	48.0	48.8	48.0	48.0	46.3	48.0	48.3	44.0	48.0	48.0	48.0	49.1
Cementers and doublers, male	48.0	------	48.0	------	------	48.0	------	44.8	------	48.0	------	46.2
Cementers and doublers, female	48.0	49.0	48.0	48.0	47.5	48.0	48.2	46.1	48.0	48.0	48.0	49.3
Lining makers, female	48.0	48.8	48.0	48.0	47.2	48.0	48.1	45.0	48.0	48.0	48.0	49.2
Top stitchers, male	48.0	50.0	48.0	------	50.0	48.0	------	45.0	48.0	------	------	47.9
Top stitchers, female	48.0	48.4	48.0	48.0	47.2	48.0	48.2	44.7	48.0	48.0	48.0	49.4
Vampers, male	48.0	49.0	48.0	48.0	48.6	48.0	48.0	45.3	48.0	48.0	------	48.2
Vampers, female	48.0	49.0	48.0	48.0	47.5	48.0	48.3	44.4	48.0	48.0	48.0	49.3
Assemblers for pulling-over machine, male	48.0	49.5	48.0	48.0	50.0	48.0	48.2	45.2	48.0	48.0	48.0	49.0
Assemblers for pulling-over machine, female	48.0	50.0	48.0	------	------	------	------	------	------	------	------	49.9
Bed machine operators, male	48.0	49.2	48.0	48.0	48.1	48.0	48.2	45.0	48.0	48.0	48.0	49.2
Turn lasters, hand, male	48.0	50.0	------	48.0	47.8	------	48.0	44.6	48.0	48.0	------	47.9
Goodyear stitchers, male	48.0	48.0	48.0	48.0	47.5	48.0	48.3	45.1	48.0	48.0	48.0	48.9
Edge trimmers, male	48.0	49.4	48.0	48.0	48.3	48.0	48.3	45.1	48.0	48.0	48.0	49.1
Edge setters, male	48.0	49.6	48.0	48.0	48.5	48.0	48.1	45.0	48.0	48.0	48.0	49.1
Treers, male	48.0	49.6	48.0	48.0	49.3	48.0	48.2	44.8	48.0	48.0	48.0	49.2
Treers, female	------	------	------	48.0	48.0	48.0	48.0	------	------	48.0	48.0	49.3
Repairers, male	48.0	50.0	48.0	48.0	45.0	48.0	48.0	46.1	48.0	48.0	------	48.5
Repairers, female	48.0	48.9	48.0	48.0	47.4	48.0	48.2	44.0	48.0	48.0	48.0	49.4
All occupations, male	48.0	49.2	48.1	48.0	48.4	47.9	48.2	45.2	48.1	48.0	48.0	49.0
All occupations, female	48.0	48.8	48.0	48.0	47.1	48.0	48.2	44.8	48.0	48.0	48.0	49.2
All occupations, male and female	48.0	49.0	48.0	48.0	47.9	47.9	48.2	45.1	48.0	48.0	48.0	49.1

TABLE 4.—AVERAGE HOURS AND EARNINGS IN 14 SPECIFIED OCCUPATIONS IN THE BOOT AND SHOE INDUSTRY IN 11 CITIES AND THE UNITED STATES, 1928—Con.

Average full-time earnings per week

Occupation	Haverhill	Cities near Haverhill	Boston	Brockton	Lynn	Chicago	Milwaukee	New York	Philadelphia	Rochester	St. Louis	United States
Cutters, vamp and whole shoe, hand, male	$43.10	$35.48	$45.12	$43.15	$43.14	$43.20	$35.62	$53.56	$32.16	$45.07	$45.60	$40.05
Skivers, upper, male	44.40	27.10	27.50	31.82	------	21.98	------	40.45	------	------	------	31.41
Skivers, upper, female	31.39	21.67	25.78	29.81	26.53	27.65	21.25	46.07	26.59	21.26	25.54	22.49
Cementers and doublers, male	21.31	------	28.61	------	------	19.92	------	32.84	------	37.74	------	29.38
Cementers and doublers, female	21.12	17.74	17.57	19.30	19.14	21.12	16.97	19.55	15.02	17.52	17.28	16.27
Lining makers, female	28.13	19.76	23.47	20.35	22.04	25.10	23.09	27.18	20.54	24.29	21.02	19.58
Top stitchers, male	46.13	25.95	49.97	------	41.50	43.78	------	41.54	40.03	------	------	39.76
Top stitchers, female	33.12	23.52	27.50	22.85	27.71	30.38	26.46	35.27	28.94	25.92	24.53	22.28
Vampers, male	39.84	34.20	51.89	32.11	33.68	40.56	32.78	41.18	42.58	25.01	------	35.04
Vampers, female	37.58	29.84	33.89	29.52	26.22	30.05	30.72	33.39	28.90	24.91	28.27	24.90
Assemblers for pulling-over machine, male	32.98	28.36	27.46	32.26	38.65	36.00	25.98	34.58	26.45	31.63	39.70	28.27
Assemblers for pulling-over machine, female	48.10	17.70	38.35	------	------	------	------	------	------	------	------	25.00
Bed machine operators, male	39.22	34.34	47.57	31.01	38.72	41.28	37.40	42.62	33.46	42.14	40.03	33.55
Turn lasters, hand, male	39.26	36.45	------	46.42	37.62	------	31.39	42.73	39.98	40.94	------	39.80
Goodyear stitchers, male	57.89	23.81	40.61	37.82	38.81	49.15	37.67	42.53	40.18	43.73	47.71	37.46
Edge trimmers, male	47.33	33.84	47.14	41.90	36.27	47.62	40.77	40.54	35.62	47.23	44.64	37.51
Edge setters, male	50.30	38.19	47.28	39.94	42.10	42.82	38.58	46.35	34.37	41.90	37.54	37.07
Treers, male	37.68	29.96	41.42	33.98	31.80	33.70	30.03	42.43	32.45	32.11	32.78	30.70
Treers, female	------	------	------	30.48	36.19	20.35	18.38	------	------	17.90	15.84	19.03
Repairers, male	25.39	37.80	28.08	28.46	27.00	30.00	30.34	34.85	26.93	30.53	------	27.60
Repairers, female	25.68	20.24	21.79	26.83	21.99	19.49	21.64	25.48	19.34	20.40	15.98	18.57
All occupations, male	38.88	29.37	38.72	34.18	33.49	35.59	29.98	37.65	30.64	33.12	29.62	30.63
All occupations, female	26.64	20.74	23.38	21.84	22.84	23.09	20.97	25.80	18.38	21.36	19.01	19.53
All occupations, male and female	33.55	25.82	32.49	29.52	29.55	30.70	25.93	34.77	25.78	27.89	26.02	26.02

Employment, Pay Rolls, and Earnings in Association Factories, 1928

TABLE 5 shows for 19 of the important Haverhill Shoe Manufacturers' Association factories the number of working days, the number of employees on the pay rolls, the amount of the pay rolls, the average earnings in one week, and the average earnings per day based on the days of operation, for each of the weeks in 1928 from the one ending January 6 to the week ending July 27. These employees include all factory workers, officials, foremen, office force, and all others on the pay rolls.

During the week ending January 6, 1928, there were only 5 working days, the factories being closed on Monday, January 2; the 19 factories had a total of 2,643 employees on their pay rolls in this week and paid to these employees $56,902.32, an average of $21.53 per week of 5 working days, or $4.31 per day.

Shoe factories were closed on Saturdays in June and July. The regular working days in these months were therefore five per week.

The number of employees on the pay rolls of the 19 factories during the period covered ranged from 2,643 for the week ending January 6 to 3,433 for the one ending March 30, and represent 45 to 50 per cent of all of the shoe-factory workers in Haverhill. The amount of the pay rolls ranged from $50,832.46 for the week ending January 27 to $112,297.46 for the one ending February 17. The week ending January 27 was part of the period covered by the general

strike which lasted from January 19 to 30. The average weekly earnings for this week ($18.77) were less than in any other week in 1928, from January to July, inclusive, and the average earnings per day ($3.13) were also less than in any other week. Average earnings per week were highest during the week ending February 17 ($33.06) and per day were highest during the 5-day week ending February 24 ($6.06).

The chart following Table 5 shows the trend of employment and of pay rolls in the industry in Haverhill during the period covered.

TABLE 5.—EMPLOYEES (ALL CLASSES) AND PAY ROLLS FOR 19 HAVERHILL SHOE MANUFACTURERS' ASSOCIATION FACTORIES EACH WEEK ENDING JANUARY 6 TO JULY 27, 1928

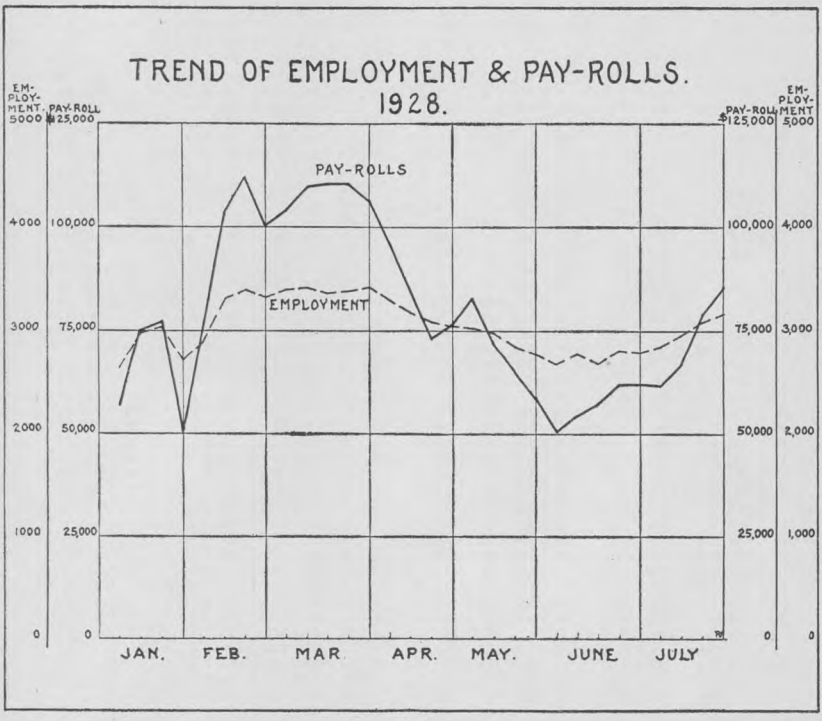
Pay roll for week ending—	Number of working-days in week	Number of employees	Amount of pay rolls	Average earnings in one week	Average earnings per day
Jan. 6	[1] 5	2,643	[1] $56,902.32	[1] $21.53	$4.31
Jan. 13	6	2,979	74,779.25	25.10	4.18
Jan. 20	6	3,044	77,343.54	25.41	4.24
Jan. 27	6	2,708	[2] 50,832.46	[2] 18.77	[2] 3.13
Feb. 3	6	2,892	[2] 66,519.60	[2] 23.00	[2] 3.83
Feb. 10	6	3,316	103,669.49	31.26	5.21
Feb. 17	6	3,397	112,297.46	33.06	5.51
Feb. 24	[1] 5	3,328	[1] 100,852.90	[1] 30.30	6.06
Mar. 2	6	3,402	104,300.81	30.66	5.11
Mar. 9	6	3,424	109,489.33	31.98	5.33
Mar. 16	6	3,373	110,607.12	32.79	5.47
Mar. 23	6	3,388	110,484.63	32.61	5.44
Mar. 30	6	3,433	106,219.32	30.94	5.16
Apr. 6	6	3,299	96,381.76	29.22	4.87
Apr. 13	6	3,169	84,062.98	26.53	4.42
Apr. 20	[1] 5	3,082	[1] 73,208.41	[1] 23.75	4.75
Apr. 27	6	3,038	76,920.45	25.32	4.22
May 4	6	3,015	82,968.84	27.52	4.59
May 11	6	2,983	72,435.17	24.28	4.05
May 18	6	2,853	65,207.11	22.86	3.81
May 25	6	2,777	58,652.00	21.12	3.52
June 1	[1] 5	2,683	[1] 50,911.35	[1] 18.98	3.80
June 8	5	2,767	54,312.65	19.63	3.93
June 15	5	2,686	57,248.58	21.31	4.26
June 22	5	2,813	62,094.23	22.07	4.41
June 29	5	2,798	62,035.95	22.17	4.43
July 6	[1] 4	2,845	[1] 61,699.41	[1] 21.69	5.42
July 13	5	2,965	66,862.81	22.55	4.51
July 20	5	3,081	79,027.12	25.65	5.13
July 27	5	3,165	85,847.32	27.12	5.42

[1] Holiday in this week. [2] General strike Jan. 19 to 30

Pay Rolls in the Haverhill Shoe Industry, 1925 to 1928

THE figures in Table 6 represent the total weekly earnings of all the employees in the various manufacturing industries in Haverhill, Mass., beginning with the week ending January 9, 1925, and ending July 27, 1928. It is estimated by officials of the banks where the money for the pay rolls was obtained by the manufacturers, and also by others in the city who are well informed as to industrial conditions, that the pay rolls for the shoe industry, including the allied industries—wood heel, cut sole, leather heel, etc.—represent more than 90 per cent of the total pay rolls of all industries in the city. It is, therefore, believed that the figures are also representative of the actual trend of the shoe industry during the period covered.

The amount of each weekly pay roll is shown in the table with index numbers for the various amounts, the 1925 weekly average being taken as the base or 100 per cent. The 1925 weekly indexes increased from 67.6 for the week ending January 9 to 123.5 for the one ending April 3, decreased to 78.7 June 5, increased to 136 September 25, and decreased to 67.4 for the week ending December 31. Pay rolls were low early in January, June, and in November and December and high in March, April, August, and September. The trend of the pay rolls in Haverhill for all industries combined follows very closely the generally known trend of the shoe industry, which has two busy seasons (one in March and April and the other in August and September) and two slack seasons (one from October to February



and the other from May to July), and also confirms the estimates that the pay rolls for the shoe industry represent more than 90 per cent of the total for all industries in the city.

The low indexes in 1925 for the weeks ending February 27, April 24, June 5, July 10, September 11, October 16, November 27, and December 31 are due largely to holidays in each of these weeks. This also applies generally to weeks in 1926, 1927, and 1928 which included holidays. The very low indexes for the weeks ending January 27 and February 3, 1928, reflect loss of earnings during the period January 19 to 30, when approximately 5,000 shoe workers were on a general strike.

Pay rolls by weeks were generally higher in 1926, lower in 1927, and much lower in 1928 than in 1925. Examples: The April 17,

1925, April 16, 1926, April 15, 1927, and April 13, 1928, indexes are, respectively, 107.6, 121.6, 104.8, and 78.4. The indexes by years are 100 for 1925, 111.4 for 1926, and 87.7 for 1927. The trend in each year is shown graphically by the chart following Table 6.

TABLE 6.—AMOUNT AND INDEX NUMBER OF PAY ROLL, FOR ALL MANUFACTURING INDUSTRIES IN HAVERHILL, JANUARY, 1925, TO JULY, 1928, BY WEEKS

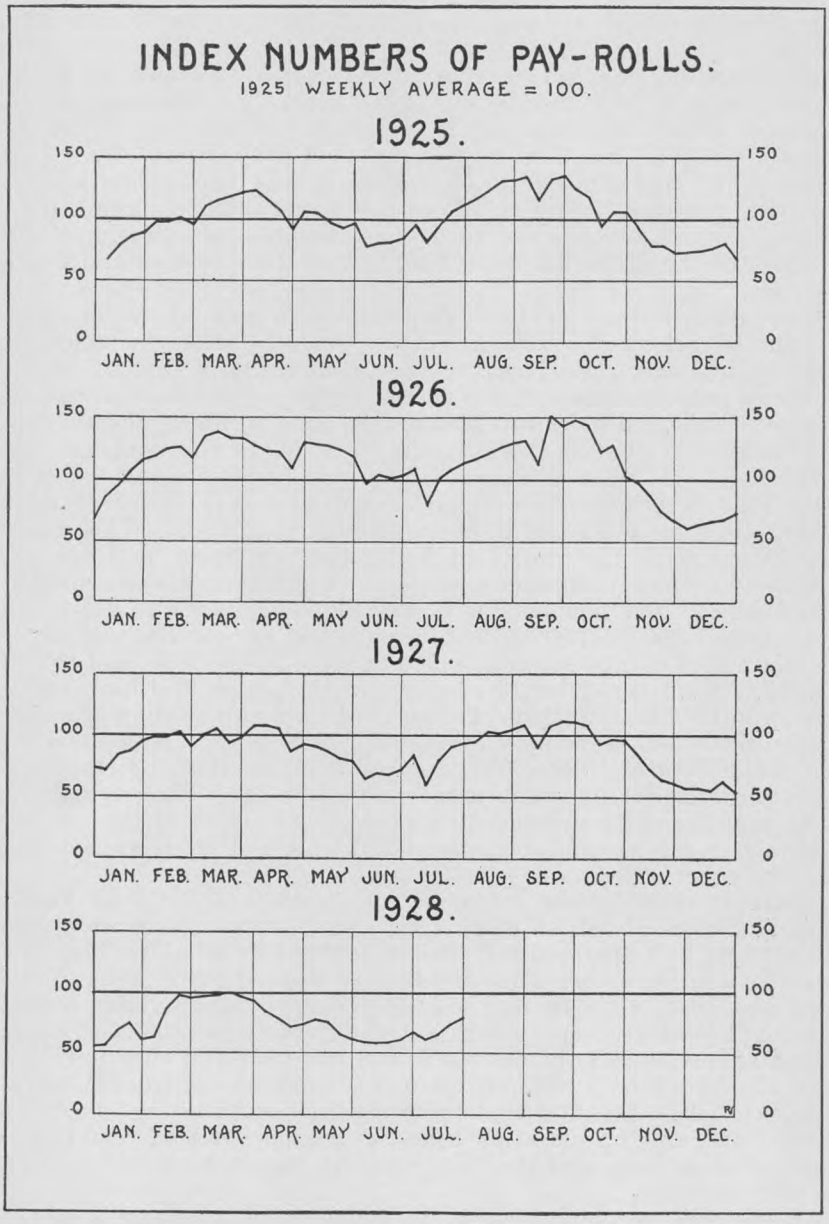
[1925 weekly average = 100]

1925			1926			1927			1928		
Week ending—	Amount	Index No.	Week ending—	Amount	Index No.	Week ending—	Amount	Index No.	Week ending—	Amount	Index No.
Jan. 9	$253,653	67.6	Jan. 8	$323,016	86.1	Jan. 7	$265,715	70.8	Jan. 6	$211,301	56.3
16	292,443	78.0	15	357,794	95.4	14	314,085	83.7	13	255,591	68.1
23	317,525	84.7	22	397,118	105.9	21	326,015	86.9	20	277,350	73.9
30	332,891	88.8	29	431,018	114.9	28	357,008	95.2	27	225,641	60.2
Feb. 6	369,443	98.5	Feb. 5	448,823	119.7	Feb. 4	371,683	99.1	Feb. 3	236,481	63.0
13	374,228	99.8	12	465,330	124.1	11	373,111	99.5	11	322,423	86.0
20	381,827	101.8	19	472,011	125.8	18	380,973	101.6	18	367,045	97.9
27	361,057	96.3	26	445,439	118.8	25	341,910	91.2	24	355,458	94.8
Mar. 6	415,032	110.7	Mar. 5	505,534	134.8	Mar. 4	376,937	100.5	Mar. 2	363,976	97.0
13	431,400	115.0	12	519,156	138.4	11	393,241	104.8	9	367,981	98.1
20	446,067	118.9	19	500,868	133.5	18	354,988	94.6	16	375,362	100.1
27	453,550	120.9	26	499,885	133.3	25	373,412	99.6	23	362,512	96.7
Apr. 3	463,243	123.5	Apr. 2	474,092	126.4	Apr. 1	403,245	107.5	30	346,669	92.4
10	434,473	115.8	9	457,565	122.0	8	403,017	107.4	Apr. 6	317,468	84.6
17	403,623	107.6	16	456,133	121.6	15	392,898	104.8	13	294,193	78.4
24	344,285	91.8	23	408,737	109.0	22	327,549	87.3	20	268,011	71.5
May 1	393,872	105.0	30	485,787	129.5	29	347,701	92.7	27	274,747	73.3
8	391,679	104.4	May 7	481,400	128.3	May 6	340,531	90.8	May 4	289,317	77.1
15	368,182	98.2	14	474,516	126.5	13	326,494	87.0	11	284,756	75.9
22	348,868	93.0	21	463,782	123.6	20	308,094	82.1	18	247,648	66.0
29	363,170	96.8	28	443,930	118.4	27	299,286	79.8	25	231,375	61.7
June 5	295,038	78.7	June 4	366,084	97.6	June 3	246,137	65.6	June 1	222,654	59.4
12	300,523	80.1	11	387,966	103.4	10	261,567	69.7	8	219,523	58.5
19	303,754	81.0	18	379,265	101.1	17	257,994	68.8	15	221,272	59.0
26	318,693	85.0	25	389,436	103.8	24	269,390	71.8	22	225,628	60.2
July 3	360,732	96.2	July 2	410,026	109.3	July 1	316,131	84.3	29	251,444	67.0
10	300,523	80.1	9	299,932	80.0	8	224,871	60.0	July 6	229,711	61.2
17	360,383	96.1	16	379,400	101.2	15	300,875	80.2	13	243,549	64.9
24	385,384	102.7	23	406,019	108.2	22	341,480	91.0	20	271,362	72.3
31	425,947	113.6	30	426,899	113.8	29	354,274	94.5	27	299,270	79.8
Aug. 7	441,857	117.8	Aug. 6	435,945	116.2	Aug. 5	355,282	94.7			
14	465,521	124.1	13	450,933	120.2	12	384,653	102.6			
21	489,134	130.4	20	469,632	125.2	19	380,254	101.4			
28	495,373	132.1	27	485,489	129.4	26	395,320	105.4			
Sept. 4	507,354	135.3	Sept. 3	492,798	131.4	Sept. 2	408,144	108.8			
11	433,150	115.5	10	421,440	112.4	9	341,368	91.0			
18	500,717	133.5	17	567,346	151.3	16	404,491	107.8			
25	509,934	136.0	24	540,122	144.0	23	418,139	111.5			
Oct. 2	469,581	125.2	Oct. 1	554,952	148.0	30	416,640	111.1			
9	445,588	118.8	8	540,472	144.1	Oct. 7	411,200	109.6			
16	357,758	95.4	15	460,937	122.9	14	352,907	94.1			
23	396,167	105.6	22	476,632	127.1	21	363,455	96.9			
30	397,491	106.0	29	385,004	102.6	28	361,588	96.4			
Nov. 6	347,138	92.6	Nov. 5	373,743	99.6	Nov. 4	326,940	87.2			
13	298,906	79.7	12	326,035	86.9	11	276,895	73.8			
20	295,345	78.7	19	278,725	74.3	18	243,040	64.8			
27	272,368	72.6	26	254,656	67.9	25	226,438	60.4			
Dec. 4	273,622	73.0	Dec. 3	230,907	61.6	Dec. 2	218,187	58.2			
11	276,936	73.8	10	239,643	63.9	9	215,580	57.5			
18	285,062	76.0	17	250,052	66.7	16	210,488	56.1			
24	300,798	80.2	24	255,101	68.0	23	234,271	62.5			
31	252,720	67.4	31	272,141	72.6	30	204,467	54.5			
Av.----	375,077	100.0	Av.---	417,686	111.4	Av.---	328,853	87.7			

Shoe Workers' Unions in Haverhill

THE Shoe Workers' Protective Union, with an average of 8,042 members in good standing in 1925, of 8,790 in 1926, of 8,262 in 1927, and an average of 7,465 for the months January to August, 1928, is really the only shoe workers' union in Haverhill of material

importance in number of members. This union has an agreement with the Haverhill Manufacturers' Association and agreements or understandings with each of the other manufacturers of shoes or



parts in Haverhill, except 1 open shop, 1 cooperative shop, 1 nonunion shop, and possibly a few very small factories that have been in business for only a short time.

"In good standing" as here used means that all dues and assessments have been paid in full.

The actual number of shoe workers in Haverhill on the register of the Shoe Workers' Protective Union is considerably in excess of the number given above, as there are at all times a number in arrears of dues.

The initiation fee is not less than $2, the dues are 25 cents per week, payable weekly, and members of local unions are also subject to assessments. From this it may be seen that for dues only the unions collect from their members approximately $100,000 annually. The money collected for initiation fees, dues, and as assessments is used in paying per capita dues of 10 cents to general office organization, salaries of union officials and agents, maintenance of offices, half the expenses of the Haverhill Shoe Board, and attorney fees and other expenses.

It is rather difficult to obtain membership in some of the locals of the Shoe Workers' Protective Union. An official of the union in speaking of the various locals remarked incidentally that in one of the locals (which he named) it is necessary that a candidate for admission be recommended by two members in good standing and that no two members of that local will sign the petition of any applicant.

The Boot and Shoe Workers' Union, with a local membership of 194 in 1928, is the only other organization of shoe workers in Haverhill. Its initiation fee is $2 and dues are 35 cents per week. This union is affiliated with the American Federation of Labor and has an agreement with only one shoe manufacturer in Haverhill—one making men's shoes. The membership of this union in Haverhill decreased from about 1,200 in 1920 or 1921 (when it had agreements with three manufacturers of men's shoes) to 299 in 1925, 265 in 1926, and to 206 in 1927. A small number of members of this union also have membership in the Shoe Workers' Protective Union and are now working in factories which have agreements with that union. A representative of the Boot and Shoe Workers' Union stated that the Haverhill manufacturers do not want agreements with it. When asked for an explanation of this statement he said, "A number of them a few years ago made agreements with us but quit and made agreements with the other union."

The open-shop factory has been in operation about four years, beginning with about 35 employees, and having in August, 1928, 175 workers. It operated full time in 1925, 1926, all of 1927, except two weeks in December when the factory worked 50 per cent of full time, and all of 1928 to August, the period covered by this study. The employees are reported as satisfied. Only one worker is reported as having left the service in the last year and then only because the family with whom he made his home moved from the city. It was stated by this firm that the company has a waiting list of 300 to 500 applicants on file at all times, that each applicant makes application in writing, and that the company has been unable to keep up with its orders.

Each of the 70 employees in the cooperative factory is a stockholder of the establishment. The factory had in August, 1928, been in operation about five months.

The nonunion shop which had in August, 1928, been in operation a little more than four years was in that month employing about 30 shoe workers.

The following table gives the total membership in good standing in the Shoe Workers' Protective Union in Haverhill, including a small local at Derry, N. H., in each month from January, 1925, to July, 1928, and the average number for each year:

TABLE 7.—NUMBER OF MEMBERS OF THE SHOE WORKERS' PROTECTIVE UNION IN GOOD STANDING EACH MONTH, JANUARY, 1925, TO JULY, 1928

Month	1925	1926	1927	1928	Month	1925	1926	1927	1928
January	7,848	8,463	8,487	7,434	August	8,228	8,760	8,039	-------
February	7,928	8,630	8,571	7,738	September	8,457	8,913	8,228	-------
March	8,122	8,760	8,817	7,892	October	8,393	9,116	8,283	-------
April	8,116	9,025	8,592	7,820	November	8,140	8,798	8,067	-------
May	7,707	9,031	8,432	7,505	December	8,213	8,496	7,626	-------
June	7,526	8,807	8,079	7,019					
July	7,829	8,677	7,921	6,847	Average for year	8,042	8,790	8,262	[1] 7,465

[1] 7 months.

Haverhill Shoe Manufacturers' Association

IN MARCH, 1928, the Haverhill Shoe Manufacturers' Association included 42 members and employed approximately 6,000 shoe workers, or 80 per cent of the total number at work in the shoe factories in the city at that time. The number of association factories and the average number of workers employed in such factories vary from year to year. Association members ranged from 30 in 1925 to 65 in 1920 and employed an average of 6,987 shoe workers in 1920, 6,503 in 1921, 6,213 in 1922, 6,244 in 1923, 5,272 in 1924, 4,560 in 1925, 5,947 in 1926, 4,552 in 1927, and 4,826 January to June 30, 1928. In 1925 the association members employed about 57 per cent of the average number of shoe workers in good standing in the Shoe Workers' Protective Union in Haverhill, 68 per cent in 1926, 55 per cent in 1927, and 65 per cent for the period January 1 to June 30, 1928.

The expenses of the association are paid from funds collected from association members. Each association member pays $5 per year for each employee, based on the average number employed each month. These funds are used in the payment of the salary of the association manager, of an expert who figures labor costs or prices of various operations on different styles of shoes for association factories, of one or two stenographers, of rent for office and of office expenses, and also of half of the expenses of the shoe board. In the aggregate, the expenses amount to between $25,000 and $30,000 annually.

Strikes and Lockouts

ARTICLE 2 of the agreement between the union and manufacturers' association, states that "There shall be no strikes, lockouts, or cessation of work during the life of this agreement. This article is not arbitrable."

More than 5,000 union shoe workers in Haverhill went out on a general strike January 19, 1928, in protest of a wage decision by the Haverhill Shoe Board. The decision, which reduced wage rates, was made after the filing of briefs by the manager of the manufacturers' association and the attorney for the union. The manager in his

brief said the manufacturers "must have reductions in labor costs of approximately 20 to 25 per cent." The attorney for the union asked for "a restoration of part of the 1924 cut," Mr. Edwin Newdick, the chairman of the shoe board, on May 8, 1924, issued a statement in which he said "The reduction is an average decrease of nearly one-fifth, or 20 per cent, of present piece rates on fancy shoes in the average factory where the making room is classified as grade 3. On plain shoes the reduction will be about 15 per cent." The hearings of the shoe board were conducted as provided by article 6 of the agreement.

The members of all locals of the union in Haverhill, except No. 2 (turn workmen), engaged in the strike. The turn workmen issued the following statement:

> To the editor of the Gazette: Will you kindly allow us, Local No. 2, S. W. P. U., space in your paper to state our position in the present misunderstanding, if a misunderstanding exists.
>
> Local No. 2, turn workmen, has had contracts and agreements with the shoe manufacturers of Haverhill for the past 30 years. These agreements were made with the shoe manufacturers under various forms of arbitration.
>
> We want to announce to the citizens of Haverhill and also to the citizens outside of Haverhill, that we have yet to break an agreement that we have attached our signatures to.
>
> If our signature to an agreement is not to be depended upon, then those with whom we sign agreements will not respect our signatures.
>
> We are at present connected with that working agreement that has proven so unsatisfactory, but we intended to live up to that agreement as we have lived up to all our agreements in the past, which we have attached our signatures to.
>
> Local No. 2, turn workmen, has no mysterious committee appointed, or any so-called big brother clubs.
>
> In conclusion, we would ask as a favor from the public press of Haverhill, to tell the world that the turn workmen of Haverhill are the most skilled turn workmen of the turn work industry, either in the United States or elsewhere.
>
> (Signed) SIFROID J. POTHIER, *President.*
> HERBERT TAYLOR, *Agent.*
> HAROLD SEAVER, *Secretary.*

As indicated in the statement by the turn workmen, the strike was unauthorized, as it was directed and managed by a "mysterious committee" or an "emergency committee" and not by the general officials of the union, who at the beginning of the strike declared that no authorization for the strike had been given by either the district or general officers of the union. The Secretary of Labor and the Commissioner of Labor Statistics, when the request for a study of conditions in Haverhill was made, asked Mr. Nolan, the general president of the Shoe Workers' Union, for an explanation of the strike. The president stated that it really was a revolution and that the officials were at that time unable to control the workers. This statement is confirmed by Mr. Edwin Newdick, chairman of the Haverhill Shoe Board, who in May, 1927, in a statement said:

> There is no dominating group in the union prepared to face unpleasant facts. Intolerance and obstruction are met by any one who undertakes to go contrary to the active few and their activity is largely promoting discontent and encouraging unreasonable demands. The structure of the union makes it in fact very much nearer seven unions with one name than one union with any common purpose, policy, or leadership. There is so much autonomy and independence of the several locals that general officers, however wise and courageous, can not possibly lead or control the organization.

Mr. Newdick had been chairman of the board for more than three years when he issued the statement.

The strike was settled January 29, 1928, by the following agreement:

It is hereby agreed by and between the Haverhill Shoe Manufacturers' Association and the Shoe Workers' Protective Union—

1. The workers shall return to work in their respective places and be paid 1927 prices.

2. A committee of three from the association and three from the union shall be elected or appointed for the purpose of amending the peace pact.

3. A committee of three from each side shall be elected to inquire into the conditions prevailing in the industry and report their findings to both parties with recommendations; the committee to have full authority.

The work of paragraphs 2 and 3 to be done by the same committee.

4. The wages deducted by the employers shall be returned to the workers within three weeks from the day they return to work.

It may be seen that No. 4 of the agreement provides that "The wages deducted by the employers shall be returned to the workers within three weeks from the day they return to work." This means that employees who worked any time during the period from January 1 to 19, 1928, and had been paid for such work at the 1928 rates in effect after the reduction were also paid as required by this agreement, the actual difference between the amount earned at the 1928 rates after the reduction and the amount they would have earned at the 1927 rates before the reduction.

Overtime

THE regular hours of operation of the shoe factories in Haverhill according to article 5 of the agreement between the union and the manufacturers' association are from 7.10 to 11.50 a. m. and 1 to 5 p. m., Monday to Friday, and from 7.10 to 11.50 a. m. Saturday, or 48 per week, during the months from September to May inclusive; and from 7 a. m. to 12 noon and 1 to 5 p. m., Monday to Friday, or 9 hours per day and 45 per week, in June, July, and August.

The article also provides that "Overtime work shall be granted at the discretion of the neutral arbiter, if the manufacturer can show such overtime to be necessary," and that "overtime over 48 hours shall be paid for at the rate of time and one-half." The manufacturer makes his request in writing to the chairman of the shoe board, specifying the number of employees in each occupation and the hours of overtime desired and the reason therefor. The permits for overtime are issued to the manufacturer by the chairman and returned after the completion of such work with a statement as to the number of employees and hours of overtime worked.

TABLE 8.—NUMBER OF PERMITS AND HOURS OF OVERTIME WORKED EACH WEEK, IN THE HAVERHILL SHOE INDUSTRY, JANUARY TO APRIL, 1928

Week ending—	Number of permits granted	Number of hours of overtime worked	Week ending—	Number of permits granted	Number of hours of overtime worked
Jan. 6	2	38	Mar. 2	30	489
Jan. 13	4	19	Mar. 9	53	519
Jan. 20	4	12	Mar. 16	67	541
Jan. 27			Mar. 23	84	1,200
Feb. 3	34	290	Mar. 30	79	1,136
Feb. 10	30	193	Apr. 6	20	164
Feb. 17	50	438	Apr. 13	9	20
Feb. 24	49	700			

The shoe industry is seasonal. When the shoe factories are busy the workers are employed full time or nearly so and business in general is very good in the city of Haverhill. When the factories are not busy, due to lack of orders, labor has no work or is employed much less than full time and business in the city is bad or very poor. Production, actual hours of work available, and amount of pay rolls are generally highest during weekly pay periods in March and September and lowest in January, June, July, and December. Overtime permits and overtime hours are few in number in months when production and pay rolls are lowest and quite numerous in months of peak production and pay rolls.

There is, however, little variation in employment or number of employees in the regular force of wage earners due to that part of article 3 of the agreement which provides that "there shall be no laying off of members of the crew, and during the slack periods work shall be distributed as equally as possible among the crew." During busy seasons temporary employees are added to the regular working force, usually for periods of less than five weeks. If retained for five weeks or more, an employee automatically becomes a member of the regular crew and therefore materially decreases average earnings per week and per day, more especially during slack periods.

Overtime is considered by the manufacturers as necessary at times in order to meet requests of customers for the rushing of orders and to get out orders on time and prevent cancellations and losses after unavoidable delays.

The Bureau of Labor Statistics made its regular biennial study of wages and hours of labor in the boot and shoe industry in the United States in July, August, and September, 1928. Data were collected for 48,658 wage earners of 157 shoe factories in 14 States. Only 21 of the 157 factories paid at the time of the study an increased rate for overtime and 8 of these were in Haverhill. Eighteen of the 21 paid one and one-half times the regular rate for overtime to all employees who worked any overtime, 1 paid one and one-half times the regular rate to workers in the treeing department only, 1 paid one and one-half times the regular rate to all employees who did any work on Sundays and holidays, and 1 paid 20 per cent extra—or one and one-fifth times the regular rate—to employees in the cutting department, and 10 per cent extra, or one and one-tenth times the regular rate, for overtime to the employees in the other departments.

Table 9 shows the number of pairs of shoes that were (according to information collected and furnished by the Haverhill Chamber of Commerce) shipped from Haverhill each month from September, 1925, to September, 1928. Figures are not available for any month prior to September, 1925. (See chart following the table.)

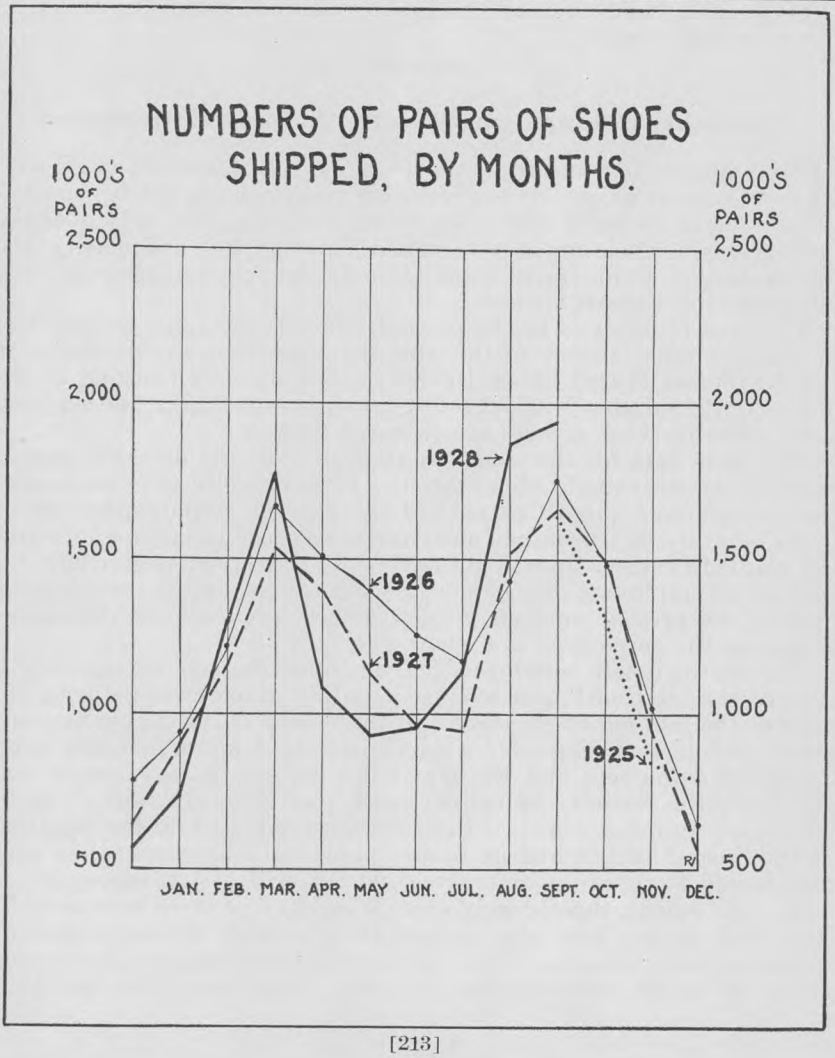
The shoe manufacturers in Haverhill produced 17,781,579 pairs in 1914; 21,830,680 pairs in 1919; and 13,624,549 pairs in 1921, and, as shown in the table, shipped 15,493,572 pairs from the city in 1926 and 14,202,612 pairs in 1927, or a larger number in each of the years 1926 and 1927 than was produced in 1921.

More pairs of shoes were shipped in September in each year than in any other month, and the 1,945,368 pairs for September, 1928, surpassed all previous monthly figures, followed next in order by

1,870,740 pairs in August, 1928. These figures indicate a decided upward trend in the shoe industry in 1928, especially since June.

TABLE 9.—NUMBER OF PAIRS OF SHOES SHIPPED FROM HAVERHILL, SEPTEMBER, 1925, TO SEPTEMBER, 1928, BY MONTHS

Month	1925	1926	1927	1928
January		942,084	906,660	741,240
February		1,215,936	1,153,800	1,288,764
March		1,665,828	1,530,648	1,771,848
April		1,509,120	1,389,708	1,088,820
May		1,398,312	1,126,224	931,032
June		1,251,900	964,548	962,928
July		1,176,552	943,740	1,147,464
August		1,432,512	1,518,372	1,870,740
September	1,643,472	1,750,788	1,665,432	1,945,368
October	1,309,644	1,483,380	1,490,652	
November	847,512	1,017,756	945,468	
December	789,696	649,404	567,360	
Total		15,493,572	14,202,612	



Bulletin No. 483, from which the above data were taken, also shows, for each shoe factory that moved out of Haverhill, failed, or liquidated in 1925 to 1928, inclusive, the reason for such action as given by factory officials and others to agents of the Bureau of Labor Statistics; the average hours and earnings by States, 1916 to 1928; the earnings in Haverhill by occupations, in a busy and in a slack week; the agreement between the Shoe Workers' Protective Union and Haverhill Manufacturers' Association; the Haverhill Shoe Board activities under the agreement; the reduction of wage rates by the shoe board in comparison with those of the union; the brief of the manufacturers' association to the shoe board asking for a reduction and that of the union asking for an increase of wage rates; the conditions in May, 1927, as described by the chairman of the shoe board; the conditions in 1925 to 1928, as described by manufacturers and union officials; the production (in number of pairs) of shoes by States, 1914 to 1928; and the cost of producing and selling shoes by 23 factories in Haverhill.

Instability of Employment in the Automobile Industry

THE automobile industry shows the greatest instability of employment of any of the industries so far analyzed by the bureau in its series of studies of this subject. Not only does the industry as a whole make a very bad showing, but irregularity and uncertainty of employment conditions are the rule among practically all the establishments covered.

The plan of analysis in the present study is the same as that employed in similar studies of the iron and steel industry, presented in the November, 1928, Labor Review, and for men's clothing in the January, 1929, Labor Review. For the sake of clearness, the explanations given in those articles are repeated here.

The basic data for the study are derived from the monthly reports made to the Bureau of Labor Statistics by practically all of the important automobile plants, as part of the general employment survey made monthly by the bureau and covering almost 12,000 manufacturing plants in various lines of industry. As these reports give only the number of employees of all kinds without separation by occupational groups, the present analysis must disregard occupational differences and treat the employees of a plant as a unit.

The method here employed for the measurement of stability is that of the relationship of average monthly employment during the year to the number of employees in the month of maximum employment. Thus, if during 1927 a particular plant had a monthly average of 90 employees and the maximum number in any month was 100, then the stability of employment may be fairly said to be 90 per cent. In other words, if the 100 men needed to fill the positions at the busiest season had no other opportunity for work, then each man would have an opportunity of 90 per cent of full-time employment. Of course, this is rarely quite true, but it is often substantially true; and, in any case, the method offers a fairly accurate measure of the degree in which a particular establishment has attained a condition of stable employment. On the other hand, failure of an

establishment to obtain a good level of stability in one or all occupations must not necessarily be attributed to faulty management. Many factors over which the management has little or no control may affect the stability of employment. Nevertheless, an employment stability of or very near to 100 per cent is the desirable goal.

The method of measuring employment stability just described has been used in this study because it is simple and clear. Somewhat more accurate measures of a mathematical character could be employed, but what they gain in accuracy is more than overbalanced by complexity in computation and explanation.

In this connection it is important to bear in mind that regularity of employment is an entirely different matter from volume of employment. Thus, the total number of employees in a plant may steadily decline from year to year with improving productive efficiency, while within each year the fluctuations in the number of employees, whether due to seasonal or other causes, may progressively diminish, with the result that the employees, though fewer in number, may have more steady work.

Results of the Study

THE percentages of full-time employment, computed as described above, have been worked out for 78 automobile establishments for each of the years 1923 to 1927 and for the 12-month period ending November, 1928, the results being presented in the accompanying table.

These 78 establishments represent all establishments engaged in the manufacture of automobiles, trucks, buses, bodies, or some substantial part of an automobile for which data are available. Automobile accessories and specialties have been omitted in order that the establishments which are included might be fairly comparable as regards working conditions and market influences.

The establishments are arranged in the table in descending order according to the favorableness of their showing in 1928.

A few of the interesting facts developed by an examination of the employment indexes in the table are cited below.

The annual averages show consistently bad stability conditions with little or no improvement apparent. In fact, with the exception of 1926 each year showed a lower average than 1923.

The industry as a whole did not vary much from year to year, but the individual establishments fluctuated widely and inconsistently with one another.

For every year since 1923, except 1926, the stability index for more than one-half the plants was under 85. Although the per cent of plants with an index of 90 or more is lower for 1927 and 1928 than in preceding years, a slight improvement is shown in 1928 over 1927.

Only 2 plants (Nos. 3 and 4) had a record as good as 90 per cent for each of the six years.

PER CENT OF FULL-TIME EMPLOYMENT IN THE AUTOMOBILE INDUSTRY

Plant No.	Location [1]	Product	1923	1924	1925	1926	1927	12 months ending November, 1928
1	Cleveland, Ohio	Automobiles	81.8	83.8	90.2	94.1	86.9	97.1
2	Buffalo, N. Y	Parts	83.6	73.7	86.1	88.5	77.3	95.8
3	Cincinnati, Ohio	Automobiles	94.9	98.8	96.4	96.4	91.0	94.4
4	New York City	do	91.7	96.2	97.2	95.7	90.0	94.3
5	Bridgeport, Conn	do	54.5	73.4	89.6	82.7	77.2	92.1
6	New York	do	91.2	54.3	79.4	86.8	80.2	91.0
7	Chicago, Ill	Parts	81.3	85.9	92.8	86.9	82.4	90.9
8	Detroit, Mich	Automobiles	80.1	90.4	85.3	86.7	88.9	90.5
9	do	do	83.0	67.7	85.7	85.2	85.5	90.4
10	New Jersey	Parts	87.6	86.1	86.3	75.8	85.2	90.4
11	Ohio	Bodies	72.1	82.8	73.5	68.9	70.0	90.3
12	New York City	Automobiles	87.8	83.4	89.8	85.2	80.9	90.3
13	do	do	95.3	96.2	83.9	83.9	82.9	89.9
14	Detroit, Mich	do	85.6	78.2	83.6	88.7	95.3	89.6
15	California	do	88.8	70.1	76.0	67.9	83.8	89.4
16	Philadelphia, Pa	Bodies	63.7	63.3	74.2	65.8	88.1	89.2
17	Detroit, Mich	Automobiles	87.4	73.2	75.9	90.4	90.9	89.1
18	do	Parts	88.0	78.6	77.1	90.7	81.8	89.0
19	Pontiac, Mich	Automobiles	68.9	49.7	59.0	62.0	80.2	88.8
20	New York	Parts	91.1	67.4	87.9	86.5	91.3	88.7
21	Toledo, Ohio	do	75.0	83.8	86.5	74.3	54.0	87.2
22	Detroit, Mich	Automobiles	85.2	80.9	88.0	87.1	84.4	87.0
23	Wisconsin	do	85.6	85.2	86.4	85.1	83.1	87.0
24	[2]	do	93.5	92.9	84.6	88.0	87.5	86.5
25	New York City	do	96.6	95.2	97.2	97.4	90.7	86.4
26	Chicago, Ill	Parts	88.3	69.7	84.8	86.7	86.3	86.3
27	Detroit, Mich	Bodies	85.8	76.0	78.0	86.8	91.2	86.2
28	Buffalo, N. Y	Automobiles	83.2	79.8	88.1	81.5	80.8	86.2
29	Illinois	do	79.0	85.3	76.8	84.3	91.5	86.1
30	Pennsylvania	do	89.9	91.9	95.4	86.3	85.4	86.0
31	Michigan	do	88.5	95.2	76.5	85.9	89.2	85.9
32	New Jersey	do	88.7	93.1	88.0	84.7	87.6	85.6
33	Michigan	Parts	85.4	96.4	88.9	85.7	86.4	85.5
34	Lansing, Mich	Automobiles	65.3	61.0	85.2	81.9	78.3	84.7
35	Indianapolis, Ind	do	66.2	57.5	79.5	68.9	77.0	84.7
36	Ohio	do	79.1	84.3	84.0	90.9	71.0	84.4
37	Philadelphia, Pa	Bodies	88.8	78.5	74.3	72.9	78.3	84.3
38	Detroit, Mich	Parts	88.5	62.9	79.0	93.1	77.3	84.3
39	Chicago, Ill	Automobiles	83.8	84.2	91.3	91.7	83.8	84.2
40	California	do	78.5	79.1	78.4	86.6	88.7	83.5
41	Wisconsin	Parts	97.5	74.5	89.1	81.9	80.4	83.4
42	Chicago, Ill	Bodies	73.5	89.8	77.6	97.4	72.2	83.3
43	Highland Park, Mich	Automobiles	91.2	91.1	92.4	83.0	88.1	82.1
44	New York	do	93.8	90.6	79.9	95.7	94.6	81.5
45	do	do	94.3	96.8	95.1	96.7	82.3	81.2
46	Chicago, Ill	do	81.3	66.2	85.6	85.2	87.4	80.9
47	New York	Parts	82.2	67.6	73.9	66.1	81.2	80.7
48	Buffalo, N. Y	do	81.3	94.4	91.5	90.8	91.5	80.3
49	Pennsylvania	Automobiles	91.3	93.4	97.8	81.4	80.0	79.7
50	New York	Parts	88.7	71.2	81.8	88.3	87.1	79.4
51	do	do	87.7	51.1	72.3	81.9	71.5	78.8
52	do	Bodies	94.1	98.7	89.9	89.4	82.9	78.5
53	Indiana	Parts	71.3	53.8	90.5	84.5	84.4	77.5
54	Highland Park, Mich	Automobiles	80.2	85.9	51.7	83.6	88.5	76.7
55	Detroit, Mich	do	72.0	79.1	77.8	64.7	69.7	76.4
56	Indianapolis, Ind	do	64.6	66.2	86.9	84.3	78.9	74.8
57	Cleveland, Ohio	do	70.2	61.2	77.5	87.1	81.3	74.8
58	do	Parts	68.3	82.9	83.3	85.7	85.0	74.5
59	Chicago, Ill	Automobiles	76.4	84.3	93.1	86.9	78.7	74.2
60	Indiana	do	91.6	80.6	73.6	76.0	76.5	73.8
61	Michigan	Bodies	83.8	90.5	75.3	77.8	73.5	73.3
62	Cincinnati, Ohio	Automobiles	80.0	86.1	90.1	92.8	87.4	73.0
63	Highland Park, Mich	do	71.7	77.1	80.4	88.7	87.1	72.1
64	Ohio	do	83.7	62.8	78.4	74.7	76.2	71.8
65	do	do	62.3	63.2	66.0	77.8	54.3	70.0
66	Wisconsin	do	94.6	92.2	88.8	92.3	88.7	69.6
67	Cleveland, Ohio	do	81.5	68.6	67.0	87.7	67.0	69.0
68	Indiana	do	52.3	58.5	64.5	69.7	88.1	68.2
69	do	Bodies	92.0	68.6	70.5	64.9	50.2	67.0
70	Pennsylvania	do	86.9	68.1	64.9	81.2	85.0	66.7
71	Detroit, Mich	Automobiles	79.0	60.0	82.1	62.4	74.1	66.7
72	Philadelphia, Pa	Parts	72.7	83.3	63.2	68.8	58.3	66.7
73	New Jersey	Bodies	86.1	93.4	85.9	90.3	86.7	65.4
74	New York	Parts	84.2	82.3	85.7	64.8	55.0	65.2
75	Pontiac, Mich	Automobiles	80.8	68.7	78.5	94.0	66.1	64.8
76	New York	do	74.0	83.9	95.4	95.4	78.3	63.8

[1] In cases where the name of the city might identify the plant, only the State is given.
[2] Location omitted in order to prevent possible identification of establishment.

PER CENT OF FULL-TIME EMPLOYMENT IN THE AUTOMOBILE INDUSTRY—Contd.

Plant No.	Location	Product	1923	1924	1925	1926	1927	12 months ending November, 1928
77	Detroit, Mich.	Bodies	82.9	75.6	73.8	80.1	79.6	56.8
78	Buffalo, N. Y.	Automobiles	89.6	88.6	65.3	78.5	48.5	48.3
	Average		82.3	78.7	82.0	83.3	80.6	80.8
	Highest		97.5	98.8	97.8	97.4	95.3	97.1
	Lowest		52.3	49.7	51.7	62.0	48.5	48.3
	Per cent of plants with employment stability of—							
	95 and over		3.8	10.3	9.0	9.0	1.3	2.6
	90 to 94.9		16.7	14.1	10.3	14.1	11.5	12.8
	85 to 89.9		26.9	10.3	26.9	32.1	29.5	26.9
	80 to 84.9		23.1	16.7	11.5	19.2	23.1	19.2
	Under 80		29.5	48.7	42.3	25.6	34.6	38.5

Character of Trade Agreements in the United States

FOR a number of years the United States Bureau of Labor Statistics has sought to secure copies of the more important agreements made between trade-unions and employers, and summaries of those obtained have been published from time to time in bulletin form. A bulletin now in press deals with the agreements made during the year 1927.[1] The following summary of the contents of this bulletin gives a general view of the character and purposes of trade agreements in the United States.

Method of Making Agreements

THERE is no uniform method of making trade agreements. The less formal are made by a local and presented to employers for acceptance. Others are made by the national officers of the union, by delegates, by large sections of the unions, by district councils, by small groups of locals in a city and its vicinity or by the locals or their officials, acting in accordance with the vote of a local made in general meeting as to what it desires to have inserted in the next agreement. In some cases a local is not permitted to make a demand on employers without first securing the approval of its national officers. In other cases a representative of the national board aids in drawing up the agreement. As a matter of fact, in a majority of cases the new agreement is merely a slightly revised copy of the old and the bargaining is over the insertion or the revision of a few items. Indeed, some agreements remain practically unchanged for years.

The agreement after being made is generally returned to the local for approval. It is accepted or rejected in open meeting after hearing the report of the officers. If rejected it is returned to the officers for further consideration. If accepted it is signed by the proper officers—president, secretary, business agent, or a committee—and, where required, sent to the national officers for their approval. At the same time the agreement is examined by the employers, where it has been drawn up by a joint committee representing both employees and employers, and its exact wording is often a compromise between

[1] U. S. Bureau of Labor Statistics Bul. No. 468: Trade agreements in 1927. Washington, 1928.

the two parties. If satisfactory the agreement is signed by the individual employer or by some one designated by the employers if they act collectively.

The agreements are generally executed in duplicate, one copy being retained by the employer and one by the local. A third copy is sometimes made and filed with the national organization. In many cases these two or three copies are the only evidence of the contract. In some instances, however, the union prints the agreement and gives a copy of it to each member. Oftentimes the employers also print copies for their own use. The railroads very generally print copies for the use of their employees and officials. Sometimes the agreements are posted on the walls of the shop.

In a few cases the national organization issues a general form of contract with blank spaces for hours of work, wages, and a few other items that naturally vary with the different unions. Such forms also serve as models for locals which print their own agreements.

Union Membership

MOST agreements provide for a union shop where all the workers are members of the union in good standing. Membership in the union is evidenced by the possession of a membership card properly filled out.

An employer is often required to hire his employees through the union office direct and to take any capable skilled workman sent, though at times it is expressly stated that he may choose his employees or determine their competency, in which case it is the duty of the employer or shop steward to see that only union men are hired.

A new employee thus hired may be discharged by the employer at any time within a determined period, but thereafter only on notice of from one to two weeks and for cause only, a provision that sometimes applies likewise to all old employees. Under the circumstances the union agrees to maintain a regular office open at stated hours and to furnish employers with skilled help capable of satisfactorily performing the work.

If an employer calls for help at a time when all members of the union are at work, and receives none, he is generally permitted to obtain his needed additional help from any other source possible until the union is able to furnish the men desired. Generally employees thus hired must secure permit cards from the union before going to work and must join the local within a specified time. Occasionally the employer is permitted under the circumstances to hire anyone, whether a union man or not.

In case a nonunion employee hired under such circumstances neglects to join the union within the time specified or is deemed unsatisfactory by the union, his services are to be dispensed with by the employer as soon as a union man can be found to take his place.

Some agreements do not require employees to be members of the union but call for a preferential union shop only; that is, one in which union men are employed in preference to nonunion.

To look after union interests in each shop a shop committee, shop chairman, or shop steward is elected by the employees or appointed by the business agent or other union official.

Employees are directed to aid their employers in every way and to practice no acts of discrimination against them or to limit production. They are, however, not required to work on prison-made material or to do any work claimed by another union. Occasionally the use of a time clock is forbidden. Generally employers are not to discriminate against union employees.

The business agent or other officer of the union may enter a union shop at any time to see that the terms of the agreement are being properly observed, that the sanitation and safety requirements are carried out, to confer with the union representatives, or to settle differences.

Generally foremen and superintendents are required to be practical workmen though often forbidden to do journeyman's work. Since they are supervisory officials representing the contractors or employers they are frequently not required to become members of the union. However, such requirement is occasionally made of them especially when they do the work of journeymen. When required to be members of the union they are usually not amenable to union discipline for acts done as foremen.

Sometimes a member of a firm is not allowed to do the work of a journeyman in his own establishment unless he is a member of the union and is observing the rules as laid down in the agreement. Frequently, however, one such member is allowed so to do, but if more than one (never more than two) wish to do journeymen's work they must join the union.

In some cases journeymen are not allowed to act as contractors unless they withdraw from the union. They are forbidden to work for other than a regular contractor who has a legitimate place of business. Work to be given out to be done at home is occasionally forbidden.

The agreements usually provide that women taking the place of men are to receive the same wages as men receive for the same class of work.

Hours of Work

HOURS of work are usually stated in the agreement, which also frequently specifies the exact hours of beginning and ending work and the period to be allowed for the noonday meal.

The 8-hour day is very generally observed. The 44-hour week is practically the rule in several trades, notably the building, clothing, longshore, and metal, and in job shops in the printing trade.

There are instances of a 9-hour day, a 54-hour week, an 8½-hour day, a 47½-hour week, and a 46½-hour week, but the general tendency is in the direction of shortening the working hours. There are several instances of a 40-hour week worked in 5 days all the year round or for part of the year. In a few agreements four hours is a day's work on Sundays and holidays.

Six days almost invariably make a working week, though instances of a 7-day week exist. Sunday is usually observed as the weekly day of rest, though in continuous industries any day may be so observed.

In several industries the men are allowed five minutes to wash and to clean up around the machines.

State and municipal holidays are frequently observed by unions as rest days. Some unions observe every holiday, while others observe but a few. Unions composed largely of Jews observe the Jewish holidays. Work on Labor Day is generally forbidden, except to protect life or property.

As a rule men are not paid for a holiday when no work is performed.

Vacations with pay are permitted by some agreements. Generally 1 week is given or 10 days after 1 year of service.

Work performed before the regular opening hour or after the regular closing hour is considered overtime and is generally paid for at an increased rate, usually at time and a half, though in most of the building trades and in several others the overtime rate is double time. Work done on Sundays and holidays is generally done at the double-time rate.

In a few cases where it is necessary to work overtime in order to finish an emergency job, the straight-time rate is paid for the first hour or hour and a half. A few cases exist where all overtime work is performed at the straight rate.

In some unions the time-and-a-half rate prevails as the overtime, Sunday, and holiday rate; in other unions the double-time rate. Sometimes the provisions are time and a half for a certain number of hours of overtime and double time thereafter. In one agreement time and a half is required for 4 hours, then double time for 4 hours, and treble time for the next 4 hours. In another, time and a quarter is required for 3 hours and time and a half thereafter. In one case pieceworkers receive 15 per cent extra. Sometimes the overtime rate is charged on the minute basis, sometimes on the 15-minute or half-hour basis.

In continuous operations and in trades where night work exists regularly or the employees work in shifts overtime rates do not apply. Instead there is often a separate scale prepared calling for either a slight increase in wages over the day scale or a decrease in the number of hours worked per shift.

Certain lines of work are paid for at an overtime rate, such as work done on a building more than 100 feet high, work dangerous in character, or work on sweeper cars and snowplows.

Overtime work is generally opposed by the unions, and many provisions are made to reduce its amount. In some cases no overtime work is allowed until the union officials have been notified and permission granted by them. Overtime work is frequently directed to be equally distributed among the employees. Night work and Sunday work are occasionally forbidden. In one case no overtime is permitted in a shop where vacancies for workers exist, in another where any members of the union are unemployed, and in another on nights when shop meetings are held. Sometimes the amount of overtime is limited to a certain number of hours per day or week.

Overtime is always permitted, of course, in case of emergency to save life or property.

Wages

NEARLY every agreement contains some articles relating to wages, always considered as a minimum, however, and generally forbidding the lowering of existing higher wages to the minimum rate,

but permitting higher rates to be paid. Generally lower rates are authorized to be paid workers handicapped by age or infirmities.

Wages are stated by the hour, day, week, or month. Generally they are paid in cash, weekly, occasionally semimonthly or biweekly, often at a stated hour on a specific day with waiting time allowed where the payments are not punctually made. Payment by check is occasionally allowed.

The giving of a bonus or premium is frequently forbidden as is also the adoption of a piecework system. Where a piecework system exists the prices are generally settled by a committee representing both the employers and the employees.

As a rule, in the building trades where men are paid by the hour they are given pay for two hours or occasionally a half day when they report for work in the morning and find none, except in the case of bad weather or other unavoidable circumstances.

Board with an employer to be received as a part of wages is at times forbidden.

When work is done at a distance from the shop, employees are often allowed to consider the time spent in traveling between shop and job and between job and job as a part of the day's work. As a rule they are not supposed to pay more than two city car fares a day. When work is done out of the city, employees receive transportation and generally board and lodging while away from home. The time spent in travel may or may not be considered as overtime.

Security for the faithful performance by the employer of the terms of the agreement is occasionally demanded. Where a cash deposit is required from an employee the employer pays interest on it. The employer is obliged to pay for bonds required to be deposited by employees.

Arbitration

UNIONS endeavor to settle grievances by conciliation if possible, resorting to arbitration only when conciliation fails. Grievances are handled in the first place by the employee affected and his foreman and then by succeeding higher officials or committees of the union and representatives of the employer. Frequently a grievance committee, known by various names, consisting of an equal number of employers and employees, is provided for to adjust disputes which can not be settled by the individual employer and employee, and if the committee is unable to agree it either adds another to its number or refers the matter to a board of arbitration organized according to the terms of the agreement.

An arbitration board generally consists of an equal number of representatives from each side with a chairman appointed by the members of the board. In some instances these boards are permanent, in others they are selected to consider a certain case. Decisions of the board are always final and accepted by both sides.

Strikes and Lockouts

STRIKES and lockouts are generally forbidden during the life of an agreement and especially when a grievance is being considered. In fact, the preambles of agreements frequently contain the statement that the agreement is made in order to avoid strikes. A national

organization may call a strike; union men may refuse to work with nonunion men, or on an unfair job, or on nonunion material, or on work destined for an unfair employer, or because the employer supplies work or goods to anyone whose employees are on strike or is in arrears in payment of wages. A cessation of work for any of these and other causes is not considered a breach of the agreement and in many cases is expressly allowed. Sometimes sympathetic strikes are allowed when ordered by the proper officials, but in other cases they are not. Jurisdictional strikes are generally forbidden.

Apprenticeship

MANY agreements contain apprenticeship provisions. Under these an apprentice is articled to a certain employer, is registered with the union, serves a stated length of time, and is then admitted as a journeyman into the union.

The apprenticeship period varies with the occupation. In many trades it is four years, in some cases five years, but frequently less. In several trades the period is not mentioned. Apprentices are generally between 16 and 21 years of age at the time of being articled.

Employers are limited as to the number of apprentices they may employ, the number varying from 1 for each journeyman employed to 1 for each 12 journeymen. The wages of apprentices vary from year to year. A part of the training of apprentices is received in school in some instances.

Unemployment

NUMEROUS attempts have been made to tide over the slack seasons of work. The usual method has been to discharge the superfluous help and keep at work only as many persons as are needed, in which case the agreement generally provides that the older employees shall be retained and those with a shorter term of service shall be discharged first and when the force is again increased the men are to be taken back according to their seniority. Other methods are to distribute the work as equally as possible, to lay off the men in rotation, or to shorten the length of the working week. A system of unemployment insurance has been adopted by a few unions.

Safety and Sanitation

VARIOUS provisions are inserted in the agreements relative to the safety and comfort of employees. Thus, agreements may provide that suitable fire protection is to be provided, safety codes are to be observed, a medical chest is to be kept, workmen's compensation laws are to be followed, liability insurance is to be carried, and proper scaffolding is to be erected. In one case a committee on accidents is to be elected.

Satisfactory sanitary arrangements are also frequently demanded, including the provision of dressing room, lockers, wash room, toilets, and cold drinking water. Also agreements may provide that estabments be kept in a clean and sanitary condition, with sufficient heat, light, and ventilation. Dust-raising machines with suction devices are required in some cases, and in certain trades, suitable sheds are to be provided and heated in winter.

Miscellaneous Provisions

THOSE trades in which a union label exists that can be placed on products often make its use compulsory. In places where service exists the use of a shop or union card is frequently required. Seniority is provided for in all railroad agreements, many street railway agreements, and some others.

The check-off is used in mining and a few other industries; although its use is occasionally forbidden.

Agreements are generally made for 1 year, though other periods of time are adopted, as 2 years, 3 years, 5 years, and occasionally less than a year. In agreements for more than a year there is sometimes found a provision allowing the wage section to be revised annually.

Some agreements are indeterminate in length and may be revised at any time; others may be revised at yearly periods; and others, though made for a stated period of time, often contain a clause continuing the contract from year to year until either party notifies the other of a desire to terminate or to change.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS

Joint Industrial Control in the Book and Job Printing Industry

INDUSTRIAL relations in the book and job printing industry in the United States are of three distinct and conflicting types, according to the philosophy and practice of the employing printers, who are divided as follows: (1) An open-shop or nonunion group of employing printers, who are individualistic in their attitudes and make no attempt to establish uniform labor conditions throughout the industry; (2) three groups of plants, including chiefly the cooperative employer-employee organizations of the Boston and the Baltimore printers and the New York edition bookbinders; (3) the sections of the industry in which both employers and employees are organized, in employers' associations and trade-unions, and standards are established by the joint efforts of these two organized groups.

The second and third types of industrial relations, in which there is organization of employers and employees to establish standards and to control the industry jointly, are studied in Bulletin 481 of the United States Bureau of Labor Statistics, recently issued.

The extent to which the determination of conditions in the industry is actually divided between the employers and the employees differs widely in the various organizations. The plan of one organization is for democratic consultation by representatives of both groups rather than for a relinquishment of control by the employers' organization, which retains the veto power on any matter vitally affecting its interests. That of another is based on the theory that it is inevitable for control to be divided, and therefore the employers relinquish to the joint chapter board the right to make final decisions, and provide for arbitration in case of disagreement. In the union relationships joint responsibility is more far-reaching, for a decision requires the consent of the two organized groups, each group having a considerable economic power with which actively to support its desires. There is also the joint industrial council in England, a council superimposed upon a system of national autonomous organizations, and with no authority to enforce its decisions, but with a growing recognition which is giving it a large influence in the affairs of the industry.

There is also a significant contrast in the basis of these organizations. In the open-shop organizations conflicts of interests between employers and employees are recognized, but it is believed that organization for cooperation can protect the interests of both groups and minimize the area of conflict between them. In union relationships, on the other hand, the conflicting interests of the two groups have led to separate organizations to protect those interests, and a tendency to emphasize more the conflicts than the common interests of employers and men. Cooperation between the two opposing groups then takes the form of establishing rules which narrow the field of possible conflict.

The chief points of strength and weakness which have appeared in the experience of the various types of organization, as summarized in the study, are as follows:

The open-shop joint councils have a source of strength in that they are favorable to cooperation, since they are organized for that purpose rather than that of conflict, and accordingly emphasize the common interests of the two groups, although the differences of interest are recognized and dealt with through the established machinery. They are favorable also to satisfactory relationships within the plants because of their emphasis on shop committees to handle grievances and eliminate hindrances to good will and cooperation. They are able to hold the interest of employees by group insurance and by paying to the skilled employees at least as much as union rates. Perhaps the chief source of strength of these plants is the personal confidence of those employees who have been active in the organizations in the integrity and good faith of the leading employers, whether or not the plan specifically provides guaranties to employees of freedom from discrimination and provides for reference of differences ultimately to arbitration.

The chief weakness of these open-shop organizations is the narrow territory covered, as the result of lack of interest of employing printers. The organizations are therefore unable to affect standards widely and follow the union standards for the most skilled workers, while the open-shop scales, whether they are considered minimum scales or "normal scales," are not objectively defined and can not be universally enforced even within the organization. In addition to the lack of continuous interest and support from the employers, there has been evident a striking lack of employee interest. Employees in these organizations with no outside support have shown no such vital, aggressive, and independent interest as would have forced more active interest on the part of employers. The organizations have therefore not grown and have not called forth enough aggressive leadership among the employees to make the fullest possible use of the organization for the interests of the workers. These organizations are at a disadvantage in having to compete for employee interest with the trade-unions, which are the traditional form of organization in the industry. They attempt to substitute for the unions, which developed from a momentum by the employees, a new type of organization based upon a conscious theory and receiving its impetus from the employers. The employers have not been sufficiently interested to overcome this inherent disadvantage and establish a broad organization which could then appeal more successfully for employee interest. Since these organizations depend for their success fundamentally upon the active interest and consent of the employers, they have developed no power to enforce widely their standards and policies. Nevertheless, within these organizations individual employers who are fair-minded and far-sighted make use of them to promote good relationships and secure cooperation within their plants.

In the New York printing industry the present relationship between the unions and the Printers' League is materially strengthened in that it is the culmination of joint dealing based on frank recognition over a period of more than 20 years, during which time

machinery has developed from the needs of the industry. Because both groups are strongly organized and possessed of considerable economic power, their relationship is characterized by a real vitality. The agreed-upon standards of wages, hours, and conditions are to a large degree enforced in the local market, thus establishing in large sections of the industry an equality of labor costs as a basis for competition. The joint machinery gives to the individual worker a substantial measure of protection against discrimination or other grievances from failure of a firm to observe the agreed-upon conditions. A relationship which is on the whole friendly between the unions and the league makes possible constructive cooperation when a common interest is seen. Particularly in the field of apprenticeship, because of the recognition of common interest in craftsmanship, it has been possible to agree upon standards of training, establish apprentice schools under joint control and support, and generally enforce training requirements which must in time materially affect the level of craftsmanship in the industry.

On the other hand, there are several disadvantages in a relationship based upon strong organization of both groups. Since both the unions and the employing printers are organized separately, chiefly to protect their own interests in opposition to the other group, a fundamental antagonism exists which needs to be overcome before cooperation is possible. Moreover, this type of organization does not emphasize good shop relationships and does not therefore directly try to educate employers in methods of industrial relations within their plants, although the fact of union organization does not appear a barrier to satisfactory relations between the men and the management.

The standardization by union rules is something of a hindrance to efficiency in that the plant is restricted in its freedom to organize its production on the basis of experiment and its own experience. It is possible for very strong unions, moreover, to make unreasonable use of their power and enforce rules which are to the disadvantage of the industry and therefore ultimately of the employees themselves. Another serious weakness is in the local character of the standards enforced, although the widening competition in the industry makes differences between localities in hours, complement of men on machines, and wages a disadvantage to the employers in those cities where the unions are very strong. Finally, the fact that the unions are organized on a craft basis results in a lack of unity of action between the various unions, to the detriment of their interests, and although the strength of the chief unions affects the wage scales of the others who are less strong, this power is not used to help enforce standards for groups which find organization difficult to maintain.

In contrast to the union relationships in America are certain outstanding points of the relationships between the printing trade-unions and the employing printers in Great Britain. The fact that to a very large extent standards are made on a national basis and generally enforced removes one of the difficulties of the American situation. Meanwhile the national joint industrial council as an organ of education and public opinion in the industry is able to exert a considerable influence upon attitudes and actions of both groups in the industry.

The Key to American Prosperity

IN A volume published in 1928, entitled "The American Way to Prosperity," Gifford K. Simonds and John G. Thompson, officials of the Simonds Saw & Steel Co., undertake the task of disclosing the secret of prosperity in the United States. They not only record some of the remarkable industrial results already evident but make "suggestions for further progress toward industrial efficiency and toward the day when no normal, healthy, industrious man or woman will need to worry greatly, if at all, about making a living—when everyone will have time and energy to make a life."

The outstanding subjects discussed are: Production, distribution, research, forecasting, budgeting, organization, personnel, and social control of industry. Some of the conclusions reached are given in the following summary.

Production.—Accepting as a fact that industry in the United States has marvelously lowered the production cost of most things human beings need and desire, the authors point out some of the revolutionary methods that have been adopted for mass production, and how the workers benefit by the cutting of production costs.

Distribution.—A revolution is also necessary in distribution and there are indications that a revolution in this field is near at hand. Many industrial leaders even now agree that "more should be spent for service and less for solicitation."

> It seems evident that the cost of distribution will be reduced by methods similar to those used in reducing the cost of production, by discarding old methods for better new ones, by devising or inventing new machinery and new processes, by eliminating waste of every kind—of materials, of packing, of transportation, and of time and labor, and by cutting out all advertising that does not increase the general welfare.

Research.—Special attention is called to some of the notable achievements of research and their reflex upon industry and upon the standard of living of the people in general. Emphasis is put upon the fact that the most important and progressive industrial organizations are in the vanguard in scientific research.

Budgeting.—Reference is made to the likelihood that business in the United States for the next 20 or 30 years will be carried on in a buyers' market of falling prices. Under such circumstances, the authors think, "the budget will play a more important part than ever before in business."

Organization.—In the chapter dealing with this subject the tests of organization efficiency are reviewed and the fact that the wages and standard of living of the American worker are the highest in the world is attributed in large part to "the organizing genius of Americans."

Personnel.—Under this caption the following problems are taken up: Reducing costs by improving workers, a fair return to capital, a fair return to management, real wages, the market rate for wages, minimum wages, shorter hours, profit sharing, partners in the business, welfare work, and company ideals. It is claimed that "for the best results there must be developed a feeling of solidarity or of partnership on the part of both employers and employees."

Social control of industry.—According to the authors, every intelligent business man must indorse the social control of business

when such control in the most efficient manner cuts costs either on "the books of social accounting or on the books of production expenses." In connection with this matter of social control the authors recommend that business leaders and managers "should influence public opinion by helping to educate the public in regard to business and economics."

Factory Legislation, Inspection, and Wages in Victoria

A FACTORIES and shops act was passed by the Victoria Parliament in the latter part of 1927, becoming effective in February, 1928, which made some important changes in the earlier law. In the annual report of the chief factory inspector for the year ending December 31, 1927, a summary is given of the principal changes. The definition of factory is extended and the minister of labor is given power to order the installation of special ventilation if in his opinion dust is being generated so as to be injurious to health; it is not necessary in such cases to prove that any worker is being injured by the inhalation of dust. Safeguards must be provided for machinery used for the construction of buildings, and accidents which prevent workers from returning to work within 24 hours of their occurrence must be reported. Formerly the period was 48 hours. Provision is made for stabilizing the Saturday half holiday for shops "by taking away the power, as from June 30, 1928, to grant exemptions and to fix the half holiday on some other day than Saturday." Hairdressers' and tobacconists' shops in certain districts which formerly were allowed to fix the half holiday on either Saturday or Wednesday are now required to observe it on Saturday.

The new act makes several changes in the regulations governing the appointment and work of wages boards, one of them being especially intended to meet the difficulty of wages in a charitable institution, when the latter comes into competition with private enterprise.

> Provision was made that determinations of wages boards are not to apply to any person who is an inmate of any institution conducted in good faith for religious or charitable purposes.
>
> Provided that where any person is employed at laundry work in such an institution, if representations are made to the minister which satisfy him that such institution is by unduly low charges unfairly competing with the occupiers of other places where laundry work is done, the governor in council may apply the determination of any wages board with regard to persons employed at laundry work, as on and from a date specified in the order to and with regard to any such person employed therein.

Factory Employees, Wage Trends, and Working Week

THE report on registered factories shows that during 1927 there was an increase of 203 factories and 512 employees. From April onward, trade was slack and there was considerable unemployment. In the course of the year, 64 wage determinations were amended, 58 of the amendments making general changes in wages, while three of the others made minor alterations only, and three extended rates to certain classes of employees not formerly covered by the jurisdiction of the boards. Of the 58 general amendments, 31 provided for increases in wages and 27 reduced wages.

It should be mentioned, however, that the majority of the alterations were made by wages boards which, by agreement, adjust their rates, either quarterly or half-yearly, in accordance with the fluctuation in the cost-of-living figures. This procedure applied more particularly in the cases where wages were reduced, for of the 27 amended determinations which brought about reductions in the weekly rates, 21 at least were due to the adjustment method.

Some attention is given to the prevalence of the 5-day working week, though no figures are given as to the extent to which it is in use.

For many years it has been the practice in the sewing and knitting trades to concentrate the week's work into five days, to the great satisfaction of the employees, who would object to working on Saturdays, even if they were paid extra rates.

The employers seem to be generally satisfied with this system of working.

More recently this method of working was adopted by the boot trade, and also by some of the occupiers of knitting mills, woolen mills, confectionery, and furniture factories. Some printing establishments, who had been observing the 5-day week, have reverted to working on Saturday.

Factory Labor in Tangku, China

IN MAY to July, 1927, an intensive study of two modern factories in Tangku (30 miles from Tientsin) was made by Sung-Ho Lin for the Social Research Department of the China Foundation for the Promotion of Education and Culture.[1] The workers of these two establishments which, the investigators state, are among the best-managed Chinese-owned industrial enterprises in the country, number about 1,000 out of the total population of Tangku estimated at 5,000.

Data concerning the welfare work in both undertakings—the Chiu Ta Salt Refinery and the Pacific Alkali Works—were secured chiefly from establishment records and personal interviews, while the cost-of-living study was made from the schedules of 197 workers—86 Chiu Ta resident workers, 61 Chiu Ta nonresident workers, and 50 resident Pacific plant workers.

When the survey was begun the salt refining factory had 556 workers, of whom 75 were skilled. The unskilled force was engaged principally in refining salt, which calls for neither knowledge nor experience of a technical character. The skilled workers were employed in subsidiary activities; for example, tending the electric plant, making wooden and iron implements, etc. The salt refinery needs only physically strong and healthy laborers while the alkali works requires skilled people. The manufacture of soda by the Solvay process is a machine undertaking.

In addition to 6 foremen, the Pacific enterprise in May, 1927, employed 87 mechanics, 15 firemen, 22 assistants, 32 apprentices, and 349 common laborers. Notwithstanding the big majority of unskilled wage earners, the mechanics, firemen, and assistants constituted "the backbone" of the alkali works.

The labor in both plants comes to a large extent from the farmer class. This movement from the country to town seems to be the

[1] China Foundation for the Promotion of Education and Culture. Social Research Department. Factory Workers in Tangku, by Sung-Ho Lin. Peking, 1928.

common accompaniment of the industrialization of China, and will undoubtedly become more marked "with the rise of industrial towns."

Since March, 1927, the 8-hour day has been adopted in both factories. Almost all the workers are on shifts and shift changes are made every Sunday. This system is somewhat exceptional in China. Government officials, factory employers, and even those in charge of foreign-owned plants are hesitant about adopting the 8-hour shift scheme "on the ground that Chinese laborers are not so efficient as foreigners." Although the Chiu Ta and Pacific plants were not the first to try out the system, they give evidence as to its practicability in China. It has been shown that "the 8-hour day not only gives spare time to the workers for recreation and intellectual pursuits, but also increases their efficiency to some extent."

Holidays

THE salt refinery grants only 8½ holidays per annum and the alkali plant gives none. Factory officials hold that rest days are unnecessary unless the workers know how to utilize them. The plant authorities, therefore, are liberal in the matter of leave of absence instead of allowing the usual weekly rest day. The workers may request leave of absence with pay for sickness, accidents, marriages, and funerals, and without pay for ordinary business affairs. The length of the absence is fixed by the plant physician in cases of sickness or accident and limited to a specified number of days when required for other purposes.

Welfare Work

A WORKMEN'S school, a cooperative store, and a hospital are operated by both the salt refinery and the alkali works, and a primary school, financed by the former, "provided excellent educational facilities to children of workers and staff members." The Chiu Ta refinery has been in operation 10 years longer than the Pacific plant and the welfare work of the older plant is superior in certain respects to that of the newer undertaking. The Chiu Ta workmen's dormitory has 40 bedrooms, 5 sickrooms, 2 classrooms, and rooms for dining, bathing, laundry, etc. This factory furnishes water, light, and fuel gratis, sells food at cost, and supplies barber service at cheap rates. Indoor games and outdoor sports, Chinese New Year amusements, and modern plays are available for all. House rents for workers' families are moderate. From time to time wood shavings and refined salt are furnished without cost to the workers. Furthermore, systems of savings and family remittances have been established to promote thrift. In emergencies, workers may have recourse to the mutual aid society.

The welfare activities of the alkali works have been handicapped by the financial conditions of that plant, which provides only free dormitory, water, fuel and light, and a family remittance service. The labor force, however, may avail itself of some of the advantages accorded the Chiu Ta personnel. These various services, particularly those of the Chiu Ta factory, have cut down the workers' living expenses so substantially that such benefits are equivalent to additional wages.

Incomes

THE earnings of the workers in both factories include wages, an extra month's pay, overtime allowances, and the commutation of gifts.[2] The salt refinery workers, however, have in addition a general bonus and a salt bonus.

The minimum monthly wage, except for apprentices, has been fixed by both factories at $7.50[3] ($3.75, United States currency), or $8.25 ($4.13, United States currency) with the commutation of gifts.

The general average wage per month is $10.50 ($5.25, United States currency) for the salt refinery and $11.25 ($5.63, United States currency) for the alkali works. The higher rate in the latter factory is mainly due to the fact that it has more highly paid skilled workers than the Chiu Ta plant.

In Table 1 wages of the workers in the two Tangku factories have been computed on a daily basis and are compared with the wages at the close of 1927 in certain establishments in Tientsin.

TABLE 1.—DAILY WAGES IN CERTAIN FACTORIES IN TANGKU AND TIENTSIN

Establishment	Minimum		Modal		Maximum	
	Chinese dollar	U. S. currency	Chinese dollar	U. S. currency	Chinese dollar	U. S. currency
Tangku:						
Chiu Ta salt refinery	$0.25	$0.12½	$0.25	$0.12½	$1.06	$0.53
Pacific alkali works	.25	.12½	.25	.12½	1.16	.58
Tientsin:						
Cotton mill	.30	.15	.50	.25	1.25	.62½
Tobacco factory	.18	.09	.40	.20	.97	.48½
Match factory	.30	.15	.50	.25	1.00	.50
Flour mill	.40	.20	.60	.30	1.00	.50

Although the minimum and the modal wages in Tangku factories are lower than in the cotton mill, flour mill, and match factory in Tientsin, when all the additional payments received by the Tangku workers are taken into consideration, their real income is substantially higher than that of the workers in the above specified plants of Tientsin.

In Table 2 are shown the general average of incomes actually earned by 197 workers, classified in three groups, July, 1926, to June, 1927:

TABLE 2.—SOURCES AND GENERAL AVERAGE OF INCOMES EARNED BY 197 CHINESE WORKERS, 1926-27

[Incomes given in U. S. currency; Chinese dollar=50 cents]

Group	Wages	Extra month's allowance [a]	Overtime allowance	Gifts commuted	General bonus [b]	Salt bonus [c]	Gratuities	Total average income
86 Chiu Ta resident workers	$53.86	$4.21	$0.04½	$4.47½	$8.70½	$6.87	-------	$78.16½
61 Chiu Ta workers with families	70.78	5.68	0.21	4.50	10.91½	2.81	$1.21	96.10½
50 Pacific resident workers	65.75½	4.92	7.77½	4.48	-------	-------	-------	82.93
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
86 Chiu Ta resident workers	68.9	5.4	0.1	5.7	11.1	8.8	-------	100.0
61 Chiu Ta workers with families	65.6	5.3	.2	4.2	10.1	2.6	1.1	100.0
50 Pacific resident workers	79.3	5.9	9.4	5.4	-------	-------	-------	100.0

[a] Every worker is entitled to an extra month's pay at the end of the year except those who have been absent for over a month in that period of time.
[b] Based upon efficiency record.
[c] For salt output in excess of fixed minimum.

[2] Formerly on Chinese festivals the factories presented their workers with gifts. In March, 1927, such gifts were commuted with an annual sum of money.
[3] Conversion into United States currency made on the bsais of one Chinese dollar=50 cents

As indicated in the above table, the monthly wages of workers constituted from 65.6 per cent to 79.3 per cent of the total income, while other forms of payment, notably the general and salt bonuses of Chiu Ta and the allowance for overtime in the Pacific works, made up the remaining 20 to 35 per cent. However, the total incomes of the workers with families "were not necessarily the total income of their families." The relative proportions of the income of 61 families from various sources were as follows: Principal wage earners, 89.1 per cent; other family members, 5.8 per cent; contributions of brothers and sons, 2.6 per cent; interest, rent and profit, 1.9 per cent; remittance from native place, 0.6 per cent.

Expenditures

THE distribution of expenditure for different groups of items by 136 resident workers is given in Table 3:

TABLE 3.—PERCENTAGE EXPENDITURE OF RESIDENT WORKERS[1]

Items	86 Chiu Ta workers	50 Pacific workers
	Per cent	*Per cent*
Food	62.7	63.9
Clothing	15.2	17.8
Travel	4.6	2.4
Social expenses	8.3	6.7
Miscellaneous expenses	9.2	9.2
Total, all expenses	100.0	100.0

[1] Living at factory dormitories.

The most important expenditures in the miscellaneous group are for tea and tobacco. The number of men who drank tea was greater then the number who smoked tobacco, the former indulgence being much less expensive.

The distribution of expenses for the 61 working families was as follows: Food, 55.7 per cent; fuel and light, 8.1 per cent; rent, 7.1 per cent; clothing, 9.5 per cent; miscellaneous, 19.6 per cent.

With a few exceptions nearly 90 per cent of the common laborers' food expenditure was for cereals. According to the estimate of the investigator, the Chiu Ta workers' diet yielded on an average about 3,500 calories, which he considers "sufficient for a factory worker." The food purchased included in addition to cereals (most commonly wheat and corn flour), vegetables, condiments, meat, and refreshments.

These 61 families lived in cheap houses which were either rented by the factory or located a long distance from the town. The average number of equivalent adult males per room was 2.3. The large percentage of expenditure for miscellaneous items was in general due to marriage and funeral service charges.

Usually the workers' annual earnings were sufficient to cover the ordinary expenses of the year. When, however, special expenses had to be met these laborers were obliged to borrow. Out of the 197 workers studied, 37 had gone into debt. Marriage and funeral service expenses accounted for deficits of both resident workers and

workers with families, while one resident worker fell behind financially because of traveling expenses and family remittances. The average annual sums sent home by individual resident workers in the salt refinery and in the alkali works who were included in the study were, respectively, $38.71 and $37.60 ($19.36 and $18.80, United States currency).

Conclusion

THE findings of the survey, the author holds, lead to the conclusion that working conditions and welfare activities in the Chiu Ta and Pacific industrial undertakings under review "are quite commendable," and the livelihood of the laborers in the factories in comparison with that of workers in many other districts in China "is indeed satisfactory, though there is still considerable room for improvement."

Combinations and Amalgamations in the British Coal Industry

THE mining act of 1926 contained sections intended to facilitate voluntary amalgamations of coal-mining enterprises and provided that within two years from the passage of the act the Board of Trade must report to Parliament upon the working of these sections. In November, 1928, accordingly the Board of Trade presented a report, which deals first with the combinations of two or more mining enterprises.[1]

> The form of amalgamation which the mining industry act was primarily designed to facilitate was the unification of the actual ownership or control of two or more undertakings.
>
> Particulars of amalgamations in this category which are known to have been effected since the passing of the act * * * cover 172 pits, normally employing about 126,000 workpeople, and comprise 17 separate schemes, subsequently reduced to 14 by the further amalgamation of the South Wales anthracite groups.

By far the most important of these amalgamations is the last mentioned, which has brought about a complete unification and control of nearly 75 per cent of the production of anthracite in all of Great Britain. Some of the remainder is found in Scotland, and there "arrangements have been made on the marketing side for all the exports of Scottish anthracite to be carried out by a single organization."

Production and Sales Combinations

THESE combinations represent a far more radical departure from the earlier individualistic attitude of the coal owners than is indicated by the unification of ownership shown in the above amalgamations. Based on the district as a unit, they aim to restrict overproduction, regulate competition and prices, and develop export markets. The first of these was adopted by the Scottish coal owners March 6, 1928; the second, covering the Midlands, has been in operation since April, 1928; while a third, to apply to South Wales, is still under discussion, though a beginning was made in May by introducing a system of minimum prices on a voluntary basis. In

[1] Great Britain. Board of Trade. Report under section 12 on the working of Part I of the [mining industry] act. London, 1928.

Northumberland and Durham no formal scheme has been adopted, but agreed minimum prices for export coal have been in force for some time.

The first of these schemes, covering approximately 90 per cent of the Scottish output, restricts output through the voluntary closing of the less productive workings with compensation to their owners, raised by a levy of 6d. (12.17 cents) per ton on coal, with certain exceptions, sold for inland purposes, and a special levy on coal for specified classes of customers. The Midlands scheme also imposes a levy, in this case 3d. (6.08 cents) per ton, on all coal mined, but restricts output by fixing for each owner a quota calculated as a percentage of a basic tonnage, this being the tonnage in any one of the 15 years preceding 1928 which the owner chooses to select. Fines are imposed for all coal mined in excess of the percentage quota, and assistance may be given to the export trade out of the funds raised by the fines and the levy. It is claimed that an output of over 100,000,000 tons is covered by this plan.

> The object of this scheme is twofold. It proposes to deal with overproduction, first, by expanding the Humber export market by means of subsidized export prices, the financial assistance being provided by the levy on all coal raised in the coal fields covered by the scheme; and, second, by the regulation of output by means of the quota system.

So far, these schemes appear to have had little effect upon the general situation. During the first half of 1928, as compared with the same period in 1927, the average number of men employed sank from 975,500 to 906,000 and the amount paid in wages from £62,900,000 to £51,700,000 ($306,102,850 to $251,598,050), while the output per man shift rose from 20.56 to 21.11 hundredweights, yet whereas the 1927 results showed a credit balance of £650,000 ($3,163,225) those for 1928 showed a net loss of £5,800,000 ($28,225,700). In discussing this situation the London Economist (October 20, 1928, p. 686) points out the basic defect in the schemes adopted.

> The reasons for the ineffectiveness alike of the Welsh and Northumbrian "price rings" and of the more ambitious schemes in Scotland and the Midland counties are not far to seek. All have had the inherent weakness that while they have limited competition in their own area they have left districts free, as such, to compete with one another. The Scottish scheme has had the virtue—uniquely—of concentrating production in some degree on the best pits, but the district has lost the benefit of this real effort at rationalization through undercutting of prices by Humber and Cardiff shippers. Welsh and Northumbrian prices have been forced down in competition with subsidized Midland exports. Worst feature of all, the Midland scheme, with its quota system, has had the result of penalizing the recently developed pits, whose basic tonnage is low but whose present potential output is high and economical, in favor of concerns with antiquated pits and relatively high costs.

Apparently this view is pretty generally accepted. The Board of Trade report points out that while the amalgamations and combinations discussed have constituted a marked development in the policy of the British coal owners, something more than cooperation on a district basis is needed.

> It has already been agreed in principle that the various districts should consult together as to ways and means of bringing about cooperation not only between individual collieries in the same district but also between the districts themselves, and the examination of this subject is now proceeding.

PRODUCTIVITY OF LABOR AND INDUSTRY

Increased Operating Efficiency of Railroads

AN INDEX of operating efficiency for railroads has been devised by the Bureau of Railway Economics. According to this index, railroad operating efficiency, using the average of 1920 to 1924 as a base, was 117.8 in the first nine months of 1928 as compared with 115.2 in 1927.

The method of compiling the index and the significance of the results shown are described as follows by the Bureau of Railway Economics in a recent publication:[1]

Another measure of operating efficiency is the combination of efficiency factors into an index, so that a convenient percentage basis of comparison may be used in connection with the average of some previous period. Using the five years 1920 to 1924 as a basic period, the average efficiency of the railways is taken as equivalent to 100.

Thirteen operating efficiency factors have been included in the "index," or composite average, namely:

1. Car-miles per car-day.
2. Ton-miles per car-day.
3. Gross tons per train.
4. Net tons per train.
5. Gross ton-miles per train-hour.
6. Net ton-miles per train-hour.
7. Locomotive-miles per locomotive-day (freight).
8. Locomotive-miles per locomotive-day (passenger).
9. Percentage serviceable locomotives (freight).
10. Percentage serviceable locomotives (passenger).
11. Percentage serviceable freight cars.
12. Fuel consumption per unit (freight).
13. Fuel consumption per unit (passenger).

These factors, combined and computed for the first nine months of 1928 and compared with the basic period, 1920–1924, give the following results:

1928:	(Average 1920–1924=100)
January	117.1
February	118.3
March	118.1
April	118.8
May	117.7
June	115.9
July	118.7
August	118.1
September	118.8

These index figures are the highest on record for each of the nine months of 1928 for which returns are available at present. Maintenance of the high level of operating efficiency is expected for the rest of 1928, so that the average for the year as a whole will be higher than for any preceding year. The corre-

[1] Bureau of Railway Economics. Miscellaneous series No. 46: Economic situation in the railway industry. Washington, 1928.

sponding averages for the entire years 1924 to 1927 are comparable with the first nine months of 1928 as follows, and show a definitely continuing progress:

	(Average 1920–1924=100)
1924	104. 8
1925	109. 4
1926	113. 5
1927	115. 2
1928 (9 months)	117. 8

The efficiency index figures here presented for the first nine months of 1928 mean that there was an improvement in railway operating efficiency in each of the individual months of from 15.9 to 18.8 per cent, compared with the basic period (1920 to 1924). When averaged over the nine months as a whole, the percentage of improvement was 17.8 per cent.

This efficiency index does not include the factor of tons per loaded freight car, for the reason that that factor is one for which responsibility is shared with the shippers. Improvement in this average was not shown in 1928, a fact that emphasizes the importance of sustaining every effort to increase the load in the car.

Net tons per loaded car (including less-car-load freight) during the first nine months of 1928 averaged 26.5 tons—lower than in any corresponding period of the preceding five years. In 1927 it was 27.3 tons, and in 1923 stood as high as 28.1 tons.

The further significance of this point is apparent from a consideration of one of the 13 efficiency factors that is included in the index, namely, net ton-miles per freight car-day, which is affected by the average load per car. This factor showed a slight reduction to 514 ton-miles during the first nine months of 1928, from 521 in 1927. This average for 1928 was higher than in 1923, 1924, and 1925.

In spite of the smaller load per car, the railways were able also to show a slight increase in net tons per train during the first nine months of 1928.

The most striking efficiency gain in 1928 was in gross ton-miles per train-hour, which was increased from 21,876 during the first nine months of 1927 to 23,537 in 1928. This was an increase of 7.6 per cent over 1927, and of 42 per cent over 1923.

The improvement in net tons per train was attained by the railways, in the face of a falling carload, through the greater use of facilities and improved motive power made available during the past five years by large capital expenditures. The large increase in gross ton-miles per freight train-hour reflects the greater train speed per hour, together with other factors.

Several individual instances of improved operating efficiency during the first 9 months of 1928 as compared with preceding years are cited in the publication referred to:

Outstanding achievements are briefly indicated below, applying in each case to the first 9 months of 1928, compared with the corresponding 9-month periods of the several years back to 1923, when the railway program for specific improvement in operating efficiency went into effect.

Car-miles per freight car-day show an almost continuous increase, from 27.6 miles in 1923 to 30.7 miles in 1928. In computing this average, account is taken of all freight cars in service, including cars in transit, cars in process of being loaded and unloaded, and cars undergoing or awaiting repairs, as well as cars on sidetracks for which no load is immediately available.

Net tons per freight train have increased from 718 tons in 1923 to 787 tons in 1928.

Freight-train speed has risen consistently, from 10.8 miles per hour in 1923 to 12.9 miles in 1928.

The proportion of freight locomotives in serviceable condition has risen consistently each year, from 77.3 per cent in 1923 to 83.7 per cent in 1928.

Gross ton-miles per freight train-hour have increased continuously and markedly, from 16,607 in 1923 to 23,537 in 1928.

Fuel consumed per thousand gross ton-miles in freight service has shown progressive improvement, from 161 pounds in 1923 down to 126 pounds in 1928 for performing the same service.

Fuel consumption in the passenger service has also shown progressive improvement, from 18.2 pounds per passenger train car-mile in 1923 down to 14.9 pounds in 1928.

MINIMUM WAGE

Work of Minimum Wage Boards in Canada

THE minimum wage board of British Columbia calls attention in its report for 1927 [1] to the fact that its powers were increased during the year by legislation authorizing it, after an order has been in effect for one year, to reopen the question without calling a conference and to substitute a new order, wholly or in part, for the earlier one. Under this legislation the board altered the order relating to the mercantile industry, which had been in effect since 1919, retaining the wage scale, but restricting the hours of employment to 48 a week. At the time the original order was made the board had no power to fix maximum hours of employment.

Since its organization the board has issued orders respecting nine occupations and industries—the mercantile industry, laundries, public housekeeping, office occupations, personal service, fishing, telephone and telegraph operating, manufacturing, and the fruit and vegetable industry. In 1927 the number of employees coming under these orders was 17,507, of whom practically 90 per cent were over 18 years old, or experienced workers. Average weekly wages for those over 18 or experienced were $17.06 and for those under 18 or inexperienced, $10.40.

The experience of the board as to the tendency of the minimum to become the standard rate coincides with what has been observed elsewhere.

> Having in mind one of the oft-quoted objections to minimum wage regulations raised by opponents to this form of social legislation—namely, that eventually the minimum would tend to become the maximum for experienced workers—it is illuminating to note that, after a period of nine years' testing in this Province, out of 17,507 employees only 3,056, or 17.46 per cent, were reported as receiving the actual minimum for their respective classes of work. Turning to the higher scales of pay, we note that 10,748 women and girls, or 61.39 per cent of all those reported, were listed as being in receipt of wages in excess of the legal minimum. This leaves a balance of 3,703, or 21.15 per cent, to be paid below the minimum. This latter class, of course, includes young girls and inexperienced workers for whom lower rates are set and employees of experience whose working week was shorter than 48 hours, with a pro rata reduction in their remuneration.

Minimum Wage Work in Ontario

THE minimum wage board of Ontario, whose report for 1927 is summarized in the Canadian Labor Gazette for October, 1928, issued during the year special permits to 41 firms allowing lower wages to handicapped workers, or variations or suspensions of orders in emergencies. It also collected arrears of wages from 53 firms for the benefit of 146 employees. The total sum thus collected was $6,601; other arrears were collected privately of which the particulars were not reported.

[1] Canada (British Columbia). Minimum Wage Board. Report for the year ended December 31, 1927. Victoria, 1928.

The minimum wage established by the board is based on the cost of living in Toronto, suitable modifications being made for other places affected, whether cities, towns, villages or rural districts.

The budget for Toronto as revised to October, 1927, allows $364 per year or $7 per week for board and lodging; $127 per year for clothing; $162 for sundries (including laundry, doctor, dentist, carfare, amusements, church, etc.), making a total of $653 for the year. The weekly budget for Toronto is, therefore, as follows: Board and lodging, $7; clothing, $2.44; sundries, $3.06, making a total of $12.50 per week. The figure thus arrived at is taken as the minimum wage required to provide a female worker in Toronto with the necessities of living.

Minimum Wage Rates for Minors in Uruguay

MINORS in Uruguay are hereafter to be paid the following minimum wage rates, according to a statement in the October, 1928, issue of the Pan American Bulletin: For workers of 15 or 16 years, 25 pesos [1] per month, or 1.25 pesos per day of four hours, or 28 pesos per month or 1.40 pesos per day of five hours; for minors from 16 to 18 years, 30.32 pesos per month or 1.66 pesos per day of six hours.

These rates are to apply to minors who are employed in public works, whether constructed by the Government or by contracting firms.

[1] Peso at par=$1.03; exchange rate approximately par.

INDUSTRIAL ACCIDENTS

Quarry Accidents in the United States in 1926

AN INCREASE from 1.78 to 1.87 in the fatality rate per thousand 300-day workers and a decrease from 169.67 to 160.28 in the injury rate characterize the accident situation in the quarries of the country for the calendar year 1926, as compared with 1925, according to the recently published report of the Bureau of Mines on quarry accidents in the United States in 1926. Of the 91,146 men employed, pratically the same as in 1925, 50,620 worked inside the quarries and 40,526 worked at crushers, limekilns, cement mills, and other plants outside the quarries. The average number of working-days for all was 271, which is 2 less than in 1925. A total of 154 men were killed and 13,201 were injured. In 1925 these figures were 136 and 13,247, respectively. The following table presents the accident record of the quarries for the three years ending with 1926:

ACCIDENT EXPERIENCE OF QUARRIES IN THE UNITED STATES DURING 1924, 1925, AND 1926

Year	Number employed	Equivalent 300-day workers	Accidents			Freqeuncy rate				Severity rate (days lost per 1,000 hours' exposure)		
			Fatal	Permanent	Temporary	Per 1,000 300-day workers		Per 1,000,000 man-hours		Fatal	Nonfatal	Total
						Fatal	Nonfatal	Fatal	Nonfatal			
1924	94,242	84,426	138	470	14,307	1.63	175.03	0.54	58.34	3.27	2.26	5.53
1925	91,872	83,487	149	452	13,713	1.78	169.67	.59	56.56	3.57	2.39	5.96
1926	91,146	82,361	154	431	12,770	1.87	160.28	.62	53.43	3.74	2.16	5.90

The table discloses a steady increase in the fatality rates, both frequency and severity, but a material decrease in the nonfatal frequency rate, although the fatal severity rate has increased somewhat from year to year.

Measured by the fatality rates, the accident hazard in and about quarries appears to be greatest in the handling of granite, for which a rate of 3.52 per thousand 300-day workers is recorded. Marble is next with a rate of 3.12. However, the injury rate was higher in trap rock, being 244.92; limestone was next with 207.39. In 1925 trap rock was first in both fatality and nonfatal rates.

The report states that most of the fatal accidents were caused, in the order named, by falls or slides of rock or overburden, explosions, haulage, machinery, electricity, falls of persons, and burns, while most of the nonfatal injuries were caused by flying objects, handling

rock, machinery, haulage, falling objects, falls of persons, hand tools, and falls or slides of rock or overburden.

A table showing the relation of accidents to length of shift indicates higher fatal and nonfatal rates for those employed in plants operating on a 9-hour basis than on 8 or 10 hours. This in itself is not significant, however, since rates may be affected by size of plant and whether or not the plants are operated steadily or only part time.

So far as small and large plants are concerned, the record appears to favor the large plants, that is, those employing 50 or more men, counting inside workers only. Thus we find a fatality rate of 1.81 for the plants employing 50 to 99 workers, and rates of 3.79 and of 2.88 for the small plants employing, respectively, 1 to 24 workers and 25 to 49 workers. Also we find nonfatal rates of 172.04 for the first group and of 220.30 and 195.86 for the last two groups.

A comparison of fatality rates for quarries, metal mines, and coal mines is given in the following table, covering the years 1924 to 1926. From this it will be seen that the quarries make a better showing than either metal mines or coal mines. The latter, however, show a declining rate, while the quarries show a steadily increasing rate.

COMPARISON OF FATALITY RATES IN QUARRIES, METAL MINES, AND COAL MINES, 1924 TO 1926

Year	Quarries		Metal mines		Coal mines	
	Number of 300-day workers	Fatality rate	Number of 300-day workers	Fatality rate	Number of 300-day workers	Fatality rate
1924	84,426	1.63	119,113	3.51	499,896	4.79
1925	83,487	1.78	123,908	2.99	480,227	4.65
1926	82,361	1.87	123,776	3.47	559,426	4.50

Inadequacy of Present Provisions for Rock-Dusting in Coal Mines

ROCK dusting in coal mines has come to be a well-recognized precaution for the reduction of the explosion hazard. The Bureau of Mines, which has been diligently promoting this safety measure, finds, however, upon investigation, that in all probability not "even a small fraction of 1 per cent of the coal mines of the United States are at all adequately protected by rock dust," for a survey recently made and reported in its Circular No. 6087 (November, 1928), on rock-dusting by hand methods, disclosed the fact that only 463 out of more than 7,000 operating bituminous and lignitic coal mines were using rock dust at all, and that few if any of the 463 were fully protected by rock dusting.

During the fiscal year ending June 30, 1928, the bureau received reports of 22 explosions in bituminous mines with 320 fatalities, and of this number of explosions there were 10 with 258 deaths in mines that were listed as having used rock dust, but which, upon investigation, were found to have adopted the measure inadequately because of lack of proper comprehension of its value. "It is probable," says the report, "that in a very few instances last year the relatively small amount of rock dusting stopped the extension of the explosion and

thus prevented further expansion of the death list," but gives as the chief reason for the apparent failure of the mines to adopt this relatively simple and inexpensive method of protecting their workers, the fact that mining men seem in general unable to grasp the underlying principles of rock dusting and do not appreciate the very great importance of applying the dust to the exposed surfaces of all accessible places in bituminous and lignitic coal mines. "There should be no part" of any of these mines "in which all of the exposed surfaces (roof, ribs, and floor) have not been thoroughly rock dusted and kept thoroughly rock dusted." It is pointed out that these surfaces should be so covered with rock dust that the combined rock-dust-coal-dust mixture at all times and in all places has less than 35 or 40 per cent combustible matter. The only exception is that surfaces which are wet (not merely damp) need not be rock dusted.

The bureau circular discusses the method by which rock dusting may be done by hand as well as by machinery, which appears to be the only method at present at all seriously considered. Difficulties in the way of properly rock dusting by machine are pointed out, at times resulting in its abandonment if tried at all. The apathy of miners toward this important measure is commented upon, and it is suggested that until the workers themselves assume some of the responsibility for the maintenance of rock dusting at their places of work the practice will be slow in developing. A plentiful supply of the material should be always on hand and the workers should be required to throw it by hand or by shovel against the ribs, roof timbers, and floor so as to have on entry room and crosscut surfaces from 5 to 10 pounds of rock dust per linear foot of advancing opening. State laws on this subject are suggested.

Amount and Cost of Rock Dust

IN A mine operating in a 5-foot seam with entry and crosscuts 12 feet wide, rooms 22 to 24 feet wide, and an output of 1,000 tons per day, of which 25 per cent is from narrow work and 75 per cent from room work, with a daily advance of 100 feet for the narrow work and of 150 to 175 feet in room work, the amount of dust required is estimated to be 500 pounds for the narrow work and 1,750 pounds for the room work, distributed on the basis of 5 pounds of dust per foot of narrow work and 10 pounds per foot of room advance. Thus about 1 ton of rock dust per day in a mine of the size mentioned will adequately protect its workers from the hazard of explosion. This dust, it is stated, usually costs less than $10 per ton, f. o. b. the mine, and in some localities as low as $5 per ton, thus making this precautionary measure so low in material cost (about 1 cent per ton) as to justify its more general adoption. This element of cost has not been carefully considered by mine men, apparently. The time consumed by the miner, from 20 to 30 minutes per day or possibly every other day, is "certainly not an unreasonable contribution on his part to the safety of the mine and its workers, including himself."

The circular concludes with the following statement setting forth an ideal method of protecting against widespread explosions:

> The ideal method of protection against widespread explosions is to have the mine sufficiently ventilated to hold the methane content of mine air below 1 per cent at all times and in all places; to use permissible explosives with electrical

detonation, and preferably to have all loading and firing done after the general working shift is out of the mine; where electricity is used to employ nothing but permissible electrified equipment and to hold open wiring, motors, and switches away from gassy or dusty faces as much as possible; to have the mine piped with water lines to all working faces and to use water on the cutter bar of all mining-machine cutting chains while operating and on all coal piles and roof, rib, and floor surfaces from the face back 25 to 40 feet while loading coal either by hand or by machine; to rock-dust by hand the region immediately back of the face as the face advances, leaving about 25 to 40 feet at the immediate face to be kept wet by hosing; and to have the company maintain the rock-dusting by machine, air-carrying, or hand-dusting of haulage and all other accessible places which periodical (preferably monthly) sampling indicates have incombustible less than 65 per cent, or in other words to redust when dust samples from mine surfaces show combustible above 35 per cent. The cost of this program is by no means as great as our mining companies usually apprehend, and at any rate the cost of the program is infinitely less than is the cost of widespread explosions such as have been occurring with monotonous regularity year by year in the United States.

Industrial Accidents in Massachusetts, 1926-27

A VERY complete statistical report of industrial accidents covering the fifteenth year (ending June 30, 1927) of the operation of the workmen's compensation act in Massachusetts has recently been issued by the Department of Industrial Accidents. Comparisons with the report for the preceding year, it is pointed out, show a decided increase in the number of accidents reported and also in the number of tabulatable injuries, the latter being 38.3 per cent of the total reported while in the preceding year it was 36.7 per cent. The report analyzes in detail 64,167 accidents, 317 (0.5 per cent) of which were fatalities, 17 were permanent total disabilities, 1,232 (1.9 per cent) were permanent partial disabilities, and 62,601 (97.5 per cent) were temporary injuries. The number of days lost in all these cases was 4,512,659, or an increase of 234,417 days over the preceding year. Approximately 42 per cent of this time loss was occasioned by fatal accidents, apportioned on the standard basis of 6,000 days per case; 35.1 per cent was lost in temporary disability cases, while permanent total and permanent partial disability cases accounted for 2.3 and 20.5 per cent, respectively. As is usually true in industrial accidents, most of the cases (38.5 per cent) terminated within the first week; 25.4 per cent lasted four weeks or over. The following table summarizes the report so far as concerns the industries in which these accidents occurred.

TABLE 1.—NUMBER AND PER CENT OF INDUSTRIAL ACCIDENTS AND OF DAYS LOST IN MASSACHUSETTS, YEAR ENDING JUNE 30, 1927, BY INDUSTRY

Industry	Deaths		Permanent disabilities		Temporary disabilities		Total				
	Number	Days lost	Number	Days lost	Number	Days lost	Number	Per cent of all cases	Days lost	Per cent of total days lost	Average days lost
Agriculture			12	17,250	402	13,018	414	0.6	30,268	0.7	73
Building trades	58	348,000	112	158,550	8,717	265,786	8,887	13.9	772,336	17.1	87
Chemicals	6	36,000	16	6,700	592	15,401	614	1.0	58,101	1.3	94
Clay, glass, and stone	6	36,000	17	14,250	724	18,341	747	1.2	68,591	1.5	91
Clothing	1	6,000	7	2,550	501	10,041	509	.8	18,591	.4	36
Express	1	6,000	2	5,250	485	7,800	488	.8	19,050	.4	39
Food	6	36,000	39	28,500	2,280	51,229	2,325	3.6	115,729	2.6	49
Iron and steel	35	210,000	259	181,500	7,264	179,581	7,558	11.8	571,081	12.6	75
Leather	6	36,000	66	46,050	3,120	77,608	3,192	5.0	159,658	3.5	50
Liquors	1	6,000	1	300	186	4,521	188	.3	10,821	.2	57
Lumber	10	60,000	114	81,300	2,189	51,879	2,313	3.6	193,179	4.3	83
Metals	1	6,000	27	12,750	740	17,985	768	1.2	36,735	.8	47
Minerals	4	24,000	6	11,400	317	9,637	327	.5	45,037	1.0	137
Paper	5	30,000	41	30,250	1,741	45,333	1,787	2.8	105,583	2.3	59
Printing and bookbinding	1	6,000	21	14,250	755	16,377	777	1.2	36,627	.8	47
Professional	3	18,000	4	1,210	401	9,025	408	.6	28,225	.6	69
Service	18	108,000	35	41,400	2,589	65,115	2,642	4.1	214,515	4.8	81
Telephone and telegraph	4	24,000			269	4,318	273	.4	28,318	.6	103
Textiles	19	114,000	164	137,850	7,356	190,883	7,539	11.7	442,733	9.8	58
Trade	31	186,000	95	64,950	9,107	219,075	9,233	14.4	470,025	10.4	51
Transportation, road, etc.	68	408,000	71	80,650	6,748	167,564	6,887	10.7	656,214	14.6	95
Water transportation	3	18,000	5	4,500	857	18,599	865	1.3	41,099	1.0	47
Transportation, other			1	300	64	1,725	65	[1]	2,025	(1)	31
Miscellaneous	30	180,000	134	83,700	5,197	124,418	5,361	8.4	388,118	8.6	72
Total	317	1,902,000	1,249	1,025,400	62,601	1,585,259	64,167	100.0	4,512,659	100.0	70

[1] Less than one-tenth of 1 per cent.

Sixteen per cent of the injuries were in the 20 to 24 year age group. Most of those injured, numbering 13,810 or 21.5 per cent, were receiving $35 and over per week, and 66 per cent were receiving $24 and over, making them eligible to the maximum compensation of $16 per week. In 1925 this percentage was 68 and in 1926 it was 66.1.

As to location of injury, the upper extremities, as is usually the case, were most frequently affected, the number being 28,166 or 43.9 per cent. Cuts, punctures, and lacerations were responsible for 31.6 per cent of the injuries; sprains and strains were next, with 21.1 per cent. Most of the fatal cases, where specific nature of injury is given, followed fractures. By far the greatest number of permanent partial disabilities, 94.8 per cent, resulted from amputations or loss of use of a member. Infections appeared in one out of every 12 cases, 5,221 or 8.1 per cent being thus affected.

The important data relating to the causes of industrial accidents in Massachusetts is best presented by including the following table, which summarizes this information:

TABLE 2.—NUMBER AND PER CENT OF INDUSTRIAL ACCIDENTS IN MASSACHUSETTS, YEAR ENDING JUNE 30, 1927, BY CAUSE

Cause	Deaths		Permanent disabilities		Temporary disabilities		Total				
	Number	Days lost	Number	Days lost	Number	Days lost	Number	Per cent of all cases	Days lost	Per cent of total days lost	Average days lost
Animals	5	30,000	4	8,400	434	13,356	443	0.7	51,756	1.1	116
Explosions, electricity, etc	34	204,000	16	32,700	2,612	55,844	2,662	4.1	292,544	6.5	109
Falling objects, not handled by employee	19	114,000	32	20,400	3,574	102,892	3,625	5.6	237,292	5.3	65
Falls of persons	67	402,000	50	110,400	9,805	322,245	9,922	15.5	834,645	18.5	84
Handling objects	30	180,000	171	83,250	20,026	491,125	20,227	31.5	754,375	16.7	37
Hand tools	6	36,000	92	109,950	5,213	91,176	5,311	8.3	237,126	5.2	44
Machinery	47	282,000	784	522,950	7,735	210,061	8,566	13.3	1,015,011	22.5	118
Occupational disease	10	60,000	9	11,700	791	27,542	810	1.3	99,242	2.2	122
Stepping on or striking against objects	4	24,000	15	19,800	4,858	82,135	4,877	7.6	125,935	2.8	25
Vehicles	68	408,000	39	72,850	3,983	121,914	4,090	6.4	602,764	13.4	147
Miscellaneous	27	162,000	37	33,000	3,570	66,969	3,634	5.7	261,969	5.8	71
Total	317	1,902,000	1,249	1,025,400	62,601	1,585,259	64,167	100.0	4,512,659	100.0	70

Most of the machine accidents were due to starting, stopping, or operating. This number was 4,180 or 48.8 per cent, and of this total, 3,802 or 91 per cent occurred at the point of operation. Sixty-six per cent of all machine accidents occurred at this point, showing the very great relative hazard of this part and the need for continued diligence in devising and installing proper safeguards.

Of the specific injury cases, the loss of one finger or thumb was the most frequent in occurrence, accounting for 834 or 71 per cent of the 1,175 cases of this kind. Most of the specific injury cases (66.5 per cent) occurred on machinery. There were 101 eye injuries, 50 of them being due to hand tools.

Industrial Accidents in the Philippines, 1923 to 1927

THE TABLE given below on industrial accidents in the Philippines, 1923 to 1927, is reproduced from the annual report of the Governor General of the Philippines for 1927:

INDUSTRIAL ACCIDENTS IN THE PHILIPPINES, 1923 TO 1927

Year	Number of accidents	Number of injuries				Adjustments		
		Temporary	Permanent	Fatal	Total	Indemnified	Unindemnified	Amount collected [1]
1923	343	298	5	86	389	196	193	$6,235.73
1924	500	437	31	61	529	214	315	5,702.41
1925	430	390	15	48	453	247	206	10,853.02
1926	447	390	19	104	513	375	138	12,526.74
1927	452	355	34	143	532	264	120	14,005.45
Total	2,172	1,870	104	442	2,416	1,296	972	49,323.34

[1] Conversion into United States currency on basis of peso at par = 50 cents.

WORKMEN'S COMPENSATION

Federal Workmen's Compensation Acts

THE twelfth annual report of the United States Employees' Compensation Commission for the fiscal year ending June 30, 1928, contains some particularly interesting information because it covers a period in which the Federal longshoremen's and harbor workers' compensation act became a part of our workmen's compensation system.

Previous reports were based on the experience of the commission under the Federal employees' compensation act, and, with the increasing jurisdiction and power given the commission, the report becomes more comprehensive and valuable. The twelfth report is divided into nine parts, covering the jurisdiction of the commission under the Federal employees' compensation act, the longshoremen's and harbor workers' compensation act which became effective July 1, 1927, and the District of Columbia compensation act which became effective on July 1, 1928; the organization of the commission; the experience of the commission operating under the Federal employees' compensation act; discussion of the inauguration of and operations under the longshoremen's and harbor workers' compensation act; discussion of the District of Columbia workmen's compensation act; and statistics showing the result of the experience of the commission under the three laws stated. As regards legislation recommended relating to the longshoremen's and harbor workers' compensation act, the commission made the following comment:

> While Congress before passing the longshoremen's act determined to exclude therefrom the masters and members of the crew of any vessel, and expressed that intention clearly, it is believed that this exclusion goes further than may have been intended, or than is of advantage to the class of men so excluded from the benefits of the act. Under the laws of the United States a vessel is any waterborne craft capable of transportation on water. This includes not only what are usually called vessels, but also barges, scows, rafts, and small boats, all of which may at times have but one man aboard. Frequently this kind of a vessel has no motive power but is towed and carries a crew of one man or none. To hold that the one man is the master or the crew of the vessel excludes him from any benefits under the act although most of his service may be on land and a service not connected with the so-called vessel at all. The result has been that in some industries over the country, especially upon the navigable rivers, business concerns have been required to insure, first, under the State compensation law; second, under the longshoremen's act; and third, to take a policy to cover their admiralty or maritime liability to the crews of their vessels. In some cases it appears that they have been required to pay premium on each of these three insurances upon the entire pay roll of the company.
>
> It is believed that the law should be so amended as to bring within its benefits these seamen, if they be seamen, who are operating upon the rivers and other fresh water, leaving the exemption of the longshoremen's act as to masters and members of the crew to apply only to the crews of real vessels which actually ship crews under regular articles of agreement provided by law. Upon the rivers there is generally only an informal employment of crews similar to that used in the case of the man engaged for work on land. The service of the crews has but little, if any, relation to a situation involving the recruiting and maintenance of a

crew. The merchant marine act of 1920 provides a remedy for a seaman injured in the course of his employment. That remedy is hardly applicable or available to the crews of the various classes of small vessels operating upon the rivers and interior waters of the country. It is recommended that the exemption of crews be limited to seagoing vessels and those signing on as regular crews on the Great Lakes, thus bringing within the longshoremen's act the crews in the interior referred to as well as the persons employed upon small boats in and around seacoast harbors.

The statistics based upon the Federal employees' compensation act give a distribution of injuries reported according to the departments of the Government and the number injured. The figures based upon the District of Columbia workmen's compensation act cover the three months subsequent to the end of the fiscal period named in the report but prior to its publication. The most interesting figures are those showing the results of the experience of the commission operating under the longshoremen's and harbor workers' compensation act. A summary of these tables found in the report is as follows:

CLOSED TEMPORARY TOTAL AND PERMANENT PARTIAL DISABILITY CASES REPORTED FOR STATISTICAL ANALYSIS, AND FATAL CASES, BY OCCUPATION AND CAUSE OF INJURY, FISCAL YEAR 1928

Occupation or cause of injury	Nonfatal cases							Deaths				Number of all cases
	Temporary total disabilities			Permanent partial disabilities		Total number	Total amount of compensation	Total number	Number with dependents	Amount of weekly compensation	Estimated valuation of compensation	
	Total number of cases	Compensated cases		Number of compensated cases	Amount of compensation							
		Number	Amount of compensation									
Longshoremen	12,423	8,831	$653,831	232	$91,274	12,655	$745,105	41	38	$481.70	$235,345	12,696
Repair men	1,815	1,058	86,192	42	22,126	1,857	108,318	18	15	254.40	112,120	1,875
Inspectors	12	5	453			12	453					12
Miscellaneous	329	177	11,064	4	5,481	333	16,545	3	3	34.87	20,442	336
Total	14,579	10,071	751,540	278	118,881	14,857	870,421	62	56	770.97	367,907	14,919
Mechanical causes												
Prime movers	9	8	615	2	737	11	1,352					11
Power-transmission apparatus	1	1	5			1	5					1
Power-working machinery	1	1	39			1	39					1
Metal-working machinery	205	84	5,186	8	3,419	213	8,605					213
Woodworking machines	2	2	135	1	961	3	1,096					3
Hoisting apparatus and conveyors	2,735	2,057	164,773	71	36,194	2,806	200,967	24	23	304.11	147,883	2,830
Miscellaneous machinery	4	3	59	1	161	5	220					5
Total mechanical	2,957	2,156	170,812	83	41,472	3,040	212,284	24	23	304.11	147,883	3,064
Nonmechanical causes												
Vehicles	49	24	3,039	1	460	50	3,499					50
Pressure equipment	18	9	467			18	467	1			1,200	19
Explosive substances	4	4	142			4	142					4
Electricity	9	6	180	1	1,376	10	1,556	2	2	25.24	13,006	12
Conflagrations and flames	78	37	1,563	1	341	79	1,904					79
Hot substances	133	90	5,362	2	704	135	6,066					135
Corrosive substances	97	61	3,980	1	1,079	98	5,059					98
Poisonous substances	51	17	913			51	913	2	2	29.77	14,262	53
Falls of persons	2,009	1,453	132,165	31	17,314	2,040	149,479	17	15	225.37	101,955	2,057
Falling objects	3,106	2,289	180,239	55	21,459	3,161	201,698	5	4	61.45	24,393	3,166
Handling objects	3,306	2,322	157,901	66	20,216	3,372	178,117	1	1	16.39	7,500	3,373
Hand tools	809	460	26,558	14	3,072	823	29,630					823
Stepping on, striking against, or struck by objects	1,443	943	59,086	18	9,424	1,461	68,510					1,461
Miscellaneous	510	200	9,133	5	1,964	515	11,097	10	9	108.64	57,708	525
Total nonmechanical	11,622	7,915	580,728	195	77,409	11,817	658,137	38	33	466.86	220,024	11,855

Illegally Employed Minors Under Workmen's Compensation Acts

THE Supreme Court of Alabama on October 25, 1928, decided that in the case of the death of a minor under 16 years of age employed in a mine in violation of the child labor law, the administrator of the estate could not bring suit for damages under the common law but was limited to action under the workmen's compensation act.[1] In view of this decision it is interesting to notice how other workmen's compensation States treat children injured while illegally employed.

From information available to the bureau the following table has been made, in the first column of which are listed the States having no compensation law, in the second column those which do not allow compensation awards to children injured while illegally employed, in the third column those which allow awards to children injured while illegally employed on the same basis as legally employed adults, and in the fourth column those which in addition to allowing awards to these children on the same basis as legally employed adults the law also allows a percentage of the ordinary award to the claimant or to the State as a penalty for the illegal employment. The situation in the State of Pennsylvania illustrates how settlements may be agreed to, based on workmen's compensation acts in States where an award is not allowed as a matter of right.[2]

In the absence of a definite statement in the law concerning the status of illegally employed children under the compensation act or a decision of a court interpreting the provisions of the law, it has been necessary to follow the rulings of the workmen's compensation commission of the jurisdiction or to place a construction upon the law itself pending a ruling or decision. The table is as follows:

TABLE 1.—STATE PROVISION AS TO COMPENSATION FOR INJURIES TO ILLEGALLY EMPLOYED MINORS

No compensation law	No compensation allowed to children illegally employed	Compensation to children illegally employed same as to adults but no penalty	Compensation to children illegally employed same as to adults and also specified penalty
Arkansas. Florida. Mississippi. North Carolina. South Carolina.	Delaware. Idaho. Indiana. Iowa. Louisiana. Minnesota. Nebraska. Oklahoma. Pennsylvania. Rhode Island. South Dakota. Tennessee. Texas. Utah. Vermont. West Virginia.	Alabama. Arizona. California. Colorado. Connecticut. District of Columbia. Georgia. Kansas. Kentucky. Maine. Massachusetts. Montana. Nevada. New Hampshire. New Mexico. North Dakota. Ohio. Virginia. Wyoming. United States (longshoremen).	Illinois, 50 per cent. Maryland, 100 per cent. Michigan, 100 per cent. Missouri, 50 per cent. New Jersey, 100 per cent. New York, 100 per cent. Oregon, 25 per cent.[a] Washington, 50 per cent.[b] Wisconsin, 100 and 200 per cent.

[a] In addition, penalty to State but maximum of $500. [b] In addition, penalty to State.

[1] Ivey *v.* Railway Fuel Co., 118 So. 583.
[2] See article "Injured children excluded from benefits of workmen's compensation," Labor and Industry, July, 1928, reprinted in part in Labor Review, October, 1928, p. 67.

There are seven States which allow the child injured while illegally employed an award equal to that which would have been allowed to an adult and, in addition, a penalty. Two other States allow compensation to children illegally employed and in addition a penalty payable to the State. The penalties range from 50 per cent to 200 per cent added to the award. As Wisconsin allows the greatest amount, 100 per cent and 200 per cent, the provisions of that act and the results of the experience under these provisions are sufficiently interesting to be given special notice. Section 102.09 (7) of the Revised Statutes of Wisconsin provides that (*a*) if a minor of permit age is injured while employed without the required permit in otherwise lawful employment, he shall be entitled to double compensation for the injury, (*b*) if a minor of permit age is injured while employed without a permit in any place of employment for which permits may not be issued under written resolution of the industrial commission, he shall be entitled to treble compensation for the injury, (*c*) if a minor of permit age or over is injured in prohibited employment, he shall be entitled to treble compensation for the injury.

Table 2 shows the number of cases in which additional compensation was allowed on the above grounds in Wisconsin from 1923 to 1927:

TABLE 2.—VIOLATIONS OF WISCONSIN CHILD LABOR LAW INVOLVING INCREASED COMPENSATION, 1923 to 1927

[Wisconsin Labor Statistics, Bulletin No. 8, Apr. 1, 1928, p. 12]

Age	Number of children employed without labor permit					Number of children employed in prohibited employment					Total number of cases				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
14	3	-----	4	2	6	1	-----	2	2	2	4	-----	6	4	8
15	7	6	11	10	7	-----	3	1	2	4	7	9	12	12	11
16	53	67	35	37	17	2	4	1	9	6	55	71	36	46	23
17	-----	-----	-----	-----	-----	3	5	3	3	3	3	5	3	3	3
18	-----	-----	-----	-----	-----	-----	2	-----	-----	-----	-----	2	-----	-----	-----
19	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	1	-----
20	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
All ages	63	73	50	49	30	6	14	7	17	15	69	87	57	66	45

Table 3 shows the number of cases involving specified amounts to be paid as indemnity by employers in 1927:

TABLE 3.—NUMBER OF CASES OF INCREASED INDEMNITY PAID BY EMPLOYERS IN CHILD LABOR LAW VIOLATIONS IN WISCONSIN, 1927

Amount of indemnity	Child employed without the statutory labor permit (double liability cases)	Child worked in a prohibited employment (treble liability cases)	Amount of indemnity	Child employed without the statutory labor permit (double liability cases)	Child worked in a prohibited employment (treble liability cases)
$10 or less	1		$401 to $500	2	1
$11 to $20	4	4	$501 to $600		
$21 to $30	5	3	$601 to $700	1	1
$31 to $40	1	1	$701 to $800		
$41 to $50	2		$801 to $900		
$51 to $60	4		$901 to $1,000		
$61 to $70	2		$1,001 to $2,000	1	
$71 to $80		1	$2,001 to $3,000	1	
$81 to $90	1	1	$3,001 to $4,000	1	
$91 to $100	1		$4,001 to $5,000		1
$101 to $200	1		$5,001 to $6,000		
$201 to $300	2	1			
$301 to $400		1	Total	30	15

Report of Massachusetts Department of Industrial Accidents

THE report of the Massachusetts Department of Industrial Accidents for the year ending June 30, 1927, contains data (reported by insurance companies) showing that payments made and to be made on account of injuries during the year reviewed totaled $8,018,634.38, classified as follows: Medical, $2,710,704.49 (33.8 per cent); fatal, $964,839.51 (12 per cent); nonfatal, $4,343,090.38 (54.2 per cent). A summary of these reports is as follows, the payments in each case including those made and those incurred:

NUMBER OF CASES AND TOTAL PAYMENTS MADE AND INCURRED UNDER THE WORKMEN'S COMPENSATION ACT IN MASSACHUSETTS FOR THE YEAR ENDING JUNE 30, 1927

Item	Number of cases	Amount	Average
Medical only	78,176	$953,943.06	$12.20
Compensation only	5,253	313,642.77	59.71
Both medical and compensation	32,572	5,765,480.80	177.01
Neither medical nor compensation	48,446		
Dependency in fatal cases	259	957,212.51	3,695.80
No dependency in fatal cases	23	7,627.00	331.61
Total payments made and incurred:			
Medical		2,710,704.49	
Fatal		964,839.51	
Nonfatal		4,343,090.38	
Total		8,018,634.38	

UNEMPLOYMENT INSURANCE AND RELIEF

Unemployment Insurance in Queensland

THE fifth annual report upon the administration of the Queensland unemployed workers' insurance acts [1] which covers the year ended June 30, 1928, stresses the heavy burden thrown upon the fund by the prevalence of unemployment during the year. Because of this, it was found necessary again to increase the contributions of the three parties concerned—the Government, the employers, and the workers. A year ago these contributions were raised from 3d. to 4d. (6.08 to 8.11 cents) weekly (see Labor Review, January, 1928, p. 101), which it was hoped would be sufficient to secure the solvency of the fund, provided that the demands upon it were not greater than during the preceding year.

However, these anticipations were not realized, for it was found that the sustenance payments during the year under review totaled £390,336 ($1,899,570), as against £340,933 ($1,659,150) for the previous year. The balance in the fund at June 30, 1928, was therefore quite insufficient to carry forward into the new year with a reasonable prospect of being able to maintain the solvency of the fund on the existing contributions, and after careful consideration, the council felt compelled to again increase the weekly contribution from 4d. to 6d. (8.11 to 12.17 cents) such increased rate to operate as from July 1.

One serious weakness in the general situation brought to light by the operation of the fund is the extent of seasonal work, with the corresponding amount of unemployment in the off seasons. February, March, and April are shown as months of heavy demands upon the fund, when there is practically no sheep shearing, so little to be done in the meat works that they are usually closed down, and very little employment in the sugar industry. Moreover, during these months of wet weather a certain amount of general work, such as road construction, is deferred, adding to the prevailing depression. The report calls for a serious consideration of methods of absorbing seasonal workers during their slack times, pointing out that at present they are practically obliged to fall back on the unemployment fund as soon as their savings are exhausted.

During the year covered, contributions from employers, workers, and the State totaled £342,297 ($1,665,788) as against £263,219 ($1,280,955) in the previous year. During the year ending March 31, 1928, applications were received from 52,226 persons, to whom a total of £377,149 ($1,835,396) was paid out. A classification of these applicants by industry shows what callings have been the heaviest charge upon the fund.

Omitting the general heading of laborers, it will be noted that waterside workers drew the largest amount of sustenance, £28,934 ($140,807), while coal miners, carpenters, carters, and station hands all exceeded £10,000 ($48,665). Laborers to the number of 24,357 drew £182,297 ($887,148). Cane cutters and other laborers employed in the sugar industry are included under this general heading.

[1] Australia (Queensland). Department of Labor. Fifth annual report on operations under the unemployed workers' insurance acts, 1922 to 1927. Brisbane, 1928.

Increased Borrowing Powers of British Unemployment Insurance Fund

ON NOVEMBER 13, 1928, a motion was introduced in the House of Commons authorizing the increase to £40,000,000 ($194,660,000) of the amount which might be advanced from the Treasury to the unemployment insurance fund for the purpose of discharging its liabilities under the unemployment insurance acts of 1920 to 1927. A second clause provided that after December 31, 1930, "no further advances shall be made unless and until the amount of the advances outstanding has been reduced below £30,000,000 ($145,995,000)," and that thereafter this smaller sum should constitute the limit of its borrowing powers.[1]

The amount which the unemployment insurance fund might borrow had been fixed in earlier acts at £30,000,000. A report presented by the Government before the introduction of the above resolution showed that as of November 9, 1929, the debt thus incurred by the fund amounted to £29,320,000 ($142,685,780), on which interest was charged at an average rate of 5 per cent, and that at that time the expenditures of the fund on account of payment of benefit, administrative expenses, and so on, exceeded its income by about £350,000 ($1,703,275) a week. At this rate the limit of £30,000,000 would so soon be reached that an increase in the fund's borrowing power was absolutely necessary if the payment of benefits was to be continued. The time limit was fixed in order that after two years the matter would be automatically brought before Parliament for review.

The bill was debated long and hotly, some members claiming that the amount asked was wholly insufficient and that the opportunity ought to be seized for revising the scheme radically, while others sought to couple with the authorization safeguards against the "30 contributions" feature of the present act, which is to become effective in April, 1929. Under this provision, no one, after that date, may draw extended benefit unless he has paid into the fund 30 contributions within two years of his claim. As many have had no employment for over two years, it is admitted that this condition will force a number out of benefit, and that presumably, if the industrial situation does not improve, they will have to resort to poor law relief. The Government has made public calculations showing that the net number thus forced out of benefit will not exceed 30,000 (see Review, February, 1928, p. 102), but the labor members are frankly uneasy over the prospect, and sought to couple with their assent to the proposed authorization a clause restricting the operation of this condition. In the end, however, the resolution passed its third reading, without amendment of any kind, on November 19, and went forward for approval.

Transfer and Relief Schemes for English Coal Fields [2]

THE Industrial Transference Board of England, studying the unemployment situation in the early part of 1928, concluded that in the coal-mining industry alone there was a surplus of at

[1] Parliamentary debates, vol. 222, No. 7, p. 843. [2] See Labor Review, September, 1928, p. 56.

least 200,000 workers, and that the only chance for an improvement of conditions lay in the transfer of these unneeded men to some other industry or occupation.[3] Since this report was issued the situation has grown worse and in some of the mining communities conditions are desperate. The Durham and South Wales coal fields have been particularly hard hit. A list of 43 of these communities, giving the proportion of the insured population which in November, 1928, was out of work, shows only 1 in which the percentage falls below 20, while in 24 it ranged from 30 per cent upward, in 11 cases exceeding 40 per cent. Matters are rendered worse by the fact that unemployment has been prevalent in the coal fields for years, so that the workers' savings are exhausted, their clothes are worn out, and whatever can be sold or pawned has been disposed of, while the unemployment insurance fund is heavily in debt, and the poor relief authorities have taxed their resources to the utmost.

Transfer Schemes

SOON after the publication of the board's report, the Government undertook to send between 8,000 and 9,000 men, mainly from the coal fields, to Canada to help in the wheat harvest and, if they could secure permanent employment, to remain there. The announcement of the plan was followed by an immediate rush of applicants, and over 25,000 enrolled as candidates for the assisted passage. Of these, 8,500 were selected and sent over in August, 1928. The scheme was not an entire success. The London Economist in its issue for December 1, 1928, thus sums up its results:

> Out of the 8,449 men sent out to assist in the Canadian harvest all but 2,720 have now returned home. * * * Of the original 8,449, some were found unfit, more were under an obligation to return to their wives, and others felt that the end of the harvest season was a bad time to take the plunge in a new country. Granted adequate passage facilities, there seems reason to believe that of those who have returned to England, a substantial proportion will once more try their luck in Canada, and that this time they will take their wives and children with them and go with the object of settling down permanently.

In this connection the Government has announced that beginning January 1, 1929, British subjects who wish to go to Canada for the purpose of permanently settling there may secure a third-class passage on British steamers at a fare of £10 ($48.67), instead of the usual rate of £18 15s. ($91.25), the difference being borne by the British Government and the steamship companies jointly.

While the Canadian experiment was in progress the Prime Minister made a strong appeal to employers in general to take on at least one or two workers from the depressed areas, and in August sent out a circular letter to some 150,000 employers, urging this action upon them. No figures have been published to show what effect this letter produced. The labor exchanges also made an effort to send men from the districts in which unemployment was heaviest to those in which it was less severe, but it was difficult to find openings for them, and the process was slow. Referring to the South Wales fields, the Manchester Guardian, under date of December 4, says:

> By "transference" under the Government schemes one doubts whether more than 10,000 men and boys will be moved in a year. Up to October about 7,300

[3] Except where otherwise noted, data are from Ministry of Labor Gazette, September, 1928, and Manchester Guardian, issues of Dec. 1, 8, 11, 12, and 18.

men had gone out of the district this year, including 800 Canadian harvesters who remained overseas out of the 1,560 who went, and also those who have gone through the Ministry of Labor's training courses. * * * This is healthy as far as it goes, but it is a slow process, and it affects in the main only the boys and the single men, who already receive little or nothing from the guardians or the insurance fund.

As winter approached and the situation grew worse, the Government adopted another plan for removing workers from the depressed areas. One of the methods of Government help, in use since the beginning of the depression, has been the making of grants to public authorities to enable them to carry on relief works for the purpose of giving employment. These grants had been made sparingly and under rigorous conditions. It was determined now to use them more freely as a means of securing the transfer of unemployed men, and circulars were sent to the local authorities, explaining the new terms. The most important of these were that any authority receiving such a grant must take at least 50 per cent of the workers to be employed from the depressed areas, and must satisfy the Government that suitable housing arrangement for these new comers had been made. On December 11, in reply to a question in Parliament, it was stated that 19 local authorities had applied for grants under these conditions, and that 1,750 men would be employed on the proposed schemes. On the other hand, the general purposes committee of the London County Council, according to the London Economist of December 1, 1928, returned "a blunt non possumus to the Prime Minister's appeal to employers to find work for unemployed men irrespective of local considerations," giving as one reason the fact that they had no housing accommodation for strangers thus brought in, and the local authorities of Lancashire and Cheshire, having held a conference to consider the plan, likewise concluded that they could not take any part in it. They stressed the lack of housing accommodation, but also pointed out that there were then approximately 273,536 unemployed registered at their own exchanges, and that bringing in unemployed men from the depressed areas would only result in making matters worse for their own people.

It is generally admitted that the housing question is a serious difficulty in the way of transference, and as yet no solution of this problem has been suggested.

Relief Plans

HELP from private sources has been given for a long while, but during the summer and fall of 1928 it became evident that large and concerted measures were necessary. The lord mayor of London had opened a relief fund in April, 1928, and on December 5 a conference of the mayors of other cities resolved that this fund should be supported actively by every municipality in England and Wales. The Friends' service committee was working actively in the distressed areas, and churches and private organizations joined in the effort. One of the war measures for the aid of devastated areas was revived, and churches and communities were urged to adopt a definite village or locality and to become responsible for the help it needed. But as the situation became better known, it was apparent that the distress was too widespread and extreme to be handled by private benevo-

lence, and the Government, which had hesitated to give direct relief, announced on December 17 that in addition to its usual social services it would give special grants to alleviate the prevailing misery. One difficulty about removing workers from the depressed regions was that the men had no money either to remove their families or to take care of them where they were, so a grant of £100,000 ($486,650) was made for the removal of families of workers who secured employment elsewhere. A treasury grant of £150,000 ($729,975) was to be made at once to the lord mayor's fund, and thenceforth the Government would give £1 for each £1 subscribed to this fund from private sources. The Government had previously at the request of the lord mayor of London appointed an organizing secretary and staff to deal with the fund in its enlarged scope and to coordinate the work of the various other charitable agencies dealing with the distressed areas.

The discussion over the vote of this relief led to several developments in the work undertaken. It was decided that the aid given must extend to any in the distressed areas who were unemployed and in want, whether miners or not, and that other areas than South Wales, Northumberland, and Durham were to be included. In announcing the grant, the Prime Minister had pointed out that one difficulty about transferring the miners to other work was the danger that many of them were becoming so affected by long unemployment that they were likely to be unfit for work of any kind. "In plain words," observes the Manchester Guardian, "this means that many young men have been enduring a process of slow starvation." To meet this difficulty the Government undertook to have an immediate investigation of the possibility of devising schemes which will enable occupation to be given with a view to fitting the men who receive it for subsequent transfer to employment.

Other and more far-reaching plans are being strongly urged upon the Government. The woman members of Parliament, uniting regardless of party affiliations, brought in a bill which would authorize the local authorities in the necessitous districts to supply shoes for children lacking them, 90 per cent of the cost to be borne by a treasury grant. This passed the second reading, but has not yet gone further. Others are urging that works of national importance should be undertaken, not merely as relief work but as part of a comprehensive scheme for the development of the country, or even of the Empire, pointing out that this would at one and the same time tend to revive industry and to draw off the masses of superfluous labor, not only from the coal fields but from the districts in which shipbuilding and the heavy iron and steel trades once flourished and which now are only less necessitous than the mining areas. As yet none of these suggestions have been adopted.

On December 20 it was announced that the lord mayor's fund had reached the sum of £217,000 ($1,056,030). At that date, according to the Prime Minister, a continuous process of transfer from the mining areas was going on. "There are to-day, so far as we can calculate, and the figures are a conservative estimate, something like 1,250 men (and included in that figure is a small proportion of juveniles) who are getting into other work every week."

LABOR LAWS AND THEIR ADMINISTRATION

Legislation on Hours of Labor of Women and Minors up to January 1, 1929

Working Hours of Women

THE constitutional power of the State to fix a reasonable maximum on the number of hours which women may be employed is no longer open to question. This power, first recognized in 1908 in a case involving a 10-hour law for women, was based on the difference between the sexes, the physical welfare of women being considered an object of public interest. Nine years later reasonable hours of labor legislation was upheld upon the basis that the physical well-being of both men and women was an object of public interest.

As early as 1898, in the case of Holden *v.* Hardy (169 U. S. 366, 395), the United States Supreme Court said that State laws had been enacted limiting the hours during which women and minors shall be employed in factories, "and while their constitutionality, at least as applied to women, has been doubted in some of the States, they have been generally upheld."

Because of the decision in Lochner *v.* New York (198 U. S. 45 (1905)), holding unconstitutional the New York law limiting hours of labor in bakeries to 10, there was some doubt as to the constitutionality of a law placing a maximum on the hours of labor of women in specified industries. In the case of Muller *v.* Oregon (208 U. S. 412 (1908)), a test case was taken to the United States Supreme Court for the purpose of determining the constitutionality of a statute limiting the hours of labor of women in specified industries. This statute provided that "no female shall be employed in any mechanical establishment, or factory, or laundry" for "more than 10 hours during any one day." The court upheld the act in question as constitutional. In reaching this conclusion the court pointed out that the New York law limiting hours of labor in bakeries to 10 "as to men" was not a legitimate exercise of the police power of the State. The contention that the Lochner case was controlling, the court said, "assumes that the difference between the sexes does not justify a different rule respecting a restriction of the hours of labor" of women. A distinction was made between the two cases by basing the latter decision on the difference in the sexes, the Oregon act covering women and the New York law men. In making the distinction the court said that it was obvious "that woman's physical structure and the performance of maternal functions place her at a disadvantage in the struggle for subsistence," that "this is especially true when the burdens of motherhood are upon her," and that "even when they are

not, by abundant testimony of the medical fraternity, continuance for a long time on her feet at work, repeating this from day to day, tends to injurious effects upon the body, and, as healthy mothers are essential to vigorous offspring, the physical well-being of women becomes an object of public interest and care in order to preserve the strength and vigor of the race." Continuing, the court said "she [woman] is properly placed in a class by herself, and legislation designed for her protection may be sustained, even when like legislation is not necessary for men and could not be sustained. * * * The limitations which this statute places upon her contractual powers, upon her right to agree with her employer as to the time she shall labor, are not imposed solely for her benefit, but also largely for the benefit of all. Many words can not make this plainer. The two sexes differ in structure of body, in the functions to be performed by each, in the amount of physical strength, in the capacity for long-continued labor, particularly when done standing, the influence of vigorous health upon the future well-being of the race, the self-reliance which enables one to assert full rights, and in the capacity to maintain the struggle for subsistence. This difference justifies a difference in legislation and upholds that which is designed to compensate for some of the burdens which rest upon her." (208 U. S. 421–423.)

In 1914 two cases regulating the hours of labor of women came before the Supreme Court for a decision as to their constitutionality. The first case, Riley *v.* Massachusetts (232 U. S. 671), involved a statute which provided that the particular hours of labor to be worked be stipulated in advance and that this schedule of hours be posted and be strictly observed while it remained posted. The statute did not by its terms establish a schedule of hours, but merely placed the maximum at 10 hours for women. It left the agreement as to the particular hours to be worked to the free action of the employer and employee. An employer was convicted under this law upon the charge of employing a woman in a factory at a different hour than that specified in a notice posted in accordance with the statute. The statute was upheld as valid and the judgment and conviction were affirmed. In the second case, that of Hawley *v.* Walker (232 U. S. 718), an Ohio statute prohibiting the employment of "females over 18 years of age" in "any factory, workshop, telephone or telegraph office, millinery or dressmaking establishment, restaurant, or in the distribution or transmission of messages more than 10 hours in any one day, or more than 54 hours in any one week" was sustained as valid and the judgment involving the employment of a woman for 55 hours a week was affirmed.

In 1915 the California law was questioned in two cases before the United States Supreme Court. The California law was different from the statutes previously passed upon by the Supreme Court in that it involved an 8-hour law instead of a 10-hour law. The court said that "it is manifestly impossible to say that the mere fact that the statute of California provides for an 8-hour day, or a maximum of 48 hours a week, instead of 10 hours a day or 54 hours a week, takes the case out of the domain of legislative discretion." The court further said that "this is not to imply that a limitation of the hours of labor of women might not be pushed to a wholly indefensible extreme, but there is no ground for the conclusion here that the

limit of the reasonable exertion of protective authority has been overstepped." (Miller *v.* Wilson, 236 U. S. 373, 382. See also Bosley *v.* McLaughlin, 236 U. S. 385 (1915), involving student nurses and pharmacists under the California law.)

In 1919 a case involving the regulation of the hours of labor of women in hotels to 8 hours and further providing that the "8-hour period of work shall be performed within a period of 12 hours" went to the Supreme Court, where it was upheld as constitutional in the case of Dominion Hotel *v.* Arizona (249 U. S. 265).

The following table includes statutes placing a limit on hours of labor of females except female minors who are considered in the corresponding table for minors (p. 73). It is not exhaustive as to adult females, since laws including both male and female adults may be found in the table on hours of labor of men, published in the January, 1929, issue of the Labor Review (p. 23). The regulations based upon orders of State commissions are taken from the charts published by the Women's Bureau of the United States Department of Labor in its Bulletin No. 63: State laws affecting working women. The hours given in the table are maximum hours, but in some instances overtime is permitted. The overtime provisions have not been included in the present study.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
Arizona	8	48	------	Any manufacturing or mercantile establishment, confectionery store, bakery, laundry, place of amusement, hotel, restaurant, telephone or telegraph office or exchange, or other establishment. *Exceptions:* Domestic work; nurses; telephone or telegraph office or exchange employing 3 or less women; harvesting, curing, canning, or drying of perishable fruits and vegetables during period necessary to save products from spoiling.	Session Laws of 1927, ch. 44.
Arkansas	9	54	6	Manufacturing, mechanical, or mercantile establishment, laundry, or any express or transportation company. *Exceptions:* Cotton factories, gathering of fruits or farm products.	Digest of 1921, secs. 7102–7114.
	9	------	6	Hotels and restaurants	Industrial Welfare Commission Orders, "Regulating employment of females in hotels and restaurants," 1919.
California	8	48	------	Manufacturing, mechanical, or mercantile establishment, laundry, hotel, public lodging house, apartment house, hospital, place of amusement, or restaurant, or telegraph or telephone establishment or office, or the operation of elevators in office buildings, or any express or transportation company. *Exceptions:* Graduate nurses in hospitals; and fruit, fish, or vegetable canning or drying establishments during period necessary to save products from spoiling.	Acts of 1911 ch. 258, as amended; Acts of 1913, ch. 352; and Acts of 1919, ch. 248.
	8	[1] 48	6	General and professional offices	Industrial Welfare Commission Order, No. 9, 1920.

[1] Basic.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION—Continued

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
California (contd.)	8	48	6	Labeling in the fruit and vegetable canning industry; labeling and office work in the fish canning industry; mercantile industry; laundry and dry-cleaning industry; dried fruit packing industry; office workers in the citrus packing or green fruit and vegetable packing industries; manufacturing industry; nut cracking and sorting industry.	Industrial Welfare Commission Order, Nos. 3a, 5a, 6a, 7a, 8a, 11a, 15a, 1923.
	8	[1]48	[1]6	Fruit and vegetable canning industry; fish-canning industry; citrus packing and green fruit and vegetable packing industries.	Idem, Nos. 3a, 6a, and 8a, 1923.
	8	48	------	Unclassified occupations	Idem, No. 10a, 1923.
Colorado	8	------	------	Manufacturing, mechanical, or mercantile establishments, laundry, hotel, or restaurant.	Compiled Laws of 1921, sec. 4184.
Connecticut	10	55	------	Manufacturing or mechanical establishment.	General Statutes of 1918, sec. 5301–5306.
	------	58	6	Public restaurant, café, dining room, barber shop, hair dressing or manicuring establishment, or photo gallery. *Exceptions:* Hotels.	Laws of 1925, ch. 208.
	------	58	------	Any bowling alley, shoe-shining establishment or billiard or pool room. Any mercantile establishment other than manufacturing or mechanical. *Exceptions:* Mercantile establishments from Dec. 17 to 25 if employer grants at least 7 holidays with pay annually.	General Statutes of 1918, sec. 5302 as amended by Laws of 1925, ch. 153 and ch. 158.
Delaware	10	55	6	Mercantile, mechanical, or manufacturing establishment, laundry, baking or printing establishment, telephone and telegraph office or exchange, restaurant, hotel, place of amusement, dressmaking establishment or office. *Exceptions:* Canning or preserving or preparation for canning or preserving of perishable fruits and vegetables.	Revised Code of 1914, sec. 3135, as amended; Acts 1917, ch. 230.
District of Columbia.	8	48	6	Manufacturing, mechanical, or mercantile establishment, laundry, hotel, or restaurant, or telegraph or telephone establishment or office, or any express or transportation company.	Act of Congress, Feb. 24, 1914, 38 Stat. 291.
Georgia	10	60	------	Cotton or woolen manufacturing establishments. *Exceptions:* Engineers, firemen, watchmen, mechanics, teamsters, yard employees, clerical forces, cleaners, repairmen.	Georgia Code of 1911, sec. 3137, as amended; Acts of 1911, p. 65.
Idaho	9	------	------	Mechanical or mercantile establishment, laundry, hotel or restaurant, or telegraph or telephone establishment or office, or any express or transportation company. *Exceptions:* Harvesting, packing, curing, canning, or drying perishable fruits or vegetables.	Compiled Statutes of 1919, sec. 2330.
Illinois	10	------	------	Mechanical or mercantile establishment, or factory, or laundry, or hotel or restaurant, or telegraph or telephone establishment or office thereof, or any place of amusement, or any express or transportation or public utility business, or common carrier, or public institution.	Revised Statutes of 1917, ch. 48, sec. 121.
Kansas	[1]8	------	[1]6	Telephone operators	Public Service Commission Order, No. 5, Aug. 1, 1927.

[1] Basic.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION—Continued

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
Kansas (contd.)	8	48	------	Public housekeeping occupation, i. e., the work of waitresses in restaurants, hotel dining rooms, and boarding houses; all attendants employed at ice cream parlors, soda fountains, light lunch stands, steam table or counter work in cafeterias and delicatessens where freshly cooked foods are served, and confectionery stores where lunches are served; the work of chambermaids in hotels, lodging and boarding houses, and hospitals; the work of janitresses, of car cleaners, and of kitchen workers in hotels, restaurants, and hospitals; elevator operators, cigar stand and cashier girls connected with such establishments.	Public Service Commission Order, No. 4, Aug. 1, 1927.
	9	49½	------	Laundry occupations, i. e., laundries, dyeing, dry cleaning, and pressing establishments.	Idem, No. 1, Aug. 1, 1927.
	9	49½	6	Manufacturing occupation (all processes in the production of commodities), florists shops, candy making departments of confectionery stores and bakeries. *Exceptions:* Millinery workrooms, dressmaking establishments, hemstitching and button shops, and alteration, drapery, and upholstery departments of a mercantile establishment may obtain permission from the women's division of the public service commission to operate under the mercantile order.	Idem, No. 2, Aug. 1, 1927.
	9	54	6	Mercantile establishments (all establishments operated for the purpose of trade in the purchase or sale of any goods or merchandise) including sales force, wrapping employees, auditing and checking force, shippers; receiving, marking, and stock-room employees of mail-order department; sheet music saleswomen and demonstrators; and all employees in such establishments in any way directly connected with the sale, purchase, and disposition of goods, wares, and merchandise.	Idem, No. 3, Aug. 1, 1927.
Kentucky	10	60	------	Laundry, bakery, factory, workshop, store, or mercantile, manufacturing, or mechanical establishment, or hotel, restaurant, telephone exchange, or telegraph office.	Kentucky Statutes of 1915, sec. 4866b–2.
Louisiana	10	60	------	Mill, factory, mine, packing house, manufacturing establishment, workshop, laundry, millinery or dressmaking stores, or mercantile establishments or hotel or restaurant or in any theater or concert hall or in or about any place of amusement where intoxicating liquors are made or sold, in any bowling alley, bootblacking establishment, freight or passenger elevator, or in the transmission or distribution of messages, whether telegraph or telephone or any other messages, or merchandise or in any other occupation whatsoever. *Exceptions:* Stores or mercantile establishments on Saturday nights in which more than 5 persons are employed.	Acts of 1908, No. 301, as amended; Acts of 1914, No. 133; Acts of 1916, No. 177; Acts of 1926, No. 176.
Maine	9	54	------	Workshop, factory, manufacturing, or mechanical establishment, or laundry. *Exceptions:* Manufacturing establishment or business, the materials and products of which are perishable.	Acts of 1915, ch. 350, as amended; Acts of 1923, ch. 198.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION—Continued

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
Maine (contd.)	------	54	------	Telephone exchange employing more than 3 operators, mercantile establishment, store, restaurant, telegraph office, or any express or transportation company. *Exceptions:* Millinery shops or stores on the 8 days prior to Easter Sunday and on Dec. 17 to 24, inclusive; public service in cases of emergency or in cases of extraordinary public requirement.	Acts of 1915, ch. 350, as amended; Acts of 1923, ch. 198.
Maryland	10	60	------	Manufacturing, mechanical, mercantile, printing, baking, or laundering establishment. *Exceptions:* Canning, preserving, or preparing for canning or preserving of perishable fruits and vegetables.	Code of 1924, art. 100, secs. 54–57.
Massachusetts	9	48	------	Factory or workshop or any manufacturing, mercantile, mechanical establishment, telegraph office, or telephone exchange, or any express or transportation company, or any laundry, hotel, manicuring or hair dressing establishment, motion picture theater, or an elevator operator or a switchboard operator in a private exchange.	General Laws, 1921, ch. 149, secs. 56–58.
	10	48	------	Hotel employees not employed in manufacturing, mercantile, or mechanical establishments connected with hotel.	Idem, as amended by Acts of 1921, ch. 280.
Michigan	10	54	------	Factory, mill, warehouse, workshop, quarry, clothing, dressmaking or millinery establishment, or any place where the manufacture of any kind of goods is carried on, or where any goods are prepared for manufacturing, or any laundry, store, shop, or any other mercantile establishment, or any office or restaurant, theater, concert hall, music hall, hotel, or operating an elevator, or on street or electric railways. *Exceptions:* Preserving and shipping perishable goods in fruit and vegetable canning or fruit packing establishments.	Compiled Laws of 1915, sec. 5330, as amended; Acts of 1923, No. 206; Acts of 1927, No. 21.
Minnesota	9½	54	------	Any business or service except canning if employment does not last more than 75 days in any 1 year, domestic, nursing, in cases in which night employees may be at the place of employment for more than 12 hours and shall have opportunity for at least 4 hours of sleep; or to telephone operators in towns of less than 1,500.	General Statutes of 1923, sec. 4116, as amended; Acts of 1927, ch. 349.
Mississippi	10	60	------	Laundry, millinery, dressmaking, store or office, mercantile establishment, theater, telegraph or telephone office, or any other occupation. *Exception:* Domestic servants.	Acts of 1914, ch. 165.
	10	55	------	Mill, cannery, workshop, factory, or manufacturing establishment. *Exceptions:* Fruit or vegetable canneries; cases of emergency or where the public necessity requires.	Acts of 1914, ch. 164, as amended; Acts of 1924, ch. 314, sec. 2.
Missouri	9	54	------	Manufacturing, mechanical, or mercantile establishment or factory, workshop, laundry, or bakery, or restaurant, or any place of amusement, or stenographic or clerical work of any character in the above industries, or any express or transportation or public utility business or common carrier or public institution. *Exceptions:* Establishments canning and packing perishable farm products in places under 10,000 population for 90 days annually; telephone companies; towns, or cities having a population of 3,000 or less.	Revised Statutes 1919, sec. 6771, p. 2132.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION—Continued

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
Montana	8	------	------	Manufacturing, mechanical, or mercantile establishment, telephone exchange room or office, or telegraph office, laundry, hotel, or restaurant.	Revised Code of 1921, sec. 3076.
Nebraska	9	54	------	Manufacturing, mechanical, or mercantile establishment, laundry, hotel, or restaurant, office, any public-service corporation in metropolitan cities and cities of the first class.	Compiled Statutes of 1922, secs. 7659–7661.
Nevada	8	56	------	Manufacturing, mechanical, or mercantile establishment, laundry, hotel, public lodging house, apartment house, place of amusement, or restaurant, express or transportation company. *Exceptions:* Nurses or nurses in training, harvesting, curing, canning, or drying of perishable fruit or vegetable.	Revised Laws of 1919, pp. 2774–2775, as amended; Act of 1923, ch. 69.
New Hampshire	10¼	54	------	Manual or mechanical labor in any employment. *Exceptions:* Household labor and nurses, domestic, hotel, and boarding house labor, operators in telephone and telegraph offices, and farm labor, manufacture of munitions or supplies for the United States or State during war time. Mercantile establishments on the 7 days preceding Christmas, provided annual weekly average does not exceed 54 hours.	Public Laws of 1926, ch. 176, secs. 14–21.
New Jersey	10	54	6	Manufacturing or mercantile establishment, bakery, laundry or restaurant. *Exceptions:* Canneries engaged in packing a perishable product, such as fruits or vegetables; hotels or other continuous business where working hours do not exceed 8 per day.	Acts of 1912, ch. 216, as amended; Acts of 1921, ch. 194.
New Mexico	8	------	------	Any mechanical establishment or factory, or laundry, or hotel, or restaurant, café, or eating house, or any place of amusement. *Exceptions:* Females employed in offices as stenographers, bookkeepers, clerks, or in other clerical work and not required to do manual labor; canneries or other establishments engaged in preparing for use perishable goods; females engaged in interstate commerce where the working hours are regulated by any act of Congress of the United States.	Acts of 1921, ch 180.
	9	56	------	Mercantile establishments; and person, firm or corporation engaged in any express or transportation or public utility business or any common carrier. *Exceptions:* Drug stores; 11 hours on Saturday allowed in mercantile establishments.	Do.
	10	60	------	Any telephone establishment or office thereof; shift working between 9 p. m. and 7 a. m. *Exceptions:* Establishments where 5 or less operators are employed and where the average number of calls per hour answered by one operator does not exceed 230; females engaged in interstate commerce where the working hours are regulated by an act of Congress of the United States.	Do.
	8	48	------	Telephone establishment or office thereof from 7 a. m. to 9 p. m. *Exceptions:* Same as next above.	Do.
New York	8	48	6	Factory, i. e., mill, workshop, or other manufacturing establishment; laundries.	Acts of 1927, ch. 453.
	8	48	6	Mercantile establishments. *Exceptions:* Dec. 18–24, inclusive; writers or reporters in newspaper offices may work 7 days per week and at night; also pharmacists.	Acts of 1927, ch. 453; and Acts of 1928, ch. 567.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION—Continued

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
New York (contd.)	9	54	6	Work in or in connection with restaurants in cities of the first and second class. *Exceptions:* Singers and performers of any kind, attendants in ladies' cloak rooms and parlors, employees in or in connection with the dining rooms and kitchens of hotels or in connection with employees' lunch rooms or restaurants.	Consolidated Laws of 1909, ch. 31 sec. 182, as amended; Acts of 1921, ch. 50.
	9	54	6	Care, custody, or operation of any elevator for freight or passengers in any place.	Idem, ch. 31, sec. 183, as amended; Acts of 1921, ch. 50.
	9	54	6	Conductor or guard in the operation of any street, surface, electric, subway, or elevated railroad car or train.	Idem, ch. 31, sec. 184, as amended; Acts of 1921, ch. 50.
	------	54	6	Messenger for a telegraph or messenger company in the distribution, transmission, or delivery of goods or messages.	Idem, ch. 31, sec. 185, as amended; Acts of 1921, ch. 50.
North Carolina	11	60	------	All factories and manufacturing establishments. *Exceptions:* Engineers, firemen, superintendents, overseers, section and yard hands, office men, watchmen, repairers of breakdowns	Consolidated Statutes, 1919, sec. 6554.
North Dakota	8½	48	6	Any manufacturing, mechanical, or mercantile establishment, laundry, hotel, or restaurant, or telephone or telegraph establishment or office, or in any express or transportation company. *Exceptions:* Villages and towns of less than 500 population; rural telephone exchanges; small telephone exchanges and telegraph offices where special rules are established by the Workmen's Compensation Bureau.	Acts of 1927, ch. 142.
	9	58	------	Public housekeeping occupation. (Public housekeeping occupation includes the work of waitresses in restaurants, hotel dining rooms, boarding houses, and all attendants employed at ice-cream and light-lunch stands and steam-table or counter work in cafeterias and delicatessens where freshly cooked foods are served, and the work of chambermaids in hotels and lodging houses and boarding houses and hospitals and the work of janitresses and car cleaners and of kitchen workers in hotels and restaurants and hospitals, and elevator operators.)	Minimum Wage Department Order No. 1, 1922.
Ohio	9	50	6	Factory, workshop, telephone or telegraph office, millinery or dressmaking establishment, restaurant, the distribution or transmission of messages, in or on any interurban or street railway car, or as ticket sellers or elevator operators, or in any mercantile establishment located in any city. *Exceptions:* Canneries and establishments preparing for use perishable goods during the canning season.	General Code of 1910, sec. 1008, as amended; Acts of 1919, p. 540.
Oklahoma	9	54	------	Manufacturing, mechanical, or mercantile establishment, laundry, bakery, hotel, or restaurant, office building or warehouse, telegraph or telephone establishment, or office, or printing establishment, or book bindery, or any theater, show house, or place of amusement, or any other establishment employing any female. *Exceptions:* Registered pharmacists, nurses, agricultural or domestic labor, establishments outside of towns or cities of 5,000 population and employing less than 5 females.	Acts of 1915, ch. 148, as amended; Acts of 1919, ch. 163.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION—Continued

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
Oregon	9	48	6	Manufacturing occupation (i. e., all processes in the production of commodities) including the work performed in dressmaking shops, and wholesale millinery houses, in the workrooms of retail millinery shops, and in the drapery and furniture covering workrooms, the garment alteration, art needlework, fur-garment making and millinery workrooms in mercantile stores, and the candy-making department of retail candy stores, and of restaurants. *Exceptions:* Fruit and vegetable drying, canning, preserving, and packing establishments. Mercantile occupation (i. e., in establishments operated for the purpose of trade in the purchase or sale of any goods or merchandise), including sales force, wrapping employees, auditing or check inspection force; shippers in mail-order department, receiving, marking, and stock-room employees, and sheet-music saleswomen and demonstrators. Laundry occupation (i. e., all the processes connected with the receiving, marking, washing, cleaning, and ironing) and distribution of washable and cleanable materials. Work performed in laundry departments in hotels and factories. Personal-service occupation (i. e., manicuring, hairdressing, barbering and other work of like nature), and work of ushers in theaters. Telephone or telegraph occupations, in the city of Portland. Public-housekeeping occupation (i. e., hotel, restaurant, boarding house, car cleaners, janitresses, elevator operators).	Industrial Welfare Commission orders, Nos. 37, 38, 39, 40, 41, 42, and 45, 1919.
	9	48	------	Telephone and telegraph occupations outside of the city of Portland. *Exceptions:* Rural telephone establishments which do not require the uninterrupted attention of an operator may be granted special licenses by the Industrial Welfare Commission.	Idem., No. 43, 1919.
	10	-------	------	Mill, factory, manufacturing establishment. (See powers of Industrial Welfare Commission to fix maximum hours.)	General Laws of 1920, sec. 6689 and sec. 6708, as amended; Acts of 1923, ch. 122.
	------	48	6	Office occupation (i. e., stenographers, bookkeepers, typists, billing clerks, filing clerks, cashiers, checkers, invoicers, comptometer operators, auditors, attendants in physicans' offices and dentists' offices, and all kinds of clerical work).	Industrial Welfare Commission Orders, No. 44, 1919.
	------	56	------	Student nurses	Idem, No. 48, 1920.
Pennsylvania	10	54	6	Any establishment, meaning thereby "any place within this Commonwealth where work is done for compensation of any sort to whomever payable." *Exceptions:* Nurses in hospitals, work in private homes, farming, canning of fruit and vegetable products.	Digest of Laws, 1920, secs. 13540–13542.
	10	-------	------	Private home which through contract with telephone company becomes an exchange. *Exceptions:* Night work need not be limited as to hours if a general average of at least 6 hours' rest during the night is possible.	In "Regulations affecting the employment of women," 1925, Rule W–10, May 19, 1925.
Porto Rico	8	48	------	Any lucrative occupation. *Exceptions:* Telephone operators, telegraphers, artists, nurses, or domestics over 16 years of age.	Acts of 1919, No. 73.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION—Continued

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
Rhode Island	10	54	------	Factory, manufacturing, mechanical, business, or mercantile establishment.	Acts of 1928, ch. 1231.
South Carolina	10	55	------	Cotton and woolen manufacturing establishments engaged in the manufacture of yarns, cloth, hosiery, and other products of merchandise. *Exceptions:* Mechanics, engineers, firemen, watchmen, teamsters, yard employees, and clerical force.	Criminal Code of 1912, as amended; Acts of 1914, No. 262.
	12	60	------	Mercantile establishments	Criminal Code of 1912, sec. 430 as amended; Acts of 1914, No. 262.
South Dakota	10	54	------	Any employer or other person having control. *Exceptions:* Farm laborers, domestic servants, telegraph and telephone operators, persons engaged in the care of livestock.	Revised Codes of 1919, sec. 10014, as amended; Acts of 1923, ch. 308.
Tennessee	10½	57	------	Workshop, factory (i. e., manufacturing, mills, mechanical, electrical, mercantile, art, and laundering establishments, printing, telegraph and telephone offices, department stores, or any kind of establishment wherein labor is employed or machinery is used). *Exceptions:* Domestic service and agricultural pursuits.	Thompson's Shannon's Code, 1918, secs. 4342a–51, 4342a–52.
Texas	9	54	------	Factory, mine, mill, workshop, mechanical or mercantile establishment, laundry, hotel, restaurant, or rooming house, theater or moving-picture show, barber shop, telegraph, telephone, or other office, express or transportation company, State institution, or any other establishment, institution, or enterprise where females are employed. *Exceptions:* Stenographers, pharmacists, telephone and telegraph companies, mercantile establishments in rural districts and in cities of less than 3,000 population.	Acts of 1915, ch. 56.
Utah	8	48	------	Manufacturing, mechanical, or mercantile establishment, laundry, hotel, restaurant, or telegraph or telephone establishment, hospital, or office, or any express or transportation company. *Exceptions:* Packing or canning of perishable fruits or vegetables, manufacturers of containers of same during packing season, emergencies when life or property is in imminent danger.	Compiled Laws of 1917, as amended; Acts of 1919, ch. 70.
Vermont	10½	56	------	Mine or quarry, manufacturing or mechanical establishment. *Exceptions:* In any manufacturing establishment or business, the materials or products of which are perishable, the commissioner of industries, with the approval of the governor, may suspend the law for a period not to exceed 2 months in any 1 year.	General Laws of 1917, sec. 5837 as amended; Acts of 1919, No. 160.
Virginia	10	------	------	Any factory, workshop, laundry, restaurant, mercantile or manufacturing establishment. *Exceptions:* Bookkeepers, stenographers, cashiers or office assistants; factories packing fruits or vegetables; mercantile establishments in towns of less than 2,000 or in country districts.	Code of 1919, sec. 1808, as amended; Acts of 1926, ch. 538.
Washington	8	------	------	Mechanical or mercantile establishment, laundry, hotel or restaurant. *Exceptions:* Harvesting, packing, curing, canning, or drying perishable fruits or vegetables, canning fish or shellfish.	Acts of 1911, ch. 37.

TABLE 1.—HOURS OF LABOR OF WOMEN ESTABLISHED BY LAW OR COMMISSION—Continued

State	Maximum hours		Days	Occupations or industries specified	Citation
	Daily	Weekly			
Wisconsin	9	50	------	Place of employment (i. e., manufacturing, mechanical, or mercantile establishment, laundry, restaurant, confectionery store, or telegraph or telephone office or exchange, or any express or transportation establishment).	Statutes of 1923, secs. 103.01–103.04.
	9	54	------	Pea-canning factories	Industrial Commission Order regulating pea-canning factories, 1927.
	9	54	------	Canning cherries, beans, corn, or tomatoes	Industrial Commission Order on factories canning cherries, beans, corn, or tomatoes, 1927.
	10	55	------	Hotel	Statutes of 1925, sec. 103.2, as amended; Acts of 1925, ch. 27.
Wyoming	8½	56	------	Any manufacturing, mechanical, or mercantile establishment, laundry, hotel, public lodging house, apartment house, place of amusement, or restaurant, or telephone or telegraph establishment or office, or in any express or transportation company. *Exceptions:* Telephone or telegraph office or exchange in which 3 or less females are employed; the harvesting, curing, canning, or drying of any variety of perishable fruit or vegetable; nurses in training in hospitals.	Acts of 1923, ch. 62.

Hours of Labor of Minors

THE State stands in the position of parens patriæ as to minors and may exercise practically unlimited supervision and control over their contracts and occupations. Considering the physical, moral, and intellectual well-being of minors it can and does make regulations concerning their attendance at school, prohibits their employment absolutely when under stated ages or until a fixed degree of education has been acquired, limits the hours of labor when employment is permitted and prohibits altogether employments in certain occupations which it considers dangerous to their safety, health, or morals.

The United States Supreme Court, in the case of Sturges and Burn *v.* Beauchamp (231 U. S. 320, 325 (1913)) said that "it can not be doubted that the State was entitled to prohibit the employment of person of tender years in dangerous occupations." Every State in the Union has passed some type of legislation limiting the right to employ minors. (Hammer *v.* Dagenhart, 247 U. S. 251, 275 (1918).)

The Federal Government attempted to regulate the hours of labor of minors within the several States under its power of interstate commerce (act of September 1, 1916, 39 Stat. 675) and under its taxing power (act of February 24, 1919, 40 Stat. 1057, 1138). The Supreme Court held in each case, however, that the Federal Govern-

ment did not have the power to regulate the purely internal affairs of the State over which the Federal Government had no control. (Hammer *v.* Dagenhart, 247 U. S. 251, 275 (1918); and Child Labor Tax Case, 259 U. S. 20 (1922). See also, Atherton Mills *v.* Johnston, 259 U. S. 13 (1922) and Bailey *v.* George, 259 U. S. 16, (1922).)

The information in the following table may be found, almost entirely, in the child labor laws of the several States. Statutes placing a limit on hours of labor of females above the age set forth in the table, if any, may be found in the corresponding table for women, given above. Statutes placing a limit on hours of labor of both men and women, if any, may be found in the table already mentioned, published in the January, 1929, Labor Review.

In the column "Under the age of" a maximum age is given, the minimum being the age at which employment in the occupations named is permitted. The ages usually range from 14 to 16, but often range from 14, 15, or 16 to 15, 16, or 18. A table showing the minimum ages at which minors are permitted to be employed will appear in a future issue of the Labor Review.

In the column "Occupation or industries specified" wide liberty in interpretation has been followed. General or liberal coverage are described as "any occupation" or "any gainful occupation." Exceptions exist in many cases for agricultural work, domestic work, or canning. The term mercantile establishment found in many of the laws has been described as "stores." It was deemed advisable to omit lists of occupations and exceptions to general occupations because of lack of space. Orders of industrial commissions are not included in this table, but may be found in the United States Children's Bureau chart "State Child Labor Standards, January 1, 1926."

TABLE 2.—LEGAL RESTRICTIONS ON HOURS OF LABOR OF MINORS

State	Under age of—	Maximum hours		Days	Occupations or industries specified	Citations
		Daily	Weekly			
Alabama	16	8	48	6	Any gainful occupation	Code of 1923, sec. 3495.
Arizona	[1] 16 [2] 18	8	48		do	Revised Statutes of 1913, par. 3131.
Arkansas	16	8	48	6	Any occupation	Digest of 1921, sec. 7090.
	18	10	54	6	do	Digest of 1921, sec. 7091.
California	18	8	48		Factories, stores, etc.[3]	Acts of 1919, ch. 259.
Colorado	16	8	48		Any gainful occupation[3]	Compiled Laws of 1921, sec. 4219.
Connecticut	16	8		6	Factories, etc.[3]	Acts of 1921, ch. 188.
	16		58	6	Public restaurant, etc.[3]	Acts of 1925, chs. 158 and 208. See also General Statutes of 1918, secs. 5301–5306.
Delaware	16	8	48	6	Any establishment or occupation.[3]	Revised Code of 1914, sec. 3159, as amended by Acts of 1917, ch. 232, and Acts of 1923, ch. 203.
District of Columbia.	18	8	48	6	Any gainful occupation	Act of Congress, May 29, 1928 (45 Stat. 998).
Florida	16	9	54	6	Factories, workshops, laundry, mine, mill.	Revised General Statutes of 1920, sec. 4026.
Georgia	[4]	10	60		Cotton or woolen factories [3]	Code of 1911, sec. 3137.
Hawaii	16	8	48		Any employment	Revised Laws of 1925, sec. 4490.

[1] Males. [2] Females. [3] See law. [4] All males and females.

TABLE 2.—LEGAL RESTRICTIONS ON HOURS OF LABOR OF MINORS—Continued

State	Under age of—	Maximum hours		Days	Occupations or industries specified	Citations
		Daily	Weekly			
Idaho	16	9	54	------	Any gainful occupation	Compiled Statutes of 1919, sec. 1027.
Illinois	16	8	-------	6	----do	Revised Statutes of 1917, ch. 48, sec. 20h.
Indiana	[1] 16 [2] 18	8	48	6	----do	Acts of 1921, ch. 132.
Iowa	16	8	48	------	Factories, stores, etc.[3]	Code of 1924, sec. 1527.
Kansas	16	8	48	------	----do.[3]	Acts of 1917, ch. 227.
Kentucky	16	8	48	6	----do.[3]	Statutes of 1915, sec. 331A.
Louisiana	16 18	8 10	48 60	------ ------	----do.[3]	Acts of 1908, No. 301 as amended by Acts of 1914, No. 133, Acts of 1916, No. 177, and Acts of 1926, No. 176.
Maine	16 16	8 ------	54 54	------ ------	Factories,[3] etc.[3] Stores, etc.[3]	Acts of 1915, ch. 350, as amended by Acts of 1923, ch. 198.
Maryland	16	8	48	6	Factories, stores, etc.[3]	Code of 1925, art. 100, sec. 24.
Massachusetts	16	8	48	6	----do.[3]	General Laws of 1921, ch. 149, sec. 65, as amended by Acts of 1921, ch. 410.
Michigan	[1] 18	10	54	------	----do.[3]	Compiled Laws of 1915, sec. 5330, as amended by Acts of 1923, No. 206, Acts of 1927, No. 21.
Minnesota	16	8	48	------	Any gainful occupation	General Statutes of 1923, sec. 4100.
Mississippi	16	8	44	------	Factories, etc.,[3] "Workshops" include "stores" (Atty. Gen.).[3]	Acts of 1914, ch. 164, as amended by Acts of 1924, ch. 314.
Missouri	16	8	48	------	Any gainful occupation	Acts of 1921, p. 184, as amended by Acts of 1923, p. 129.
Montana	([5])	8	-------	------	Employment of child under 16 in factories, etc., entirely prohibited.[6]	Revised Codes of 1921, sec. 3076.
Nebraska	16	8	48	------	Factories, stores, etc.[3]	Compiled Statutes of 1922, sec. 7678.
Nevada	[1] 16 [2] 18	8	48	------	Any gainful occupation	Acts of 1913, ch. 232; Revised Laws of 1919, vol. 3, p. 2649.
New Hampshire	[1] 16	10¼	54	------	----do	Public Laws of 1926, ch. 118, sec. 23.
	[1] 18	10¼	54	------	Manual or mechanical labor	Public Laws of 1926, ch. 176, secs. 14–18.
New Jersey	16	8	48	------	Factories, stores, etc.[3]	Acts of 1911, ch. 136, as amended by Acts of 1918, ch. 204; and Compiled Statutes of 1910, p. 3023, as amended by Acts of 1919, ch. 36.
New Mexico	16	8	44	------	Any gainful occupation [3]	Acts of 1925, ch. 79.
New York	16	8	44	6	Factories, stores, business offices, telegraph office, etc.[3]	Consolidated Laws of 1909, ch. 31, secs. 170, 180, as amended by Acts of 1925, ch. 622.
	[1] 18	9	54	6	Stores, distribution or transmission of merchandise or articles.[3]	Consolidated Laws of 1909, ch. 31, sec. 180a, as added by Acts of 1924, ch. 375.
North Carolina	16	8	48	6	Factories, stores, etc.[3]	Consolidated Statutes of 1919, sec. 5033, as amended by Acts of 1927, ch. 251.
North Dakota	16	8	48	6	Any occupation	Acts of 1923, ch. 155.
Ohio	[1] 16 [2] 18 [1] 18	8 10	48 54	6 6	Factories, stores, etc.[3]	General Code of 1910, sec. 12996, as amended by Acts of 1919, p. 532. See also sec. 12993.
Oklahoma	16	8	48	------	Any gainful occupation	Revised Laws of 1910, sec. 3732.

[1] Males. [2] Females. [3] See law. [5] All females. [6] See Table 1, p. 64.

TABLE 2.—LEGAL RESTRICTIONS ON HOURS OF LABOR OF MINORS—Continued

State	Under age of—	Maximum hours		Days	Occupations or industries specified	Citations
		Daily	Weekly			
Oregon	16	10	-------	6	Any occupation [7]	General Laws of 1920, sec. 6695.
Pennsylvania	16	9	51	------	Any establishment or occupation.	Statutes of 1920, sec. 13288.
Philippine Islands	16	7	42	------	Shop, factory, commercial or industrial establishment.	Acts of 1923, No. 3071.
Porto Rico	18	8	48	6	Any gainful occupation	Acts of 1921, No. 75.
Rhode Island	16	9	48	------	Factory, mechanical, business, or mercantile establishment.	Acts of 1928, ch. 1231.
South Carolina	------	10	55	------	Cotton or woolen manufacturing establishments engaged in the manufacture of yarns, cloth, hosiery, and other products. No provision for stores except a maximum 12-hour day and 60-hour week for all females.	Code of 1912, sec. 421, as amended by Acts of 1922, No. 567.
South Dakota	16	10	54	------	Any occupation [3]	Revised Codes of 1919, sec. 10014, as amended by Acts of 1923, ch. 308.
Tennessee	16	8	-------	6	Factories, stores, etc.[3]	Thompson's Shannon's Code of 1918, sec. 4342a-47.
	16	10½	57	------	Where labor is employed	Idem, sec. 4342a-52.
Texas	15	8	48	------	Any occupation	Penal Code of 1925, art. 1576.
Utah	[1] 14 [2] 16	8	48	------	Any gainful occupation except fruit or vegetable packing.	Compiled Laws of 1917, sec. 1867.
Vermont	16	8	-------	6	Work connected with manufacturing, etc.[3]	General Laws of 1917, sec. 5833, as amended by Acts of 1919, ch. 160.
	18	10½	56	------	Mines, quarries, manufacturing or mechanical establishments.[3]	General Laws of 1917, sec. 5837, as amended by Acts of 1919, ch. 160.
Virginia	16	8	44	6	Any gainful occupation [3]	Acts of 1922, ch. 489
Washington	([2])	8	-------	------	Mechanical or mercantile establishment, laundry, hotel, or restaurant.[3]	Acts of 1911, ch. 37.
West Virginia	16	8	48	6	Any gainful occupation	Acts of 1919, ch. 17.
Wisconsin	16	8	48	6	----do	Statutes of 1923, sec. 103.05, par. 8.
Wyoming	16	8	48	6	----do	Acts of 1915, ch. 77, as amended by Acts of 1923, ch. 48.

[1] Males.
[2] Females.
[3] See law.
[5] All females.
[7] But see Industrial Welfare Commission's orders in Table 1, p. 88.

New Industrial Commissioner in New York

MISS FRANCES PERKINS, formerly chairman of the industrial board of the New York Department of Labor, has been appointed by Governor Roosevelt, of that State, to succeed James A. Hamilton as industrial commissioner of the department.

COURT DECISIONS RELATING TO LABOR

Injured Seamen Allowed Maintenance, Cure, and Wages in Addition to Damages

THE United States Supreme Court on November 26, 1928, in the case of Pacific S. S. Co. *v.* Peterson (49 Sup. Ct. 75), held that a seaman injured while serving on a vessel at sea and allowed maintenance, cure, and wages after being put ashore, was not precluded from recovering compensatory damages for his injury based upon a statute allowing him to bring suit to recover damages based on the negligence of an officer of the ship.

Peterson, a seaman, was injured while in the employ of the Pacific Steamship Co., the owner of a domestic merchant vessel on which he was serving when he received an injury on a voyage between the ports of Puget Sound and California. On the arrival of the vessel at San Francisco, Peterson was removed from the vessel and conveyed to the marine hospital for maintenance and cure, where he was maintained and given reasonable medical and surgical attention and allowed wages to the end of the voyage. Thereafter Peterson brought suit in the Superior Court of Washington against his employer, alleging that the injury he received resulted from the negligence of the mate of the vessel and based the right of action expressly on section 20 of the seaman's act of 1915 (38 Stat. 1164), as amended by section 33 of the merchant marine act of 1920 (41 Stat. 988). The employer denied the averments of negligence, but alleged generally that because Peterson had elected to receive maintenance, cure, and wages he could not maintain the suit for damages. Peterson, however, obtained a verdict and judgment and this judgment was affirmed by the supreme court of the State. (Peterson *v.* Pacific S. S. Co., 145 Wash. 460, 261 Pac. 115.)

Section 33 of the act of 1920 provides that "any seaman who shall suffer personal injury in the course of his employment may, at his election, maintain an action for damages at law, with the right of trial by jury, and in such action all statutes of the United States modifying or extending the common-law right or remedy in cases of personal injury to railway employees shall apply." The steamship company contended that the phrase "at his election" required the injured seaman to elect whether he would proceed for the recovery of maintenance, cure, wages, and indemnity under the old maritime law or for the recovery of damages under the new rule and that he would be bound by the election, whereas Peterson contended that the phrase referred at the most to an election between an action for compensatory damages on the ground of negligence under the act of 1920 and the inconsistent action for indemnity or compensatory damages on the ground of unseaworthiness under the old maritime

law and not to an election between an action for damages under the act of 1920 and the consistent and cumulative remedy for maintenance, cure, and wages under the old maritime law.

The Supreme Court, in upholding Peterson's contentions, quoted from Mr. Justice Story to the effect that a claim for the expenses for curing a seaman in case of sickness "constitutes, in contemplation of law, a part of the contract for wages, and is a material ingredient in the compensation for the labor and services of the seamen," and from Mr. Justice Gray to the effect that "the right of a seaman to receive his wages to the end of the voyage and to be cured at the ship's expense, being 'grounded solely upon the benefit which the ship derives from his service and having no regard to the question whether his injury has been caused by the fault of others or by mere accident, does not extend to compensation or allowance for the effects of the injury; but is in the nature of an additional privilege and not of a substitute for or a restriction of other rights and remedies,' and 'does not, therefore, displace or affect the right of the seaman to recover against the master or owners for injuries by their unlawful or negligent acts.' " The court then said that "in short, the right to maintenance, cure, and wages, implied in law as a contractual obligation arising out of the nature of the employment, is independent of the right to indemnity or compensatory damages for an injury caused by negligence; and these two rights are consistent and cumulative." In conclusion the court said that "considered in the light of these several remedies and the extent of the inconsistency between them, we agree with the view expressed by the Supreme Court of Washington that the statute was not intended to restrict in any way the long-established right of a seaman to maintenance, cure, and wages—to which it made no reference. And we conclude that the alternative measures of relief accorded him, between which he is given an election, are merely the right under the new rule to recover compensatory damages for injuries caused by negligence and the right under the old rules to recover indemnity for injuries occasioned by unseaworthiness; and that no election is required between the right to recover compensatory damages for a tortious injury under the new rule and the contractual right to maintenance, cure, and wages under the old rules—the latter being a cumulative right in no sense inconsistent with, or an alternative of, the right to recover compensatory damages."

Pennsylvania Licensed Pharmacist Act Held Unconstitutional

THE United States Supreme Court, on November 19, 1928, in the case of Louis K. Liggett Co. *v.* Baldridge (49 Sup. Ct. 57), held the Pennsylvania act [1] requiring that all pharmacies or drug stores shall be owned by a licensed pharmacist unconstitutional on the ground that mere stock ownership in a corporation owning and operating a drug store can have no real or substantial relation to the public health, and therefore the requirement creates an unreasonable and unnecessary restriction on private business.

[1] Acts of 1927, Act No. 491, p. 1009.

The court said that—

A State undoubtedly may regulate the prescription, compounding of prescriptions, purchase and sale of medicines, by appropriate legislation to the extent reasonably necessary to protect the public health. And this the Pennsylvania Legislature sought to do by various statutory provisions in force long before the enactment of the statute under review. Briefly stated, these provisions are: No one but a licensed physician may practice medicine or prescribe remedies for sickness; no one but a registered pharmacist lawfully may have charge of a drug store; every drug store must itself be registered, and this can only be done where the management is in charge of a registered pharmacist; stringent provision is made to prevent the possession or sale of any impure drug or any below the standard, strength, quality, and purity as determined by the recognized pharmacopœia of the United States; none but a registered pharmacist is permitted to compound physicians' prescriptions; and, finally, the supervision of the foregoing matters and the enforcement of the laws in respect thereof are in the hands of the State board of pharmacy, which is given broad powers for these purposes.

It therefore will be seen that without violating laws, the validity of which is conceded, the owner of a drug store, whether a registered pharmacist or not, can not purchase or dispense impure or inferior medicines; he can not, unless he be a licensed physician, prescribe for the sick; he can not, unless he be a registered pharmacist, have charge of a drug store or compound a prescription. Thus, it would seem, every point at which the public health is likely to be injuriously affected by the act of the owner in buying, compounding, or selling drugs and medicines is amply safeguarded.

The act under review does not deal with any of the things covered by the prior statutes above enumerated. It deals in terms only with ownership. It plainly forbids the exercise of an ordinary property right and, on its face, denies what the Constitution guarantees. A State can not, "under the guise of protecting the public, arbitrarily interfere with private business or prohibit lawful occupations or impose unreasonable and unnecessary restrictions upon them. * * * The claim, that mere ownership of a drug store by one not a pharmacist bears a reasonable relation to the public health, finally rests upon conjecture, unsupported by anything of substance. This is not enough; and it becomes our duty to declare the act assailed to be unconstitutional as in contravention of the due-process clause of the fourteenth amendment."

HOUSING

Housing Situation in Pennsylvania

THE fourth annual report of the Pennsylvania Housing and Town Planning Association, recently issued, quoting figures furnished by the United States Department of Labor, shows that from 1921 to 1927 inclusive, the residential construction in 18 Pennsylvania cities, as estimated from building permits issued, provided accommodations for 123,417 families. Estimates made by the Census Bureau show that the population of these same cities increased during this period by 450,000.

To house the new families alone would require approximately 112,500 homes. Comparing this figure with the number of homes authorized by building permits we have a margin of less than 11,000 new dwellings and apartments in seven years to balance the housing shortage and to replace the homes destroyed by fire and converted into other types of buildings, or completely demolished for commercial reasons, in all these towns. Besides this, there has been a constant demand for new homes to meet the requirements of the rising standard of living. It is obvious therefore that dwelling construction en masse in Pennsylvania has merely reached a normal level, which must be maintained indefinitely to meet the actual needs of a growing and progressive population.

Most of the homes constructed since 1920, it is pointed out, have been placed on the market at prices ranging from $7,000 to $10,000, figures which put them out of the reach of a large proportion of the population. The great need is for houses available for the average worker.

As yet comparatively little has been done to relieve congestion and provide fit housing for families of limited means. The present-day problem is to supply the type of home needed most. This means houses for $5,000 and $4,000 and less. Improved methods of construction and lower building costs, with reasonable profits to the builder, seem to offer the most feasible solution of this problem.

Model Housing Ordinance

IN 1927 the association secured the passage of a State act which authorizes each city, borough, and first-class township in Pennsylvania to formulate its own building and housing code. With this as a basis, an advisory committee, consisting of representatives of various public and private bodies interested in good housing, undertook to prepare an ordinance which might be used as a basis by any municipality which wished to prepare a housing code. It was found that the regulations needed varied with the size of the town, so three models were prepared, one containing only minimum housing require-

ments which places with a population of 10,000 or less should be able to enforce through their existing governmental machinery, and the second and third adding to this minimum the more detailed regulations needed, respectively, by medium sized towns and large cities. The main features of the basic ordinance are as follows:

This ordinance applies to all buildings used for human habitation.

It requires a standard window area for all rooms so as to assure adequate light and ventilation and forbids the occupancy of windowless rooms.

When houses are on sewered streets they must be sewer connected and all privy vaults adjacent thereto abandoned. New water-closets when installed must, if it is feasible, be within the building.

A water supply and sink must be installed in every house and apartment when a public water supply becomes accessible.

Privy vaults on nonsewered streets must be emptied when within two feet of the ground level.

Power is given local officials to vacate dwellings which place life or health in immediate jeopardy.

The individual who causes a nuisance is held responsible for it, while the occupant of a house or apartment is held jointly responsible with the owner for keeping it clean.

No condition that is or has a tendency to become a health nuisance shall be allowed to remain in or about any dwelling.

Owners are required to keep all dwellings in good repair.

The need of such an ordinance, which the association is now recommending to all municipalities for adoption, is shown by the fact that of the 44 cities in Pennsylvania only 24 have building regulations, and very few cities or towns exercise any control over housing conditions.

Reduction in English Housing Subsidy

A SECTION of the English housing act of 1924 authorizes the Minister of Health and the Scottish Board of Health, jointly, in 1926 and after the first of October of each second succeeding year, to make an order, subject to the approval of the Treasury, changing the amount or the duration of the contributions payable by the Government in respect of houses not completed before a specified date.

Acting under this authority, the Minister of Health and the Scottish Board of Health in 1926 made an order reducing the subsidy on houses not completed before October 1, 1927 (see Labor Review, March, 1927, p. 40), and have recently made another, ending the subsidy given under the act of 1923 and still further reducing that given under the act of 1924. The Ministry of Labor Gazette for December, 1928, gives the following summary of the order and its effects:

The Minister of Health and the Scottish Board of Health have now issued the draft of an order, proposed to be made by them, with the approval of the Treasury, under the above-mentioned section, which was approved by the House of Commons on December 12. The effect of this order is to bring to an end altogether the contribution made by the minister so far as regards houses in England and Wales not completed before October 1, 1929, under sections 1 and 3 of the housing act of 1923 (the "Chamberlain" Act), as amended by section 1 of the act of 1924. As regards houses in Scotland not completed before the date mentioned, the contribution provided by the Scottish Board of Health under the same sections will be reduced from £6 ($29.20) for 20 years to £4 ($19.47) for 20 years.

The effect of the order upon houses being built under the 1924 housing act is shown in this table:

Item	England and Wales	Scotland
Present rate:		
In an agricultural parish	£11 ($53.53) a year for 40 years	£12 10s. ($60.83) a year for 40 years.
Elsewhere	£7 10s. ($36.50) a year for 40 years	£9 ($43.80) a year for 40 years.
Rate for houses not completed before Oct. 1, 1929:		
In an agricultural parish	£9 10s. ($46.23) a year for 40 years	£11 ($53.53) a year for 40 years.
Elsewhere	£6 ($29.20) a year for 40 years	£7 10s. ($36.50) a year for 40 years.

The order was approved by Parliament on December 12, 1928.

LABOR ORGANIZATIONS

Labor Organizations in Chile [1]

By Moisés Poblete Troncoso

Freedom of Association

IN CHILE liberty of association was fully guaranteed by the former political constitution of 1833, as it is now by the new fundamental charter, the constitution promulgated September 18, 1925. In this regard Chile has led the majority of existing civilized peoples, being also the first country in America to enact a special law covering union organization. Moreover, the right of association thus sanctioned is freely exercised by the I. W. W., the communists, and other organizations of a revolutionary character.

Article 10, No. 6, of the constitution of 1833 read: "The constitution sanctions the right to associate without previous authorization and without arms"; and the constitution of 1925, in article 10, No. 5, states that the constitution confirms the right to associate without "previous authorization and in conformity with the law."

On the other hand, the Chilean Civil Code, which dates back to 1857 and is based on the Napoleonic Code, provides a special system for associations which have for their purpose acts peculiar to human beings and establishes a legal personality, or body corporate, for which such associations must apply to the President of the Republic.

According to article 548 of the Civil Code, "The rules or regulations formulated by said corporations shall be subject to the approval of the President of the Republic, who shall give such approval, if there is nothing therein contrary to public order, the laws, or good morals." The law gives the President of the Republic the right to dissolve such corporations. The public is allowed to intervene for the purpose of denouncing unlawful acts by corporations. Incorporation being accorded, such associations are able to acquire property, conclude contracts, etc. The civil-code system, however, has been modified by special laws of 1924.

The Legal System in General

EX-PRESIDENT Arturo Alessandri, in the proposed labor and social welfare code presented to Congress in June, 1921, defined the Government's attitude in regard to union organization as follows:

> As the experience of several centuries has shown, repressive measures have always proved impotent and ineffective. We shall even go a step further and state that such measures have invariably had an unfortunate effect; that is to say, they have converted public associations, existing in the full light of day, directly or indirectly under the surveillance of the State into secret associations

[1] Abstract from U. S. Bureau of Labor Statistics Bul. No. 461: Labor organizations in Chile. Washington, 1928.

dwelling in shadow and mystery on the borderland of law and which sooner or later become habitual conspirators against public and social order.

It is, however, a fact established by evidence that, despite repressive measures which were often Draconian by certain countries in various epochs against labor organizations, this movement has continually gained ground, grown larger and larger, become more coherent and more disciplined, and finally become an irresistible force, and at the same time one of the most active and useful factors in the economic and social progress of contemporary peoples.

There is also another fact which appears to be definitely established if one holds fundamentally to the ideas of many of the great thinkers and sociologists of our day, namely, that the trade-union movement, far from becoming weaker, must inevitably become more swift and strong and attain its full development by the strengthening of true democracies.

These associations do not constitute a menace to social peace, nor do any of their basic principles. On the contrary, they exercise a beneficient influence in economic relations, and they should be considered as necessary when they assist in regulating these relations.

Trade-unions have afforded great service to their members and to the working classes in general, and, far from devoting themselves to fomenting industrial war, they have directed their efforts toward collective action and provision for social welfare.

In the proposed labor code a chapter was devoted to the legal recognition of trade-unions, being based on the French trade-union act of Waldeck Rousseau, of 1884, with modifications introduced by the Millerand Act of 1920. This proposed law was studied by a joint commission of the National Congress (representing the Chamber of Deputies and the Senate) and modifled in several particulars. While the commission considered that it was proper to recognize freedom of union association, it also believed it to be necessary to establish in all industries a distinct type of union known as the "works union"—composed of the employees of the individual establishment. The object of creating these local works or plant unions was to establish stable and responsible workers' organizations for the constitution of conciliation and arbitration machinery in each establishment and to provide an agency by which the workers might be given participation in the profits of the establishment—an ideal difficult to attain with unions organized in accordance with the common principle of freedom of union association. (Law No. 4057 of September 8, 1924.)

It is indisputable that this new works union established by law, which appears a little paradoxical with the principle which sanctions union liberty, has for its objective the halting of the semi-revolutionary trend of the free unions.

A synopsis of the principles established by the Chilean law of September 8, 1924, is here presented:

Summary of Chilean Law of 1924 (No. 4057) on Union Organization

Works unions.—Chapter I of the law of 1924 is devoted to works unions.

In order to enjoy the rights and privileges granted by the law, all workers "over 18 years of age in any mine, quarry, nitrate establishment, factory, or workshop employing more than 25 persons * * * shall constitute an association, which shall bear the name 'works union,' coupled with the name of the establishment concerned."

Such an association shall be deemed "a body corporate."

The law grants to the works union the following rights:

(1) To conclude collective contracts with the establishment;

(2) To represent the workers in individual contracts when so requested;

(3) To represent the workers in collective disputes and in conciliation and arbitration proceedings;

(4) To undertake such mutual benefit and cooperative activities as may be chosen by the members; especially (*a*) life insurance, (*b*) industrial accident insurance, and (*c*) funeral benefits;

(5) To register trade-marks, or labels, for the free use of the members;

(6) To participate in the profits of the industry, the workers constituting the works union sharing in such benefits. This participation may be fixed beforehand—(*a*) in the individual or collective labor contract; (*b*) in case there is no contract, at 6 per cent of the salaries or wages paid during the year, up to 10 per cent of the profits; (*c*) or in the form of labor shares, which may be issued by enterprises organized as joint-stock companies. Half of the workers' share of the profits shall be paid to the union, to be used for mutual benefits, and the other half is to be distributed among the union members in proportion to their wages and the days they have worked.

Under the law the unions may possess unlimited funds; if such are in money they must be deposited in the institutions of credit of the State and be subject to State control.

The law forbids the federation of works unions.

Trade-unions.—Though creating a special form of compulsory works unions the law (Ch. II) has also recognized the free trade-union, basing such recognition, as already noted, on the principle of the French law.

In effect the law recognizes as trade-unions associations formed by salaried and wage-earning employees in the same trade, industry, or employment, or in similar or related trades, industries, or employments, to deal exclusively with the study, promotion, and legitimate defense of the general economic interests of their members.

Associations of employers may benefit equally under the system established by the act.

The law prohibits the organization of unions of public employees.

Married women engaged in any occupation or trade may, without the consent of their husbands, organize or join unions and take part in their administration.

Trade-unions desiring to be incorporated should present to the executive through the General Labor Office an application, to which should be appended two copies of the rules of the union and a list of its members and their addresses and respective nationalities.

The rights accorded trade-unions include the following: (*a*) Trade-unions may acquire property of all kinds, but to hold real estate must obtain the special authorization of Congress, which must be renewed every 10 years.

(*b*) They may organize elementary or vocational classes, social museums, cooperative societies of all kinds, stores and warehouses, employment agencies, and in general all social welfare services compatible with the purposes of the union.

(*c*) Trade-unions which have been incorporated may conclude collective labor contracts.

(*d*) They may represent their members in collective disputes.

(*e*) They may represent the common interests of their members before third parties and the public authorities.

Trade-unions must keep a special register of their members and send a copy of such register at least once a year to the General Labor Office.

Under the law a trade-union may not sue nor be sued except in cases affecting the common or general economic interests of the organization.

Trade-unions are forbidden to commit acts tending to restrict individual liberty, the right to work, or the right to engage in industry.

The law recognizes the right of unions to federate. Two or more trade-unions in the same trade or occupation may combine or federate for the study, development, or legitimate defense of their common economic interests.

Amalgamations and federations may be incorporated in the same manner as trade-unions.

The Chilean law on trade-unions, adopting the principle established by the French law, confers the right to decree the dissolution of trade-unions on the President of the Republic. Such dissolution may be decreed: (*a*) When trade-unions transgress the law; in general, when they attack constituted power and the public order; (*b*) when their membership is reduced to less than 20; (*c*) when the union, in case of industrial conflicts such as strikes or lockouts, does not respect the decisions rendered by conciliation or arbitration tribunals.

The law provides for fines and special penalties against union members in specified cases. It is the duty of the General Labor Office, departmental governors, and the regional inspectorates to see that the law is strictly observed.

Legal Conditions Governing Labor Unions

THE preceding summary of the legislation governing labor unions indicates that to have a legal status such associations must comply with the following conditions:

Works unions.—In order to enjoy the rights and advantages accorded by this law to workers over 18 years of age in any mine, quarry, or nitrate establishment, factory, or workshop employing more than 25 persons, such workers shall form an association bearing the name "works union," coupled with the name of the establishment concerned. This association shall be deemed a body corporate and shall be constituted for the purposes indicated. The law seems to require no other formality for the legal existence of these works unions, but as they have the right to acquire real property it is believed that a Federal decree of incorporation is indispensable.

Trade-unions.—Trade-unions desiring to be incorporated—that is, to be fully recognized by the Government—must make application to the President of the Republic through the General Labor Office. After consultation with the General Labor Office the President shall grant or refuse the application for incorporation. A refusal can be based only on the reason that the rules of the union are contrary to the constitution or to the laws, to morality, or to decency, or that the union has violated or failed to comply with any of the provisions of the act; but this shall not prejudice the right of the Government to

require the union submitting the application to make any amendments to the rules or any material alterations and declarations considered necessary.

The organization and activities of trade-unions are governed by the rules of such unions in all matters not regulated by law. It is further understood that the legal provisions in effect relative to private corporations are applicable to trade-unions, if such provisions are compatible with the purposes of such unions and the provisions of this law.

A trade-union may not sue nor be sued except in cases affecting the common or general economic interests of the association.

Unions of salaried employees are subject in their organization to the same conditions as private associations and must make application for incorporation to the Minister of Justice, who upon the advice of the Ministry of Labor may grant or refuse the same.

The law of October 17, 1925, relative to private employees did not establish special rules for the organization of unions of salaried employees, but that part of the law of 1924 referring to trade-unions includes both salaried employees and wage earners, and therefore the organization and the conditions for the legal recognition of such unions are the same as those of trade-unions of workers, which have been analyzed.

Lawful Activities of Labor Unions

THE fields of action of both the works unions and the trade-unions are definitely determined by law.

Works unions.—In the case of works unions these activities, as already noted, include the right: (1) To conclude collective agreements with the establishment; (2) to represent the workers in making individual contracts when so requested; (3) to represent the workers in collective disputes; and (4) to carry on mutual aid and cooperative measures.

The mutual aid and cooperative plans contemplated by the law include life insurance, accident insurance not otherwise provided for by law, insurance against sickness, unemployment, and old age, and death benefits.

The benefits or pensions must be in proportion to the funds accumulated and the wages of each member, and the establishment shall be given notice thereof. The union may reinsure its liability in companies doing a life or other insurance business.

According to the law, the assets of the union shall comprise:

(1) Contributions by its members, fixed by the general meeting in conformity with the rules, to supply the needs of the wage earners of the establishment in case of unexpected or arbitrary stoppage of work, or sickness, or old age, or for other purposes of general interest.

(2) Voluntary contributions made to it by the establishment or the wage earners or other persons, and bequests.

(3) Income from the property of the union.

(4) The sum which is apportioned to the works union on the distribution of the moneys accumulated in the national savings bank, or any branch thereof, from the fines imposed by the act relating to labor contracts upon employers and wage earners for violations of its provisions.

(5) Fines imposed by the executive board of the union upon the wage earners by virtue of its right to exercise disciplinary powers under section 554 of the civil code, said fines not to exceed 10 pesos for each violation.

(6) The moneys accruing to the union [from labor shares issued by joint-stock companies].

The moneys of the union, as they are received, shall be deposited in the branch of the national savings bank nearest to the main plant of the establishment, and the members of the executive board shall be responsible for compliance with this requirement.

The executive board of the union shall be responsible for the management of the moneys mentioned in the preceding section.

The president and the treasurer, acting jointly, may draw upon the moneys deposited, but only for the purposes specified in the act.

The moneys of the union shall not belong to the wage earners belonging to the union nor to the establishment in which they work. They shall be under the control of the union even if its composition changes, and shall be utilized exclusively for the purposes mentioned in the act.

If the establishment is closed, or if, as a result of changes of a permanent nature (e. g., change in work or restriction of output), employment is given for only three months to less than 20 wage earners, the union in question shall be wound up in the manner prescribed in its rules, and in default of the direction therein of any other method the moneys shall be divided among the persons who are members of the union at the time, in proportion to the contributions paid by them in conformity with [the provisions of the act], and the sum due to each shall be deposited in his name in the national savings bank.

In the event of the winding up of the union, and without prejudice to the provisions laid down in the preceding paragraph, the moneys set apart for mutual benefit purposes shall be transferred to an institution specified in the regulations, which shall carry on the services connected therewith.

Works unions may register trade-marks, or labels, for the individual use of their members free of charge, and may use the said marks or labels to distinguish the goods manufactured by the establishment, provided they obtain the written consent of the employer.

Trade-unions.—The important rights granted to trade-unions have already been noted. It has also been noted that while such unions may not hold real estate except with the consent of the Government, they may freely acquire other forms of property and may establish schools, social museums, cooperative societies, stores and warehouses, employment offices, and other social welfare services.

Mutual benefit, pension, and insurance funds established by trade-unions, as regards their organization and operation, are under the supervision of the General Labor Office. In particular, the General Labor Office shall ascertain whether the contributions, assessments, or premiums set aside for this purpose are sufficient for the discharge of their obligations toward the members participating therein. If such obligations do not appear to be duly covered, the Government, after consultation with the General Labor Office, shall prohibit the operation of the service in question.

In case of irregularity in the use of moneys of the union, the Government, after observing the same formalities, shall revoke the incorporation of the association and refer the case to the common courts for the enforcement of the obligations in question.

Trade-unions which are legally organized have, as already pointed out, the right to conclude collective agreements, may represent their members in general disputes and in conciliation and arbitration proceedings, and may represent the common economic interests of the association before the public authorities. They are specifically forbidden to indulge in other activities than those mentioned in their constitutions and by-laws or to perform acts tending to restrict individual liberty.

It should be understood that in Chile union organizations with a trend toward revolutionary philosophy, such as the Federation of

Labor of Chile and the I. W. W., exist without persecution. Their journals and their publications attacking the constituted Government are, as a rule, issued without causing repressive measures on the part of the State.

Historical View of the Labor-Union Movement

THE first stage of the union movement in Chile was that of mutual benefit societies. This has been the case in the majority of American countries, thus confirming what the eminent sociologist, E. Rostand, said at the congress of the Mutual Insurance Society of Milan: "The mutual aid societies are the embryonal cellule, the nucleus around which are grouped all the other institutions of welfare and social assistance."

In Chile the workers have organized in mutual aid societies from the middle of the last century. In the year 1853 the typographical union of Santiago organized the first mutual aid society, with the name "Typographical Society"; it is now known as the "Printers' Union." Two years later the same union organized another society with the same name, in Valparaiso. In 1858 the "Artisans' Society of Valparaiso," a true mutual aid society, appeared, and in 1862 two more were formed, one in Santiago and the other in La Serena, both called "Artisans' Union."

During most of the nineteenth century the labor-union movement concentrated on mutual aid societies. In 1870 there were in the country 13 mutual aid societies which were incorporated; in 1880 there were 39; in 1890, 76 were registered; in 1900 they had increased to 240; and in 1925 they numbered 600, with 90,000 members. These numbers do not include the numerous mutual aid institutions which were not incorporated.

Thus, in Chile, as elsewhere, the mutual aid society was the first step in labor organization. These mutual aid societies constituted the natural meeting place for labor and the home of its social life. They furnished valuable material advantages, because by means of a little monetary sacrifice they gave the workers insurance against the most common risks which threatened their existence; and they also furnished valuable moral advantages, since from the beginning they exercised an important influence on the economic customs of the workers.

It was not until the twentieth century that labor organization in Chile developed along other lines. The cause of this slow evolution of trade-unionism proper, as contrasted with its rapid development in Europe during the nineteenth century and, on a smaller scale, in the other American countries, lies principally in the fact that Chilean industrial development did not become active until the beginning of this century, but also in considerable degree in the distance of Chile from the large centers of European social movements and the almost total lack of immigration.

In the first 15 years of this century (i. e., 1900 to 1915) the workers began to group themselves in organizations to protect their trade and guild interests. The first manifestations of union organization were in Santiago, Valparaiso, and Antofagasta. These organizations, comprising one or more unions of workers in the same industry, were called by the workers "defense organizations," because of their open

opposition to capital. They were formed sometimes on the occasion of friendly strikes in factories, but more generally in an industrial branch, as, for instance, in the saltpeter industry. A large number of these associations disappeared upon the termination of the strikes which had called them into existence.

Changes in English Trade-Union Membership

ACCORDING to returns furnished to the Ministry of Labor by the registrars of Friendly Societies in Great Britain and Northern Ireland, and collected from the registered and unregistered unions, the number of trade-unions at the end of 1927 was 1,127, with a total membership of 4,908,000. The data, which are published in the Ministry of Labor Gazette for December, 1928, show that this represents a falling off from the membership of the previous year, but that it is still far above the pre-war membership. The following table shows the changes in the number of unions and in union membership since 1913:

NUMBER OF TRADE-UNIONS AND TRADE-UNION MEMBERSHIP, 1913 TO 1927

Year	Number of trade-unions at end of year	Membership		Year	Number of trade-unions at end of year	Membership	
		At end of year	Per cent of increase or decrease as compared with previous year			At end of year	Per cent of increase or decrease as compared with previous year
1913	1,269	4,135,000	+21.0	1921	1,256	6,622,000	−20.6
1914	1,260	4,145,000	+.3	1922	1,211	5,615,000	−15.2
1915	1,229	4,359,000	+5.2	1923	1,170	5,419,000	−3.5
1916	1,225	4,644,000	+6.5	1924	1,167	5,533,000	+2.1
1917	1,241	5,499,000	+18.4	1925	1,151	5,495,000	−.7
1918	1,264	6,533,000	+18.8	1926	1,136	5,207,000	−5.2
1919	1,360	7,926,000	+21.3	1927	1,127	4,908,000	−5.7
1920	1,366	8,337,000	+5.2				

The peak point, it will be seen, was reached in 1920, at which time the war workers had hardly begun to be displaced, and the postwar boom was at its height. The depression beginning in the next year had an immediate effect, decreasing the membership by one-fifth, and since then there has been an almost uninterrupted fall. The greatest decrease occurred in the general labor group, which had the largest membership of all (1,229,000) at the end of 1920, and had fallen to 448,000 by the end of 1927. The unions of this group were largely new, and their members had not the solid trade-union traditions of the older unions and the more stable crafts.

Distribution of Membership in 1927

FORTY-ONE per cent of the membership at the end of 1927 was in the manufacturing industries, of which the metal industries represented 13 per cent and the textile industries 12 per cent of the total membership of all unions. Transport, including railways,

water, and other transportation, comprised 18 per cent, mining and quarrying (with 678,000 members) 14 per cent, while Government service (341,000), teaching (205,000), commerce, distribution and finance (221,000), and entertainments and miscellaneous (78,000), comprised 17 per cent. Female membership was mainly concentrated in the textile and teaching groups, which together accounted for 60 per cent of the woman and girl trade-unionists. There were 792,000 female members of trade-unions, as against 4,116,000 men and boys.

The largest numerical decreases were 107,000 in mining and quarrying, 79,000 in railway service, 20,000 in road transport, dock labor, etc., 38,000 in the metal groups, 25,000 in general labor, and 15,000 in cotton. The largest percentage decreases were in railway service (16), iron, steel, tinplate, etc., manufacture (15), mining and quarrying (14), building laborers (13), and pottery and glass (11).

The only groups showing increases in membership of 5,000 or more were national and local government (8,000), and teaching (5,000), while no group showed a percentage increase in the year of more than 3 per cent.

Changes in Some Leading Industries

AS BETWEEN different industries, the movement has been irregular, some still showing a marked increase of trade-union membership over 1913, while others show a decrease. As compared with 1920, the year of highest trade-union membership, the only group showing an increase is teaching, in which the membership in 1913 was 113,000; in 1920, 197,000; and in 1927, 205,000. For some of the other important groups, the figures for the three years are as follows:

	1913	1920	1927
Agriculture	21, 000	210, 000	36, 000
Building, etc	243, 000	563, 000	322, 000
Clothing	108, 000	236, 000	163, 000
Cotton textiles	372, 000	461, 000	354, 000
Metals	560, 000	1, 172, 000	620, 000
Mining and quarrying	920, 000	1, 158, 000	678, 000

Agriculture, building, clothing, and metals, in spite of their heavy losses, still have a larger membership than in 1913, but cotton textiles and mining and quarrying show a loss—in the latter case, a heavy loss—of very nearly a quarter of a million.

WORKERS' EDUCATION AND TRAINING

Report on Rehabilitation of 6,391 Persons

A STATISTICAL study of the rehabilitation of 6,391 disabled persons as carried on by various States has just been published as Bulletin No. 132 of the Federal Board for Vocational Education.[1] This analysis was made during the year 1927–28; the period covered, however, is 1920 to 1924.

The Federal vocational rehabilitation act was approved in 1920. By the close of the year 1920–21 there were 23 States cooperating with the Federal Government. By the close of the second year 32 States had cooperative rehabilitation programs and at the end of 1923–24, 36 States were carrying on the work. In 1928, 41 States were partners with the Federal Government in this great rehabilitation scheme.

Of the 12,605 disabled persons who were rehabilitated by 36 States during 1920 to 1924, some data were secured for 7,874. Regular schedules, however, were obtained in only 6,391 cases, upon which the following summary is based:

Personal Data

WOMEN constituted 10.2 per cent of the rehabilitated cases, and the percentage of negro cases was 4.4. Nearly 48 per cent of the 6,391 persons were under 30 years of age.

Table 1 shows the number of rehabilitated persons, classified by the number of dependents:

TABLE 1.—NUMBER OF DEPENDENTS OF REHABILITATED PERSONS

Number of dependents	Number	Per cent	Number of dependents	Number	Per cent
None	2,840	44.5	6	153	2.4
1	906	14.2	7	84	1.3
2	738	11.5	8 or more	65	1.0
3	556	8.7	Not reported	456	7.1
4	362	5.7			
5	231	3.6	Total	6,391	100.0

A record of the formal school training of the 6,391 persons previous to rehabilitation is shown in Table 2:

TABLE 2.—EDUCATION OF PERSONS REHABILITATED

Education	Number	Per cent	Education	Number	Per cent
None	286	4.5	High school and vocational	71	1.1
Grades 1–6	1,875	29.3	Advanced academic and vocational	5	.1
Grades 7–9	2,490	39.0	Not reported	192	3.0
High school (grades 10–12)	976	15.3			
Advanced academic	296	4.6	Total	6,391	100.0
Grades and vocational	200	3.1			

[1] U. S. Federal Board for Vocational Education. Bulletin No. 132: A study of rehabilitated persons. Washington, 1928.

In 53.6 per cent of the cases the disabilities were caused by work accidents, and in only 16.1 per cent of the cases by public accidents.

The explanation given for the fact that such a large proportion of the cases came from the employment accident group is as follows:

1. In the States cooperative arrangements for reporting accident cases are made with the workmen's compensation boards.
2. Persons with industrial experience have a greater claim on the rehabilitation departments.
3. The availability of compensation for the maintenance of persons injured in industry makes it possible to train a greater proportion of them than of those in the nonindustrial group.

The number of persons disabled by diseases was 1,634, or 25.6 per cent of the rehabilitated persons. Among the outstanding causes of such disablement were tuberculosis, heart disease, and infantile paralysis.

The nature and extent of the 6,391 disabilities are given below:

	Number
Leg:	
Partial loss of use	620
Total loss of use	37
Amputation	864
Legs:	
Partial loss of use	252
Total loss of use	71
Amputation	89
Foot:	
Partial loss of use	139
Total loss of use	24
Amputation	418
Feet:	
Partial loss of use	49
Total loss of use	7
Amputation	46
Right arm:	
Partial loss of use	153
Total loss of use	35
Amputation	225
Left arm:	
Partial loss of use	101
Total loss of use	32
Amputation	194
Arms:	
Partial loss of use	13
Amputation	6
Right hand:	
Partial loss of use	341
Total loss of use	57
Amputation	255
Left hand:	
Partial loss of use	261
Total loss of use	50
Amputation	202
Hands:	
Partial loss of use	55
Total loss of use	1
Amputation	13
Multiple injury	201
Eyesight:	
Partial loss of use	381
Total loss of use	287
Hearing:	
Partial loss of use	59
Total loss of use	115
Back injury	247
Head injury	18
Heart	57
Lung	108
Speech:	
Partial loss of use	3
Total loss of use	1
Other	282
Not reported	22
Total	6,391

One-half of the persons were trained for the employment held after rehabilitation. The other half "were rehabilitated through placement and supplementary services."

Wages

OF THE 4,944 persons for whom wage data after disability and prior to rehabilitation were available, only 1,414 were reported as having been capable of wage earning. Of these 1,414 persons, 614 were in the class receiving $10 to $19 per week, 599 earned $20 or over per week, while 483 received under $15 per week.

Table 3 shows the initial wage and the final wage on the job held after rehabilitation:

TABLE 3.—NUMBER AND PER CENT OF REHABILITATED PERSONS AT SPECIFIED INITIAL AND FINAL WAGES ON REHABILITATION JOB

Weekly rate	At initial wage		At final wage	
	Number	Per cent	Number	Per cent
None	24	0.4	23	0.4
Less than $10	461	7.2	268	4.2
$10 to $14	764	11.9	482	7.5
$15 to $19	1,453	22.8	1,091	17.1
$20 to $24	1,278	20.0	1,121	17.5
$25 to $29	970	15.2	1,005	15.7
$30 to $39	780	12.2	1,036	16.2
$40 to $49	210	3.3	331	5.2
$50 and over	99	1.5	176	2.8
Not reported	352	5.5	858	13.4
Total	6,391	100.0	6,391	100.0

Status at Time of Interview

OF THE total number of persons on whom reports were made, 2,546, or approximately 40 per cent, were still in their rehabilitation employment at the time they were interviewed.

Two hundred and twelve persons died after rehabilitation, and 164 were not physically able to go on with their work.

At the time of the interview 2,582 persons were employed in different jobs and with different employers from those prior to rehabilitation.

Of those who had been at work from two and one-half to five years or more, 3,128 rehabilitated persons had had no unemployment within that time.

Expenses and Economic Returns

THE cost of rehabilitating 4,669, or 73 per cent of the cases, was less than $150 per individual. Attention is called to the "economic significance" of this low cost, when coupled with the fact that 47.5 per cent of the total persons rehabilitated have an industrial life expectancy of at least 20 years.

Apprenticeship Act of Victoria

AN APPRENTICESHIP act was passed in Victoria, dated December 21, 1927, which was to become effective May 8, 1928. According to the summary of its terms given in the annual report of the chief factory inspector for 1927, it provides for the appointment of an apprenticeship commission, consisting of five members, two representing employers and two employees, with an independent chairman, which is to be responsible for its administration. The act is to apply to any trade or group of trades declared to be apprenticeship trades under its terms. Provision is made for the appointment of expert advisory committees to assist the commission on all

matters concerning apprenticeship and the general conditions of any proclaimed trade.

Among the important matters to be considered and dealt with by the commission will be:

(*a*) The encouragement of apprenticeship in proclaimed skilled trades up to the limit prescribed.

(*b*) The determination of preparatory educational and minimum age standards required for apprenticeship.

(*c*) To endeavor to bring "approved" boys with aptitude for a particular trade and employers together.

(*d*) With the advice of the expert committees, to prescribe conditions of apprenticeship. Such matters as the term of apprenticeship to be served; the ratio of apprentices in training to journeymen employed; the wages of apprentices, and the general and special conditions of indentures of apprenticeship will be dealt with.

(*e*) The exercise of general supervision over the training of apprentices, both practical and theoretical. Apprentices in proclaimed trades will attend technical school classes during the first and second years of the apprenticeship in the employers' time for a period not exceeding four hours a week, and such other classes as may be determined.

This important part of the commission's work aims at supplementing the work of the apprentice in the trade by further instruction in the basic and scientific principles of his calling, thus insuring that every apprentice satisfactorily completing his course will possess an all-round knowledge of his work, and will thus be of greater value to the community both as a citizen and as an economic factor.

(*f*) To prescribe standards of proficiency to be attained by the apprentice and to award certificates to all apprentices satisfactorily completing their course.

(*g*) To insure that all apprentices to skilled trades are properly indentured and registered with the commission, and to decide questions of difference arising between employers and apprentices in relation to apprenticeship.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in December, 1928

DATA regarding industrial disputes in the United States for December, 1928, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

The bureau is dependent upon trade journals, newspapers, and labor periodicals for notices of strikes. These reports are followed up by correspondence and when necessary by personal visits of representatives of the Conciliation Service or of this bureau.

Table 1 is a summary table showing for each of the months—January, 1927, to December, 1928, inclusive—the number of disputes which began in those months, the number in effect at the end of each month, and the number of workers involved. It also shows, in the last column, the economic loss (in man-days) involved. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1927, TO DECEMBER, 1928

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
1927					
January	37	18	5,915	2,287	58,125
February	65	45	9,756	5,717	115,229
March	74	67	13,142	8,182	214,283
April	87	88	202,406	199,701	5,265,420
May	107	116	22,245	200,702	5,136,006
June	80	88	18,957	196,323	4,863,345
July	65	63	33,994	199,287	5,308,123
August	57	53	8,150	198,444	4,999,751
September	57	58	12,282	196,829	4,945,702
October	50	58	13,024	82,095	2,724,117
November	27	51	5,282	82,607	2,040,140
December	28	54	4,281	81,229	2,129,153
1928					
January	43	62	18,263	81,676	2,135,092
February	47	61	33,602	104,883	2,155,559
March	34	63	7,145	78,362	2,343,415
April	62	70	143,834	134,382	4,884,430
May	72	74	15,138	136,094	3,526,608
June	40	64	20,941	134,406	3,580,719
July	53	60	17,232	134,102	3,365,803
August	57	59	8,279	129,210	3,577,599
September	48	48	8,041	63,650	2,605,713
October	49	43	26,615	41,420	1,304,647
November [1]	40	45	37,437	39,665	1,304,285
December [1]	22	42	5,814	39,713	1,016,427

[1] Preliminary figures subject to revision.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives, by industry, the number of strikes beginning in October, November, and December, 1928, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN OCTOBER, NOVEMBER, AND DECEMBER, 1928

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	October	November	December	October	November	December
Building trades	2	5	8	69	229	516
Chauffeurs and teamsters	2	2		71	359	
Clerks and salesmen	1			750		
Clothing	7	5	3	447	990	361
Farm labor	1	1		150	80	
Furniture	4		1	104		100
Glass workers		2			157	
Metal trades	3			44		
Miners	14	10	4	13,662	33,910	4,173
Motion-picture operators, actors, and theatrical workers	7	1		122	8	
Pottery workers	1	1		173	50	
Printing and publishing	1	2		10	213	
Rubber workers	1	1		900	800	
Stationary engineers and firemen		1			11	
Teachers		1			11	
Textile	2	7	3	3,050	590	467
Other occupations	3	1	3	7,063	29	197
Total	49	40	22	26,615	37,437	5,814

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in December, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN DECEMBER, 1928, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in December, 1928, involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers
Building trades		5	3		
Clothing	1	1	1		
Furniture			1	1	2
Miners		1			
Textile		2	1		
Other occupations	1	2			
Total	2	11	6	1	2

In Table 4 are shown the number of industrial disputes ending in December, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN DECEMBER, 1928, BY INDUSTRIES AND BY CLASSIFIED DURATION

Industry	Classified duration of strikes ending in December, 1928				
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months	3 months and less than 4 months
Building trades	4	1	1		
Clothing			1		
Furniture	1			2	1
Miners	4				1
Motion picture operators, actors and theatrical workers		1			
Printing and publishing		1			
Stationary engineers and firemen			1		
Teachers	1				
Textile	3	1		1	
Totals	13	4	3	3	2

Principal Strikes and Lockouts Beginning in December, 1928

BITUMINOUS coal miners, Montana.—A suspension of coal mining in Montana, of District 27 of the United Mine Workers, from December 6 to 14, involving 2,000 workers, resulted from the rejection by the miners, on a referendum vote, of a new wage agreement which had been negotiated between the scale committee of the operators and miners.

The operators refused to reconsider the scale and on a second referendum vote of the miners on December 14 the agreement was ratified.

Work was resumed at some of the mines on December 15 and all mines were in operation, it is understood, on Monday, December 17.

The new agreement carries reductions of $1.20 (from $8.39) on the inside day wage scale and $1.05 on the outside day wage scale, etc.

Principal Strikes and Lockouts Continuing into December, 1928

SILK workers, New Jersey.—The strike of silk workers in Paterson which began on October 10 was officially declared ended by the Associated Silk Workers of America in a published announcement on January 2, 1929, about three-fourths of the workers having reached by the end of December satisfactory settlements with their employers, who agreed to the 8-hour workday, revised uniform wage schedule and recognition of the union.

Bituminous coal strike.—No report of the ending of the suspension of April 1, 1927, has been received as regards Ohio and Pennsylvania, but according to press reports dated December 23 a new wage scale has been drafted by the officials of the central Pennsylvania district of the United Mine Workers of America and is being submitted to individual operators, some of whom, it is said, have accepted it.

The agreement carries wage reductions varying from 15 to 25 per cent of the old Jacksonville scale, and provides for the arbitration of all differences that may arise after the agreement is signed. It also requires the miners to remain at work pending the decision of

the arbitration board, which is to be final. However, the miners of the local unions where these mines are located are reported to have voted against accepting the agreement.

Conciliation Work of the Department of Labor in December, 1928

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 22 labor disputes during December, 1928. These disputes affected a known total of 3,962 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On January 1, 1929, there were 28 strikes before the department for settlement and in addition 17 controversies which had not reached the strike stage. The total number of cases pending was 45.

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning—	Ending—	Directly	Indirectly
					1928	1928		
Advance Pattern & Foundry Co., Chicago, Ill.	Strike	Metal polishers	Objection to conveyor system.	Pending	Oct. 3		80	
Grand Tunnel Coal Co., West Nanticoke, Pa.	Lockout	Miners	Wage dispute as to yardage rates.	do	Dec. 3		300	5
Tribune Building, New York City	Strike	Window cleaners	Working conditions; renewal of agreement.	do	Oct. 15		12	
Art Crafts Co., Medford, Mass	do	Upholsterers	Refusal of union recognition	Unclassified. Company bankrupt; dissolved before arrival of commissioner.	Sept. 10	Dec. 1	25	
J. Wilson Co., Chelsea, Mass	do	do	Asked $1 per week increase; 44-hour week.	Pending	do		50	
Ayres Building, Indianapolis, Ind	do	Electricians	Installation of electrical equipment.	Adjusted. Committee appointed and agreement concluded.	Nov. 30	Dec. 10	20	110
Crystal Window Cleaning Co., New York City.	do	Window cleaners	Working conditions and terms of agreement.	Pending	Oct. 15		5	
Francis Bacon Upholstering Co., C. B. Swift Upholstering Co., and Shaw Furniture Co., Boston, Mass.	do	Upholsterers	Asked increase to $1.25 first year and $1.37½ the second year.	do	Oct. 1		50	
Union Bar Mill, Kalama, Wash	Controversy	Shingle weavers	Dispute relative organization of mill workers.	Adjusted. Mill changed to nonunion operation.	Dec. 18	Dec. 26	(1)	
Publix Theaters, Buffalo, N. Y	Threatened strike.	Engineers	Organization dispute	Adjusted. Referred to arbitration; satisfactory settlement probable.	Dec. 14	Dec. 21	200	
Turco & Son, New York City	Controversy	Shirt ironers	Alleged breach of contract	Pending	Dec. 12		12	
Susquehanna Coal Co., Glen Lyon, Pa.	Strike	Miners	Wages	Adjusted. Returned; district officials to fix terms.	Dec. 20	Dec. 27	1,400	
Building trades, Willoughby, Ohio	do	Carpenters and laborers.	Nonunion laborers employed.	Adjusted. All union men to be employed in future.	Dec. 5	Dec. 11	9	21
Kroger Building, Indianapolis, Ind	do	Bricklayers and carpenters.	Jurisdiction of cork calking	Adjusted. Work divided between crafts.	Dec. 24	Dec. 26	20	10
Building, Fort Wayne, Ind	Threatened strike.	Carpenters and sheet metal workers.	Working conditions	Pending	Dec. 26		130	410
Shell Oil Co., Martinez, Calif	Controversy	Boiler makers	Man discharged for alleged union activity.	Adjusted. Man reemployed; contract interpreted relative question in dispute.	Nov. 8	Dec. 20	1	25
Apartment building, Twenty-eighth Street, Indianapolis, Ind.	do	Painters, paper hangers.	Nonunion painters employed.	Adjusted. Settled in conference	Dec. 1	Dec. 24	12	75
Apartment building Thirty-sixth Street, Indianapolis, Ind.	do	do	do	do	do	Dec. 24	10	85

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, DECEMBER, 1928—Con.

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning—	Ending—	Directly	Indirectly
					1928	1928		
Institute for the Blind Building, Indianapolis, Ind.	Threatened strike.	Carpenters and bricklayers.	Jurisdiction of pointing work	Adjusted. Agreed on division of work.	Dec. 24	Dec. 31	25	115
Ayres Building, Indianapolis, Ind.	Controversy	Carpenters and hoisting engineers.	Objection to carpenters using hoisting rig.	Adjusted. Only hoisting engineers will use hoisting machinery.	Dec. 19	Dec. 19	1	110
						1929		
Conemaugh Iron Works, Blairsville, Pa.	Strike	Enamel workers	Revision of hours and piece rates for enamelers.	Adjusted. All return for 30 days' trial of revised rates and conditions.	Dec. 17	Jan. 2	105	420
Shell Oil Co., Wilmington, Calif.	Controversy	Painters	Asked increase and reclassification.	Adjusted. Satisfactory agreement on question involved.	Aug. 29	Jan. 5	9	10
Total							2,476	1,486

[1] Not reported.

Industrial Disputes in the Philippines, 1923 to 1927

STATISTICS on strikes and other industrial disputes in the Philippines from 1923 to 1927 are summarized as follows in the annual report of the Governor General of the islands for 1927:

INDUSTRIAL DISPUTES IN THE PHILIPPINES, 1923 TO 1927

Year	Number of strikes and other industrial disputes	Number of workers involved	Causes of conflicts		Adjustments in favor of—	
			Wages	Other	Workers	Employers
1923	26	8,331	18	8	14	12
1924	20	6,784	13	7	12	8
1925	23	9,936	12	11	19	4
1926	27	7,279	18	9	16	11
1927	53	8,567	33	20	39	14
Total	149	40,897	94	55	100	49

WAGES AND HOURS OF LABOR

Wage Increases Established by Recent Agreements and Arbitration Awards

Railroad Telegraphers

THE telegraphers on the Southern Railway System have been awarded an increase of 2.2 cents per hour per position, to be distributed as may be agreed upon between the management and the telegraphers' committee. The increase became effective December 15, 1928.

The Order of Railroad Telegraphers had requested an increase of 6 cents per hour per position, which was refused by the carrier. By agreement, as provided by the railway labor act of 1926, dated July 31, 1928, the dispute was submitted to arbitration. L. M. Eddy, vice president of the Order of Railroad Telegraphers, represented the employees; J. A. Jones, general superintendent of telegraphs on the Southern Railway System, represented the carrier; and Edward S. Bailey, appointed by the United States Board of Mediation, was the neutral member of the board.

Teamsters, Chauffeurs, Stablemen, and Helpers

TEAMSTERS, chauffeurs, stablemen, and helpers, employees of the American Railway Express Co. at San Francisco, Calif., were awarded an increase in rates of pay of 7¼ cents per hour, effective December 1, 1928, by an arbitration board. The members of the board were Michael Casey, representing the employees; L. O. Head, representing the carrier; and A. R. Morrow, the neutral member.

Railway Terminal Employees

THROUGH mediation the clerks, employed by the Missouri Pacific Railroad were given an increase of 3 cents per hour; baggagemen, baggage checkers, mail handlers, store helpers, gatemen, train and engine crew callers, telephone switchboard operators, chauffeurs, tractor drivers, and others were given an increase of 2 cents per hour, effective November 1, 1928. J. W. Walsh represented the United States Board of Mediation in the negotiations.

Railroad Signalmen

THE wage dispute between the Boston Terminal Co. and its signal department employees was settled by the United States Board of Mediation. An hourly rate of 90 cents for signal foremen, and 80

cents for signalmen and signal maintainers or repairmen was established, effective for one year from October 13, 1928.

The board was composed of W. H. Wright, representing the carrier; D. C. Cone and A. C. Smallman, representing the employees; and G. Wallace W. Hanger, member of United States Board of Mediation.

Shopmen—New York Central Railroad

UNDER an arbitration award of January 18, 1929, the shop employees of the New York Central Railroad were granted increases of 40 cents per day, with the exception of the coach cleaners, who were awarded a flat increase of 2 cents per hour. The board had been considering the demands of the employees for a wage increase of $1.42 per day since November 22 last. The increases are to become operative the first day of the next pay period.

The minimum hourly rates of pay, as established by this award, are as follows:

	Cents
Machinists	81
Boilermakers	81
Blacksmiths	81
Sheet-metal workers	81
Electrical workers—	
(As covered by rule 140)	81
(As covered by rule 141)	77
(As covered by rule 142)	71
(As covered by rule 143)	64
Carmen now receiving $6.98 per day	81
All other carmen	74
Helpers (all crafts)	58
Regular apprentices—	
First six months	38
Second six months	40½
Third six months	43
Fourth six months	45½
Fifth six months	48
Sixth six months	50½
Seventh six months	55½
Eighth six months	63
Helper apprentices—	
First six months	58
Second six months	60
Third six months	62
Fourth six months	64
Fifth six months	66
Sixth six months	68

Both parties, before submitting their differences to the board of arbitration, agreed to abide by its decision for one year from date of award and to give 30 days' notice of dissatisfaction with the scale established.

The board of arbitration which was appointed last June to decide on the request of the employees for wage increases consisted of H. J. Carr and F. H. Knight, representing the employees; Walter H. Flynn and John G. Walber, representing the New York Central Railroad, and Julian W. Curtiss and Walter C. Clephane appointed by the United States Board of Mediation.

Wages of Civil Employees Under the United States Naval Establishment, 1929

THE schedule of wages of civil employees under the Naval Establishment for the Calendar Year 1929 was published recently by the Navy Department.[1] The following tables covering wage rates in the clothing workers' service and in the laborer, helper, and mechanical service have been selected as being of the most general interest. The figures for all occupations, other than apprentices, are the maximum. The minimum rate is 10 cents under the maximum and there is an intermediate rate 5 cents under the maximum. Similar data for the year 1928 were published in the Labor Review for March, 1928 (pp. 131–133).

TABLE 1.—RATES OF WAGES PER HOUR IN THE CLOTHING WORKERS' SERVICE

Naval Supply Depot, Brooklyn, N. Y.

Occupation	Rate per hour	Occupation	Rate per hour
Assistant custom cutter	$0.85	Embroiderer	$0.55
Baster	.85	Finish presser	.95
Bushelman	.80	Fitter	.85
Canvas maker	.65	General tailor	.85
Chopper	.75	Head custom cutter	1.35
Cleaner	.45	Hand buttonhole maker	.80
Cloth sponger	.75	Operator (female)	.55
Clothing examiner	.75	Operator, sewing machine	.67
Coat finisher	.55	Operator, special machine	1.00
Coat maker	.90	Pocket maker	1.00
Coat operator	1.00	Spreader	.67
Collar maker	.90	Trimmer	.60
Custom cutter	1.25	Trouser finisher	.55
Cutting-machine operator	.90	Trouser maker	.80
Cutter and marker	.85	Trouser operator	.90
Die-machine operator	.75	Underpresser	.80
Double-needle operator	.70	Vest maker	.75
Dress-coat maker	.95		

Depot of Supplies, United States Marine Corps, Philadelphia, Pa.

Coat fitter	$0.83	Finisher	$0.45
Coat maker	.90	Operator (female)	.51
Coat operator	.98	Head operator (female)	.60
Custom cutter	1.25	Presser	.73
Cutter	.83	Sponger	.51
Cutter and marker	.83	Tailor, first class	.83
Cutting-machine operator	.90	Tailor, second class	.73
Embroideress	.48	Trimmer	.45
Examiner, clothing	.73		

[1] United States. Navy Department. Schedule of wages for civil employees under the Naval Establishment for the calendar year 1929. Washington, 1928.

TABLE 2.—RATES OF WAGES PER HOUR IN THE LABORER, HELPER, AND MECHANICAL SERVICE OF THE U. S. NAVAL ESTABLISHMENT

Occupation	Boston	New York	Philadelphia	Washington	Norfolk	Charleston	New Orleans	Mare Island	Puget Sound	Great Lakes
Group I										
Attendant:										
Building (Naval Academy)	------	------	------	$0.40	------	------	------	------	------	------
Battery	------	------	------	.57	------	------	------	------	------	------
Ironer, hand, laundry	------	------	$0.40	.40	------	------	------	------	------	------
Laborer, common	$0.56	$0.56	.53	[1] .53	$0.46	$0.36	$0.36	$0.56	$0.56	$0.57
Laundress	------	------	------	------	.35	------	------	------	------	------
Laundryman	.57	.60	.65	.50	------	------	------	------	------	------
Mangle hand, laundry	.29	------	------	.34	------	------	------	------	------	------
Press operator, laundry	.40	------	------	.34	------	------	------	------	------	------
Group II										
Attendant, powder factory [2]	------	------	------	.80	------	------	------	------	------	------
Hammer runner:										
Heavy	.66	.66	.63	.66	.60	.57	------	------	------	------
Others	.60	.62	.58	.61	.55	.52	------	------	------	------
Helper:										
Blacksmith—										
Heavy fires	.64	.64	.62	.62	.59	.56	------	.68	.65	------
Other fires	.61	.61	.57	.57	.54	.51	------	.64	.61	------
Boiler maker	.61	.61	.57	.57	.56	.51	------	.63	.63	------
Coppersmith	.61	.61	.57	.57	.54	.51	------	.63	.63	------
Electrician	.63	.63	.59	.59	.56	.51	.51	.63	.63	.61
Flange turner	.64	.64	.62	------	.59	.56	------	.68	.68	------
Forger, heavy	.64	.64	.62	------	.59	.56	------	.68	.68	------
General	.61	.61	.57	.57	.54	.51	.51	.63	.63	.60
Laboratory	.61	.61	.57	.57	.54	------	------	------	.61	------
Machinist	.61	.61	.57	.57	.56	.51	.51	.63	.63	.60
Molder	.61	.63	.57	.57	.56	.51	------	.62	.62	------
Pipe fitter	.63	.63	.59	.59	.55	.51	.51	.63	.63	.61
Rigger	.61	.61	.57	.57	.54	.51	.51	.63	.63	.60
Ropemaker	.61	------	------	------	------	------	------	------	------	------
Sheet-metal worker	.61	.61	.57	.57	.55	.51	------	.63	.63	------
Ship fitter	.61	.61	.57	------	.55	.51	------	.63	.63	------
Woodworker	.63	.63	.59	.59	.57	.51	------	.63	.63	------
Hod carrier	------	.64	------	.62	.56	.56	------	------	.65	------
Holder-on	.67	.66	.65	------	.62	.59	------	.68	.68	------
Laborer, classified	.56	.56	.53	[3] .53	.46	.36	.36	.56	.56	.57
Oiler	.74	.75	.70	.70	.70	------	------	------	.70	------
Rivet heater	.58	.60	.56	------	.45	.35	------	.60	.60	------
Sand blaster	.72	.76	.72	.72	.70	.67	------	.72	.72	------
Stable keeper	.58	.58	.56	.56	------	------	------	------	.58	------
Stevedore	.67	.68	.65	------	.53	.53	------	.71	.71	------
Teamster	.60	.63	.56	.56	.48	------	------	.62	.62	.62
Group III										
Aircraft fabric worker	------	------	.57	------	------	------	------	------	------	------
Aircraft mechanic:										
General	------	------	.87	------	------	------	------	------	------	------
Motor	------	------	.87	------	------	------	------	------	------	------
Angle smith:										
Heavy fires	.96	.99	.93	------	.93	.89	------	1.01	1.01	------
Other fires	.86	.89	.83	------	.83	.79	------	.91	.91	------
Blacksmith:										
Heavy fires	.98	.99	.93	.93	.93	.89	------	1.02	1.05	------
Other fires	.88	.89	.83	.83	.83	.79	------	.92	.91	------
Blue printer	.64	.67	.60	.60	.60	.56	------	.67	.67	------
Boat builder	.90	.92	.87	------	.87	------	------	.97	.97	------
Boiler maker	.88	.92	.87	.87	.87	.82	.80	.93	.92	.87
Box maker	.62	.65	.60	.60	.60	.58	------	.65	.65	------
Brakeman	.76	.76	.76	.76	.76	.76	------	.81	.81	------
Buffer and polisher	.83	.83	.83	.83	.83	------	------	.89	.89	------
Butcher	------	------	------	.73	------	------	------	------	------	------
Calker, wood	.84	.89	.84	.84	.84	------	.80	.92	.92	------
Calker and chipper, iron	.86	.89	.84	------	.84	.82	.80	.91	.91	------
Cement finisher	.92	.95	.90	.90	.88	.88	.84	.98	.98	.93
Cement worker	.63	------	.61	.61	.51	.41	------	.63	.63	------
Chain maker	.91	------	------	------	------	------	------	------	------	------
Chauffeur	.68	.71	.65	.65	.62	.56	.60	.75	.75	.71
Conductor, railroad	------	.82	.82	.82	.82	------	------	.84	.84	------
Cooper	.75	.76	------	------	.68	------	------	.78	.78	------
Coppersmith	.93	.98	.92	.92	.92	.85	.84	.98	.98	------

[1] Rate for laborer, common, at naval powder factory, Indianhead, Md., and naval proving ground, Dahlgren, Va., $0.50 per hour.

[2] Intermediate rates, $0.75, $0.70, $0.65, and $0.60 per hour. Minimum rate, $0.55 per hour.

[3] Rate for laborer, classified, at naval powder factory, Indianhead, Md., and naval proving ground, Dahlgren, Va., $0.50 per hour.

TABLE 2.—RATES OF WAGES PER HOUR IN THE LABORER, HELPER, AND MECHANICAL SERVICE OF THE U. S. NAVAL ESTABLISHMENT—Continued

Occupation	Boston	New York	Philadelphia	Washington	Norfolk	Charleston	New Orleans	Mare Island	Puget Sound	Great Lakes
Group III—Continued										
Craneman, electric (under 20 tons)	$0.72	$0.75	$0.70	$0.70	$0.75	$0.68	------	$0.78	$0.78	------
Crystal oscillator maker [4]	------	------	------	.82	------	------	------	------	------	------
Cupola tender	.78	.81	.75	.75	.75	------	------	.83	.83	------
Die sinker	.98	1.02	.98	.98	.98	------	------	1.03	1.03	------
Diver	1.90	1.90	1.90	------	1.90	1.90	$1.90	1.90	1.90	------
Dredge operator	------	------	------	------	------	1.00	------	------	------	------
Driller	.73	.76	.70	------	.70	.68	------	.78	.78	------
Electrician	.95	.98	.93	.93	.93	.87	.90	.99	.99	$0.95
Electroplater	.88	.93	.87	.87	.87	------	------	.99	.99	------
Engineman	.87	.91	.84	.84	.84	.81	.80	.93	.93	.88
Locomotive	.88	.92	.86	.86	.86	.81	------	------	.93	------
Locomotive, electric	------	------	------	.80	------	------	------	------	------	------
Hoisting and portable	.88	.92	.86	.86	.86	------	------	------	.93	------
Fireman	.72	.75	.70	.70	.70	------	.65	.79	.77	.74
Fireman, power plant	------	------	------	------	------	.66	------	------	------	------
Fireman, other fires	------	------	------	------	------	.51	------	------	------	------
Flange turner	.89	.94	.87	.87	.87	.86	------	.94	.94	------
Forger:										
Drop	.84	.91	.82	.82	.82	------	------	.90	.88	------
Heavy	1.33	1.36	1.31	1.31	1.31	1.30	------	1.38	1.38	------
Foundry chipper	.64	.70	.64	.64	.64	------	------	.65	.65	------
Frame bender	.89	.94	.87	------	.87	.85	------	.94	.94	------
Furnace man:										
Foundry	------	.70	.65	.65	.65	.60	------	.75	.75	------
Heater	------	.70	.65	.65	.65	.60	------	.70	.70	------
Heavy forge, heater	.75	.80	.75	.72	.72	.70	------	.75	.75	------
Other forge	.65	.70	.65	.64	.64	.60	------	.70	.70	------
Galvanizer	.71	.72	.67	------	.67	.64	------	.83	.80	------
Gardener	.64	.63	.63	.63	.63	.63	.63	.73	.73	.63
Glass apparatus maker	------	------	------	1.20	------	------	------	------	------	------
Instrument maker	.92	.95	.91	.91	------	------	------	.97	.97	------
Joiner	.90	.93	.88	.88	.88	.85	.85	.99	.99	.92
Ladle man, foundry	.64	.70	.65	.67	.58	------	------	------	.70	------
Lead burner [5]	------	------	------	1.07	------	------	------	------	------	------
Leather worker	.72	.75	.70	------	.68	------	------	.78	------	------
Letterer and grainer	.94	.97	.92	.92	.92	------	------	------	1.00	------
Leveler	------	.66	------	------	------	------	------	.80	.76	------
Linotype or monotype operator, or compositor	------	------	.90	------	.90	------	------	.95	.95	------
Loftsman	.94	.96	.93	------	.93	------	------	.97	.97	------
Machine operator	.68	.71	.67	.67	.67	------	------	.76	.76	------
Machinist	.88	.92	.88	.88	.88	.82	.82	.93	.93	.90
Marker and sorter, laundry	------	------	------	.55	------	------	------	------	------	------
Mason, brick or stone	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.17	1.17	1.14
Mechanic, bomb sight	------	------	------	1.10	------	------	------	------	------	------
Melter	.79	.82	.77	.77	.77	------	------	------	.83	------
Electric	------	1.05	1.10	------	1.15	------	------	------	1.05	------
Open hearth	------	------	------	1.15	------	------	------	------	------	------
Metallic cartridge case maker	------	------	------	.68	------	------	------	------	------	------
Millman	.90	.93	.88	.88	.88	.87	------	.99	.99	------
Model maker, wood	------	------	------	1.03	------	------	------	------	------	------
Molder	.96	1.03	.98	.98	.98	.90	------	1.02	1.01	------
Optical glass plate and gauge maker	------	------	------	.92	------	------	------	------	------	------
Optical instrument finisher	------	------	------	.84	------	------	------	------	------	------
Optical instrument maker	------	------	------	.92	------	------	------	------	------	------
Optical glass grinder and polisher	------	------	------	.82	------	------	------	------	------	------
Optical parts inspector	------	------	------	.82	------	------	------	------	------	------
Optical instrument assembler	------	------	------	.74	------	------	------	------	------	------
Optical polish and wax mixer	------	------	------	.82	------	------	------	------	------	------
Ordnanceman	.75	.75	.75	.75	.75	.75	------	.80	.80	------
Packer	.68	.70	.65	.70	.65	.65	------	.77	.77	.72
Painter	.89	.92	.88	.88	.88	.81	.81	.96	.96	.90
Painter, coach	------	------	------	.90	------	------	------	------	------	------
Pattern maker	1.02	1.06	1.04	1.04	1.04	.94	------	1.13	1.10	------
Pipe coverer and insulator	.88	.91	.88	.88	.88	.85	------	.93	.91	------
Pipe fitter	.95	.98	.93	.93	.93	.90	.87	.99	.99	.94
Plasterer	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.17	1.17	1.12
Plumber	.95	.98	.93	.93	.93	.90	.89	.99	.99	.94
Printer, job	.90	------	.90	.90	.90	.87	------	.97	.97	------
Puncher and shearer	.65	.73	.64	------	.64	.60	------	.72	.70	------
Rigger	.90	.92	.84	.84	.84	.81	.80	.94	.94	.85
Rigger, antenna	------	------	------	------	------	------	------	1.04	------	------
Riveter	.88	.91	.86	------	.84	.80	------	.90	.90	------
Rodman	.61	.62	.61	.61	.61	.61	------	.63	.63	------

[4] For use at Naval Research Laboratory, Bellevue, D. C., only.
[5] For use at Naval Powder Factory, Indianhead, Md., only.

TABLE 2.—RATES OF WAGES PER HOUR IN THE LABORER, HELPER, AND MECHANICAL SERVICE OF THE U. S. NAVAL ESTABLISHMENT—Continued

Occupation	Boston	New York	Philadelphia	Washington	Norfolk	Charleston	New Orleans	Mare Island	Puget Sound	Great Lakes
Group III—Continued										
Roller, brass and copper				$0.76						
Ropemaker	$0.77									
Sailmaker	.88	$0.90	$0.84	.84	$0.84	$0.84		$0.94	$0.92	
Saw filer	.97	1.04	.95	.95	1.00	.95		1.05	1.00	
Sewer	.57	.58	.55	.55	.55			.58	.57	$0.50
Sheet-metal worker	.95	.98	.93	.93	.93	.89	$0.83	.99	.99	.94
Ship fitter	.88	.91	.87	.87	.87	.82		.93	.91	
Shipwright	.90	.93	.88	.88	.88	.85		.99	.97	
Temperer				.90						
Tile and plate setter	.88	.90				.83			.92	
Toolmaker	.93	.97	.93	.93	.93	.87		.98	.98	
Trackman	.63	.63	.61	.61	.56	.56		.63	.63	.63
Upholsterer	.89	.92	.87	.87	.87			1.00	.95	
Watch and chronometer repairer [6]				1.05						
Water tender	.76	.79	.73	.73	.73	.70				
Welder:										
Electric	.88	.91	.86	.86	.86	.83	.83	.93	.93	
Gas	.86	.89	.84	.84	.84	.83	.80	.90	.90	
Wharf builder	.90	.92	.88	.88	.88	.85		.99	.99	
Group II b										
Apprentice:										
First class	.60	.60	.60	.60	.60	.60		.60	.60	
Second class	.50	.50	.50	.50	.50	.50		.50	.50	
Third class	.40	.40	.40	.40	.40	.40		.40	.40	
Fourth class	.30	.30	.30	.30	.30	.30		.30	.30	

[6] For use at Naval Observatory, Washington, D. C., only.

Adjustment of Wage Claims by Philippine Bureau of Labor, 1923 to 1927

THE FOLLOWING table from the annual report of the Governor General of the Philippines for 1927 shows the claims and complaints adjusted by the Philippine Bureau of Labor during the five years 1923 to 1927. These cases involved payment of wages, money advanced by employers to workers and sometimes the recovery of personal belongings. Through the activities of the bureau in this connection, workers are saved considerable expense by not having to employ outside lawyers to take up their grievances.

ADJUSTMENTS OF CLAIMS AND COMPLAINTS BY PHILIPPINE BUREAU OF LABOR, 1923 TO 1927

Year	Number of claims and complaints	Number of claimants	Adjustments		Amount collected [1]
			Favorable	Unfavorable	
1923	769	1,652	379	390	$10,685.77
1924	688	1,155	431	257	15,169.55
1925	615	1,371	365	250	9,604.82
1926	766	1,697	447	319	11,787.63
1927	728	1,418	493	235	9,085.96
Total	3,566	7,293	2,115	1,451	56,333.72

[1] Conversion into United States currency on basis of peso at par=50 cents.

TREND OF EMPLOYMENT

Summary for December, 1928

EMPLOYMENT *increased* 0.5 per cent in December, 1928, and pay-roll totals increased 1.2 per cent, according to returns made to the Bureau of Labor Statistics.

The lines of employment surveyed, the number of establishments reporting in each line, the number of employees covered, and total pay rolls for one week, for both November and December, together with the per cents of change in December, are shown in the following statement:

PER CENT OF CHANGE IN EACH LINE OF EMPLOYMENT—NOVEMBER TO DECEMBER, 1928

Line of employment	Establishments	Employment		Per cent of change	Pay roll in one week		Per cent of change
		November	December		November	December	
1. Manufacturing	**11,752**	**3,252,160**	**3,245,412**	[1] **+0.1**	**$87,662,458**	**$88,339,215**	[1] **+1.6**
2. Coal mining	**799**	**174,696**	**173,171**	**−0.9**	**4,769,238**	**4,828,695**	**+1.2**
Anthracite	59	39,361	39,009	−0.9	1,249,336	1,393,591	+11.5
Bituminous	740	135,335	134,162	−0.9	3,519,902	3,435,104	−2.4
3. Metalliferous mining	**253**	**42,868**	**43,893**	**+2.4**	**1,267,697**	**1,330,378**	**+4.9**
4. Public utilities	**5,457**	**464,309**	**460,927**	**−0.7**	**13,742,982**	**13,741,346**	−[2]
5. Trade	**2,768**	**172,020**	**205,141**	**+19.3**	**4,293,487**	**4,806,918**	**+12.0**
Wholesale	1,114	35,284	35,642	+1.0	1,020,573	1,032,670	+1.2
Retail	1,654	136,736	169,499	+24.0	3,272,914	3,774,248	+15.3
6. Hotels	**465**	**82,147**	**80,720**	**−1.7**	[3] **1,415,391**	[3] **1,406,618**	**−0.6**
Total	**21,494**	**4,188,200**	**4,209,264**	**+0.5**	**113,151,253**	**114,453,170**	**+1.2**

[1] Weighted per cent of change; the remaining per cents of change, including total, are unweighted.
[2] Less than one-tenth of 1 per cent.
[3] Cash payments only. See text, p. 137.

For convenient reference the latest data available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are here given, although they are for the months of October and November, 1928, instead of for November and December.[1]

PER CENT OF CHANGE, STEAM RAILROADS, OCTOBER TO NOVEMBER, 1928

Line of employment	Employment		Per cent of change	Amount of pay roll in entire month		Per cent of change
	Oct. 15, 1928	Nov. 15, 1928		October, 1928	November, 1928	
Class I railroads	1,707,596	1,663,608	−2.6	$248,520,198	$230,379,569	−7.3

The total number of employees reported herein is approximately 6,000,000 with pay-roll totals in *one week* of $170,000,000.

[1] For further details see page 138.

1. Employment in Selected Manufacturing Industries in December, 1928

EMPLOYMENT in *manufacturing* industries *increased* 0.1 per cent in December, 1928, as compared with November, and pay-roll totals *increased* 1.6 per cent, as shown by returns from 11,752 establishments in 54 of the principal manufacturing industries of the United States. These establishments in December had approximately 3¼ millions of employees whose combined earnings in one week were more than 88⅓ millions of dollars. These employees represent one-half of the employees in the 54 industries considered and 40 per cent of the total number of employees in all manufacturing industries in the United States.

The Bureau of Labor Statistics' weighted index of employment in manufacturing industries for December, 1928, is 87.8, as compared with 87.7 for November, 1928, and 88.1 for October, 1928, and 85.1 for December, 1927; the weighted index for pay-roll totals in December, 1928, is 93.6, as compared with 92.1 for November, 1928, 94.8 for October, 1928, and 89.3 for December, 1927. The monthly average for 1923 = 100.

Twenty of the fifty-four separate *industries* and 6 of the 12 *groups* of industries had more employees in December than in November.

Notable *industry* increases in employment were shown in shipbuilding, slaughtering and meat packing, agricultural implements, machine tools, fertilizers, structural ironwork, electrical machinery, carpets, cotton goods, and printing. *Group* gains were shown in food, textiles, iron and steel, chemicals, nonferrous metals, and the group of miscellaneous industries.

The decreases reported in employment were practically all of a seasonal character.

The New England geographical division and the two North Central divisions showed slightly increased employment in December; the pronounced decreases among the six remaining geographical divisions were in the Pacific, Mountain, and West South Central divisions.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING **ONE WEEK** EACH IN NOVEMBER AND DECEMBER, 1928

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1928	December, 1928		November, 1928	December, 1928	
Food and kindred products	**1,627**	**226,939**	**228,233**	(1)	**$5,779,431**	**$5,899,487**	(1)
Slaughtering and meat packing	194	86,203	90,483	+5.0	2,260,382	2,412,513	+6.7
Confectionery	294	37,202	35,718	−4.0	665,912	663,009	−0.4
Ice cream	274	10,285	9,962	−3.1	347,455	339,325	−2.3
Flour	327	15,989	15,929	−0.4	418,260	417,285	−0.2
Baking	523	66,259	65,586	−1.0	1,766,416	1,743,192	−1.3
Sugar refining, cane	15	11,001	10,555	−4.1	321,006	324,163	+1.0
Textiles and their products	**2,105**	**614,748**	**618,347**	(1)	**11,922,755**	**12,326,648**	(1)
Cotton goods	473	217,101	220,044	+1.4	3,434,279	3,559,051	+3.6
Hosiery and knit goods	338	94,169	93,748	−0.4	1,791,870	1,807,814	+0.9
Silk goods	280	64,004	64,684	+1.1	1,318,661	1,387,943	+5.3
Woolen and worsted goods	188	65,179	64,951	−0.3	1,453,067	1,486,376	+2.3
Carpets and rugs	31	24,689	25,082	+1.6	637,485	655,972	+2.9
Dyeing and finishing textiles	107	33,094	33,526	+1.3	836,411	859,851	+2.8
Clothing, men's	301	60,744	60,944	+0.3	1,314,672	1,438,645	+9.4
Shirts and collars	120	22,885	22,830	−0.2	374,792	369,798	−1.3
Clothing, women's	197	22,726	22,489	−1.0	526,455	529,446	+0.6
Millinery and lace goods	70	10,157	10,049	−1.1	235,063	231,752	−1.4
Iron and steel and their products	**1,799**	**682,164**	**681,733**	(1)	**20,968,800**	**20,968,695**	(1)
Iron and steel	202	274,385	273,810	−0.2	8,839,102	8,679,099	−1.8
Cast-iron pipe	38	11,531	11,265	−2.3	262,550	267,335	+1.8
Structural ironwork	164	26,603	27,354	+2.8	820,369	824,596	+0.5
Foundry and machine-shop products	960	248,243	250,084	+0.7	7,473,084	7,647,979	+2.3
Hardware	70	32,066	32,279	+0.7	835,507	848,973	+1.6
Machine tools	145	35,534	36,739	+3.4	1,190,595	1,259,334	+5.8
Steam fittings and steam and hot-water heating apparatus	109	33,299	30,545	−8.3	956,252	882,614	−7.7
Stoves	111	20,503	19,657	−4.1	591,341	558,765	−5.5
Lumber and its products	**1,331**	**236,588**	**230,401**	(1)	**5,321,364**	**5,119,048**	(1)
Lumber, sawmills	626	138,294	133,731	−3.3	2,872,278	2,748,166	−4.3
Lumber, millwork	317	33,721	32,703	−3.0	809,384	790,383	−2.3
Furniture	388	64,573	63,967	−0.9	1,639,702	1,580,499	−3.6
Leather and its products	**364**	**119,067**	**118,109**	(1)	**2,413,321**	**2,583,203**	(1)
Leather	132	26,581	26,129	−1.7	645,775	654,197	+1.3
Boots and shoes	232	92,486	91,980	−0.5	1,767,546	1,929,006	+9.1
Paper and printing	**1,120**	**198,767**	**198,522**	(1)	**6,589,310**	**6,703,651**	(1)
Paper and pulp	211	56,600	55,762	−1.5	1,529,285	1,529,399	+(2)
Paper boxes	182	20,902	20,144	−3.6	486,372	462,167	−5.0
Printing, book and job	314	44,223	44,839	+1.4	1,516,652	1,587,503	+4.7
Printing, newspapers	413	77,042	77,777	+1.0	3,057,001	3,124,582	+2.2
Chemicals and allied products	**347**	**92,345**	**92,905**	(1)	**2,752,321**	**2,753,561**	(1)
Chemicals	144	37,648	37,639	−(2)	1,060,172	1,057,493	−0.3
Fertilizers	147	8,873	9,131	+2.9	174,730	177,063	+1.3
Petroleum refining	56	45,824	46,135	+0.7	1,517,419	1,519,005	+0.1
Stone, clay, and glass products	**921**	**124,332**	**121,399**	(1)	**3,254,489**	**3,169,223**	(1)
Cement	104	24,655	23,599	−4.3	711,386	675,876	−5.0
Brick, tile, and terra cotta	566	39,823	38,247	−4.0	992,941	962,983	−3.0
Pottery	123	20,903	20,825	−0.4	505,559	509,771	+0.8
Glass	128	38,951	38,728	−0.6	1,044,603	1,020,593	−2.3
Metal products, other than iron and steel	**218**	**51,690**	**52,012**	(1)	**1,432,508**	**1,458,067**	(1)
Stamped and enameled ware	73	19,867	19,882	+0.1	491,296	495,072	+0.8
Brass, bronze, and copper products	145	31,823	32,130	+1.0	941,212	962,995	+2.3
Tobacco products	**246**	**66,157**	**64,101**	(1)	**1,107,915**	**1,111,548**	(1)
Chewing and smoking tobacco and snuff	30	8,914	8,943	+0.3	136,660	143,547	+5.0
Cigars and cigarettes	216	57,243	55,158	−3.6	971,255	968,001	−0.3

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING **ONE WEEK** EACH IN NOVEMBER AND DECEMBER, 1928—Continued

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1928	December, 1928		November, 1928	December, 1928	
Vehicles for land transportation	**1,208**	**563,279**	**557,490**	(1)	**$18,079,002**	**$17,815,473**	(1)
Automobiles	207	398,751	393,759	−1.3	13,069,615	12,827,558	−1.9
Carriages and wagons	51	1,541	1,475	−4.3	34,170	32,879	−3.8
Car building and repairing, electric-railroad	393	25,790	25,317	−1.8	808,696	796,512	−1.5
Car building and repairing, steam-railroad	557	137,197	136,939	−0.2	4,166,521	4,158,524	−0.2
Miscellaneous industries	**466**	**276,084**	**282,160**	(1)	**8,041,242**	**8,430,611**	(1)
Agricultural implements	80	27,718	28,939	+4.4	824,694	874,724	+6.1
Electrical machinery, apparatus, and supplies	180	138,083	140,686	+1.9	4,032,205	4,210,803	+4.4
Pianos and organs	73	10,103	9,870	−2.3	313,763	311,231	−0.8
Rubber boots and shoes	12	19,002	18,870	−0.7	457,408	466,083	+1.9
Automobile tires	39	52,853	52,851	−(2)	1,606,067	1,628,240	+1.4
Shipbuilding	82	28,325	30,944	+9.2	807,105	939,530	+16.4
All industries	**11,752**	**3,252,160**	**3,245,412**	(1)	**87,662,458**	**88,339,215**	(1)

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION							
New England [3]	1,442	399,053	400,409	+0.3	$9,724,387	$10,126,319	+4.1
Middle Atlantic [4]	2,759	862,363	861,124	−0.1	24,584,294	24,954,298	+1.5
East North Central [5]	2,953	1,115,726	1,116,880	+0.1	33,930,336	33,755,199	−0.5
West North Central [6]	1,040	163,283	163,545	+0.2	3,979,543	4,092,809	+2.8
South Atlantic [7]	1,493	338,477	336,107	−0.7	6,634,546	6,648,474	+0.2
East South Central [8]	607	120,769	120,766	−(2)	2,297,305	2,368,027	+3.1
West South Central [9]	495	88,618	86,642	−2.2	1,957,132	1,937,069	−1.0
Mountain [10]	207	31,570	31,002	−1.8	878,772	859,522	−2.2
Pacific [11]	756	132,301	128,937	−2.5	3,676,143	3,597,498	−2.1
All divisions	**11,752**	**3,252,160**	**3,245,412**	(1)	**87,662,458**	**88,339,215**	(1)

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

[2] Less than one-tenth of 1 per cent.

[3] Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

[4] New Jersey, New York, Pennsylvania.

[5] Illinois, Indiana, Michigan, Ohio, Wisconsin.

[6] Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.

[7] Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia.

[8] Alabama, Kentucky, Mississippi, Tennessee.

[9] Arkansas, Louisiana, Oklahoma, Texas.

[10] Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming.

[11] California, Oregon, Washington.

TABLE 2.—PER CENTS OF CHANGE, NOVEMBER TO DECEMBER, 1928—12 GROUPS OF INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, November to December, 1928		Group	Per cent of change, November to December, 1928	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	+0.2	+2.0	Metal products, other than iron and steel	+0.7	+1.9
Textiles and their products	+0.5	+3.1	Tobacco products	−3.1	+0.2
Iron and steel and their products	+0.2	+0.3	Vehicles for land transportation	−0.9	−1.1
Lumber and its products	−2.7	−4.0	Miscellaneous industries	+4.2	+9.0
Leather and its products	−0.9	+6.4			
Paper and printing	(1)	+1.6	**All industries**	**+0.1**	**+1.6**
Chemicals and allied products	+0.8	(1)			
Stone, clay, and glass products	−2.1	−2.4			

[1] No change

Comparison of Employment and Pay-Roll Totals in December, 1928, and December, 1927

THE level of employment in manufacturing industries in December, 1928, was 3.2 per cent higher than in December, 1927, and pay-roll totals were 4.8 per cent higher.

Very notable increases in employment were made over this 12-month period in the machine tool, foundry and machine-shop product, structural ironwork, iron and steel, brass, automobile, automobile tire, agricultural implement, and electrical machinery *industries;* the vehicle, iron and steel, nonferrous metal, food, and chemical *groups* and the group of miscellaneous industries also showed decided gains in employment.

The two North Central geographic divisions each had considerably more employees in December, 1928, than in December, 1927, and the Middle Atlantic, Mountain, and Pacific divisions reported small increases; there was a small falling off in employment in each of the remaining four divisions.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS, DECEMBER, 1928, WITH DECEMBER, 1927

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change December, 1928, compared with December, 1927	
	Number on pay roll	Amount of pay roll
Food and kindred products	**+2.0**	**+3.5**
Slaughtering and meat packing	+4.6	+7.4
Confectionery	−0.1	−1.5
Ice cream	−0.3	+1.4
Flour	+3.6	+2.0
Baking	+0.4	+0.8
Sugar refining, cane	+1.8	+8.6
Textiles and their products	**−2.9**	**−2.7**
Cotton goods	−5.2	−6.0
Hosiery and knit goods	−4.7	−3.6
Silk goods	−0.1	+1.5
Woolen and worsted goods	−0.4	+0.1
Carpets and rugs	+2.3	−2.5
Dyeing and finishing textiles	+0.4	+4.2
Clothing, men's	−5.4	−3.1
Shirts and collars	−4.6	−7.7
Clothing, women's	+2.0	−1.1
Millinery and lace goods	−6.5	−8.8
Iron and steel and their products	**+9.7**	**+15.1**
Iron and steel	+7.3	+13.3
Cast-iron pipe	−9.9	−4.2
Structural ironwork	+10.8	+10.7
Foundry and machine-shop products	+11.5	+16.6
Hardware	+3.4	+9.9
Machine tools	+33.5	+47.5
Steam fittings and steam and hot-water heating apparatus	−12.6	−10.0
Stoves	+4.1	+3.0
Lumber and its products	**−0.4**	**−1.9**
Lumber, sawmills	−0.7	−2.9
Lumber, millwork	−1.7	−1.2
Furniture	+0.9	+0.3
Leather and its products	**−4.3**	**−4.1**
Leather	−8.2	−9.0
Boots and shoes	−3.0	−1.4
Paper and printing	**−0.6**	**+0.2**
Paper and pulp	−2.5	−0.5
Paper boxes	−1.8	+2.2
Printing, book and job	−2.1	−2.9
Printing, newspapers	+2.5	+3.2
Chemicals and allied products	**+3.5**	**+0.8**
Chemicals	+2.5	−1.1
Fertilizers	+6.9	+1.3
Petroleum refining	+3.4	+3.6
Stone, clay, and glass products	**−2.0**	**−0.6**
Cement	−6.1	−6.7
Brick, tile, and terra cotta	−3.3	−1.9
Pottery	−1.2	−7.2
Glass	+0.1	+5.1
Metal products, other than iron and steel	**+11.7**	**+22.4**
Stamped and enameled ware	+5.5	+9.2
Brass, bronze, and copper products	+14.3	+26.6
Tobacco products	**−0.7**	**−0.7**
Chewing and smoking tobacco and snuff	−5.3	−4.2
Cigars and cigarettes	−0.1	−0.2
Vehicles for land transportation	**+11.4**	**+10.8**
Automobiles	+30.1	+26.7
Carriages and wagons	−5.1	+2.7
Car building and repairing, electric-railroad	−9.2	−10.6
Car building and repairing, steam-railroad	−2.2	−0.8
Miscellaneous industries	**+4.9**	**+2.2**
Agricultural implements	+21.5	+24.5
Electrical machinery, apparatus, and supplies	+10.0	+11.4
Pianos and organs	−12.0	−10.7
Rubber boots and shoes	−10.2	−11.3
Automobile tires	+14.4	+13.3
Shipbuilding	−2.4	−7.0
All industries	**+3.2**	**+4.8**

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION [1]		
New England	−0.3	+3.6
Middle Atlantic	+0.6	+3.2
East North Central	+13.9	+15.5
West North Central	+3.0	+3.0
South Atlantic	−0.9	+1.4
East South Central	−0.8	+2.0
West South Central	−0.6	+0.6
Mountain	+2.0	+8.2
Pacific	+1.0	−1.4
All divisions	**+3.2**	**+4.8**

[1] See footnotes 3 to 11, p. 111.

Per Capita Earnings

PER CAPITA earnings of employees in the combined 54 manufacturing industries in December, 1928, were 1.5 per cent higher than in November, 1928, and 1.6 per cent higher than in December, 1927.

In December, 1928, 38 of the 54 separate industries showed increased per capita earnings and 1 other industry showed no change, as compared with November, 1928, while 31 industries showed increased per capita earnings as compared with December, 1927.

The outstanding increases in per capita earnings over the 12-month period, December, 1927, to December, 1928, were in the brass, machine tool, carriage and wagon, sugar refining, cast-iron pipe, hardware, and iron and steel industries.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS, DECEMBER, 1928, WITH NOVEMBER, 1928, AND DECEMBER, 1927

Industry	Per cent of change December, 1928, compared with—		Industry	Per cent of change December, 1928, compared with—	
	November, 1928	December, 1927		November, 1928	December, 1927
Boots and shoes	+9.7	+1.2	Printing, newspapers	+1.2	+0.6
Clothing, men's	+9.1	+2.0	Brick, tile, and terra cotta	+1.0	+1.3
Shipbuilding	+6.6	−4.7	Hardware	+0.9	+6.0
Sugar refining, cane	+5.2	+6.5	Ice cream	+0.8	+1.7
Chewing and smoking tobacco and snuff	+4.7	+1.3	Lumber, millwork	+0.7	+0.3
Cast-iron pipe	+4.2	+6.0	Stamped and enameled ware	+0.7	+3.6
Silk goods	+4.2	+1.4	Steam fittings and steam and hot water heating apparatus	+0.6	+3.1
Confectionery	+3.7	−1.3	Carriages and wagons	+0.5	+7.9
Cigars and cigarettes	+3.4	−0.1	Car building and repairing, electric-railroad	+0.3	−1.6
Printing, book and job	+3.2	−0.9	Flour	+0.2	−1.6
Leather	+3.1	−0.9	Car building and repairing, steam-railroad	(1)	+1.5
Rubber boots and shoes	+2.6	−1.2	Chemicals	−0.2	−3.2
Woolen and worsted goods	+2.6	+0.4	Baking	−0.3	+0.3
Electrical machinery, apparatus, and supplies	+2.5	+1.3	Millinery and lace goods	−0.3	−2.5
Machine tools	+2.3	+10.0	Petroleum refining	−0.5	+0.4
Cotton goods	+2.2	−0.8	Automobiles	−0.6	−2.5
Slaughtering and meat packing	+1.7	+2.7	Cement	−0.7	−0.4
Agricultural implements	+1.6	+2.5	Lumber, sawmills	−1.1	−2.3
Clothing, women's	+1.6	−3.2	Shirts and collars	−1.1	−3.2
Foundry and machine-shop products	+1.6	+4.7	Paper boxes	−1.4	+4.2
Dyeing and finishing textiles	+1.5	+3.5	Stoves	−1.4	−0.8
Paper and pulp	+1.5	+1.8	Fertilizers	−1.5	−4.9
Pianos and organs	+1.5	+1.1	Iron and steel	−1.6	+5.8
Automobile tires	+1.4	−1.2	Glass	−1.8	+4.7
Brass, bronze, and copper products	+1.3	+11.1	Structural ironwork	−2.2	−0.2
Carpets and rugs	+1.3	−4.8	Furniture	−2.7	−0.5
Hosiery and knit goods	+1.3	+0.7	**All industries**	**+1.5**	**+1.6**
Pottery	+1.2	−6.0			

[1] No change.

Wage Changes

TWENTY-ONE establishments in 10 industries reported wage-rate increases made during the month ending December 15, 1928. These increases averaged 3 per cent and affected 2,060 employees or 22 per cent of all employees in the establishments concerned.

Twenty-six establishments in 10 industries reported wage-rate decreases during the same period. These decreases averaged 5.1 per cent and affected approximately 7,000 employees, or 88 per cent of all employees in the establishments concerned.

Thirteen establishments in the cotton-goods industry reported decreases affecting 6,509 employees, these decreases belonging to the same series of readjustments that have been reported during the last few months, the establishments affected being in one geographic division.

TABLE 5.—WAGE ADJUSTMENTS OCCURRING BETWEEN NOVEMBER 15 AND DECEMBER 15, 1928

Industry	Establishments		Per cent of increase or decrease in wage rate		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees: In establishments reporting increase or decrease in wage rates	Per cent of employees: In all establishments reporting
			Increases				
Baking	523	2	6.0– 6.5	6.4	40	6	(1)
Shirts and collars	120	1	10.0	10.0	33	10	(1)
Structural ironwork	164	1	2.5	2.5	20	16	(1)
Machine tools	145	2	1.0– 4.0	2.0	23	8	(1)
Lumber, sawmills	626	2	5.0– 8.0	7.7	1,284	100	1
Printing newspapers	413	8	1.0– 8.0	2.8	241	19	(1)
Chemicals	144	2	5.0–10.0	9.3	114	5	(1)
Fertilizers	147	1	11.0	11.0	42	100	(1)
Car building and repairing, steam-railroad	557	1	2.5	2.5	212	8	(1)
Electrical machinery, apparatus, and supplies	180	1	3.0	3.0	51	16	(1)
			Decreases				
Ice cream	274	1	10.0	10.0	14	100	(1)
Cotton goods	473	13	2.5– 5.0	4.9	6,509	96	3
Hosiery and knit goods	338	2	5.0–10.0	8.5	85	46	(1)
Silk goods	280	1	11.1	11.1	10	5	(1)
Clothing, men's	301	1	5.0	5.0	20	31	(1)
Shirts and collars	120	1	10.0	10.0	52	96	(1)
Clothing, women's	197	1	10.0	10.0	11	52	(1)
Steam fittings and steam and hot-water heating apparatus	109	1	5.0	5.0	150	75	(1)
Stoves	111	2	2.0–10.0	9.8	121	34	1
Lumber, sawmills	626	3	10.0	10.0	15	17	(1)

[1] Less than one-half of 1 per cent.

Indexes of Employment and Pay-Roll Totals in Manufacturing Industries

Table 6 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to December, 1928.

TABLE 6.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO DECEMBER, 1928

[Monthly average, 1923 = 100]

Month	Employment						Pay-roll totals					
	1923	1924	1925	1926	1927	1928	1923	1924	1925	1926	1927	1928
January	98.0	95.4	90.0	92.3	89.4	84.2	91.8	94.5	90.0	93.9	90.9	85.8
February	99.6	96.6	91.6	93.3	91.0	85.5	95.2	99.4	95.1	97.9	96.4	90.0
March	101.8	96.4	92.3	93.7	91.4	86.1	100.3	99.0	96.6	99.1	97.7	91.2
April	101.8	94.5	92.1	92.8	90.6	85.7	101.3	96.9	94.2	97.2	96.6	89.9
May	101.8	90.8	90.9	91.7	89.7	85.5	104.8	92.4	94.4	95.6	95.6	90.1
June	101.9	87.9	90.1	91.3	89.1	85.6	104.7	87.0	91.7	95.5	93.3	90.2
July	100.4	84.8	89.3	89.8	87.3	84.7	99.9	80.8	89.6	91.2	89.1	87.4
August	99.7	85.0	89.9	90.7	87.4	86.0	99.3	83.5	91.4	94.6	91.0	90.2
September	99.8	86.7	90.9	92.2	88.0	87.3	100.0	86.0	90.4	95.1	90.1	91.4
October	99.3	87.9	92.3	92.5	87.6	88.1	102.3	88.5	96.2	98.6	91.2	94.8
November	98.7	87.8	92.5	91.4	85.9	87.7	101.0	87.6	96.2	95.4	87.8	92.1
December	96.9	89.4	92.6	90.9	85.1	87.8	98.9	91.7	97.3	95.6	89.3	93.6
Average	**100.0**	**90.3**	**91.2**	**91.9**	**88.5**	**86.2**	**100.0**	**90.6**	**93.6**	**95.8**	**92.4**	**90.6**

Index numbers of employment and pay-roll totals for each of the 54 manufacturing industries surveyed by the Bureau of Labor Statistics and for each of the 12 groups of industries, and also general indexes for the combined 12 groups of industries, are shown in Table 7 for each month of 1928, together with average indexes for each of the years 1923, 1924, 1925, 1926, 1927, and 1928. This tabulation is in continuation of tabulations which appeared in the Labor Review, for June, 1925, December, 1926, and December, 1927, and which recorded data by months, from July, 1922, to December, 1927.

In computing the general index and the group indexes the index numbers of separate industries are weighted according to the importance of the industries.

Following Table 7 is a series of graphs, made from index numbers, showing clearly the course of employment for each month of 1928 as compared with the same month of 1927. The first chart represents the 54 separate industries combined and shows the course of pay-roll totals as well as the course of employment, and following this presentation are charts showing the trend of employment alone through each month of the two years in each separate industry.

TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1928, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, 1927, AND 1928

[Monthly average, 1923=100]

Month and year	General index		Food and kindred products							
			Group index		Slaughtering and meat packing		Confectionery		Ice cream	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	**100.0**	**100.0**	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	**90.3**	**90.6**	**95.6**	**97.9**	93.7	94.4	88.7	93.4	96.5	97.2
1925 average	**91.2**	**93.6**	**90.9**	**93.7**	85.0	86.7	84.4	90.1	97.5	102.6
1926 average	**91.9**	**95.8**	**89.8**	**93.8**	81.4	84.5	86.0	93.5	96.2	104.4
1927 average	**88.5**	**92.4**	**89.3**	**93.8**	81.0	84.4	83.0	91.5	90.4	97.5
1928 average	**86.2**	**90.6**	**88.3**	**93.6**	81.0	85.3	79.9	87.2	88.9	97.2
1928—Jan	**84.2**	**85.8**	**86.9**	**91.9**	81.7	85.8	79.1	86.1	76.1	84.7
Feb	**85.5**	**90.0**	**87.9**	**93.7**	83.9	89.1	79.5	87.2	76.3	83.0
Mar	**86.1**	**91.2**	**87.4**	**92.8**	82.0	85.4	77.7	85.9	79.7	86.5
Apr	**85.7**	**89.9**	**85.6**	**88.9**	78.8	80.7	73.8	77.1	86.0	93.4
May	**85.5**	**90.1**	**85.8**	**91.0**	78.0	81.5	72.9	80.4	92.6	100.1
June	**85.6**	**90.2**	**87.0**	**93.3**	80.6	85.8	71.8	81.2	99.7	107.8
July	**84.7**	**87.4**	**87.4**	**93.7**	80.9	85.7	69.1	74.7	108.6	121.3
Aug	**86.0**	**90.2**	**87.0**	**92.2**	79.1	81.8	71.6	78.5	106.5	116.8
Sept	**87.3**	**91.4**	**89.8**	**94.9**	78.6	83.5	85.1	91.8	96.9	105.4
Oct	**88.1**	**94.8**	**91.9**	**96.8**	79.6	84.1	96.1	105.4	86.6	93.9
Nov	**87.7**	**92.1**	**91.5**	**96.0**	82.1	87.3	93.2	99.5	80.3	87.7
Dec	**87.8**	**93.6**	**91.7**	**97.9**	86.2	93.2	89.4	99.1	77.8	85.7

Month and year	Food and kindred products—Continued						Textiles and their products			
	Flour		Baking		Sugar refining, cane		Group index		Cotton goods	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**	100.0	100.0
1924 average	94.7	97.6	101.3	103.8	97.9	100.8	**88.2**	**86.8**	83.0	80.7
1925 average	90.4	92.5	99.5	102.4	97.8	100.0	**89.3**	**89.5**	84.0	81.9
1926 average	87.6	90.2	100.8	105.5	93.6	95.6	**86.1**	**85.9**	83.1	81.0
1927 average	87.0	89.7	102.2	107.8	92.5	94.4	**87.2**	**88.5**	87.3	87.9
1928 average	87.6	92.1	101.7	107.1	85.3	90.7	**82.9**	**82.1**	79.1	74.3
1928—Jan	87.3	92.3	99.4	104.3	78.0	82.3	**86.0**	**85.4**	85.1	80.8
Feb	87.5	90.5	99.4	105.4	82.1	87.4	**87.1**	**88.1**	84.2	79.4
Mar	87.7	91.5	100.2	106.2	83.8	92.6	**86.4**	**86.9**	82.7	77.3
Apr	84.7	87.1	99.7	103.5	86.3	90.9	**83.7**	**80.5**	80.7	74.0
May	84.6	88.5	101.5	107.6	81.1	85.1	**81.5**	**78.9**	76.8	70.9
June	82.8	86.7	102.9	108.9	79.6	84.4	**81.0**	**78.7**	76.2	69.4
July	85.4	90.7	102.1	107.8	88.9	94.5	**78.3**	**75.1**	74.7	68.7
Aug	88.7	94.0	100.8	106.2	89.7	95.6	**79.1**	**77.6**	73.6	67.0
Sept	90.0	95.6	104.2	109.7	87.4	92.2	**80.6**	**80.1**	75.1	70.0
Oct	91.4	100.5	104.7	109.9	90.1	97.2	**83.1**	**85.5**	78.2	75.4
Nov	90.7	94.0	103.2	108.7	89.8	92.6	**83.7**	**82.9**	80.6	78.8
Dec	90.3	93.8	102.2	107.3	86.2	93.5	**84.1**	**85.5**	81.7	80.0

Month and year	Textiles and their products—Continued									
	Hosiery and knit goods		Silk goods		Woolen and worsted goods		Carpets and rugs		Dyeing and finishing textiles	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	90.7	90.9	94.3	94.3	91.0	90.1	92.1	86.4	92.1	91.9
1925 average	98.1	105.6	103.3	109.4	88.9	87.2	94.6	91.8	99.5	102.4
1926 average	97.9	109.6	100.2	106.5	80.3	78.9	93.9	90.8	97.9	100.1
1927 average	96.9	112.1	98.6	105.6	80.0	79.4	96.3	94.5	98.8	102.9
1928 average	92.7	106.6	97.1	106.7	76.3	74.5	94.8	87.1	97.4	101.1
1928—Jan	95.7	109.7	97.2	100.5	78.7	77.7	96.2	92.0	99.9	100.7
Feb	97.0	112.2	100.7	111.1	78.1	77.3	97.3	90.9	101.1	105.7
Mar	96.2	111.2	101.8	113.5	75.4	72.1	96.9	92.0	100.1	105.8
Apr	94.1	105.1	97.0	106.6	73.8	69.2	95.8	84.9	97.7	100.6
May	92.8	105.7	97.1	107.0	74.8	73.5	94.4	84.6	96.4	100.3
June	92.0	105.4	96.2	107.5	76.1	74.5	91.2	79.0	94.5	95.7
July	87.0	93.3	92.9	99.5	73.1	69.8	89.6	77.8	92.8	91.7
Aug	87.9	98.6	93.7	104.7	74.8	71.8	90.3	81.4	93.5	94.2
Sept	90.6	103.1	95.2	105.6	73.2	70.4	90.7	84.7	94.6	97.4
Oct	92.3	112.2	98.3	111.1	77.4	78.2	96.7	90.8	97.3	104.1
Nov	93.6	110.7	97.1	103.9	80.1	78.8	98.5	92.3	99.8	106.8
Dec	93.2	111.7	98.1	109.4	79.8	80.6	100.0	95.0	101.1	109.8

TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1928, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, 1927, AND 1928—Continued

Month and year	Textiles and their products—Continued								Iron and steel and their products	
	Clothing, men's		Shirts and collars		Clothing, women's		Millinery and lace goods		Group index	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**
1924 average	90.1	86.4	84.6	83.3	88.7	87.3	87.1	87.9	**86.3**	**86.6**
1925 average	86.9	82.4	86.9	88.2	83.6	87.9	84.8	87.0	**87.3**	**90.6**
1926 average	84.3	77.9	84.1	85.4	79.2	80.4	72.4	75.1	**92.0**	**97.2**
1927 average	82.5	75.8	79.9	82.2	83.5	86.3	69.2	72.7	**85.7**	**89.3**
1928 average	77.7	69.3	77.6	76.8	83.4	84.6	67.7	69.6	**84.2**	**90.2**
1928—Jan	80.7	74.2	81.8	78.6	83.4	88.1	68.6	68.8	**79.2**	**80.2**
Feb	82.6	77.1	81.7	81.7	87.6	95.1	73.4	76.5	**81.5**	**87.9**
Mar	81.2	73.8	81.2	81.5	89.7	96.7	74.5	78.5	**82.8**	**89.9**
Apr	75.4	60.5	78.2	76.8	87.7	86.9	74.5	78.9	**83.3**	**89.2**
May	73.6	61.3	76.3	75.9	83.5	78.7	70.7	70.8	**84.3**	**91.5**
June	77.8	70.4	74.3	73.7	79.3	73.6	66.2	67.1	**84.4**	**90.7**
July	76.3	69.5	73.1	68.1	75.6	72.3	60.0	58.3	**83.7**	**86.6**
Aug	78.7	72.1	72.0	70.5	78.0	77.8	63.5	66.3	**84.7**	**90.2**
Sept	78.5	70.7	75.4	73.3	82.6	85.0	67.6	73.1	**85.7**	**90.3**
Oct	77.4	69.1	78.6	81.1	86.4	94.7	65.6	67.9	**86.4**	**95.2**
Nov	75.0	63.3	79.1	80.6	84.1	82.7	64.2	65.0	**87.2**	**95.0**
Dec	75.3	69.3	79.0	79.6	83.3	83.2	63.5	64.1	**87.4**	**95.3**

Month and year	Iron and steel and their products—Continued									
	Iron and steel		Cast-iron pipe		Structural iron-work		Foundry and machine-shop products		Hardware	
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	93.5	93.9	104.1	105.4	91.0	91.9	80.6	78.8	91.9	93.9
1925 average	95.9	99.1	101.3	103.6	91.8	97.4	80.7	81.8	91.4	96.6
1926 average	97.9	102.8	106.0	107.7	99.2	106.5	86.7	90.3	88.2	98.1
1927 average	91.0	93.9	95.2	94.9	94.1	101.1	81.3	83.5	81.3	89.2
1928 average	89.0	95.3	84.9	81.7	94.3	104.3	80.0	83.8	78.4	86.7
1928—Jan	85.1	85.8	84.6	71.7	89.0	93.2	74.8	74.4	77.8	82.0
Feb	87.9	96.0	82.5	80.3	89.5	97.3	76.6	79.6	78.5	89.2
Mar	89.6	98.0	85.6	86.7	88.7	96.9	77.9	82.0	78.6	87.3
Apr	89.5	95.7	86.7	86.8	89.2	98.2	78.6	82.3	77.2	84.3
May	89.3	98.0	89.4	89.5	92.5	104.2	80.1	84.5	77.3	84.0
June	88.6	94.3	89.6	82.8	95.1	106.0	80.5	85.6	77.8	85.7
July	87.7	88.9	85.6	81.9	94.9	103.5	80.4	82.9	74.8	80.3
Aug	88.8	94.8	85.5	79.7	98.8	109.2	80.8	84.5	77.7	84.0
Sept	89.3	93.5	86.0	79.2	97.4	107.4	81.7	84.6	79.6	86.4
Oct	89.6	99.4	84.5	82.2	97.9	112.6	82.3	88.4	79.5	90.8
Nov	91.1	100.3	80.5	79.2	97.7	111.1	82.9	87.4	80.7	92.5
Dec	90.9	98.5	78.7	80.6	100.4	111.7	83.5	89.4	81.3	94.0

Month and year	Iron and steel and their products—Continued						Lumber and its products			
	Machine tools		Steam fittings and steam and hot-water heating apparatus		Stoves		Group index		Lumber, sawmills	
1923 average	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**	100.0	100.0
1924 average	83.6	84.7	95.4	97.3	86.3	88.7	**94.8**	**97.3**	93.9	96.5
1925 average	87.5	94.4	96.8	99.3	84.1	85.9	**93.1**	**98.1**	90.0	95.5
1926 average	101.9	113.1	96.8	102.0	86.0	87.8	**90.8**	**97.7**	86.9	93.9
1927 average	94.6	104.3	89.6	93.7	78.4	79.4	**83.4**	**91.0**	79.1	86.7
1928 average	102.7	121.5	79.6	83.5	75.3	74.3	**79.7**	**86.7**	75.3	82.6
1928—Jan	90.0	100.0	78.2	77.0	62.8	58.8	**77.0**	**79.5**	71.9	75.0
Feb	92.4	106.4	80.4	86.6	71.5	72.6	**77.0**	**82.9**	71.6	77.1
Mar	94.4	111.1	81.6	86.6	72.9	72.1	**78.3**	**85.6**	73.4	80.9
Apr	96.9	114.8	81.6	83.8	74.6	74.4	**79.3**	**86.3**	75.2	83.1
May	99.6	117.6	81.7	87.8	76.0	74.9	**79.3**	**87.5**	75.8	85.5
June	101.3	120.2	81.4	87.2	76.6	75.3	**80.2**	**88.1**	77.2	85.6
July	102.8	117.1	78.1	82.0	70.4	65.6	**79.3**	**85.4**	75.8	83.2
Aug	97.2	114.0	84.0	89.6	76.2	71.2	**81.1**	**88.0**	77.4	84.7
Sept	108.8	128.2	80.3	84.0	79.3	78.4	**81.8**	**89.6**	77.7	85.7
Oct	112.3	136.7	80.3	84.5	83.2	88.0	**81.9**	**91.4**	77.2	86.2
Nov	116.4	142.0	76.9	79.7	81.9	82.7	**81.7**	**89.9**	76.6	84.2
Dec	120.4	150.2	70.5	73.6	78.5	78.1	**79.5**	**86.3**	74.1	80.5

TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1928, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, 1927, AND 1928—Continued

Month and year	Lumber and its products—Continued				Leather and its products					
	Lumber, millwork		Furniture		Group index		Leather		Boots and shoes	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	100.0	100.0	100.0	100.0	**100.0**	**100.0**	100.0	100.0	100.0	100.0
1924 average	99.7	102.7	94.8	96.3	**90.6**	**88.3**	88.4	89.5	91.4	87.9
1925 average	101.5	106.6	98.7	101.5	**92.0**	**89.4**	90.0	91.2	92.6	88.6
1926 average	98.5	104.7	99.6	106.2	**90.3**	**87.8**	91.2	93.5	90.0	85.5
1927 average	87.9	93.4	95.7	104.3	**88.4**	**85.5**	89.7	90.9	87.9	83.4
1928 average	84.2	89.6	92.1	98.9	**83.8**	**78.8**	87.0	87.6	82.7	75.2
1928—Jan	81.5	80.2	92.0	94.6	**86.3**	**81.3**	90.4	91.3	84.9	77.3
Feb	81.9	85.2	92.8	101.4	**87.7**	**86.1**	91.1	93.1	86.6	83.3
Mar	82.1	87.1	93.1	100.7	**87.1**	**85.0**	90.4	93.2	86.0	81.7
Apr	84.2	90.6	90.3	94.4	**82.9**	**73.9**	87.4	87.1	81.4	68.6
May	85.7	93.0	87.3	90.9	**80.8**	**71.7**	87.4	87.8	78.6	65.2
June	86.4	95.0	86.8	92.5	**80.6**	**74.6**	86.2	85.8	78.8	70.1
July	86.6	91.8	87.0	88.6	**84.1**	**80.1**	86.7	86.5	83.3	77.5
Aug	87.6	93.4	90.1	96.0	**85.7**	**84.7**	87.1	86.8	85.3	83.8
Sept	85.9	91.0	93.7	102.3	**85.9**	**84.0**	86.9	86.8	85.6	82.9
Oct	83.3	91.3	97.3	109.7	**84.6**	**81.3**	85.7	87.1	84.2	79.0
Nov	84.1	89.2	98.0	110.0	**80.0**	**69.0**	82.9	82.1	79.0	63.7
Dec	81.5	87.1	97.1	106.0	**79.3**	**73.4**	81.5	83.2	78.6	69.5

Month and year	Paper and printing									
	Group index		Paper and pulp		Paper boxes		Printing, book and job		Printing, newspapers	
1923 average	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	**100.2**	**102.2**	94.3	96.8	99.3	102.2	102.0	103.5	104.1	106.1
1925 average	**100.8**	**102.9**	94.4	99.2	99.9	104.7	101.5	106.0	106.7	110.1
1926 average	**103.6**	**111.5**	95.6	102.5	101.1	109.5	104.1	113.9	111.8	118.3
1927 average	**103.7**	**112.8**	93.3	99.0	97.9	108.4	104.4	116.2	115.6	123.7
1928 average	**102.7**	**113.2**	90.3	97.3	95.0	108.9	103.3	115.7	117.7	127.0
1928—Jan	**103.8**	**113.8**	91.3	97.4	95.8	106.6	106.4	119.8	116.9	125.7
Feb	**103.3**	**113.0**	90.4	98.2	94.3	104.2	106.5	117.2	116.6	125.4
Mar	**102.4**	**113.1**	90.4	98.3	94.2	106.5	103.2	116.4	116.8	125.8
Apr	**101.4**	**112.3**	89.8	97.1	92.1	103.5	100.5	114.5	117.7	127.2
May	**101.7**	**112.2**	89.4	96.3	91.4	104.2	102.3	114.8	117.6	127.2
June	**101.5**	**112.4**	89.9	96.0	91.8	107.7	101.4	114.4	117.3	127.2
July	**101.5**	**110.4**	89.4	93.4	91.2	102.9	102.9	114.8	116.3	124.4
Aug	**101.7**	**110.7**	90.2	96.3	91.7	104.6	103.3	114.0	115.7	122.9
Sept	**102.1**	**112.5**	90.5	96.2	95.5	110.4	101.7	115.6	116.7	125.6
Oct	**103.5**	**115.1**	90.5	99.2	100.5	118.1	102.3	115.4	118.5	128.8
Nov	**104.8**	**115.3**	91.3	99.4	102.5	121.8	103.6	113.2	120.1	130.4
Dec	**104.8**	**117.2**	90.0	99.4	98.8	115.8	105.0	118.5	121.3	133.3

Month and year	Chemicals and allied products								Stone, clay, and glass products	
	Group index		Chemicals		Fertilizers		Petroleum refining		Group index	
1923 average	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**
1924 average	**91.6**	**92.7**	91.7	95.8	90.3	91.0	92.1	89.8	**96.7**	**101.3**
1925 average	**94.2**	**95.9**	92.7	97.6	98.8	98.6	94.3	93.2	**97.6**	**103.5**
1926 average	**98.4**	**101.8**	95.3	103.5	103.9	108.9	100.3	97.9	**99.7**	**106.4**
1927 average	**95.1**	**100.9**	95.3	107.3	94.7	102.3	94.9	93.6	**94.2**	**100.3**
1928 average	**91.9**	**97.6**	94.7	106.9	99.1	105.7	85.0	85.3	**89.4**	**95.3**
1928—Jan	**89.9**	**95.8**	93.1	105.3	93.7	101.3	84.0	83.9	**83.4**	**87.0**
Feb	**93.6**	**98.2**	95.7	108.3	109.2	111.3	83.8	83.6	**84.0**	**89.6**
Mar	**100.1**	**102.5**	95.3	109.1	151.8	145.1	83.9	83.5	**87.0**	**92.7**
Apr	**99.9**	**102.8**	95.0	107.8	154.2	150.3	82.6	84.1	**89.1**	**95.7**
May	**87.8**	**94.8**	92.3	105.6	86.5	98.9	82.4	82.0	**92.4**	**98.8**
June	**86.1**	**93.4**	93.1	105.1	68.4	81.1	84.3	84.1	**93.1**	**98.7**
July	**85.7**	**93.2**	91.6	102.4	68.7	81.3	85.2	86.5	**90.3**	**93.4**
Aug	**86.9**	**94.5**	91.5	103.0	74.1	85.5	86.3	87.7	**93.4**	**99.7**
Sept	**93.2**	**98.3**	95.4	104.7	98.2	109.6	87.9	88.2	**93.1**	**97.7**
Oct	**93.4**	**100.3**	97.2	111.3	97.1	104.9	86.7	87.1	**91.3**	**99.6**
Nov	**92.9**	**99.0**	97.9	110.5	92.4	99.1	86.4	86.5	**88.9**	**96.4**
Dec	**93.6**	**99.0**	97.9	110.1	95.1	100.4	87.0	86.6	**87.0**	**94.1**

TABLE 7.—INDEXES OF EMPOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1928, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, 1927, AND 1928—Continued

Month and year	Stone, clay, and glass products—Continued								Metal products other than iron and steel	
	Cement		Brick, tile, and terra cotta		Pottery		Glass		Group index	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
[1]923 average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	**100.0**
[1]924 average	99.9	103.6	98.1	103.6	107.5	110.9	90.4	95.2	**92.7**	**91.6**
[1]925 average	96.6	100.7	99.6	104.2	104.9	112.2	93.4	100.9	**96.7**	**97.9**
[1]926 average	91.7	96.0	100.7	105.2	106.8	116.6	99.0	108.0	**97.5**	**98.5**
[1]927 average	87.9	92.6	95.0	99.0	100.9	109.8	93.2	100.9	**90.5**	**90.3**
[1]928 average	80.5	84.7	85.5	87.1	101.8	108.9	91.9	101.9	**90.5**	**94.7**
[1]928—Jan.	76.4	79.8	77.0	76.1	100.1	109.3	86.0	91.7	**83.5**	**83.7**
Feb.	74.5	75.6	76.7	76.3	104.9	119.2	87.0	96.5	**86.8**	**89.7**
Mar.	76.6	77.8	80.4	80.7	103.6	118.9	90.9	99.9	**88.4**	**90.7**
Apr.	79.0	84.6	84.5	85.8	102.1	112.5	92.4	102.8	**90.2**	**91.4**
May	82.3	88.8	89.7	92.5	102.3	111.8	94.9	103.7	**90.2**	**93.4**
June	84.5	89.6	90.8	93.7	102.7	106.9	94.8	103.7	**89.7**	**92.3**
July	84.9	91.6	91.5	92.6	93.1	89.2	90.0	96.3	**89.4**	**88.9**
Aug.	86.2	92.4	91.7	94.5	101.1	107.0	94.7	104.6	**90.8**	**95.2**
Sept.	83.6	88.3	89.8	91.4	101.8	105.4	96.5	104.3	**91.8**	**96.7**
Oct.	82.2	88.3	87.0	90.4	104.0	110.1	94.0	108.3	**93.4**	**103.0**
Nov.	79.4	82.0	84.9	86.8	103.2	107.9	91.0	106.4	**95.4**	**104.6**
Dec.	75.9	77.9	81.5	84.2	102.7	108.8	90.5	104.0	**96.1**	**106.6**

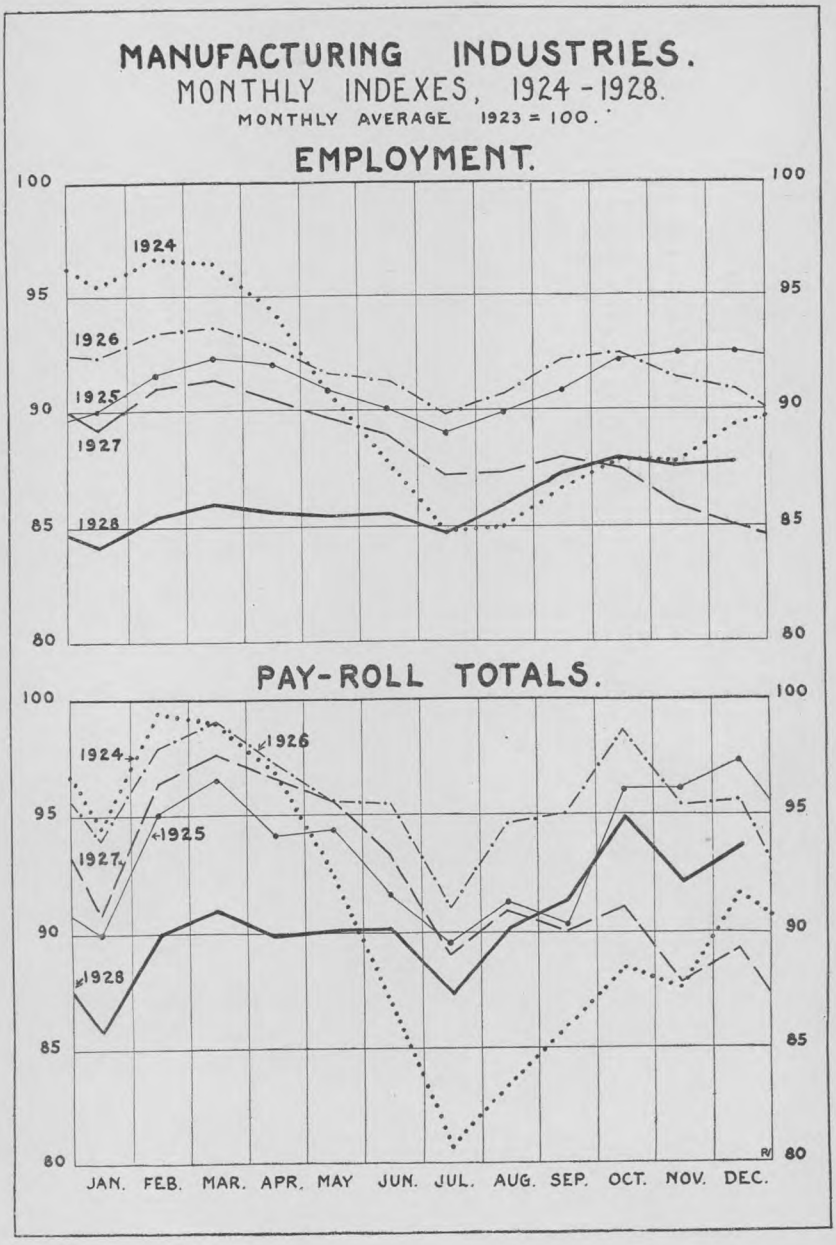
Month and year	Metal products other than iron and steel—Continued				Tobacco products					
	Stamped and enameled ware		Brass, bronze, and copper products		Group index		Chewing and smoking tobacco and snuff		Cigars and cigarettes	
1923 average	100.0	100.0	100.0	100.0	**100.0**	**100.0**	100.0	100.0	100.0	100.0
1924 average	90.1	85.3	94.0	93.9	**94.0**	**95.6**	99.9	101.1	93.3	94.9
1925 average	94.2	91.7	97.9	100.2	**92.9**	**92.7**	92.0	98.2	92.1	92.0
1926 average	95.1	91.5	98.7	101.1	**85.6**	**87.7**	94.9	99.9	84.5	86.3
1927 average	84.6	82.9	93.2	93.0	**84.0**	**85.2**	92.7	97.6	82.9	83.7
1928 average	84.4	82.7	93.2	99.1	**82.2**	**82.0**	90.3	94.0	81.1	80.6
1928—Jan.	76.1	70.2	86.9	88.7	**78.1**	**79.1**	97.3	101.5	75.6	76.5
Feb.	82.1	84.0	89.0	91.8	**81.4**	**79.3**	99.3	104.6	79.1	76.3
Mar.	85.4	85.9	89.7	92.4	**82.2**	**80.2**	95.7	96.2	80.4	78.3
Apr.	87.5	85.8	91.4	93.4	**80.0**	**74.6**	91.9	91.1	78.5	72.7
May	87.5	86.3	91.4	96.0	**80.9**	**78.0**	88.2	90.6	79.9	76.5
June	85.0	82.6	91.9	95.9	**81.6**	**83.2**	88.2	95.2	80.7	81.8
July	82.9	75.8	92.4	93.7	**77.2**	**78.7**	82.3	86.9	76.5	77.7
Aug.	84.3	82.6	93.7	99.9	**82.9**	**82.3**	87.1	91.7	82.4	81.2
Sept.	84.6	81.2	95.0	102.4	**84.7**	**86.1**	87.9	93.5	84.3	85.2
Oct.	85.1	85.5	97.1	109.5	**86.7**	**88.2**	88.0	95.5	86.5	87.4
Nov.	86.2	86.0	99.5	111.4	**86.6**	**87.1**	88.9	88.6	86.3	86.9
Dec.	86.3	86.7	100.5	113.9	**83.9**	**87.3**	89.2	93.1	83.2	86.6

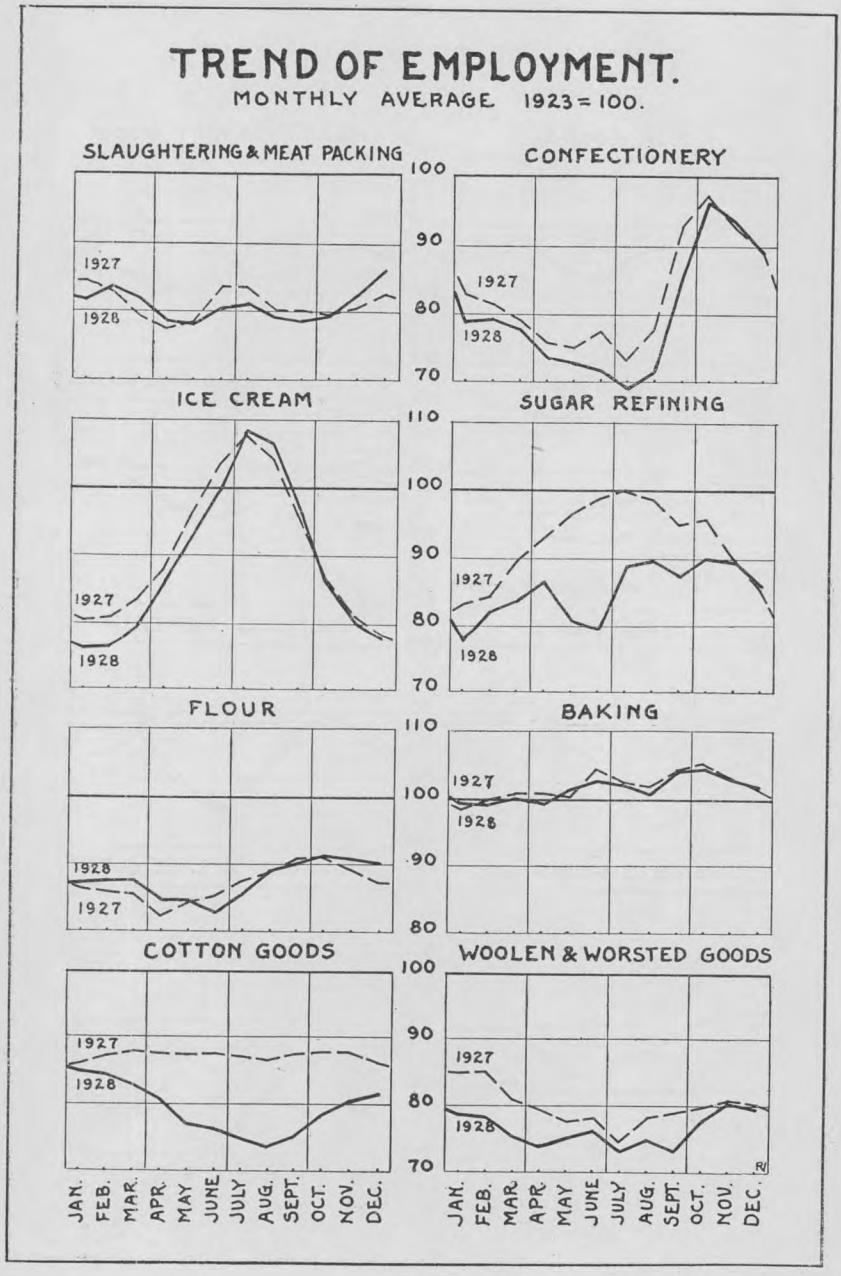
Month and year	Vehicles for land transportation									
	Group index		Automobiles		Carriages and wagons		Car building and repairing, electric-railroad		Car building and repairing, steam-railroad	
1923 average	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	**88.6**	**87.5**	93.6	91.1	83.5	87.7	88.7	88.8	85.5	85.0
1925 average	**91.0**	**93.5**	106.5	111.3	92.1	92.6	88.4	91.3	81.3	82.2
1926 average	**91.2**	**92.8**	107.6	108.7	91.9	92.3	88.7	90.8	80.8	82.7
1927 average	**82.8**	**85.0**	98.2	98.2	72.3	77.2	89.5	91.8	72.9	76.3
1928 average	**87.4**	**91.2**	119.7	124.3	70.5	75.8	84.2	87.4	67.5	70.6
1928—Jan.	**79.2**	**77.6**	98.8	93.3	60.0	61.8	86.9	90.3	66.8	67.3
Feb.	**82.7**	**88.3**	108.2	117.4	67.2	71.6	87.1	88.9	66.6	70.1
Mar.	**85.0**	**92.0**	112.9	124.0	68.8	72.8	87.2	91.9	67.5	72.0
Apr.	**86.4**	**93.2**	115.8	126.1	70.4	73.6	86.3	90.6	68.2	72.8
May	**89.0**	**94.8**	122.4	131.3	64.5	68.4	85.4	90.2	68.7	72.3
June	**89.1**	**92.6**	122.4	124.4	67.8	76.0	84.7	88.0	68.9	72.9
July	**88.5**	**89.1**	122.3	121.8	68.8	76.1	83.5	86.0	67.9	68.6
Aug.	**91.4**	**94.5**	130.0	135.7	76.1	80.8	82.8	85.8	67.8	69.0
Sept.	**92.6**	**94.1**	133.7	136.4	81.8	88.3	82.3	82.9	67.4	67.8
Oct.	**91.5**	**98.5**	131.9	141.8	75.7	83.1	82.2	85.8	66.8	71.9
Nov.	**87.1**	**90.5**	120.0	121.1	74.1	80.0	81.8	84.8	66.8	71.5
Dec.	**86.3**	**89.5**	118.4	118.8	71.0	77.0	80.3	83.5	66.7	71.3

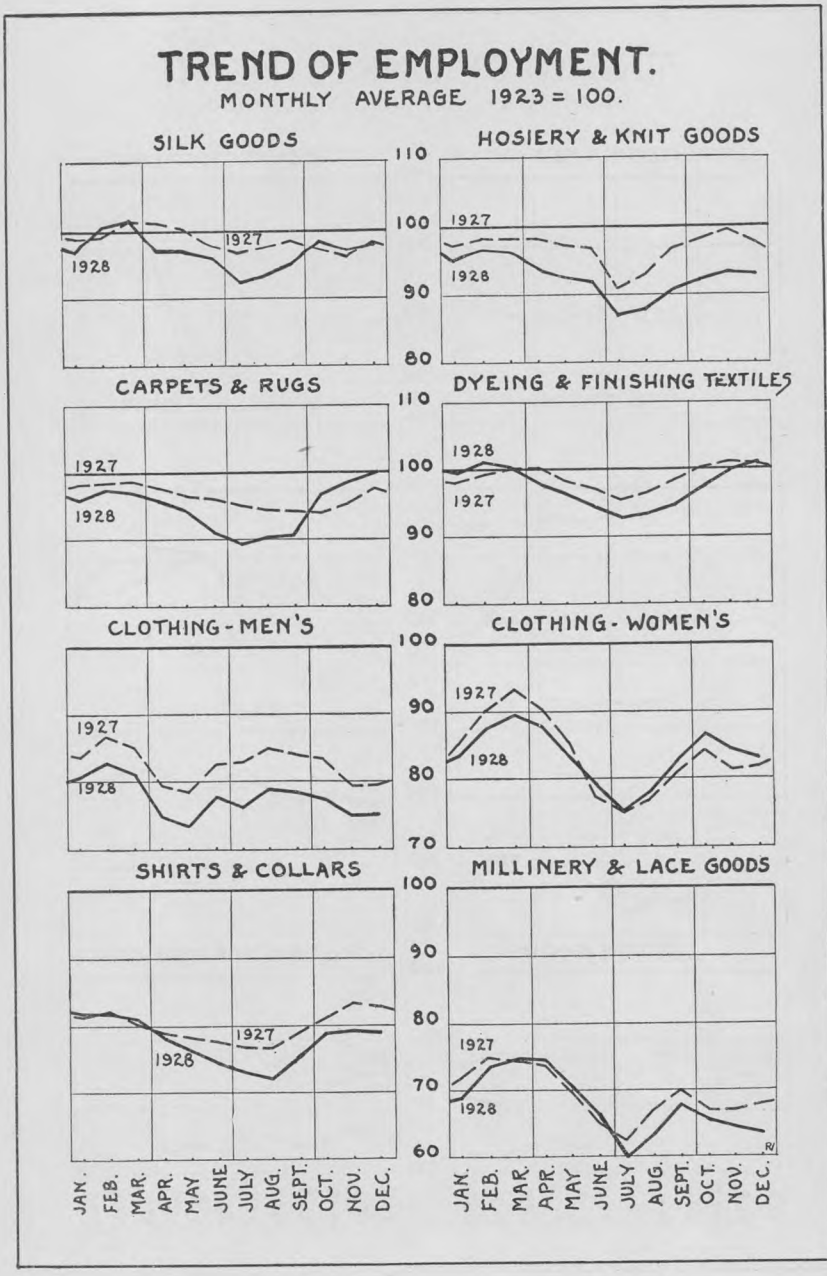
TABLE 7.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JANUARY TO DECEMBER, 1928, AND YEARLY AVERAGES, 1923, 1924, 1925, 1926, 1927, AND 1928—Continued

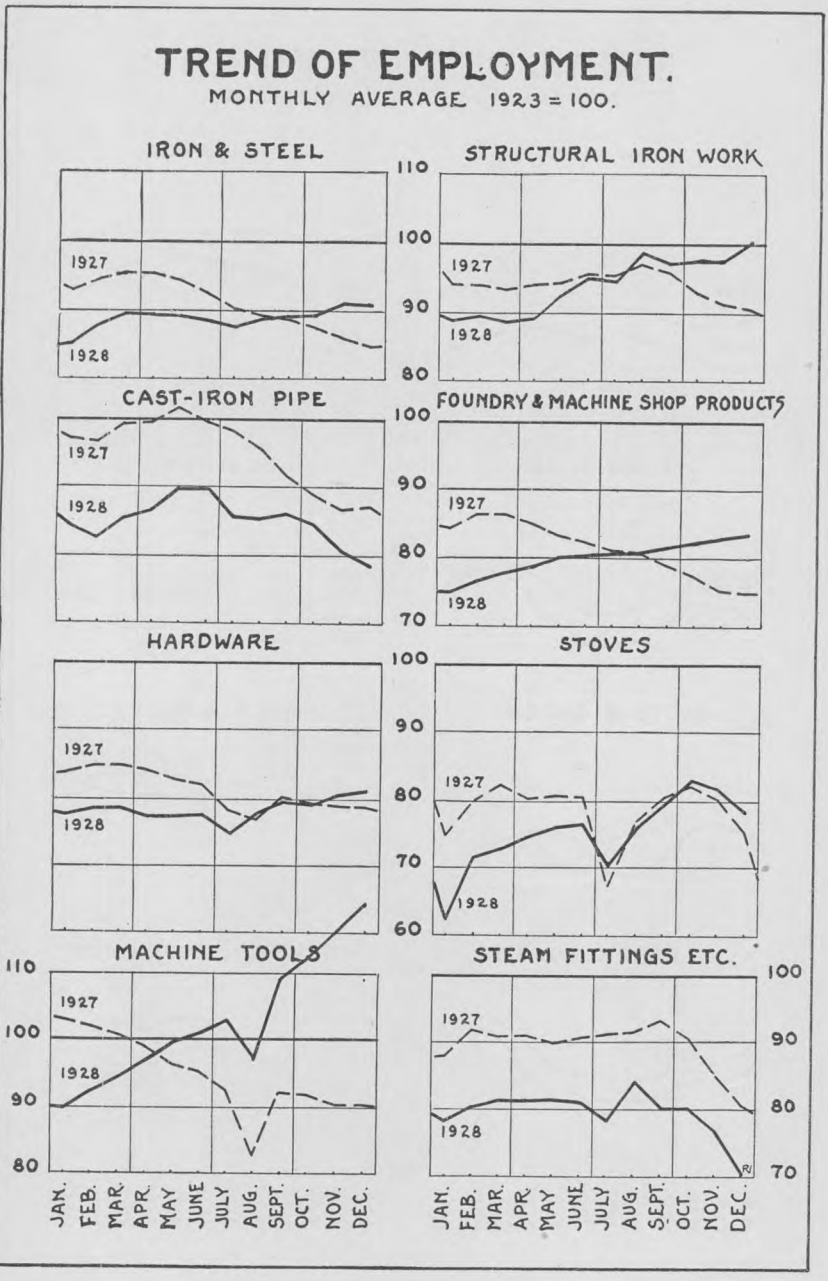
Month and year	Miscellaneous industries									
	Group index		Agricultural implements		Electrical machinery, apparatus, and supplies		Pianos and organs		Rubber boots and shoes	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1923 average	**100.0**	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1924 average	**87.8**	**90.6**	80.1	83.8	93.8	97.7	94.9	101.8	70.9	71.5
1925 average	**91.6**	**94.6**	92.4	101.1	90.9	95.0	94.0	103.1	83.3	91.2
1926 average	**96.8**	**101.9**	98.7	111.4	98.7	103.1	95.0	105.4	85.7	93.3
1927 average	**96.3**	**102.8**	90.7	102.7	93.8	98.7	85.9	92.1	88.5	100.5
1928 average	**88.7**	**93.7**	105.4	124.5	92.7	98.9	73.3	78.3	86.6	94.2
1928—Jan	**89.1**	**95.1**	98.7	114.6	89.3	93.5	74.0	75.3	95.1	108.4
Feb	**87.7**	**92.0**	102.2	121.2	88.2	93.4	76.3	76.1	92.9	101.6
Mar	**86.8**	**92.1**	105.4	126.8	88.8	95.2	74.1	78.0	84.9	91.9
Apr	**87.1**	**93.8**	105.5	125.6	88.2	93.8	75.2	77.6	87.7	94.4
May	**86.9**	**91.2**	105.5	125.8	88.9	95.9	72.9	76.1	85.5	91.4
June	**87.1**	**93.7**	106.1	126.2	90.1	98.7	71.8	74.7	78.6	85.3
July	**86.9**	**90.9**	103.5	120.3	89.5	95.2	64.6	67.2	83.8	87.6
Aug	**87.5**	**91.1**	102.9	122.9	93.2	99.2	71.9	75.9	80.4	84.3
Sept	**88.8**	**93.5**	102.2	117.0	96.7	101.3	72.8	80.4	85.2	94.1
Oct	**90.2**	**95.1**	107.6	127.2	98.6	106.6	74.1	84.0	87.7	95.3
Nov	**91.0**	**93.6**	110.2	129.2	99.3	104.7	76.6	87.6	89.1	97.3
Dec	**94.8**	**102.0**	115.1	137.1	101.2	109.4	74.8	86.9	88.5	99.2

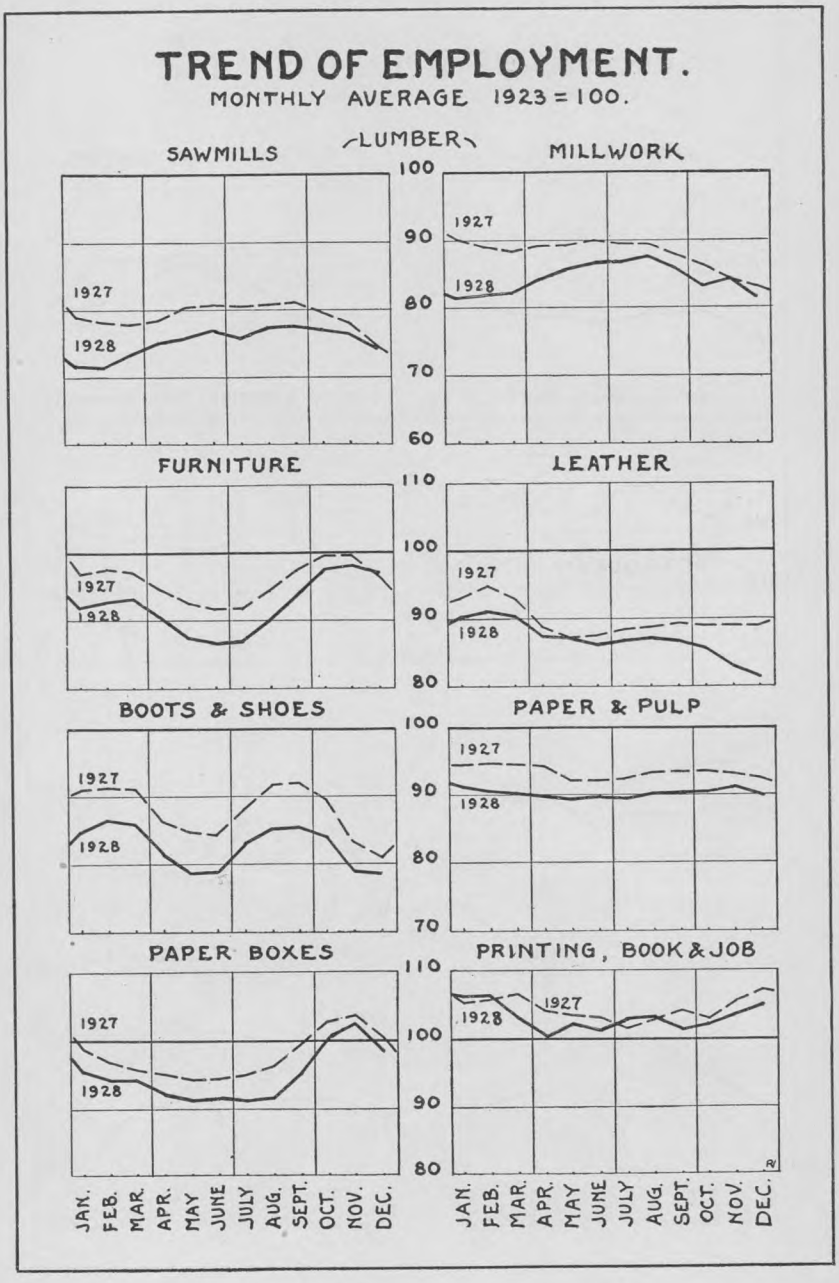
Month and year	Miscellaneous industries—Continued									
	Automobile tires		Shipbuilding							
1923 average	100.0	100.0	100.0	100.0						
1924 average	97.3	99.9	83.1	86.2						
1925 average	112.2	113.9	85.3	87.7						
1926 average	109.8	113.4	92.1	97.1						
1927 average	106.8	111.4	96.5	102.8						
1928 average	113.5	119.9	76.2	80.6						
1928—Jan	105.1	108.7	82.3	89.6						
Feb	109.4	118.8	77.9	80.1						
Mar	110.6	120.2	75.5	79.0						
Apr	108.9	117.5	76.7	83.7						
May	109.5	113.6	76.1	79.1						
June	112.4	119.5	75.4	81.3						
July	117.4	121.8	73.9	77.7						
Aug	120.1	126.8	72.0	74.2						
Sept	120.6	131.5	72.2	76.6						
Oct	119.2	126.7	73.5	77.4						
Nov	114.1	115.8	76.1	77.9						
Dec	114.1	117.4	83.1	90.7						

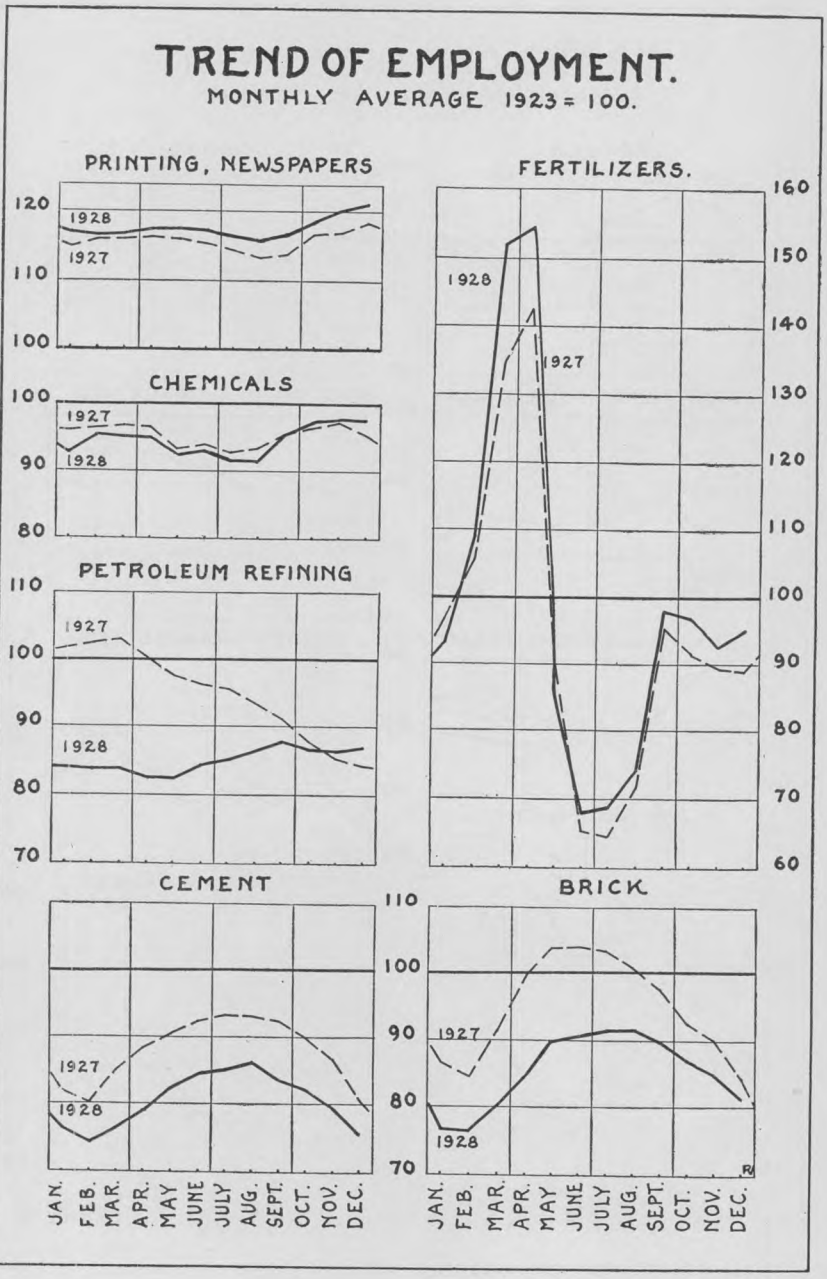


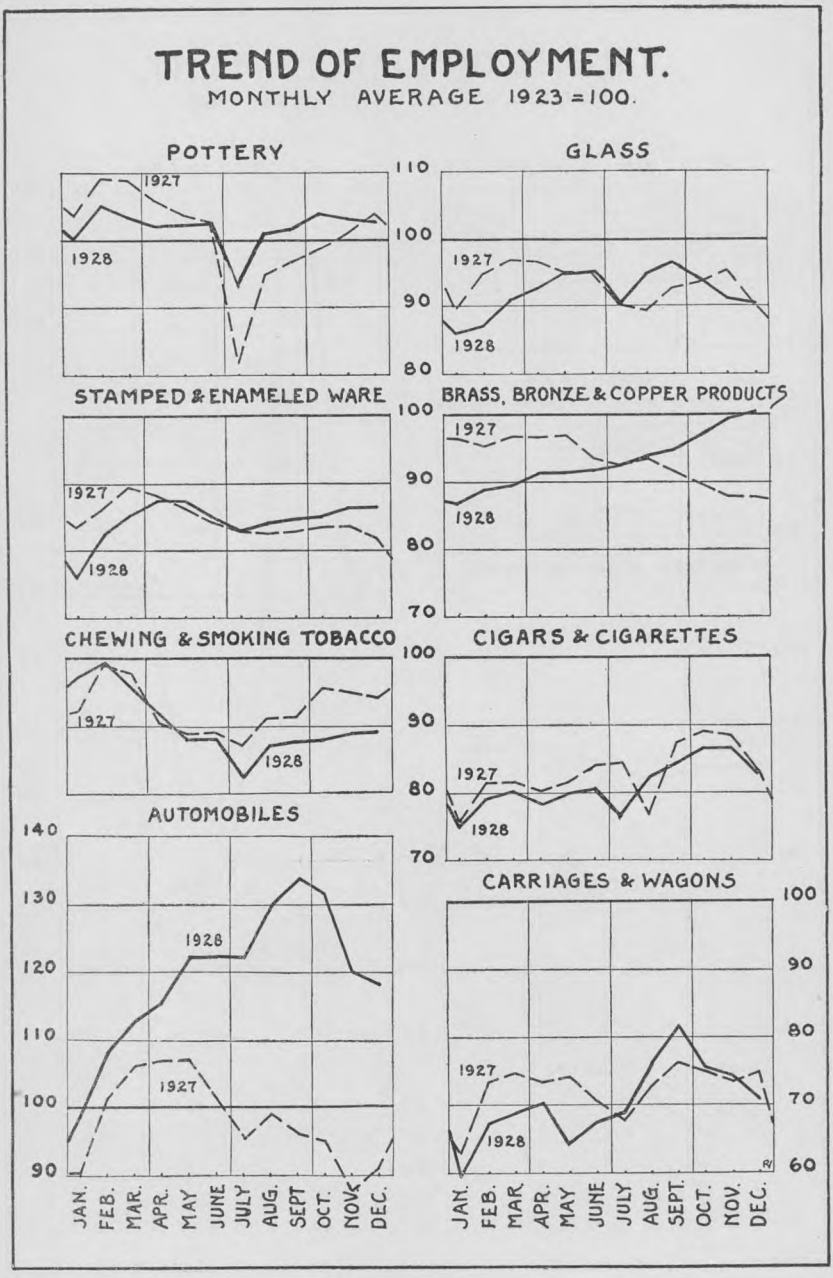


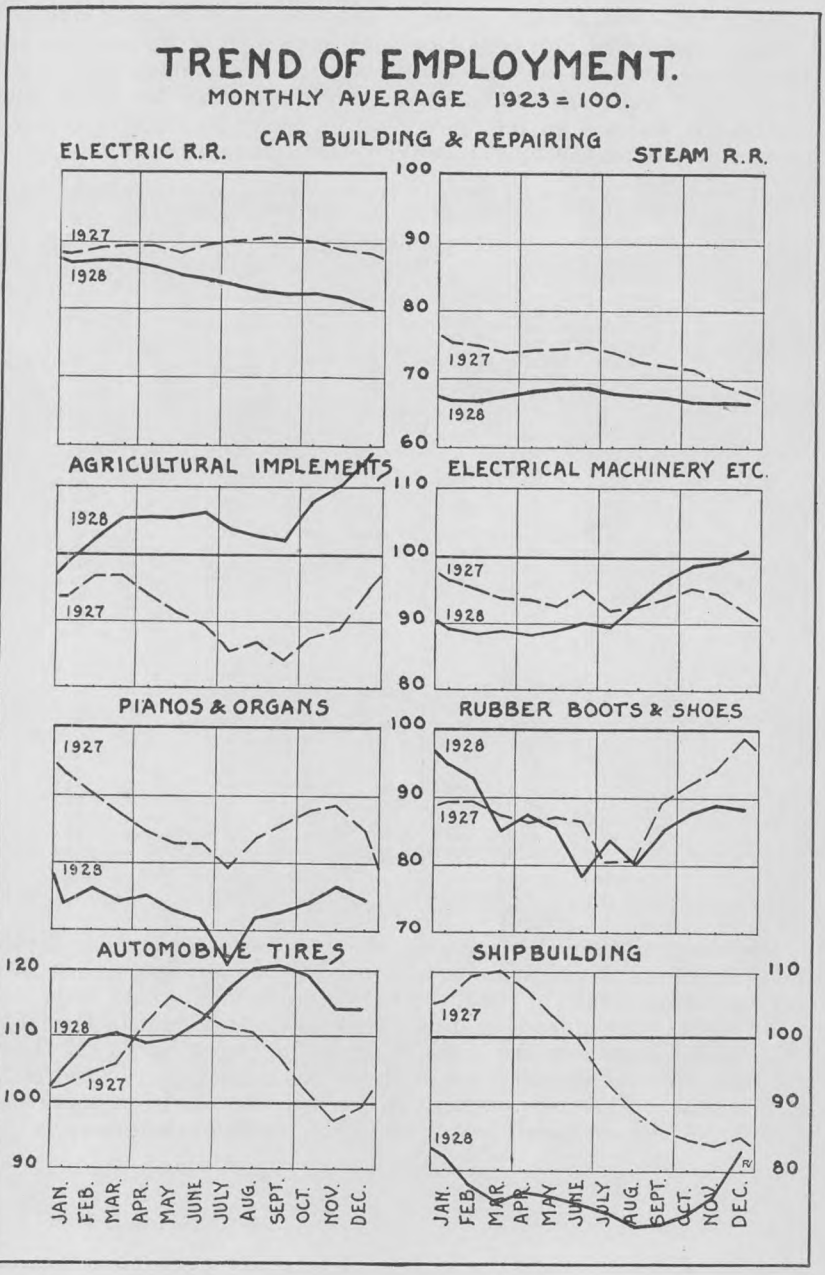












Indexes of Employment in Manufacturing Industries in Each Geographic Division of the United States, by Months, 1927 and 1928

INDEX numbers for each month of 1927 and 1928 showing relatively the variation in number of persons employed in each of the nine geographic divisions of the United States are shown in Table 8. These index numbers are computed with the data for April, 1924, used as 100, no data as to employment by geographic divisions having been compiled by the bureau previous to that month.

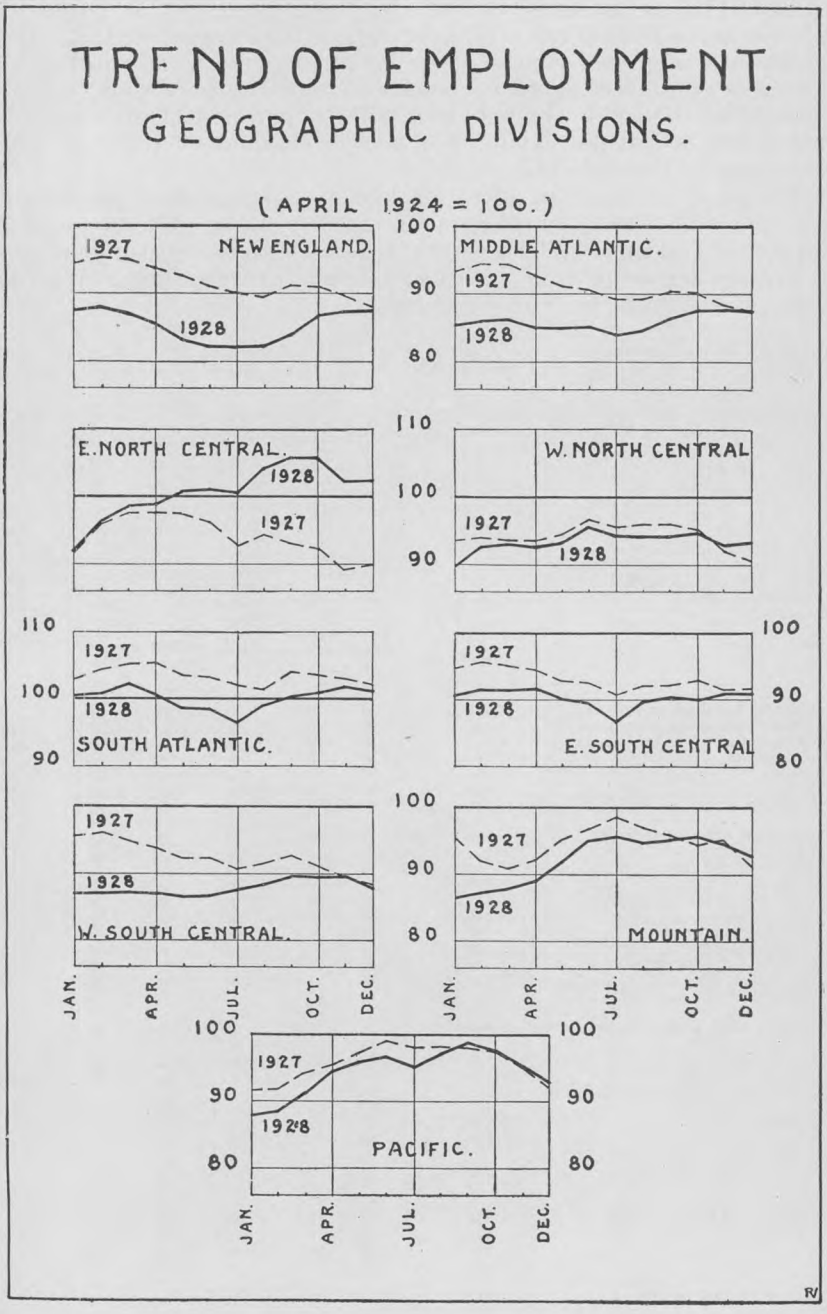
TABLE 8.—INDEXES OF EMPLOYMENT IN MANUFACTURING INDUSTRIES IN EACH GEOGRAPHIC DIVISION IN 1927 AND 1928, BY MONTHS

[April, 1924=100]

Month and year	Geographic division [1]								
	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
1927									
January	94.4	93.4	91.6	93.5	102.8	94.6	95.4	95.3	91.6
February	95.5	94.4	95.8	94.0	104.3	95.6	96.0	92.0	91.8
March	95.1	94.4	97.4	93.8	105.2	95.1	94.9	90.9	94.4
April	93.8	92.7	97.5	93.7	105.4	94.4	93.8	92.1	95.5
May	92.6	91.3	97.3	94.5	103.7	93.0	92.3	95.1	97.2
June	91.2	90.7	96.1	96.6	103.1	92.7	92.4	96.7	99.0
July	90.0	89.3	92.9	95.7	102.0	90.9	90.7	98.4	98.0
August	89.4	89.3	94.2	96.0	101.5	92.1	91.5	97.0	98.3
September	91.4	90.3	93.0	96.0	104.0	92.3	92.8	95.9	98.0
October	91.1	90.1	92.3	95.4	103.7	92.9	91.2	94.4	97.6
November	89.8	88.6	89.2	92.1	103.0	91.6	89.8	95.3	95.1
December	88.0	87.4	90.0	90.6	102.1	91.7	88.4	91.3	92.0
1928									
January	87.5	85.6	91.8	89.9	100.4	90.6	86.9	86.5	88.0
February	88.1	86.1	96.2	92.7	100.7	91.7	87.1	87.1	88.6
March	87.0	86.3	98.5	93.2	102.2	91.5	87.3	87.9	91.3
April	85.6	85.3	98.8	92.7	100.6	91.7	87.0	89.1	94.5
May	83.1	85.1	100.8	93.4	98.7	90.1	86.5	91.9	95.9
June	82.1	85.2	101.1	95.8	98.6	89.7	86.7	95.0	96.6
July	82.1	84.3	100.5	94.6	96.3	86.5	87.7	95.6	95.2
August	82.3	84.8	104.1	94.4	98.9	89.6	88.5	94.8	97.0
September	84.2	86.3	105.8	94.3	100.4	90.5	89.7	95.4	98.8
October	86.8	87.8	105.8	94.8	100.9	90.0	89.5	95.7	97.7
November	87.4	87.9	102.4	93.1	101.9	91.0	89.9	94.8	95.3
December	87.7	87.9	102.5	93.3	101.2	91.0	87.9	93.1	92.9

[1] See footnotes 3 to 11, p. 111.

The chart on the following page shows for each geographic division the trend of employment in each month of 1928 as compared with the corresponding month of 1927, the basic data being derived from Table 8. In eight of the nine geographic divisions employment in December, 1928, stood at nearly the same point as in December, 1927, but in the East North Central division there was a variation of more than 13 per cent. The improvement in 1928 in this division was caused very largely by increased activities in the automobile industry.



Proportion of Time Worked and Force Employed in Selected Manufacturing Industries in December, 1928

REPORTS as to time worked and force employed in December were made by 9,128 establishments in the 54 separate industries. Employees in 85 per cent of these establishments were working full time and employees in 15 per cent were working part time; while 1 per cent of the establishments were idle, 33 per cent of the establishments had a full normal force of employees and 66 per cent were operating with reduced forces.

The establishments in operation had an average of 89 per cent of a normal full force of employees who were working an average of 98 per cent of full time. These percentages show an increase of 1 per cent in average operating time with no change in average force employed, as compared with the November report.

TABLE 9.—ESTABLISHMENTS IN WHICH EMPLOYEES WORKED FULL AND PART TIME AND WHICH EMPLOYED FULL AND PART WORKING FORCE IN DECEMBER, 1928

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Food and kindred products	**1,394**	(1)	**91**	**9**	**98**	**36**	**64**	**90**
Slaughtering and meat packing	141	.....	94	6	100	49	51	97
Confectionery	241	(1)	90	9	99	26	73	80
Ice cream	180	1	94	5	99	6	93	66
Flour	258	.....	75	25	94	43	57	92
Baking	563	.....	97	3	99	44	56	95
Sugar refining, cane	11	.....	100	0	100	18	82	86
Textiles and their products	**1,431**	**1**	**83**	**16**	**98**	**36**	**63**	**89**
Cotton goods	384	1	86	13	99	35	64	89
Hosiery and knit goods	164	.....	78	22	96	43	57	86
Silk goods	176	.....	89	11	99	45	55	94
Woolen and worsted goods	163	.....	87	13	98	36	64	87
Carpets and rugs	25	.....	84	16	96	44	56	100
Dyeing and finishing	87	.....	72	28	94	36	64	89
Clothing, men's	199	5	79	17	96	28	67	86
Shirts and collars	69	.....	77	23	94	32	68	91
Clothing, women's	120	2	85	13	96	31	68	89
Millinery and lace goods	44	.....	84	16	99	25	75	82
Iron and steel, and their products	**1,585**	(1)	**78**	**22**	**97**	**33**	**67**	**88**
Iron and steel	157	2	80	18	96	27	71	88
Cast-iron pipe	25	.....	72	28	91	36	64	73
Structural ironwork	154	.....	87	13	99	34	66	93
Foundry and machine-shop products	873	.....	77	23	97	31	69	87
Hardware	49	.....	73	27	97	18	82	85
Machine tools	130	.....	93	7	103	59	41	112
Steam fittings and steam and hot water heating apparatus	102	2	66	32	94	26	72	76
Stoves	95	1	58	41	90	36	63	93
Lumber and its products	**934**	**1**	**81**	**19**	**98**	**29**	**70**	**84**
Lumber, sawmills	385	2	84	14	98	29	70	83
Lumber, millwork	228	.....	72	28	96	18	82	74
Furniture	321	.....	83	17	99	37	63	94
Leather and its products	**317**	**1**	**76**	**23**	**96**	**26**	**74**	**83**
Leather	117	1	85	15	99	21	79	79
Boots and shoes	200	1	72	28	94	29	71	84

[1] Less than one-tenth of 1 per cent.

TABLE 9.—ESTABLISHMENTS IN WHICH EMPLOYEES WORKED FULL AND PART TIME AND WHICH EMPLOYED FULL AND PART WORKING FORCE IN DECEMBER, 1928

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked—		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Paper and printing	**747**	(1)	**93**	**7**	**99**	**48**	**52**	**97**
Paper and pulp	150	.....	90	10	99	25	75	92
Paper boxes	157	1	87	12	99	41	59	91
Printing, book and job	281	.....	96	4	100	50	50	101
Printing, newspapers	159	.....	98	2	100	74	26	104
Chemicals and allied products	**273**	.....	**90**	**10**	**98**	**18**	**82**	**76**
Chemicals	99	.....	95	5	98	40	60	96
Fertilizers	136	.....	84	16	98	4	96	50
Petroleum refining	38	.....	100	0	100	13	87	76
Stone, clay, and glass products	**710**	**5**	**84**	**11**	**98**	**25**	**70**	**83**
Cement	82	.....	91	9	99	24	76	78
Brick, tile, and terra cotta	433	9	82	9	98	19	72	79
Pottery	105	2	74	24	96	43	55	93
Glass	90	.....	96	4	99	29	71	87
Metal products, other than iron and steel	**182**	.....	**83**	**17**	**98**	**40**	**60**	**95**
Stamped and enameled ware	59	.....	85	15	98	42	58	90
Brass, bronze, and copper products	123	.....	82	18	98	38	62	97
Tobacco products	**205**	**1**	**80**	**19**	**98**	**48**	**51**	**93**
Chewing and smoking tobacco and snuff	25	.....	76	24	98	48	52	88
Cigars and cigarettes	180	1	81	18	98	48	51	94
Vehicles for land transportation	**989**	.....	**88**	**12**	**99**	**23**	**77**	**94**
Automobiles	154	.....	91	9	99	40	60	103
Carriages and wagons	48	.....	67	33	94	17	83	75
Car building and repairing, electric-railroad	287	.....	86	14	99	24	76	85
Car building and repairing, steam-railroad	500	.....	90	10	99	18	82	79
Miscellaneous industries	**361**	.....	**86**	**14**	**99**	**43**	**57**	**93**
Agricultural implements	64	.....	80	20	99	39	61	103
Electrical machinery, apparatus, and supplies	136	.....	90	10	99	50	50	97
Pianos and organs	63	.....	86	14	100	40	60	82
Rubber boots and shoes	12	.....	67	33	98	33	67	93
Automobile tires	34	.....	76	24	96	38	62	95
Shipbuilding	52	.....	96	4	100	38	62	73
All industries	**9,128**	**1**	**85**	**15**	**98**	**33**	**66**	**89**

[1] Less than one-tenth of 1 per cent.

2. Employment in Coal Mining in December, 1928

EMPLOYMENT in coal mining—anthracite and bituminous coal combined—decreased 0.9 per cent in December, 1928, as compared with November, while pay-roll totals increased 1.2 per cent. The considerable increase in pay-roll totals, coupled with a decrease in employment, is due to steadier operation in the country as a whole in December as compared with November.

The 800 mines for which reports were received had 173,171 employees in December, with total pay rolls in one week of $4,828,695.

Anthracite

EMPLOYMENT in anthracite mines alone was 0.9 per cent less in December, 1928, than in November, but pay-roll totals were 11.5 per cent higher. The closing down for church celebrations and other holidays in November was quite general in the anthracite region, while operating time in December was steady.

Returns were made for 59 mines having 39,009 employees in December and pay-roll totals in one week of $1,393,591. All anthracite mines reported are in Pennsylvania.

Bituminous Coal

EMPLOYMENT in bituminous coal mines decreased 0.9 per cent in December, 1928, as compared with November, and pay-roll totals decreased 2.4 per cent.

The decrease in pay-roll totals was due largely to a disagreement over a new wage scale in one region of the Mountain geographic division, which caused a complete stoppage of operations; from accounts in the press an agreement has since been reached and work resumed. Both employment and pay-roll totals were considerably reduced in December in the South Atlantic division, several mines having been idle which were in operation in November.

The 740 mines for which reports were received had in December 134,162 employees, with pay-roll totals in one week of $3,435,104.

The details for each geographic division are shown in the table following:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **BITUMINOUS COAL** MINES DURING **ONE WEEK** EACH IN NOVEMBER AND DECEMBER, 1928

Geographic division [1]	Mines	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1928	December, 1928		November, 1928	December, 1928	
New England							
Middle Atlantic	218	46,639	47,376	+1.6	$1,274,885	$1,258,656	−1.3
East North Central	115	17,881	18,177	+1.7	484,875	502,210	+3.6
West North Central	38	4,081	4,551	+11.5	98,742	119,186	+20.7
South Atlantic	192	30,649	28,577	−6.8	786,495	721,124	−8.3
East South Central	114	26,606	25,959	−2.4	563,268	559,101	−0.7
West South Central	19	1,482	1,494	+0.8	40,810	42,647	+4.5
Mountain	36	6,522	6,543	+0.3	223,979	185,118	−17.4
Pacific	8	1,475	1,485	+0.7	46,848	47,062	+0.5
All divisions	**740**	**135,335**	**134,162**	**−0.9**	**3,519,902**	**3,435,104**	**−2.4**

[1] See footnotes 3 to 11 p. 111.

3. Employment in Metalliferous Mining in December, 1928

EMPLOYMENT in metalliferous mining was 2.4 per cent greater in December, 1928, than in November, 1928, and pay-roll totals were 4.9 per cent larger, according to returns from 253 mines having in December 43,893 employees with pay-roll totals in one week of $1,330,378.

The details for each geographic division are shown in the table following:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **METALIFEROUS** MINES DURING **ONE WEEK** EACH IN NOVEMBER AND DECEMBER, 1928

Geographic division [1]	Mines	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1928	December, 1928		November, 1928	December, 1928	
New England							
Middle Atlantic							
East North Central	29	9,152	9,229	+0.8	$243,630	$247,413	+1.6
West North Central	40	4,335	4,321	−0.3	133,848	135,222	+1.0
South Atlantic							
East South Central	5	1,562	1,545	−1.1	24,477	28,121	+14.9
West South Central	47	3,639	3,844	+5.6	88,068	100,208	+13.8
Mountain	112	22,254	23,076	+3.7	719,352	761,305	+5.8
Pacific	20	1,926	1,878	−2.5	58,322	58,109	−0.4
All divisions	**253**	**42,868**	**43,893**	**+2.4**	**1,267,697**	**1,330,378**	**+4.9**

[1] See footnotes 3 to 11, p. 111.

4. Employment in Public Utilities in December, 1928

EMPLOYMENT in public utilities was 0.7 per cent less in December, 1928, than in November, while pay-roll totals decreased less than one-tenth of 1 per cent, as shown by returns from 5,457 establishments, having in December 460,927 employees, with pay-roll totals in one week of $13,741,346.

The establishments reporting include electric railway, electric power and light, gas, water, telephone, and telegraph companies.

The details for each geographic division are shown in the table following:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **PUBLIC UTILITIES** ESTABLISHMENTS DURING **ONE WEEK** EACH IN NOVEMBER AND DECEMBER, 1928

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1928	December, 1928		November, 1928	December, 1928	
New England	279	29,978	29,687	−1.0	$976,805	$982,460	+0.6
Middle Atlantic	964	112,219	111,292	−0.8	3,444,693	3,442,017	−0.1
East North Central	1,001	144,176	142,981	−0.8	4,494,644	4,484,866	−0.2
West North Central	1,021	49,747	48,991	−1.5	1,305,104	1,304,859	−[2]
South Atlantic	301	37,853	37,647	−0.5	1,018,822	1,016,422	−0.2
East South Central	140	7,553	7,895	+4.5	185,483	187,658	+1.2
West South Central	141	12,936	12,446	−3.8	329,337	321,452	−2.4
Mountain	525	14,259	14,226	−0.2	338,326	346,983	+2.6
Pacific	1,085	55,588	55,762	+0.3	1,649,768	1,654,629	+0.3
All divisions	**5,457**	**464,309**	**460,927**	**−0.7**	**13,742,982**	**13,741,346**	−[2]

[1] See footnotes 3 to 11, p. 111.

[2] Less than one-tenth of 1 per cent.

5. Employment in Wholesale and Retail Trade in December, 1928

EMPLOYMENT in 2,768 establishments—wholesale and retail trade combined—increased 19.3 per cent in December, 1928, as compared with November, and pay-roll totals increased 12 per cent. These establishments in December had 205,141 employees with total pay-rolls in one week of $4,806,918.

The establishments reporting are so carefully selected, from every State and from nearly every class of wholesale and retail trade, as to be reasonably representative of general conditions in each geographic division and consequently in the United States as a whole.

Wholesale Trade

EMPLOYMENT in wholesale trade in December, 1928, increased 1 per cent as compared with November, and pay-roll totals increased 1.2 per cent, as shown by returns from 1,114 establishments, having in December 35,642 employees with total pay-rolls in one week of $1,032,670.

The details for each geographic division are shown in the table following:

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **WHOLESALE TRADE** ESTABLISHMENTS DURING **ONE WEEK** EACH IN NOVEMBER AND DECEMBER, 1928

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1928	December, 1928		November, 1928	December, 1928	
New England	68	1,663	1,680	+1.0	$49,542	$48,865	−1.4
Middle Atlantic	178	7,768	7,753	−0.2	238,520	233,839	−2.0
East North Central	179	6,510	6,732	+3.4	187,637	194,764	+3.8
West North Central	102	6,238	6,245	+0.1	162,400	168,445	+3.7
South Atlantic	112	2,936	3,047	+3.8	82,897	83,708	+1.0
East South Central	219	1,880	1,860	−1.1	52,621	53,924	+2.5
West South Central	73	3,167	3,234	+2.1	89,576	90,512	+1.0
Mountain	18	595	588	−1.2	20,215	20,190	−0.1
Pacific	165	4,527	4,503	−0.5	137,165	138,423	+0.9
All divisions	**1,114**	**35,284**	**35,642**	**+1.0**	**1,020,573**	**1,032,670**	**+1.2**

[1] See footnotes 3 to 11 p. 111.

Retail Trade

EMPLOYMENT in retail trade increased 24 per cent in December, 1928, as compared with November, and pay-roll totals were 15.3 per cent greater, as shown by reports from 1,654 establishments having in December 169,499 employees, with total pay-rolls in one week of $3,774,248.

These large increases in December are due of course to Christmas buying, a great number of temporary employees being taken on for short periods. This part-time work is done for the most part by young people at comparatively low pay as shown by a decrease of 7 per cent in per capita earnings in December as compared with November.

Details for each geographic division are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **RETAIL TRADE** ESTABLISHMENTS DURING **ONE WEEK** EACH IN NOVEMBER AND DECEMBER, 1928

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1928	December, 1928		November, 1928	December, 1928	
New England	23	9,643	11,437	+18.6	$221,160	$248,930	+12.6
Middle Atlantic	141	35,261	44,626	+26.6	891,071	1,010,208	+13.4
East North Central	154	39,604	48,766	+23.1	1,039,046	1,197,291	+15.2
West North Central	68	6,944	8,158	+17.5	148,542	163,688	+10.2
South Atlantic	500	13,844	16,932	+22.3	280,794	327,188	+16.5
East South Central	172	3,934	4,763	+21.1	76,958	87,237	+13.4
West South Central	38	6,016	7,076	+17.6	108,202	121,929	+12.7
Mountain	22	1,412	1,929	+36.6	28,752	34,200	+18.9
Pacific	536	20,078	25,812	+28.6	478,389	583,577	+22.0
All divisions	**1,654**	**136,736,**	**169,499**	**+24.0**	**3,272,914**	**3,774,248**	**+15.3**

[1] See footnotes 3 to 11, p. 111.

6. Employment in Hotels in December, 1928

EMPLOYMENT in hotels was 1.7 per cent less in December, 1928, than in November, and pay-roll totals were 0.6 lower, as shown by returns from 465 hotels having in December 80,720 employees with pay-roll totals in one week of $1,406,618.

Per capita earnings obtained by dividing the total number of employees into the total amount of pay roll should not be interpreted as being the entire earnings of hotel employees. The pay-roll totals here reported are cash payments only with no regard to the value of board or room furnished employees, and of course no satisfactory estimate can be made of additional recompense in the way of tips. The additions to the money wages granted vary greatly, not only among localities but among hotels in one locality and among employees in one hotel. Some employees are furnished board and room, others are given board only for 1, 2, or 3 meals, while the division of tips is made in many ways.

The details for each geographic division are shown in the table following:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **HOTELS** DURING **ONE WEEK** EACH IN NOVEMBER AND DECEMBER, 1928

Geographic division [1]	Hotels	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		November, 1928	December, 1928		November, 1928	December, 1928	
New England	26	5,503	5,174	−6.0	$91,396	$88,138	−3.6
Middle Atlantic	103	27,908	27,399	−1.8	515,028	512,935	−0.4
East North Central	75	16,024	15,641	−2.4	282,392	278,027	−1.5
West North Central	68	8,739	8,704	−0.4	131,979	131,502	−0.4
South Atlantic	43	5,493	5,225	−4.9	81,100	78,425	−3.3
East South Central	21	3,515	3,413	−2.9	48,493	47,426	−2.2
West South Central	39	4,453	4,508	+1.2	60,761	62,403	+2.7
Mountain	21	2,256	2,228	−1.2	38,833	38,079	−1.9
Pacific	69	8,256	8,428	+2.1	165,409	169,683	+2.6
All divisions	**465**	**82,147**	**80,720**	**−1.7**	**1,415,391**	**1,406,618**	**−0.6**

[1] See footnotes 3 to 11, p. 111.

Employment on Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to November, 1928, on Class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1923 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO NOVEMBER, 1928

[Monthly average, 1923=100]

Month	1923	1924	1925	1926	1927	1928
January	94.5	93.1	91.9	92.1	91.8	85.8
February	94.8	93.2	91.7	92.3	91.6	85.5
March	96.6	93.6	91.5	92.9	92.1	86.4
April	98.0	95.0	92.8	95.0	93.6	88.1
May	100.9	95.3	94.0	96.3	95.5	90.8
June	102.9	94.2	94.8	97.6	97.0	92.2
July	104.0	94.3	95.5	98.9	97.1	91.9
August	105.1	95.1	95.8	98.7	95.6	92.0
September	103.6	95.8	96.0	98.8	95.2	91.6
October	103.1	96.9	96.8	99.4	95.0	91.6
November	101.1	95.1	95.2	97.3	92.0	89.3
December	95.5	92.3	93.3	94.4	88.3	
Average	**100.0**	**94.5**	**94.1**	**96.1**	**93.7**	[1] **89.6**

[1] Average for 11 months.

Table 2 shows the total number of employees on the 15th day each of November, 1927, and October and November, 1928, and pay-roll totals for the entire month for each month considered, by principal occupational groups and various important occupations.

In these tabulations data for the occupational group reported as "Executives, officials, and staff assistants" are omitted from the totals.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—NOVEMBER, 1927, AND OCTOBER AND NOVEMBER, 1928

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	November, 1927	October, 1928	November, 1928	November, 1927	October, 1928	November, 1928
Professional, clerical, and general	**278,023**	**271,639**	**270,693**	**$39,420,646**	**$40,050,604**	**$39,015,113**
Clerks	160,808	155,876	154,975	21,557,016	21,968,354	21,152,629
Stenographers and typists	25,043	24,617	24,673	3,180,231	3,238,176	3,177,774
Maintenance of way and structures	**408,836**	**428,802**	**393,552**	**37,345,361**	**41,725,293**	**35,919,554**
Laborers, extra gang and work train	67,345	69,543	57,615	5,034,575	5,763,648	4,210,502
Laborers, track and roadway section	206,290	222,863	202,393	14,512,068	17,171,642	14,150,537
Maintenance of equipment and stores	**479,329**	**459,512**	**459,415**	**62,384,589**	**64,378,254**	**60,859,219**
Carmen	102,856	101,313	100,880	15,104,995	16,206,075	15,092,082
Machinists	58,116	55,255	55,153	9,006,858	9,332,469	8,748,538
Skilled-trades helpers	105,745	100,844	101,175	11,626,962	12,076,028	11,398,392
Laborers (shops, engine houses, power plants, and stores)	40,306	37,700	37,626	3,819,957	3,704,820	3,560,880
Common laborers (shops, engine houses power plants, and stores)	53,833	52,450	52,449	4,288,541	4,523,663	4,211,027

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—NOVEMBER, 1927, AND OCTOBER AND NOVEMBER, 1928—Continued

Occupation	Number of employees at middle of month			Total earnings		
	November, 1927	October, 1928	November, 1928	November, 1927	October, 1928	November, 1928
Transportation, other than train, engine, and yard	**203,243**	**201,641**	**197,899**	**$25,098,670**	**$26,111,229**	**$24,664,494**
Station agents	30,212	29,729	29,663	4,723,021	4,858,529	4,677,226
Telegraphers, telephoners, and towermen	24,094	23,472	23,235	3,671,035	3,722,700	3,554,390
Truckers (stations, warehouses, and platforms)	37,086	36,920	35,773	3,440,433	3,752,076	3,397,179
Crossing and bridge flagmen and gatemen	21,590	20,995	20,852	1,665,474	1,626,232	1,604,085
Transportation (yard masters, switch tenders, and hostlers)	**22,895**	**22,100**	**21,861**	**4,403,395**	**4,429,695**	**4,301,398**
Transportation, train and engine	**319,749**	**323,902**	**320,188**	**63,346,384**	**71,825,123**	**65,619,791**
Road conductors	35,915	36,661	35,990	8,425,214	9,332,925	8,573,257
Road brakemen and flagmen	72,524	73,157	71,648	12,369,783	13,845,762	12,529,318
Yard brakemen and yard helpers	53,674	53,797	54,120	9,485,901	10,638,575	9,867,022
Road engineers and motormen	42,786	43,595	42,794	11,209,366	13,040,992	11,743,211
Road firemen and helpers	44,218	44,056	43,506	8,399,641	9,629,269	8,666,869
Total, all employees	**1,712,075**	**1,707,596**	**1,663,608**	**231,999,045**	**248,520,198**	**230,379,569**

Changes in Employment and Pay Rolls in Various States

THE following data as to changes in employment and pay rolls have been compiled from reports received from the various State labor offices:

PER CENT OF CHANGES IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

Monthly period

State, and industry group	Per cent of change, October to November, 1928		State, and industry group	Per cent of change, November to December, 1928	
	Employment	Pay roll		Employment	Pay roll
Illinois			**Iowa**		
Stone, clay, and glass products	−0.4	+2.8	Food and kindred products	+5.4	
Metals, machinery, and conveyances	+1.7	+1.7	Textiles	0.0	
Wood products	+.2	−3.9	Iron and steel works	+4.4	
Furs and leather goods	−3.3	−2.2	Lumber products	−1.7	
Chemicals, oils, and paints	−1.9	−4.0	Leather products	+.1	
Printing and paper goods	+1.1	−3.5	Paper products, printing and publishing	+1.7	
Textiles	+1.0	+4.4	Patent medicines, chemicals, and compounds	−3.2	
Clothing and millinery	−6.7	−13.1	Stone and clay products	−9.3	
Food, beverages, and tobacco	+1.0	−1.3	Tobacco and cigars	0.0	
All manufacturing industries	+.5	−.6	Railway car shops	−15.7	
Trade, wholesale and retail	+2.7	+2.2	Various industries	+4.7	
Services	+1.3	+1.9	All industries	−.4	
Public utilities	0.0	+6.2	**Maryland**		
Coal mining	+.1	+6.8	Food products	+.8	+2.4
Building and contracting	+.2	−1.4	Textiles	+1.2	+3.2
All industries	+.5	+1.4	Iron and steel and their products	+4.3	+15.0

PER CENT OF CHANGES IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, November to December, 1928	
	Employment	Pay roll
Maryland—Continued		
Lumber and its products	−.3	+2.5
Leather and its products	−.5	+12.7
Rubber tires	−15.6	−33.9
Paper and printing	−.2	+.8
Chemicals and allied products	−1.1	+5.9
Stone, clay, and glass products	+.6	+7.1
Metal products, other than iron and steel	+.6	+2.0
Tobacco products	−9.5	+1.8
Machinery (not including transportation equipment)	+.8	+8.5
Musical instruments	−.8	+3.3
Transportation equipment	+3.0	+10.3
Car building and repairing	−3.0	−2.1
Miscellaneous	+.6	+1.4
All industries	−.3	+1.6

State, and industry group	Employment—index numbers (1919–1923=100)	
	November, 1928	December, 1928
Massachusetts		
Boots and shoes	67.8	64.4
Bread and other bakery products	104.8	104.1
Cars and general shop construction and repairs, steam railroads	70.5	70.2
Clothing, men's and women's	93.5	92.1
Confectionery	92.7	87.6
Cotton goods	56.3	57.5
Dyeing and finishing textiles	104.4	105.9
Electrical machinery, apparatus, and supplies	109.4	104.2
Foundry and machine-shop products	68.0	68.1
Furniture	110.5	109.4
Hosiery and knit goods	70.7	71.5
Jewelry	113.9	108.3
Leather, tanned, curried, and finished	79.4	75.8
Paper and wood pulp	92.5	92.2
Printing and publishing	108.5	109.1
Rubber footwear	103.0	101.3
Rubber goods, tires, and tubes	89.2	82.6
Silk goods	105.3	102.3
Textile machinery and parts	47.5	50.1
Woolen and worsted goods	82.9	82.2
All industries	79.3	78.9

State, and industry group	Per cent of change, October to November, 1928	
	Employment	Pay roll
New Jersey		
Food and kindred products	+14.3	+9.3
Textiles and their products	+1.7	+1.0
Iron and steel and their products	+1.6	+.1
Lumber and its products	+2.3	+3.4
Leather and its products	−2.8	−3.2
Tobacco products	−1.5	−2.7
Paper and printing	+3.7	+7.0
Chemicals and allied products	+.5	+2.2
Stone, clay, and glass products	−.8	−2.4
Metal products other than iron and steel	+2.9	+1.9
Vehicles for land transportation	+9.6	+8.7
Miscellaneous	+1.2	−.8
All industries	+2.3	+1.6
New York		
Stone, clay, and glass	+.5	+1.2
Metals and machinery	+1.0	+1.1
Wood manufactures	+.1	+2.6
Furs, leather, and rubber goods	−.3	−9.3
Chemicals, oils, paints, etc	+1.4	+3.0
Paper	+3.3	+3.9
Printing and paper goods	+.3	+1.8
Textiles	+.8	+1.4
Clothing and millinery	−2.7	−8.8
Food and tobacco	−4.3	−1.6
Water, light, and power	−.6	+.9
All industries	−.1	−.7

State, and industry group	November to December, 1928	
Oklahoma		
Cottonseed-oil mills	−3.2	−5.7
Food production:		
Bakeries	−3.0	+9.5
Confections	−18.1	−15.9
Creameries and dairies	−3.1	−16.3
Flour mills	+1.8	+3.1
Ice and ice cream	−5.4	+1.3
Meat and poultry	−2.6	−7.2
Lead and zinc:		
Mines and mills	+8.8	+16.4
Smelters	−3.3	−15.5
Metals and machinery:		
Auto repairs, etc	+14.8	+5.1
Machine shops and foundries	−6.1	−6.6
Tank construction and erection	+19.4	+9.4
Oil industry:		
Producing and gasoline manufacture	−.6	−.7
Refineries	−4.2	−3.5

PER CENT OF CHANGES IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, November to December, 1928.	
	Employment	Pay roll
Oklahoma—Continued		
Printing: Job work	+4.3	−21.0
Public utilities:		
Steam-railway shops	+1.9	−2.3
Street railways	+8.2	+21.6
Water, light, and power	+35.4	+43.7
Stone, clay, and glass:		
Brick and tile	−2.2	−3.9
Cement and plaster	+.4	+.4
Crushed stone	+8.8	−10.1
Glass manufacture	+8.6	+4.6
Textiles and cleaning:		
Textile manufacture	−2.7	+.6
Laundries, etc	+8.0	+6.8
Woodworking:		
Sawmills	−3.0	+6.9
Millwork, etc	−7.2	−10.4
All industries	+3.4	+2.1

	Index numbers (1923–1925=100)	
	November, 1928	December, 1928
	Employment	
Pennsylvania		
Metal products	89.5	86.7
Transportation equipment	66.0	67.5
Textile products	97.7	98.8
Foods and tobacco	99.8	95.5
Stone, clay, and glass products	82.0	81.5
Lumber products	81.1	76.5
Chemical products	97.7	98.1
Leather and rubber products	95.7	95.4
Paper and printing	94.2	92.6
All industries	89.6	88.3
	Pay roll	
Metal products	95.3	93.0
Transportation equipment	63.7	67.7
Textile products	105.2	108.8
Foods and tobacco	100.9	99.2
Stone, clay, and glass products	84.2	80.2
Lumber products	91.6	81.3
Chemical products	104.8	105.4
Leather and rubber products	94.6	98.2
Paper and printing	109.0	105.9
All industries	93.2	92.8

State, and industry group	Per cent of change, October to November, 1928	
	Employment	Pay roll
Wisconsin		
Manual		
Logging	+46.8	+19.8
Mining	+.9	−6.9
Stone crushing and quarrying	−8.4	−15.7
Manufacturing		
Stone and allied industries	−12.7	−18.5
Metal	−3.1	−5.8
Wood	+.3	+.4
Rubber	+1.4	−3.0
Leather	−3.0	−11.8
Paper	−1.0	+1.6
Textiles	−.8	−1.2
Foods	+3.8	+7.6
Light and power	−2.2	+6.6
Printing and publishing	−.2	−.9
Laundering, cleaning, and dyeing	−2.0	−1.7
Chemicals (including soap, glue, and explosives)	−.5	+.6
All manufacturing	−1.3	−2.7
Construction:		
Building	+1.0	+6.2
Highway	−6.6	−6.0
Railroad	−10.5	−10.7
Marine dredging, sewer digging	−10.9	−14.7
Communication:		
Steam railways	−6.3	−7.4
Electric railways	−8.5	−4.3
Express, telephone, and telegraph	+2.1	+2.7
Wholesale trade	−9.6	−7.6
Hotels and restaurants	−2.1	
Nonmanual		
Manufacturing, mines, and quarries	0.0	−1.4
Construction	−1.5	−2.5
Communication	+1.8	+1.2
Wholesale trade	+3.0	+1.5
Retail trade—sales force only	+8.3	−1.1
Miscellaneous professional services	+3.2	−3.2
Hotels and restaurants	+1.4	

PER CENT OF CHANGES IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period

State, and industry group	Per cent of change, November, 1927, to November, 1928	
	Employment	Pay roll
California		
Stone, clay, and glass products	−2.2	−4.4
Metals, machinery, and conveyances	+11.6	+13.1
Wood manufactures	−4.9	−6.8
Leather and rubber goods	+31.7	+23.6
Chemicals, oils, paints, etc	+25.1	+27.2
Printing and paper goods	−.8	−1.2
Textiles	−4.9	+4.4
Clothing, millinery, and laundering	−1.1	−1.1
Foods, beverages, and tobacco	+4.9	−.7
Water, light, and power	−6.4	−6.9
Miscellaneous	−7.2	−13.4
All industries	+5.8	+5.9

State, and industry group	Per cent of change, November, 1927, to November, 1928	
	Employment	Pay roll
New York		
Stone, clay, and glass	+0.3	+2.4
Metals and machinery	+3.4	+10.2
Wood manufactures	−7.5	−4.9
Furs, leather, and rubber goods	+.6	−1.0
Chemicals, oils, paints, etc	−2.2	−.1
Paper	−.9	−.9
Printing and paper goods	−.5	+.8
Textiles	−3.3	−3.1
Clothing and millinery	−3.1	−3.6
Food and tobacco	(1)	+.7
Water, light, and power	−7.6	−8.4
All industries	−.1	+2.9

State, and industry group	Employment—index numbers (1919–1923=100)	
	December, 1927	December, 1928
Massachusetts		
Boots and shoes	62.8	64.4
Bread and other bakery products	98.7	104.1
Cars and general shop construction and repairs, steam railroads	74.8	70.2
Clothing, men's and women's	96.0	92.1
Confectionery	100.7	87.6
Cotton goods	67.4	57.5
Dyeing and finishing textiles	103.5	105.9
Electrical machinery, apparatus, and supplies	107.3	104.2
Foundry and machine-shop products	64.8	68.1
Furniture	111.2	109.4
Hosiery and knit goods	87.6	71.5
Jewelry	106.1	108.3
Leather, tanned, curried, and finished	88.6	75.8
Paper and wood pulp	93.0	92.2
Printing and publishing	105.3	109.1
Rubber footwear	107.2	101.3
Rubber goods, tires, and tubes	99.2	82.6
Silk goods	113.6	102.3
Textile machinery and parts	66.3	50.1
Woolen and worsted goods	88.1	82.2
All industries	83.0	78.9

State, and industry group	December, 1927, to December, 1928	
	Employment	Pay roll
Oklahoma		
Cottonseed-oil mills	−17.1	−17.6
Food production:		
Bakeries	+18.9	+23.1
Confections	−64.2	−67.0
Creameries and dairies	−1.2	+7.2
Flour mills	+37.6	+36.4
Ice and ice cream	+28.4	+219.3
Meat and poultry	+7.5	+3.1
Lead and zinc:		
Mines and mills	−11.2	−16.9
Smelters	+1.3	−4.4
Metals and machinery:		
Auto repairs, etc	+245.4	+80.7
Machine shops and foundries	+33.0	+27.9
Tank construction and erection	+35.0	+48.2
Oil industry:		
Producing and gasoline manufacture	+26.9	+30.6
Refineries	−.1	+9.8
Printing: Job work	+17.7	+44.5
Public utilities:		
Steam-railway shops	−12.0	−8.4
Street railways	+24.8	+10.8
Water, light, and power	+217.3	+279.6
Stone, clay, and glass:		
Brick and tile	+54.7	−64.5
Cement and plaster	+22.4	+27.5
Crushed stone	+22.3	+39.7
Glass manufacture	+12.1	+18.1

[1] Less than 0.05 per cent change.

PER CENT OF CHANGES IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period—Continued

State, and industry group	Per cent of change, December 1927, to December, 1928	
	Employment	Pay roll
Oklahoma—Continued		
Textiles and cleaning:		
Textile manufacture	+28.7	+22.2
Laundries, etc	+44.6	+43.1
Woodworking:		
Sawmills	+438.8	+498.6
Millwork, etc	+18.3	+30.4
All industries	+22.3	+31.0
	Index numbers (1923–1925=100)	
	December, 1927	December, 1928
	Employment	
Pennsylvania		
Metal products	80.3	86.7
Transportation equipment	82.7	67.5
Textile products	102.6	98.8
Foods and tobacco	91.6	95.5
Stone, clay, and glass products	85.4	81.5
Lumber products	82.1	76.5
Chemical products	95.2	98.1
Leather and rubber products	100.7	95.4
Paper and printing	99.1	92.6
All industries	87.7	88.3
	Pay roll	
Metal products	80.7	93.0
Transportation equipment	84.2	67.7
Textile products	113.4	108.8
Foods and tobacco	94.6	99.2
Stone, clay, and glass products	78.7	80.2
Lumber products	82.5	81.3
Chemical products	103.1	105.4
Leather and rubber products	103.7	98.2
Paper and printing	109.8	105.9
All industries	89.6	92.8

State, and industry group	Per cent of change, November, 1927, to November, 1928	
	Employment	Pay roll
Wisconsin		
Manual		
Logging	+26.1	−13.2
Mining	−39.0	−44.7
Stone crushing and quarrying	−26.3	−40.2
Manufacturing:		
Stone and allied industries	−9.7	−8.3
Metal	+16.2	+33.1
Wood	+2.7	−2.0
Rubber	+.7	−3.8
Leather	−4.3	−7.2
Paper	−.2	+1.8
Textiles	−12.1	−11.9
Foods	+2.9	+5.3
Light and power	+8.9	+22.3
Printing and publishing	+8.5	+.1
Laundering, cleaning, and dyeing	+2.5	+.9
Chemical (including soap, glue, and explosives)	−20.6	−18.7
All manufacturing	+5.2	+11.3
Construction:		
Building	−14.8	−7.9
Highway	−4.6	+3.7
Railroad	+12.6	+9.0
Marine dredging, sewer digging	−37.3	−23.5
Communication:		
Steam railways	−7.1	+4.9
Electric railways	−8.9	−7.3
Express, telephone, and telegraph	+11.8	+13.5
Wholesale trade	+9.0	+2.8
Hotels and restaurants	+3.1	----------
Nonmanual		
Manufacturing, mines and quarries	−.6	+2.3
Construction	−7.7	−5.8
Communication	+7.5	+7.1
Wholesale trade	+11.9	+7.8
Retail trade—sales force only	−6.3	−8.7
Miscellaneous professional services	+5.1	+6.8
Hotels and restaurants	−12.1	----------

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from monthly reports of actual selling prices [1] received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food December 15, 1927, and November 15 and December 15, 1928, as well as the percentage changes in the year and in the month. For example, the retail price per pound of pork chops was 32.8 cents on December 15, 1927; 35.7 cents on November 15, 1928; and 31.3 cents on December 15, 1928. These figures show decreases of 5 per cent in the year and 12 per cent in the month.

The cost of various articles of food combined shows a decrease of 0.1 per cent December 15, 1928, as compared with December 15, 1927, and a decrease of 0.9 per cent December 15, 1928, as compared with November 15, 1928.

TABLE 1.—AVERAGE RETAIL PRICE OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE DECEMBER 15, 1928, COMPARED WITH NOVEMBER 15, 1928, AND DECEMBER 15, 1927

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Dec. 15, 1928, compared with—	
		Dec. 15, 1927	Nov. 15, 1928	Dec. 15, 1928	Dec. 15, 1927	Nov. 15, 1928
		Cents	*Cents*	*Cents*		
Sirloin steak	Pound	43.9	49.1	48.2	+10	−2
Round steak	do	38.2	43.4	42.7	+12	−2
Rib roast	do	32.4	36.3	35.7	+10	−2
Chuck roast	do	25.1	29.7	29.1	+16	−2
Plate beef	do	16.7	20.8	20.4	+22	−2
Pork chops	do	32.8	35.7	31.3	−5	−12
Bacon	do	45.3	44.5	43.3	−4	−3
Ham	do	51.9	54.6	53.4	+3	−2
Lamb, leg of	do	37.5	38.1	37.6	+0.3	−1
Hens	do	35.7	38.0	37.9	+6	−0.3
Salmon, canned, red	do	35.0	32.3	31.9	−9	−1
Milk, fresh	Quart	14.3	14.3	14.3	0	0
Milk, evaporated	16-oz. can	11.5	11.4	11.4	−1	0
Butter	Pound	58.4	58.3	59.3	+2	+2
Oleomargarine (all butter substitutes)	do	27.9	27.6	27.5	−1	−0.4
Cheese	do	39.0	38.5	38.5	−1	0
Lard	do	19.2	19.1	18.7	−3	−2
Vegetable lard substitute	do	25.2	24.8	24.8	−2	0
Eggs, strictly fresh	Dozen	59.6	59.3	58.4	−2	−2
Eggs, storage	do	42.9	44.0	43.7	+2	−1

[1] In addition to monthly retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICE OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE DECEMBER 15, 1928, COMPARED WITH NOVEMBER 15, 1928, AND DECEMBER 15, 1927—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) Dec. 15, 1928, compared with—	
		Dec. 15, 1927	Nov. 15, 1928	Dec. 15, 1928	Dec. 15, 1927	Nov. 15, 1928
		Cents	*Cents*	*Cents*		
Bread	Pound	9.2	9.1	9.0	−2	−1
Flour	do	5.4	5.1	5.1	−6	0
Corn meal	do	5.2	5.3	5.3	+2	0
Rolled oats	do	9.0	8.9	8.9	−1	0
Corn flakes	8-oz. package	9.7	9.5	9.5	−2	0
Wheat cereal	28-oz. package	25.5	25.5	25.5	0	0
Macaroni	Pound	20.0	19.8	19.7	−2	−1
Rice	do	10.3	9.8	9.9	−4	+1
Beans, navy	do	9.5	12.5	12.8	+35	+2
Potatoes	do	3.0	2.2	2.2	−27	0
Onions	do	4.7	6.5	7.1	+51	+9
Cabbage	do	3.8	4.3	4.7	+24	+9
Beans, baked	No. 2 can	11.4	11.7	11.7	+3	0
Corn, canned	do	15.7	15.9	15.9	+1	0
Peas, canned	do	16.7	16.7	16.7	0	0
Tomatoes, canned	do	11.8	11.9	12.0	+2	+1
Sugar	Pound	7.1	6.8	6.7	−6	−1
Tea	do	77.3	77.4	77.3	0	−0.1
Coffee	do	48.1	49.7	49.7	+3	0
Prunes	do	13.8	14.0	14.1	+2	+1
Raisins	do	13.7	12.0	11.8	−14	−2
Bananas	Dozen	34.8	33.7	33.5	−4	−1
Oranges	do	52.3	56.5	47.6	−9	−16
Weighted food index					−0.1	−0.9

Table 2 shows for the United States average retail prices of specified food articles on December 15, 1913, and on December 15 of each year from 1922 to 1928, together with percentage changes in December of each of these specified years, compared with December, 1913. For example, the retail price per pound of lard was 15.8 cents in December, 1913; 17.5 cents in December, 1922; 18.9 cents in December, 1923; 22.1 cents in December, 1924; 22.6 cents in December, 1925; 20.4 cents in December, 1926; 19.2 cents in December, 1927; and 18.7 cents in December, 1928.

As compared with December, 1913, these figures show increases of 11 per cent in December, 1922; 20 per cent in December, 1923; 40 per cent in December, 1924; 43 per cent in December, 1925; 29 per cent in December, 1926; 22 per cent in December, 1927; and 18 per cent in December, 1928.

The cost of the various articles of food combined showed an increase of 49.9 per cent in December, 1928, as compared with December, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE DECEMBER 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH DECEMBER 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail price on Dec. 15								Per cent of increase Dec. 15 of each specified year compared with Dec. 15, 1913						
	1913	1922	1923	1924	1925	1926	1927	1928	1922	1923	1924	1925	1926	1927	1928
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*							
Sirloin steak.. pound..	25.1	36.8	38.6	38.2	40.3	40.7	43.9	48.2	47	54	52	61	62	75	92
Round steak....do....	22.6	31.5	32.9	32.4	34.4	35.3	38.2	42.7	39	46	43	52	56	69	89
Rib roast.....do....	19.9	27.3	28.3	28.0	29.6	30.2	32.4	35.7	37	42	41	49	52	63	79
Chuck roast.....do....	16.2	19.4	20.4	20.2	21.7	22.7	25.1	29.1	20	26	25	34	40	55	80
Plate beef.....do....	12.4	12.7	13.0	13.1	14.1	14.9	16.7	20.4	2	5	6	14	20	35	65
Pork chops.....do....	20.3	29.5	26.5	29.3	35.7	37.2	32.8	31.3	45	31	44	76	83	62	54
Bacon.....do....	26.7	40.3	37.5	39.9	48.6	49.6	45.3	43.3	51	40	49	82	86	70	62
Ham.....do....	26.5	45.4	44.7	46.6	53.1	57.1	51.9	53.4	71	69	76	100	115	96	102
Lamb, leg of....do....	18.5	35.6	35.5	35.4	38.5	37.7	37.5	37.6	92	92	91	108	104	103	103
Hens.....do....	20.8	33.6	33.4	34.4	36.5	37.2	35.7	37.9	62	61	65	75	79	72	82
Salmon, canned, red .....pound..	.....	31.4	31.3	31.8	36.9	34.1	35.0	31.9	.....	.....	.....	.....	.....	.....	.....
Milk, fresh.....quart..	9.1	13.7	14.3	13.8	14.3	14.2	14.3	14.3	51	57	52	57	56	57	57
Milk, evaporated .....16-oz. can..	.....	11.9	12.2	11.0	11.6	11.4	11.5	11.4	.....	.....	.....	.....	.....	.....	.....
Butter.....pound..	39.7	60.2	60.3	52.5	58.6	59.3	58.4	59.3	52	52	32	48	49	47	49
Oleomargarine (all butter substitutes) .....pound..	.....	28.0	29.5	30.3	31.3	29.6	27.9	27.5	.....	.....	.....	.....	.....	.....	.....
Cheese.....do....	22.5	36.6	37.7	34.9	37.5	37.4	39.0	38.5	63	68	55	67	66	73	71
Lard.....do....	15.8	17.5	18.9	22.1	22.6	20.4	19.2	18.7	11	20	40	43	29	22	18
Vegetable lard substitute.....pound..	.....	23.3	24.0	25.5	25.7	25.4	25.2	24.8	.....	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh .....dozen..	47.6	66.5	64.9	69.8	66.2	65.2	59.6	58.4	40	36	47	39	37	25	23
Eggs, storage....do....	34.5	40.8	41.4	48.2	47.4	46.9	42.9	43.7	18	20	40	37	36	24	27
Bread.....pound..	5.6	8.6	8.7	8.9	9.4	9.4	9.2	9.0	54	55	59	68	68	64	61
Flour.....do....	3.3	4.9	4.5	5.6	6.1	5.6	5.4	5.1	48	36	70	85	70	64	55
Corn meal.....do....	3.1	4.0	4.4	5.2	5.2	5.1	5.2	5.3	29	42	68	68	65	68	71
Rolled oats.....do....	.....	8.7	8.8	9.0	9.1	9.1	9.0	8.9	.....	.....	.....	.....	.....	.....	.....
Corn flakes .....8-oz. package..	.....	9.7	9.7	10.8	11.0	10.9	9.7	9.5	.....	.....	.....	.....	.....	.....	.....
Wheat cereal .....28-oz. package..	.....	25.5	24.3	24.4	25.3	25.4	25.5	25.5	.....	.....	.....	.....	.....	.....	.....
Macaroni.....pound..	.....	20.0	19.6	19.8	20.4	20.2	20.0	19.7	.....	.....	.....	.....	.....	.....	.....
Rice.....do....	8.7	9.5	9.7	10.6	11.4	11.2	10.3	9.9	9	11	22	31	29	18	14
Beans, navy....do....	.....	10.5	10.3	10.1	9.8	9.3	9.5	12.8	.....	.....	.....	.....	.....	.....	.....
Potatoes.....do....	1.8	2.1	2.6	2.3	5.2	4.0	3.0	2.2	17	44	28	189	122	67	22
Onions.....do....	.....	4.6	6.0	5.3	5.7	5.0	4.7	7.1	.....	.....	.....	.....	.....	.....	.....
Cabbage.....do....	.....	3.6	4.1	4.0	4.6	4.2	3.8	4.7	.....	.....	.....	.....	.....	.....	.....
Beans, baked .....No. 2 can..	.....	13.1	12.9	12.6	12.3	11.7	11.4	11.7	.....	.....	.....	.....	.....	.....	.....
Corn, canned....do....	.....	15.2	15.6	17.1	16.9	16.2	15.7	15.9	.....	.....	.....	.....	.....	.....	.....
Peas, canned....do....	.....	17.4	17.7	18.4	17.9	17.3	16.7	16.7	.....	.....	.....	.....	.....	.....	.....
Tomatoes, canned .....No. 2 can..	.....	12.7	12.9	13.7	12.7	12.2	11.8	12.0	.....	.....	.....	.....	.....	.....	.....
Sugar, granulated .....pound..	5.4	8.3	10.4	8.8	6.7	7.3	7.1	6.7	54	93	63	24	35	31	24
Tea.....do....	54.5	68.5	70.2	73.8	75.8	76.9	77.3	77.3	26	29	35	39	41	42	42
Coffee.....do....	29.7	36.7	37.8	50.5	51.3	50.7	48.1	49.7	24	27	70	73	71	62	67
Prunes.....do....	.....	20.1	17.8	17.3	17.1	16.2	13.8	14.1	.....	.....	.....	.....	.....	.....	.....
Raisins.....do....	.....	19.2	16.0	14.6	14.4	14.4	13.7	11.8	.....	.....	.....	.....	.....	.....	.....
Bananas.....dozen..	.....	37.1	39.1	36.9	35.5	34.9	34.8	33.5	.....	.....	.....	.....	.....	.....	.....
Oranges.....do....	.....	48.5	41.5	43.2	48.9	49.3	52.3	47.6	.....	.....	.....	.....	.....	.....	.....
All articles combined [1]	.....	.....	.....	.....	.....	.....	.....	.....	41.0	44.5	45.7	59.2	55.7	50.0	49.9

[1] Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows for the United States average retail prices of specified articles of food for the years 1913 and 1928 and for each month of 1928.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES IN THE UNITED STATES, BY YEARS 1913 AND 1928 AND BY MONTHS FOR 1928

Article	Unit	Average for year 1913	1928												Average for year 1928
			Jan. 15	Feb. 15	Mar. 15	Apr. 15	May 15	June 15	July 15	Aug. 15	Sept. 15	Oct. 15	Nov. 15	Dec. 15	
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	25.4	44.4	44.8	44.9	45.3	46.1	47.4	49.7	51.0	51.8	50.3	49.1	48.2	47.8
Round steak	do	22.3	38.6	38.9	39.1	39.6	40.4	41.6	43.9	45.1	45.8	44.6	43.4	42.7	42.0
Rib roast	do	19.8	32.7	33.1	33.1	33.4	34.1	34.7	36.0	36.6	37.4	36.8	36.3	35.7	35.0
Chuck roast	do	16.0	25.4	25.7	25.8	26.1	26.6	27.6	28.9	29.6	30.4	30.2	29.7	29.1	27.9
Plate beef	do	12.1	17.2	17.5	17.7	17.9	18.2	18.5	19.1	19.6	20.6	20.8	20.8	20.4	19.0
Pork chops	do	21.0	31.3	29.5	28.6	31.3	35.4	34.8	37.3	39.9	44.3	37.6	35.7	31.3	34.8
Bacon, sliced	do	27.0	44.6	43.7	43.0	42.9	43.1	43.2	43.9	44.8	45.4	45.3	44.5	43.3	44.0
Ham, sliced	do	26.9	51.7	51.2	50.5	50.6	51.2	51.7	53.4	55.0	56.0	55.6	54.6	53.4	52.9
Lamb, leg of	do	18.9	37.4	37.5	38.2	39.7	41.5	42.2	41.1	40.2	40.3	38.8	38.0	37.6	39.4
Hens	do	21.3	36.8	37.2	37.2	37.7	37.7	37.1	36.7	36.8	37.9	37.9	38.0	37.9	37.4
Salmon, canned, red	do	-----	35.3	35.4	35.4	35.4	35.4	35.3	35.3	34.2	33.3	32.6	32.3	31.9	34.3
Milk, fresh	Quart	8.9	14.3	14.3	14.2	14.1	14.1	14.0	14.1	14.1	14.2	14.2	14.3	14.3	14.2
Milk, evaporated	(1)	-----	11.5	11.5	11.2	11.1	11.1	11.1	11.1	11.2	11.3	11.3	11.4	11.4	11.3
Butter	Pound	38.3	57.8	56.3	57.3	55.1	54.6	53.9	54.3	55.4	57.6	57.5	58.3	59.3	56.5
Oleomargarine (all butter substitutes.)	do	-----	27.6	27.6	27.4	27.2	27.3	27.3	27.2	27.3	27.4	27.6	27.6	27.5	27.4
Cheese	do	22.1	39.2	39.2	38.5	38.2	38.1	38.1	38.3	38.4	38.7	38.8	38.5	38.5	38.5
Lard	do	15.8	18.9	18.3	17.8	17.8	18.1	18.2	18.4	18.7	19.3	19.5	19.1	18.7	18.6
Vegetable lard substitute.	do	-----	25.0	24.9	24.9	24.9	24.8	24.9	24.9	24.8	24.9	24.9	24.8	24.8	24.9
Eggs, strictly fresh	Dozen	34.5	55.9	43.1	37.0	35.8	37.5	38.8	41.6	45.0	50.4	54.3	59.3	58.4	46.4
Eggs, storage	do	-----	44.7	41.4	-----	-----	-----	-----	-----	-----	-----	43.8	44.0	43.7	-----
Bread	Pound	5.6	9.2	9.2	9.1	9.1	9.1	9.2	9.2	9.2	9.1	9.1	9.1	9.0	9.1
Flour	do	3.3	5.3	5.3	5.3	5.4	5.6	5.7	5.6	5.4	5.3	5.2	5.1	5.1	5.4
Corn meal	do	3.0	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Rolled oats	do	-----	9.0	9.0	9.0	8.9	8.9	8.9	8.9	8.9	9.0	8.9	8.9	8.9	8.9
Corn flakes	(2)	-----	9.7	9.7	9.7	9.6	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.6
Wheat cereal	(3)	-----	25.6	25.6	25.6	25.6	25.6	25.5	25.6	25.6	25.6	25.6	25.5	25.5	25.6
Macaroni	do	-----	20.0	20.0	19.9	19.8	19.9	19.8	19.8	19.8	19.8	19.7	19.7	19.7	19.8
Rice	do	8.7	10.2	10.2	10.1	10.0	10.0	9.9	10.0	9.9	10.0	9.9	9.8	9.9	10.0
Beans, navy	do	-----	9.5	10.1	10.7	11.5	12.0	12.3	12.5	12.6	12.7	12.5	12.5	12.8	11.8
Potatoes	do	1.7	3.0	3.0	3.4	3.5	3.3	2.9	2.3	2.2	2.2	2.2	2.2	2.2	2.7
Onions	do	-----	5.1	5.2	6.3	7.4	7.6	6.4	5.9	5.4	5.8	6.1	6.5	7.1	6.2
Cabbage	do	-----	4.2	4.5	5.2	6.8	8.2	5.5	4.3	4.1	4.2	4.3	4.3	4.7	5.0
Beans, baked	(4)	-----	11.4	11.3	11.4	11.4	11.4	11.4	11.5	11.6	11.6	11.6	11.7	11.7	11.5
Corn, canned	(4)	-----	15.8	15.8	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
Peas, canned	(4)	-----	16.8	16.8	16.7	16.7	16.8	16.8	16.8	16.7	16.8	16.7	16.7	16.7	16.8
Tomatoes, canned	(4)	-----	11.7	11.8	11.7	11.7	11.6	11.6	11.6	11.6	11.6	11.8	11.9	12.0	11.7
Sugar, granulated	Pound	5.5	7.1	7.1	7.1	7.1	7.2	7.3	7.3	7.1	7.0	6.9	6.8	6.7	7.1
Tea	do	54.4	77.4	77.3	77.4	77.2	77.2	77.3	77.4	77.4	77.4	77.5	77.4	77.3	77.4
Coffee	do	29.8	48.5	48.6	48.8	48.9	49.0	49.2	49.2	49.4	49.5	49.6	49.7	49.7	49.2
Prunes	do	-----	13.6	13.6	13.5	13.6	13.6	13.6	13.8	13.8	13.8	13.8	14.0	14.1	13.7
Raisins	do	-----	13.7	13.6	13.6	13.6	13.6	13.6	13.6	13.5	13.0	12.4	12.0	11.8	13.2
Bananas	Dozen	-----	34.6	34.8	33.8	33.0	32.7	32.5	32.1	31.6	32.7	33.1	33.7	33.5	33.2
Oranges	do	-----	51.0	51.0	52.9	55.2	61.9	62.6	62.6	64.2	66.1	64.2	56.5	47.6	58.0

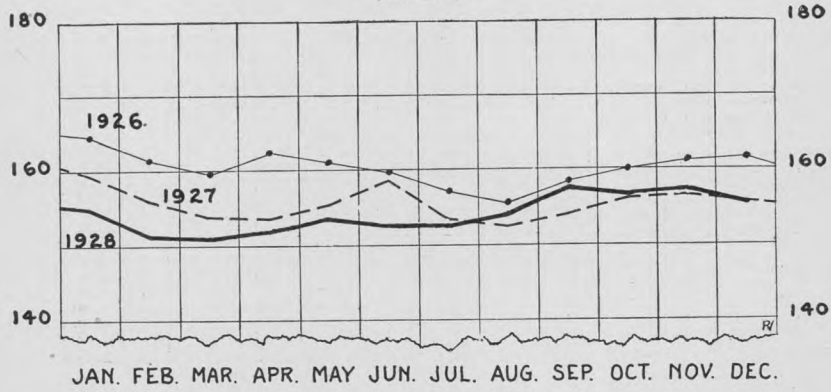
[1] 16-ounce can.
[2] 8-ounce package.
[3] 28-ounce package.
[4] No. 2 can.

Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1928,[2] and by months for 1927 and 1928. These index numbers or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1928 was 188.2, which means that the average money price for the year 1928 was 88.2 per cent higher than the average money price for the year 1913. As compared with

TREND OF RETAIL PRICES OF FOOD

[1913=100]



the relative price, 167.7 in 1927, the figures for 1928 show an increase of 20½ points, but an increase of 12.2 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100 are 157.3 for November, 1928, and 155.8 for December, 1928.

The curve shown in the chart on this page pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

[2] For index numbers of each month, January, 1913, to December, 1926, see Bulletin No. 396, pp. 44 to 61; Bulletin No. 418, pp. 38 to 51; and Bulletin No. 445, pp. 36 to 49.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913, 1920 TO 1928, AND BY MONTHS FOR 1927 AND 1928

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1928	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	175.6	159.6	147.5	174.2
1927: January	160.6	158.3	153.0	141.9	124.0	174.3	181.1	211.2	180.8	158.4	152.5	170.1
February	161.0	158.7	153.5	141.9	123.1	171.0	179.6	210.8	180.8	158.4	153.5	170.1
March	161.8	159.6	153.5	142.5	123.1	174.3	179.3	210.0	181.7	158.4	154.6	168.8
April	164.6	163.2	156.1	145.6	125.6	175.7	178.2	210.8	182.6	157.3	152.5	167.9
May	166.5	165.5	157.6	146.9	125.6	173.3	176.3	209.3	180.3	156.2	139.4	167.4
June	166.9	165.9	157.1	146.9	125.6	165.2	174.4	206.3	170.4	156.2	135.2	167.4
July	171.7	170.0	160.1	149.4	126.4	166.2	172.6	203.0	167.1	157.3	134.2	167.0
August	172.0	170.9	160.1	149.4	126.4	179.5	172.2	201.9	166.2	158.4	134.2	167.4
September	172.4	170.9	160.6	150.0	128.1	193.8	172.2	200.0	166.2	158.4	139.4	170.6
October	172.0	170.0	161.1	151.9	130.6	197.6	172.6	199.3	167.6	159.6	145.4	173.3
November	171.3	169.5	161.1	153.1	133.9	172.9	171.5	197.0	167.1	159.6	147.3	174.7
December	172.8	171.3	163.6	156.9	138.0	156.2	167.8	192.9	167.6	160.7	152.5	176.5
1928: January	174.8	173.1	165.2	158.8	142.1	149.0	165.2	192.2	172.8	160.7	150.9	177.4
February	176.4	174.4	167.2	160.6	144.6	140.5	161.9	190.3	174.6	160.7	147.0	177.4
March	176.8	175.3	167.2	161.3	146.3	136.2	159.3	187.7	174.6	159.6	149.6	174.2
April	178.3	177.6	168.7	163.1	147.9	149.0	158.9	188.1	177.0	158.4	143.9	172.9
May	181.5	181.2	172.2	166.3	150.4	168.6	159.6	190.3	177.0	158.4	142.6	172.4
June	186.6	186.5	175.3	172.5	152.9	165.7	160.0	192.2	174.2	157.3	140.7	172.4
July	195.7	196.9	181.8	180.6	157.9	177.6	162.6	198.5	172.3	158.4	141.8	173.3
August	200.8	202.2	184.8	185.0	162.0	190.0	165.9	204.5	172.8	158.4	144.7	173.8
September	203.9	205.4	188.9	190.0	170.2	211.0	168.1	208.2	177.9	159.6	150.4	175.1
October	198.0	200.0	185.9	188.8	171.9	179.0	167.8	206.7	177.9	159.6	150.1	175.6
November	193.3	194.6	183.3	185.6	171 9	170.0	164.8	203.0	178.4	160.7	152.2	174.2
December	189.8	191.5	180.3	181.9	168.6	149.0	160.4	198.5	177.9	160.7	154.8	174.2

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles [1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1928	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1927: January	126.6	162.0	167.9	169.7	170.0	126.4	235.3	136.4	142.5	168.5	159.3
February	124.1	128.1	167.9	169.7	170.0	124.1	223.5	136.4	142.3	167.4	156.0
March	122.8	102.6	167.9	166.7	170.0	124.1	217.6	134.5	142.6	165.4	153.8
April	120.9	98.3	167.9	166.7	170.0	123.0	217.6	132.7	142.6	163.8	153.6
May	120.3	97.4	167.9	166.7	170.0	121.8	264.7	132.7	142.3	161.7	155.4
June	119.0	97.1	166.1	166.7	173.3	123.0	352.9	132.7	142.1	160.7	158.5
July	119.0	107.0	166.1	166.7	173.3	123.0	247.1	134.5	142.5	159.7	153.4
August	119.6	121.7	166.1	169.7	173.3	123.0	200.0	132.7	142.6	159.1	152.4
September	121.5	141.2	166.1	166.7	173.3	121.8	188.2	130.9	141.9	158.7	154.0
October	124.1	164.1	166.1	166.7	173.3	120.7	176.5	130.9	142.5	159.1	156.1
November	123.4	178.8	166.1	163.6	173.3	119.5	176.5	130.9	142.5	160.4	156.5
December	121.5	172.8	164.3	163.6	173.3	118.4	176.5	129.1	142.1	161.4	155.9
1928: January	119.6	162.0	164.3	160.6	173.3	117.2	176.5	129.1	142.3	162.8	155.1
February	115.8	124 9	164.3	160.6	173.3	117.2	176.5	129.1	142.1	163.1	151.6
March	112.7	107.2	162.5	160.6	173.3	116.1	200.0	129.1	142.3	163.8	151.4
April	112.7	103.8	162.5	163.6	176.7	114.9	205.9	129.1	141.9	164.1	152.1
May	114.6	108.7	162.5	169.7	176.7	114.9	194.1	130.9	141.9	164.4	153.8
June	115.2	112.5	164.3	172.7	176.7	113.8	170.6	132.7	142.1	165.1	152.6
July	116.5	120.6	164.3	169.7	176.7	114.9	135.3	132.7	142.3	165.1	152.8
August	118.4	130.4	164.3	163.6	176.7	113.8	129.4	129.1	142.3	165.8	154.2
September	122.2	146.1	162.5	160.6	176.7	114.9	129.4	127.3	142.3	166.1	157.8
October	123.4	157.4	162.5	157.6	176.7	113.8	129.4	125.5	142.5	166.4	156.8
November	120.9	171.9	162.5	154.5	176.7	112.6	129.4	123.6	142.3	166.8	157.3
December	118.4	169.3	160.7	154.5	176.7	113.8	129.4	121.8	142.1	166.8	155.8

[1] 22 articles in 1913–1920; 43 articles in 1921–1928.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928

[Exact comparisons of prices in different cities can not be made for some articles, particularly meats and vegetables, owing to differences in trade practices]

Article	Atlanta, Ga.			Baltimore, Md.			Birmingham, Ala.			Boston, Mass.			Bridgeport, Conn.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	*Cts*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak--pound--	43.5	49.1	48.1	41.5	45.7	45.1	42.5	50.2	49.4	[1]74.4	[1]76.2	[1]74.7	55.4	57.5	57.5
Round steak----do----	38.5	44.1	43.4	38.3	42.1	41.2	36.8	42.6	42.1	55.3	60.6	60.3	47.8	52.5	52.2
Rib roast----------do----	33.0	36.1	35.3	32.5	36.2	34.6	30.4	34.5	33.9	41.6	44.8	43.1	41.8	43.1	42.5
Chuck roast-----do----	25.5	30.2	29.7	24.6	28.5	27.7	23.3	28.7	27.7	32.0	34.4	33.6	32.1	36.4	36.1
Plate beef--------do----	14.9	19.6	19.6	17.5	21.2	20.9	15.3	18.6	18.2	21.8	23.3	22.9	13.6	17.9	16.5
Pork chops------do----	33.8	33.9	32.5	30.5	33.4	26.9	34.4	34.1	30.8	34.6	38.3	32.2	33.9	37.8	32.1
Bacon, sliced----do----	43.9	42.5	40.9	40.0	39.1	37.8	45.3	43.9	41.3	44.8	43.0	42.0	49.7	49.8	48.3
Ham, sliced------do----	52.9	56.3	56.3	53.8	55.9	54.9	53.0	53.3	53.5	57.9	59.6	57.4	55.7	57.9	57.0
Lamb, leg of----do----	39.4	39.1	39.7	37.7	36.3	35.7	40.9	42.4	41.0	38.1	38.8	38.1	37.8	38.1	37.7
Liens------------do----	36.8	36.9	36.3	37.8	40.3	39.8	33.5	34.5	33.8	38.9	40.7	40.1	39.8	41.5	40.4
Salmon, canned, red ----------pound--	34.5	34.8	34.8	33.1	28.9	28.9	36.3	33.8	34.1	34.5	31.3	30.9	32.3	31.0	31.0
Milk, fresh------quart--	18.0	16.5	16.5	14.0	14.0	14.0	18.3	18.7	18.7	16.5	15.8	15.8	16.0	16.0	16.0
Milk, evaporated ------16-ounce can--	13.5	13.8	14.0	11.5	11.1	10.9	12.4	12.1	12.2	12.1	11.7	11.9	11.6	11.6	11.5
Butter--------pound--	58.0	59.4	59.5	62.5	60.5	61.9	59.0	59.1	60.4	58.6	59.3	60.2	57.6	58.5	58.7
Oleomargarine (all butter substitutes) ----------pound--	26.9	28.4	28.4	27.8	27.6	28.1	32.0	31.6	31.8	28.3	29.3	29.3	26.8	25.2	25.2
Cheese----------do----	38.2	36.9	37.4	37.3	37.1	36.8	39.6	38.2	37.7	40.6	40.6	40.6	42.9	43.4	43.8
Lard------------do----	19.2	18.9	18.9	18.1	17.6	16.4	18.9	18.7	18.1	19.0	18.9	18.5	18.4	18.2	17.9
Vegetable lard substitute--------pound--	22.4	22.2	22.9	22.6	22.3	22.9	22.0	19.8	19.7	25.3	25.5	25.3	25.4	25.4	25.2
Eggs, strictly fresh ----------dozen--	59.5	54.1	55.8	60.0	59.0	59.0	57.3	51.5	56.0	81.7	81.5	73.8	80.3	83.7	78.9
Eggs, storage----do----	46.0	45.8	45.7	39.5	41.4	40.2	42.6	43.3	44.0	50.6	49.4	46.8	46.4	48.3	47.0
Bread---------pound--	10.8	10.8	10.8	9.8	8.6	8.5	10.4	9.9	10.0	8.6	8.6	8.6	8.8	8.8	8.8
Flour-----------do----	6.4	6.7	6.6	5.1	4.7	4.7	6.6	6.5	6.5	5.9	5.4	5.3	5.6	5.2	5.1
Corn meal------do----	4.1	4.4	4.4	4.1	4.2	4.2	4.2	4.1	4.1	6.7	7.0	7.0	7.7	7.2	7.0
Rolled oats------do----	9.6	9.5	9.7	8.2	8.0	8.0	10.2	9.9	9.8	9.0	9.0	9.0	8.4	8.4	8.4
Corn flakes ---8-ounce package--	10.0	9.8	9.8	9.2	8.6	8.6	10.5	9.8	9.9	9.8	9.4	9.3	9.6	9.5	9.4
Wheat cereal ---28-ounce package--	27.1	26.7	26.5	24.6	24.2	24.2	27.6	27.2	27.2	24.9	25.0	25.0	24.6	24.3	24.2
Macaroni------pound--	21.6	21.8	21.8	19.2	18.9	19.0	18.9	18.3	18.0	22.3	21.3	21.0	22.5	22.3	22.1
Rice------------do----	9.3	9.5	10.0	9.7	8.7	8.8	10.4	9.4	9.0	12.1	10.8	10.8	11.1	10.9	10.6
Beans, navy------do----	10.7	14.1	15.1	8.6	12.1	12.4	10.4	13.1	13.3	10.3	12.1	12.3	9.5	12.3	12.5
Potatoes--------do----	4.0	3.5	3.6	2.9	1.7	1.8	4.4	3.4	3.4	3.0	2.0	2.0	3.0	1.9	1.9
Onions----------do----	6.7	8.6	8.9	4.2	6.6	7.1	6.7	7.3	8.0	4.6	7.4	7.8	5.2	6.9	7.3
Cabbage--------do----	4.7	5.0	5.6	3.4	4.1	4.4	5.2	5.1	5.5	4.4	5.1	5.2	3.9	5.1	5.2
Beans, baked ----------No. 2 can--	11.0	11.8	11.5	10.8	10.8	10.8	11.8	11.7	11.7	13.3	12.7	12.7	11.7	11.6	11.6
Corn, canned----do----	17.7	17.9	18.8	14.5	16.2	16.3	16.6	16.9	16.2	17.6	17.6	17.3	19.2	19.2	18.9
Peas, canned----do----	19.7	20.9	19.7	14.8	14.7	15.0	20.8	19.5	19.2	19.9	19.8	19.7	20.9	20.6	20.2
Tomatoes, canned ----------No. 2 can--	10.8	11.7	11.8	10.4	10.8	10.7	11.0	10.7	11.2	11.3	13.0	13.0	13.1	13.6	13.6
Sugar---------pound--	7.5	7.4	7.4	6.4	5.8	5.7	7.5	7.1	7.0	7.1	6.8	6.7	7.0	6.7	6.5
Tea------------do----	103.3	106.4	108.2	71.6	73.0	73.4	98.8	97.8	97.6	72.4	72.5	72.5	60.9	61.0	61.0
Coffee----------do----	48.6	52.2	52.8	44.2	44.9	45.0	51.1	51.5	51.9	52.8	53.8	54.0	47.5	47.7	47.7
Prunes----------do----	14.3	15.2	15.9	11.7	11.7	11.7	17.1	16.2	16.6	13.7	13.6	13.7	15.3	15.3	14.6
Raisins---------do----	15.3	13.2	13.6	12.7	10.8	10.4	15.0	13.0	13.0	12.7	11.3	11.2	14.0	12.5	12.5
Bananas-------dozen--	28.2	28.9	28.6	26.3	24.0	23.5	37.7	37.7	36.8	47.0	44.2	44.2	37.1	34.2	33.3
Oranges---------do----	38.1	36.7	34.4	49.9	50.4	41.8	46.8	48.7	39.9	56.1	61.9	51.8	61.7	69.5	56.6

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	Buffalo, N. Y.			Butte, Mont.			Charleston, S. C.			Chicago, Ill.			Cincinnati, Ohio		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak...pound	43.2	47.5	46.6	33.2	35.9	35.4	32.5	36.2	36.2	49.1	55.6	54.5	40.2	45.4	44.7
Round steak...do	36.9	41.0	39.9	29.8	33.8	33.6	29.7	34.6	35.0	39.1	45.8	44.2	36.6	42.3	41.1
Rib roast...do	32.7	35.5	35.0	27.9	31.9	30.1	26.3	29.1	29.2	37.4	41.3	41.5	32.6	37.0	36.7
Chuck roast...do	26.0	30.7	30.0	20.4	25.0	24.4	20.3	25.2	24.8	28.3	34.8	34.3	24.0	28.4	27.8
Plate beef...do	16.3	19.9	19.1	13.8	17.7	17.1	14.6	18.2	18.9	16.3	20.6	20.7	17.4	21.9	21.4
Pork chops...do	34.3	37.7	31.8	32.7	35.0	31.8	32.0	35.0	33.7	31.1	35.0	30.8	26.9	32.2	27.4
Bacon, sliced...do	40.3	41.2	39.6	51.7	50.4	49.2	37.9	37.8	38.1	49.4	47.7	47.7	39.1	40.4	38.7
Ham, sliced...do	48.2	52.9	52.1	57.9	55.0	52.9	46.1	47.1	47.9	53.4	55.6	54.2	50.2	53.9	53.3
Lamb, leg of...do	33.1	33.4	33.6	35.7	36.7	36.8	39.4	44.0	41.0	37.7	38.0	37.7	35.4	38.8	38.9
Hens...do	37.5	38.8	39.7	31.5	31.9	32.1	35.5	37.7	37.0	36.1	39.2	39.1	36.8	38.4	38.5
Salmon, canned, red ...pound	34.1	30.7	30.9	32.7	32.0	31.6	33.4	29.2	29.2	35.3	34.6	33.8	35.6	31.3	31.1
Milk, fresh...quart	13.0	14.0	14.0	14.0	14.0	14.0	19.0	18.7	19.0	14.0	14.0	14.0	13.3	14.0	14.0
Milk, evaporated ...16-ounce can	11.3	11.1	11.1	11.1	10.8	11.2	11.8	11.8	11.8	11.3	11.3	11.1	11.3	11.3	11.3
Butter...pound	59.9	58.9	60.7	55.6	56.4	56.4	53.9	56.2	56.9	58.8	57.0	58.3	58.7	60.0	61.4
Oleomargarine (all butter substitutes) ...pound	28.1	27.7	27.7	-----	-----	-----	29.2	28.9	29.0	27.2	26.9	26.4	28.7	28.9	28.9
Cheese...do	39.2	39.8	39.4	37.5	38.2	38.2	37.1	35.2	34.9	43.8	43.8	43.1	40.6	39.8	39.5
Lard...do	18.6	18.1	17.9	23.2	22.0	22.7	20.7	18.9	18.7	19.6	19.3	19.0	16.8	18.4	17.6
Vegetable lard substitute...pound	25.8	25.5	25.4	30.3	30.6	30.3	21.9	21.7	21.4	26.6	26.1	25.8	26.1	25.6	25.6
Eggs, strictly fresh ...dozen	63.8	62.5	58.4	61.9	57.5	60.5	57.3	56.5	54.6	61.2	58.6	58.9	60.6	57.9	53.4
Eggs, storage...do	43.4	43.8	44.4	36.7	42.3	44.4	39.2	40.5	40.5	45.6	46.7	46.6	41.4	43.4	43.4
Bread...pound	8.7	8.7	8.4	9.8	9.8	9.8	10.9	11.0	11.0	9.9	9.9	9.9	8.6	8.5	8.6
Flour...do	4.8	4.6	4.6	5.3	4.9	4.9	6.8	6.7	6.6	4.9	4.5	4.5	5.5	5.5	5.3
Corn meal...do	5.2	5.1	5.0	6.3	6.4	6.3	3.9	4.0	3.9	6.8	7.0	6.9	4.4	4.6	4.5
Rolled oats...do	8.8	8.8	8.7	7.6	7.6	7.6	9.5	9.2	9.3	8.6	8.4	8.3	8.9	9.0	9.0
Corn flakes ...8-ounce package	9.4	9.2	9.2	10.5	10.5	10.3	9.9	9.9	10.1	9.4	9.3	9.2	9.6	9.6	9.6
Wheat cereal ...28-ounce package	24.8	24.9	24.9	28.5	28.1	28.5	25.7	25.4	25.6	25.6	25.3	25.3	25.1	24.9	24.9
Macaroni...pound	21.5	21.2	21.2	19.7	19.9	19.9	18.9	18.7	18.5	18.9	18.9	18.5	18.5	18.5	18.5
Rice...do	9.9	9.4	9.4	11.0	11.1	11.3	6.9	6.8	6.7	10.6	10.4	10.6	9.8	9.5	9.4
Beans, navy...do	9.3	12.1	12.6	9.9	11.5	12.2	10.1	14.3	14.5	9.7	12.4	12.8	8.4	12.5	12.9
Potatoes...do	2.8	1.9	1.8	1.6	1.5	1.5	3.4	2.6	2.5	2.9	2.1	2.1	3.0	2.3	2.3
Onions...do	5.4	6.8	7.6	4.2	5.8	6.1	5.3	7.2	8.3	4.9	6.4	7.2	4.7	6.3	6.9
Cabbage...do	3.0	3.8	4.1	4.1	3.5	4.5	4.1	5.3	5.3	4.5	4.3	4.9	3.3	4.4	4.8
Beans, baked ...No. 2 can	10.0	10.5	10.5	13.4	13.7	13.8	9.9	10.2	10.6	12.6	13.1	12.5	10.4	11.2	11.1
Corn, canned...do	16.0	15.8	15.6	14.6	15.0	14.8	14.2	14.2	14.4	15.8	15.5	15.8	15.2	15.5	15.5
Peas, canned...do	16.2	16.0	15.5	13.5	13.8	13.8	16.4	16.2	16.2	16.2	17.0	16.6	17.1	16.6	16.6
Tomatoes, canned ...No. 2 can	13.1	12.4	12.5	12.8	12.8	12.8	9.8	10.2	10.2	13.8	13.8	13.7	11.7	12.7	12.6
Sugar...pound	6.8	6.3	6.4	8.6	8.0	8.2	6.7	6.4	6.4	6.8	6.7	6.5	7.3	7.2	7.2
Tea...do	69.0	68.1	68.1	83.1	82.6	82.6	82.4	82.4	81.5	71.4	69.2	69.3	79.1	80.0	80.0
Coffee...do	45.7	47.6	47.5	54.1	55.5	55.5	43.8	46.9	46.7	47.0	47.6	49.7	44.7	46.3	46.7
Prunes...do	13.5	13.9	13.9	14.8	14.5	14.5	10.7	12.2	12.3	15.6	15.4	15.8	13.7	14.2	14.3
Raisins...do	13.0	11.5	11.2	14.6	13.8	12.9	12.8	10.2	9.9	14.4	12.2	12.3	14.1	12.4	12.2
Bananas...dozen	43.3	40.9	41.0	[2]12.8	[2]13.0	[2]13.4	27.5	27.5	27.5	40.9	38.9	37.8	38.9	40.6	40.6
Oranges...do	59.0	61.5	52.4	58.8	61.2	50.7	31.3	27.9	27.8	61.5	58.4	51.6	47.2	52.7	41.8

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	Cleveland, Ohio			Columbus, Ohio			Dallas, Tex.			Denver, Colo.			Detroit, Mich.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak..pound..	42.7	45.3	44.3	41.8	48.6	46.7	37.5	44.5	44.1	35.2	40.7	39.3	45.0	51.0	50.1
Round steak....do....	36.3	40.4	39.6	37.4	43.2	42.3	34.0	40.7	41.2	32.3	37.2	35.5	37.1	42.8	42.0
Rib roast.....do....	29.7	33.5	33.2	32.3	38.7	36.3	28.8	36.4	36.8	26.5	30.4	30.2	33.5	37.4	36.8
Chuck roast....do....	25.9	30.3	30.0	26.6	33.0	32.0	24.3	31.4	29.8	21.1	26.2	25.7	25.8	30.5	29.8
Plate beef.....do....	16.1	20.2	19.5	17.3	22.8	22.2	19.0	24.0	23.1	13.2	17.3	16.5	16.2	19.8	19.3
Pork chops.....do....	31.4	34.6	29.3	32.8	33.5	28.9	36.5	37.7	35.9	30.7	34.3	30.9	32.1	37.3	31.7
Bacon, sliced....do....	43.7	42.5	42.0	47.7	44.8	43.2	48.9	47.1	47.1	44.7	43.0	41.9	45.3	46.0	44.0
Ham, sliced.....do....	51.8	55.3	54.2	53.1	53.3	53.3	54.0	57.7	56.4	52.8	53.3	52.4	54.6	59.7	58.3
Lamb, leg of....do....	35.2	36.3	36.3	43.3	43.7	43.4	44.2	45.6	45.0	35.8	34.7	34.5	37.9	39.2	38.3
Hens.....do....	35.3	38.9	38.9	37.4	38.5	38.3	32.9	35.1	33.8	28.4	31.5	31.8	37.0	39.5	40.3
Salmon, canned, red ..pound..	35.0	31.8	31.2	37.1	35.0	32.3	39.7	34.7	34.2	37.4	32.7	31.6	35.9	30.3	30.0
Milk, fresh....quart..	14.0	13.7	13.7	12.0	12.0	12.0	13.0	13.0	13.0	12.0	12.0	12.0	14.0	14.0	14.0
Milk, evaporated ....16-ounce can..	11.4	11.2	11.2	11.6	11.5	11.5	13.5	13.9	13.5	10.7	10.7	10.7	11.4	11.1	11.2
Butter.....pound..	63.0	60.5	61.9	60.6	58.2	59.4	57.5	58.8	60.2	54.3	53.5	54.3	59.8	58.5	59.9
Oleomargarine (all butter substitutes) ..pound..	28.6	28.5	28.8	27.9	27.4	27.4	31.2	28.7	28.7	24.7	25.0	24.8	26.9	26.4	26.4
Cheese.....do....	39.6	39.4	40.3	38.0	36.9	36.7	38.7	38.2	38.4	40.1	39.5	39.8	41.2	38 9	39.4
Lard.....do....	20.9	20.2	19.5	17.1	17.2	16.2	23.2	20.9	20.8	19.3	19.3	19.0	19.2	18.9	18.3
Vegetable lard substitute.....pound..	27.1	26.4	26.3	26.4	27.8	27.8	24.6	23.3	23.5	22.7	21.1	21.6	26.8	26.3	26.2
Eggs, strictly fresh ..dozen..	65.0	62.6	59.9	57.6	51.2	54.7	56.4	53.8	59.2	56.5	56.8	58.6	62.8	59.3	60.2
Eggs, storage....do....	41.9	44.1	43.9	42.8	41.0	41.0	-----	44.7	42.0	41.5	44.7	44.3	43.2	41.1	42.1
Bread.....pound..	7.7	7.8	7.8	7.7	7.8	7.8	9.5	9.3	9.3	8.0	7.7	7.7	8.2	8.2	8.1
Flour.....do....	5.5	5.2	5.1	4.9	5.1	4.9	5.5	5.3	5.4	4.3	4.0	3.9	5.3	4.6	4.6
Corn meal.....do....	5.4	5.4	5.6	4.1	4.2	4.2	4.6	4.6	4.6	4.5	4.5	4.5	5.6	6.0	6.0
Rolled oats.....do....	9.4	9.0	9.0	9.2	9.3	9.1	10.4	10.1	10.1	7.6	7.6	7.6	9.6	9.1	9.1
Corn flakes ...8-ounce package..	9.9	9.8	9.9	9.7	9.6	10.0	10.5	10.1	10.2	9.5	9.5	9.6	9.9	9.4	9.3
Wheat cereal ..28-ounce package..	25.5	25.8	25.4	26.2	26.7	26.6	27.8	27.6	27.8	24.5	24.6	24.5	25.6	25.9	25.8
Macaroni.....pound..	22.1	20.6	20.8	20.4	20.4	19.8	21.7	20.7	21.5	19.3	19.8	19.7	21.7	21.2	20.9
Rice.....do....	10.7	9.5	9.6	12.0	11.0	11.4	11.8	11.9	11.9	9.5	9.1	9.0	11.2	11.1	11.1
Beans, navy....do....	8.8	12.3	12.5	8.9	12.5	13.1	11.3	13.3	13.3	9.4	11.7	12.2	8.9	12.2	12.6
Potatoes.....do....	3.1	2.2	2.2	2.7	2.0	2.0	5.0	4.3	4.3	2.1	1.7	1.8	2.5	1.5	1.5
Onions.....do....	4.1	6.6	7.0	4.6	6.8	7.6	6.7	7.6	7.1	3.8	4.8	5.4	4.1	6.3	6.6
Cabbage.....do....	3.7	4.4	5.2	4.0	4.4	5.2	5.5	5.5	5.2	3.0	2.8	3.6	3.4	3.3	3.7
Beans, baked .....No. 2 can..	12.8	12.0	12.2	12.0	11.8	12.1	12.7	12.6	12.8	10.9	11.5	11.1	11.2	11.9	12.0
Corn, canned....do....	16.5	16.4	16.5	14.4	14.3	13.9	18.8	18.4	18.5	14.1	13.7	14.0	16.0	15.8	15.8
Peas, canned....do....	17.8	16.8	17.2	14.8	14.8	14.8	22.1	22.5	22.0	15.3	14.9	14.9	16.8	16.2	16.4
Tomatoes, canned .....No. 2 can..	14.1	13.5	13.3	12.8	12.8	12.8	13.2	12.3	12.3	11.9	11.6	11.7	12.5	12.6	12.7
Sugar.....pound..	7.5	7.2	7.2	7.8	7.4	7.3	8.0	7.5	7.5	7.5	7.4	7.4	7.4	7.0	7.0
Tea.....do....	81.2	80.7	80.9	88.8	86.5	86.1	107.5	104.8	104.8	67.2	70.0	69.8	72.7	74.3	74.3
Coffee.....do....	51.7	51.6	51.5	48.4	49.6	48.6	57.8	59.4	59.4	49.4	50.1	49.7	48.5	48.8	48.8
Prunes.....do....	13.4	13.9	14.0	14.5	16.2	16.2	19.8	17.2	16.9	14.3	14.3	14.8	15.0	14.5	14.8
Raisins.....do....	13.5	12.3	11.7	13.8	11.3	10.8	15.6	14.4	13.8	13.6	10.8	10.9	13.8	11.8	11.7
Bananas.....dozen..	[2]11.3	[2]9.9	[2]10.0	38.6	38.0	40.6	35.0	34.0	33.3	[2]11.2	[2]10.9	[2]10.8	36.1	36.0	34.0
Oranges.....do....	57.7	58.1	50.2	52.2	56.6	55.1	51.6	60.8	53.2	55.8	61.1	50.4	58.0	68.5	53.8

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 15 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	Fall River, Mass.			Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.			Kansas City, Mo.		
	1927	1928		1927	1928		1927	1928		1927	1928		1927	1928	
	Dec. 15	Nov. 15	Dec. 15	Dec. 15	Nov. 15	Dec. 15	Dec. 15	Nov. 15	Dec. 15	Dec. 15	Nov. 15	Dec. 15	Dec. 15	Nov. 15	Dec. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak, pound	[3]67.9	[3]70.3	[3]70.3	36.0	38.9	37.5	40.2	46.9	46.3	35.0	39.1	38.6	39.9	47.5	45.8
Round steak, do	51.2	56.5	56.4	35.0	38.2	37.3	38.7	44.4	43.8	30.9	34.6	34.6	34.7	42.1	40.5
Rib roast, do	35.4	39.8	38.5	28.0	30.2	29.7	29.4	34.9	34.2	26.9	30.3	30.3	27.6	33.3	32.8
Chuck roast, do	25.8	29.9	30.3	22.5	24.9	24.2	25.4	30.8	30.3	20.6	23.9	24.5	21.7	27.5	26.5
Plate beef, do	15.7	18.8	18.0	19.7	21.2	21.5	16.2	22.1	21.8	13.4	15.3	15.5	15.7	20.3	19.9
Pork chops, do	34.6	36.2	30.5	35.2	34.4	29.9	30.5	33.6	29.5	31.4	30.9	30.2	26.6	33.6	26.5
Bacon, sliced, do	42.3	42.0	40.9	44.5	41.8	40.6	42.1	42.4	41.3	39.5	40.0	37.3	44.0	43.0	40.8
Ham, sliced, do	53.2	52.6	52.3	50.0	49.1	46.6	51.2	55.6	52.9	45.8	48.6	48.2	49.0	51.3	50.2
Lamb, leg of, do	40.9	41.5	40.4	32.0	32.2	34.2	39.0	40.4	40.0	38.4	38.0	40.8	35.2	33.7	33.5
Hens, do	42.4	44.0	43.7	31.8	37.0	36.3	34.8	41.3	42.2	33.9	35.9	35.0	31.0	33.8	33.1
Salmon, canned, red, pound	35.5	34.4	34.0	33.5	31.0	30.9	34.2	33.6	33.2	35.0	31.9	31.9	36.2	35.4	34.8
Milk, fresh, quart	15.0	14.7	14.7	15.6	15.2	15.4	12.0	13.0	13.0	20.3	20.3	20.3	13.0	13.0	13.0
Milk, evaporated, 16-ounce can	12.7	12.6	12.5	11.7	11.4	11.3	10.8	10.5	10.6	11.7	11.7	11.7	11.7	11.3	11.5
Butter, pound	54.6	57.3	58.1	56.2	56.6	59.1	58.9	58.0	59.8	55.7	56.9	57.9	56.0	56.6	57.6
Oleomargarine (all butter substitutes), pound	28.8	27.4	27.5	27.4	24.6	24.6	29.3	28.6	28.6	29.9	30.1	29.6	26.1	25.3	24.6
Cheese, do	40.6	41.8	41.6	35.5	33.7	34.0	39.1	42.9	42.3	37.2	35.1	34.9	38.2	36.8	37.5
Lard, do	18.4	18.6	17.7	20.4	19.8	19.5	17.4	17.4	16.3	21.3	19.3	19.2	18.3	18.9	18.2
Vegetable lard substitute, pound	26.3	26.9	26.6	18.1	16.5	16.6	27.4	26.9	27.2	21.6	21.7	21.7	26.6	26.4	26.4
Eggs, strictly fresh, dozen	88.1	80.7	79.2	50.2	45.4	50.6	58.1	51.6	56.1	59.8	66.0	59.0	53.6	49.4	51.1
Eggs, storage, do	46.8	51.6	51.3	39.8	38.0	42.1	46.0	42.3	39.0	39.7	47.0	44.8	39.3	41.4	41.1
Bread, pound	9.0	8.8	9.0	8.5	8.0	8.0	8.1	7.9	7.9	11.0	10.1	10.1	9.7	9.6	9.5
Flour, do	5.6	5.6	5.5	5.2	4.9	4.9	5.5	5.2	5.2	6.7	6.0	6.1	5.0	4.8	4.7
Corn meal, do	6.8	7.1	7.4	4.3	4.3	4.3	4.2	4.1	4.1	4.2	4.3	4.3	5.0	5.3	5.3
Rolled oats, do	9.7	9.5	9.5	8.8	8.5	8.5	8.5	8.2	8.3	9.2	9.4	9.4	9.0	8.9	8.9
Corn flakes, 8-ounce package	10.0	9.8	9.9	9.1	8.9	8.9	9.4	8.9	9.0	9.9	9.6	9.7	9.8	9.7	9.6
Wheat cereal, 28-ounce package	25.0	25.0	25.0	25.2	25.2	25.9	26.8	26.0	25.7	24.8	24.7	24.7	26.7	27.1	27.1
Macaroni, pound	24.0	23.7	22.9	18.1	18.5	18.7	19.2	18.8	19.1	19.2	18.8	19.0	19.8	20.0	19.9
Rice, do	10.7	10.8	11.2	7.6	7.0	7.3	10.5	10.9	11.0	8.3	7.4	7.6	9.6	9.3	9.0
Beans, navy, do	10.2	12.6	12.8	9.7	12.3	12.3	8.6	12.8	13.0	9.6	13.2	13.1	9.5	12.7	13.5
Potatoes, do	3.1	1.9	1.8	4.2	3.6	3.5	2.7	1.8	1.8	3.5	3.0	2.7	2.4	1.6	1.8
Onions, do	5.0	7.6	7.7	4.8	6.7	7.3	5.6	6.4	7.3	5.7	7.9	8.1	5.1	7.4	7.8
Cabbage, do	4.8	5.8	5.9	5.0	4.8	5.3	4.0	4.2	4.6	3.6	4.7	4.9	3.7	3.8	4.8
Beans, baked, No. 2 can	11.6	12.6	12.4	10.9	10.9	10.8	10.3	10.3	11.2	10.5	10.8	10.6	12.2	12.3	12.5
Corn, canned, do	16.1	16.5	16.7	13.4	14.4	14.2	14.0	14.0	14.0	18.0	18.0	18.7	14.2	14.8	14.7
Peas, canned, do	17.5	19.1	19.0	13.0	14.8	14.8	14.3	14.8	14.5	18.1	17.2	17.4	15.1	14.9	15.2
Tomatoes, canned, No. 2 can	12.4	12.5	13.3	9.7	9.9	10.2	12.9	12.6	13.0	9.7	11.1	11.0	11.6	11.3	11.4
Sugar, pound	7.1	6.8	6.8	6.8	6.7	6.7	7.4	7.2	7.2	7.2	7.0	6.9	7.4	7.2	7.2
Tea, do	63.2	58.8	58.2	84.1	85.7	84.8	87.3	83.9	83.9	98.7	97.4	93.4	94.1	92.4	92.1
Coffee, do	48.9	50.6	50.6	42.0	44.4	44.4	47.6	47.9	47.5	46.4	48.3	48.5	50.3	52.6	52.1
Prunes, do	14.1	14.1	13.9	12.7	13.0	13.2	15.9	16.5	16.2	14.9	15.2	15.2	13.7	13.9	14.4
Raisins, do	13.8	12.8	12.2	12.3	10.8	10.6	14.9	13.8	13.0	14.9	12.7	12.6	14.5	12.4	12.4
Bananas, dozen	[2]10.3	[2]9.3	[2]9.8	26.3	27.1	26.4	31.5	29.5	30.0	27.9	31.7	34.0	[2]10.8	[2]10.9	[2]10.9
Oranges, do	50.5	49.8	47.8	40.1	51.9	43.9	50.4	52.2	47.0	33.1	29.2	20.0	55.2	64.3	51.1

[2] Per pound.

[3] The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.			Memphis, Tenn.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak--pound	36.7	44.1	42.9	39.8	45.1	45.5	37.6	42.9	42.9	[1] 61.0	[1] 63.1	[1] 62.4	38.9	48.7	47.6
Round steak----do	34.6	39.6	39.5	33.6	38.5	38.3	34.6	38.3	37.5	47.2	53.8	53.2	36.4	45.9	43.8
Rib roast----do	29.1	35.6	34.3	31.3	35.9	35.5	27.5	31.8	30.8	30.8	34.2	33.8	28.9	35.1	35.1
Chuck roast----do	22.5	28.5	28.6	23.2	27.9	27.8	21.6	26.7	25.3	25.5	30.2	29.5	22.4	28.9	28.6
Plate beef----do	17.3	21.3	21.4	16.4	20.8	21.0	17.7	21.7	21.9	17.1	22.2	24.4	19.2	22.4	21.8
Pork chops----do	29.5	33.4	31.4	38.7	42.8	38.7	28.1	31.3	28.0	32.3	35.8	30.5	29.1	32.9	28.4
Bacon, sliced----do	45.8	44.4	42.1	53.9	51.7	50.1	45.8	44.6	44.2	38.9	38.5	36.9	38.9	36.4	35.8
Ham, sliced----do	50.4	52.9	51.5	66.3	69.1	67.6	46.5	50.4	48.8	42.7	47.4	45.5	50.6	52.5	52.1
Lamb, leg of----do	38.1	39.4	37.6	37.4	38.0	37.6	38.6	38.4	37.0	36.0	37.3	37.7	35.2	36.0	36.7
Hens----do	28.7	31.0	31.1	42.8	47.1	46.8	34.4	37.3	36.8	41.8	42.1	42.3	30.9	33.7	33.2
Salmon, canned, red ----pound	35.3	32.6	32.8	35.4	29.9	30.2	34.3	30.5	30.5	35.4	30.2	30.2	30.4	33.4	32.9
Milk, fresh----quart	15.0	14.0	15.0	15.0	15.0	15.0	13.0	13.0	13.0	15.0	15.0	15.0	15.0	15.0	15.0
Milk, evaporated ----16-ounce can	12.1	11.8	11.6	10.1	10.0	10.0	11.9	11.8	11.8	12.9	12.7	12.6	11.6	11.5	11.5
Butter----pound	55.8	56.1	56.8	57.3	58.6	60.0	59.8	59.2	61.0	56.8	59.1	60.5	57.3	57.7	58.5
Oleomargarine (all butter substitutes) ----pound	27.6	27.1	26.6	25.8	25.6	25.6	26.6	27.6	27.8	23.5	27.1	28.6	25.3	24.4	24.4
Cheese----do	38.5	36.8	37.0	38.5	38.4	38.5	39.2	38.0	36.8	38.9	39.1	38.8	38.4	35.8	36.1
Lard----do	21.9	20.1	20.0	21.0	20.9	20.6	17.3	18.7	17.7	18.4	18.3	17.8	16.2	16.4	16.2
Vegetable lard substitute----pound	21.1	20.9	20.8	24.6	24.1	24.2	27.9	26.9	26.4	26.5	26.2	26.5	22.8	21.7	21.7
Eggs, strictly fresh ----dozen	55.0	48.5	53.4	49.9	59.9	53.6	60.4	49.5	58.8	67.3	69.9	69.1	51.4	47.1	51.8
Eggs, storage----do	40.7	41.8	42.3	42.0	45.3	45.3	----	----	41.5	46.8	50.0	50.2	38.3	40.0	40.5
Bread----pound	9.5	9.3	9.4	8.5	8.6	8.6	9.2	9.2	9.2	8.7	8.7	8.7	9.5	9.5	9.4
Flour----do	6.2	6.0	6.1	5.1	4.9	4.9	6.1	6.1	6.1	5.5	5.0	5.0	6.0	6.0	6.0
Corn meal----do	3.9	4.1	4.0	5.6	5.9	5.8	4.0	4.0	4.1	5.2	5.3	5.2	3.6	3.8	3.9
Rolled oats----do	10.2	10.6	10.6	10.0	9.9	9.9	8.5	8.7	8.7	8.8	8.6	8.6	9.0	8.9	8.9
Corn flakes ---8-ounce package	10.3	9.8	9.8	9.5	9.4	9.4	9.5	9.4	9.4	9.6	9.1	9.0	9.8	9.8	9.8
Wheat cereal --28-ounce package	27.2	27.3	27.0	24.9	25.0	25.0	25.2	26.5	26.6	25.7	25.4	25.4	25.7	25.5	25.8
Macaroni----pound	20.8	20.3	20.2	18.5	18.1	18.1	18.9	18.8	18.5	23.5	23.2	23.2	19.4	19.5	19.5
Rice----do	8.1	7.7	8.3	9.8	10.1	9.9	11.1	10.6	10.4	9.5	9.0	8.9	8.3	8.3	8.2
Beans, navy----do	9.0	13.1	13.3	9.5	12.1	12.3	8.4	12.8	12.9	9.2	12.2	12.5	9.4	12.4	13.0
Potatoes----do	3.5	2.9	2.8	3.0	2.5	2.6	2.9	2.1	2.1	2.6	1.6	1.7	3.2	3.0	3.0
Onions----do	5.5	7.6	7.6	4.8	5.5	6.9	4.6	7.1	7.2	4.6	6.8	7.0	4.7	6.3	6.9
Cabbage----do	4.3	4.8	5.4	4.3	5.3	5.5	3.9	4.4	4.8	3.2	4.4	4.8	3.4	3.8	4.3
Beans, baked ----No. 2 can	10.2	11.6	11.5	10.8	11.3	11.3	10.2	11.2	11.2	12.8	13.2	13.6	11.0	11.3	11.3
Corn, canned---do	16.5	15.8	16.3	15.7	16.0	16.3	15.4	15.1	15.3	16.5	16.0	16.2	14.6	14.4	14.0
Peas, canned----do	17.7	18.3	18.2	16.7	17.1	17.0	15.2	15.5	15.3	18.6	17.2	17.8	15.0	15.0	15.6
Tomatoes, canned ----No. 2 can	10.1	10.4	10.6	[4] 14.7	[4] 14.9	[4] 15.0	10.5	11.0	11.0	12.3	12.4	12.1	10.1	9.9	9.9
Sugar----pound	7.8	7.4	7.4	6.8	6.4	6.4	7.3	7.4	7.5	7.3	6.8	6.8	6.9	6.8	668
Tea----do	101.0	104.9	105.7	73.8	74.9	74.9	89.6	93.8	93.8	65.2	65.6	65.8	98.4	97.6	96..
Coffee----do	52.8	54.6	54.6	51.7	54.0	54.0	47.0	51.6	51.6	49.5	51.6	50.9	47.6	48.9	48.9
Prunes----do	14.7	15.0	16.3	12.7	13.0	13.5	14.5	16.0	15.8	13.7	13.1	13.1	14.1	14.1	14.0
Raisins----do	15.0	14.0	14.0	11.8	10.2	10.5	13.7	12.1	11.7	13.3	11.7	10.8	14.2	13.2	12.5
Bananas----dozen	[2] 9.5	[2] 9.1	[2] 9.4	[2] 9.9	[2] 9.3	[2] 8.8	[2] 10.0	[2] 10.1	[2] 10.1	[2] 9.7	[2] 9.2	[2] 9.5	[2] 9.0	[2] 8.7	[2] 9.4
Oranges----do	47.1	58.0	48.9	54.8	53.0	48.5	41.7	45.9	36.9	55.7	58.3	50.1	42.0	40.5	35.4

[1] The steak for which prices are quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

[2] Per pound.

[4] No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	Milwaukee, Wis.			Minneapolis, Minn.			Mobile, Ala.			Newark, N. J.			New Haven, Conn.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak...pound..	40.8	44.9	44.4	34.8	41.6	40.9	35.9	42.8	42.2	49.0	54.8	52.7	58.7	64.1	62.5
Round steak....do....	36.0	40.4	40.0	31.2	36.6	37.1	35.5	42.0	40.3	46.9	52.5	50.1	47.6	53.7	53.8
Rib roast.....do....	29.4	33.6	32.4	28.0	31.6	33.0	29.1	32.2	32.2	40.0	41.3	40.3	39.2	42.8	41.5
Chuck roast.....do....	26.3	31.3	29.8	23.3	27.7	28.8	23.8	26.7	26.1	29.2	33.3	31.8	30.0	35.4	34.5
Plate beef.....do....	16.3	20.4	19.7	15.0	18.3	18.4	18.4	22.4	21.9	17.2	20.5	19.9	16.4	20.2	18.0
Pork chops.....do....	28.4	33.8	28.4	30.2	35.8	31.5	37.3	36.1	29.4	33.6	37.9	33.4	33.8	37.5	32.5
Bacon, sliced.....do....	46.1	44.8	43.7	46.7	47.0	46.4	42.8	43.3	40.4	43.9	44.6	43.3	45.9	46.0	45.4
Ham, sliced.....do....	46.8	50.8	48.1	48.5	52.8	51.8	49.6	50.9	50.0	52.0	55.6	55.6	58.5	60.5	58.4
Lamb, leg of.....do....	37.0	38.5	38.1	33.7	33.6	33.5	40.7	43.3	42.0	36.9	39.3	37.8	38.5	39.3	38.0
Hens.....do....	31.2	34.0	34.0	33.4	33.9	35.4	35.0	33.0	33.0	35.7	39.4	38.4	40.1	42.1	41.6
Salmon, canned, red ..pound..	34.2	33.0	32.3	36.1	35.3	35.4	34.4	31.6	30.6	32.8	30.1	29.7	34.3	33.5	33.5
Milk, fresh.....quart..	11.0	11.0	11.0	12.0	12.0	12.0	18.0	18.0	18.0	16.0	16 0	16.0	16.0	16.0	16.0
Milk, evaporated ..16-ounce can..	11.3	11.1	11.1	11.8	11.7	11.6	11.5	11.3	11.4	11.1	11.0	11.0	12.1	12.0	11.9
Butter.....pound..	58.6	56.6	57.9	57.1	56.0	57.3	57.0	57.9	58.5	61.7	60.4	61.7	55.6	57.9	58.8
Oleomargarine (all butter substitutes) ..pound..	27.1	26.7	26.7	25.6	26.4	26.4	29.4	30.6	29.5	30.5	30.0	30.0	29.1	29.1	29.0
Cheese.....do....	38.0	37.6	37.7	37.5	37.1	37.4	38.1	36.6	36.1	39.9	40.6	40.3	40.3	41.6	41.6
Lard.....do....	19.6	19.3	19.0	18.5	19.7	19.3	19.7	18.3	18.8	19.5	19.9	18.9	18.7	19.2	18.6
Vegetable lard substitute.....pound..	26.5	26.3	26.3	27.1	26.7	26.7	21.3	20.0	20.1	25.6	25.5	25.5	25.6	25.9	25.9
Eggs, strictly fresh ..dozen..	61.5	56.6	54.3	53.9	46.4	47.4	53.4	53.0	52.4	70.6	69.9	65.8	82.6	80.7	79.5
Eggs, storage.....do....	39.0	39.6	39.6	40.0	38.1	37.4	43.6	44.9	44.5	43.1	45.1	43.4	47.5	49.9	50.2
Bread.....pound..	9.1	8.7	8.7	8.7	8.9	8.9	10.1	10.1	10.1	9.1	9.1	9.1	9.2	9.0	8.8
Flour.....do....	4.7	4.4	4.4	5.1	4.6	4.6	6.1	6.0	6.0	5.2	4.8	4.8	5.2	5.2	5.1
Corn meal.....do....	5.7	5.8	5.9	5.4	5.6	5.7	4.1	4.0	4.0	6.9	6.7	6.7	7.0	6.8	6.7
Rolled oats.....do....	8.4	8.1	8.2	8.1	7.8	7.7	8.5	8.5	8.5	8.2	8.1	8.1	9.3	9.3	9.3
Corn flakes ..8-ounce package..	9.3	9.2	9.2	9.8	9.6	9.4	9.5	9.2	9.4	9.2	8.8	8.8	10.2	10.0	10.0
Wheat cereal ..28-ounce package..	24.7	24.6	24.6	25.6	25.4	25.4	24.5	25.0	25.0	24.2	24.6	25.2	24.1	24.8	24.5
Macaroni.....pound..	17.8	17.7	17.7	18.8	18.0	17.7	20.7	21.3	21.3	21.4	21.5	21.5	22.2	22.4	22.0
Rice.....do....	10.3	10.3	10.2	10.2	9.3	9.5	9.3	8.4	8.1	10.2	9.5	9.1	10.0	10.4	10.2
Beans, navy.....do....	8.7	12.9	13.3	9.9	13.3	13.3	9.2	12.2	12.2	10.1	13.1	13.0	9.5	11.9	12.0
Potatoes.....do....	2.5	1.5	1.6	2.2	1.3	1.4	4.0	3.0	3.1	3.3	2.3	2.3	3.2	2.1	2.9
Onions.....do....	4.5	5.6	7.1	4.3	5.6	7.1	4.6	6.3	6.5	4.8	7.2	7.7	5.3	6.8	7.3
Cabbage.....do....	3.3	3.1	4.2	2.9	2.6	3.6	4.5	4.8	4.4	4.4	5.1	5.3	4.5	5.2	5.3
Beans, baked ..No. 2 can..	10.9	11.6	11.6	11.8	12.0	11.8	10.3	10.5	10.5	10.3	11.0	10.8	11.5	11.9	11.9
Corn, canned.....do....	15.9	16.2	16.2	14.2	14.8	14.8	15.8	14.8	14.4	15.3	16.9	16.5	18.1	18.1	18.1
Peas, canned.....do....	15.7	15.9	15.7	14.7	15.0	15.2	15.6	15.9	15.9	17.9	17.1	17.5	18.6	21.1	21.1
Tomatoes, canned ..No. 2 can..	13.4	13.2	13.6	13.3	12.8	12.9	10.2	10.3	9.8	10.5	10.8	11.0	12.8	13.3	13.4
Sugar.....pound..	6.8	6.5	6.5	7.3	6.9	6.7	7.0	6.9	6.4	6.7	6.4	6.4	7.0	6.7	6.6
Tea.....do....	70.3	68.8	69.3	60.8	68.9	67.5	80.0	80.8	80.8	60.1	57.8	58.9	58.9	60.3	60.7
Coffee.....do....	43.0	45.0	45.4	50.8	53.8	53.7	48.4	48.8	48.8	47.4	49.3	49.4	49.9	51.9	51.6
Prunes.....do....	14.0	13.7	14.2	14.6	15.1	14.5	12.7	12.8	12.5	13.0	13.3	13.2	13.9	14.4	14.3
Raisins.....do....	13.9	12.6	12.5	13.4	12.3	12.1	13.4	10.7	10.3	14.5	11.8	11.1	13.7	12.9	12.6
Bananas.....dozen..	[2]10.1	[2]9.7	[2]9.9	[2]11.5	[2]10.6	[2]11.1	24.4	24.2	25.0	38.0	36.3	38.8	33.4	34.1	33.6
Oranges.....do....	52.6	64.3	55.5	59.4	61.3	47.4	43.9	48.4	35.6	57.8	60.9	46.0	53.1	67.1	55.8

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	New Orleans, La.			New York, N. Y.			Norfolk, Va.			Omaha, Nebr.			Peoria, Ill.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak---pound	37.0	43.3	42.4	50.6	53.9	52.5	42.3	47.2	46.8	38.9	46.9	45.3	34.8	39.7	38.9
Round steak----do	33.3	38.6	38.2	47.1	50.9	50.0	37.0	41.5	40.9	36.1	44.1	41.6	34.0	38.8	37.7
Rib roast-------do	31.0	35.5	35.7	43.0	44.9	44.1	32.6	39.0	38.4	26.5	32.4	31.9	25.6	31.3	29.5
Chuck roast ----do	22.5	25.7	25.6	29.5	31.4	30.6	24.4	28.1	27.8	23.1	29.3	28.1	22.8	27.9	26.3
Plate beef-------do	19.4	22.5	22.9	23.6	26.4	25.7	17.5	20.9	20.3	14.6	18.7	19.0	15.3	19.7	18.7
Pork chops------do	32.7	36.3	30.8	36.9	39.9	36.1	32.0	32.9	30.6	30.5	34.8	29.3	31.3	31.9	28.0
Bacon, sliced----do	44.5	44.4	44.3	47.8	46.4	45.0	43.1	42.8	41.4	48.1	45.2	45.2	47.7	43.8	42.9
Ham, sliced-----do	46.8	51.5	48.5	56.5	58.8	57.5	46.3	47.2	46.3	49.3	53.4	51.8	50.4	49.2	49.2
Lamb, leg of----do	38.5	38.4	37.7	36.3	37.3	35.8	40.5	40.3	40.0	37.6	36.8	35.3	39.4	38.5	37.6
Hens------------do	36.0	37.1	36.7	37.5	39.8	39.1	36.5	38.0	37.5	29.8	32.0	31.6	32.2	34.4	34.5
Salmon, canned, red ----------pound	37.0	35.9	35.9	34.6	30.8	30.6	35.7	35.4	33.7	35.8	34.1	34.0	35.5	33.8	33.4
Milk, fresh-----quart	14.0	14.0	14.0	16.0	16.0	16.0	18.0	18.0	18.0	11.3	11.3	11.3	13.0	13.0	13.0
Milk, evaporated ------16-ounce can	11.2	11.0	11.0	11.1	10.9	10.8	11.8	11.5	11.4	11.8	11.4	11.1	11.3	11.2	11.1
Butter--------pound	58.5	58.6	59.9	61.3	59.4	60.6	60.5	60.6	61.2	53.9	54.1	54.8	55.9	54.4	55.9
Oleomargarine (all butter substitutes)-------pound	29.4	28.6	28.5	27.3	28.5	28.6	25.0	26.1	26.7	26.4	26.8	26.9	28.9	28.0	27.0
Cheese----------do	39.9	38.9	38.9	40.5	41.3	40.5	37.5	35.0	35.3	38.7	36.4	36.3	38.3	36.5	36.2
Lard-------------do	19.3	18.7	18.6	20.3	20.1	19.7	19.1	18.8	18.6	20.2	20.3	19.8	19.2	18.8	18.5
Vegetable lard substitute--------pound	19.6	20.3	19.4	25.5	25.7	25.7	23.0	21.7	21.6	25.6	25.2	25.4	27.7	27.6	27.6
Eggs, strictly fresh ----------dozen	48.7	47.6	50.4	73.2	74.5	70.6	63.0	62.9	60.3	51.1	42.8	47.4	60.2	49.8	57.0
Eggs, storage----do	38.7	39.5	39.2	42.9	43.2	43.7	47.5	46.4	45.4	40.1	37.8	39.3	40.1	41.2	42.0
Bread---------pound	8.7	8.9	8.8	9.6	8.6	8.6	9.9	9.9	9.9	9.7	9.6	9.7	10.0	10.0	10.0
Flour----------do	6.6	6.6	6.6	5.4	4.8	4.9	5.5	5.4	5.4	4.5	4.4	4.5	5.2	4.7	4.7
Cornmeal-------do	4.4	4.3	4.2	6.5	6.6	6.7	4.6	4.7	4.8	4.6	4.6	4.6	4.9	4.9	4.9
Rolled Oats-----do	8.9	8.6	8.6	8.6	8.5	8.7	8.4	8.8	8.7	10.1	10.3	10.2	9.3	8.6	8.6
Cornflakes ---8-ounce package	9.6	9.6	9.4	9.1	8.9	9.0	9.7	9.7	9.7	10.1	10.1	10.1	10.1	9.9	9.6
Wheat cereal --28-ounce package	24.6	24.6	24.9	23.9	24.6	24.6	24.8	24.9	25.3	27.8	27.6	27.6	26.1	25.8	25.7
Macaroni-----pound	10.7	10.5	10.9	21.1	20.7	20.7	19.0	19.0	19.1	21.3	21.1	20.8	18.6	18.8	18.4
Rice-------------do	9.2	8.5	8.7	9.9	9.7	9.9	11.4	10.7	10.7	11.0	10.9	10.9	11.3	10.0	10.1
Beans, navy------do	8.9	11.4	11.9	10.2	13.2	13.3	8.5	12.3	12.4	10.1	13.3	13.4	9.0	12.4	12.8
Potatoes--------do	3.8	3.1	3.3	3.5	2.5	2.5	3.7	2.1	2.5	2.3	1.5	1.6	2.4	1.6	1.7
Onions----------do	4.4	5.3	6.4	5.0	6.6	7.1	4.8	7.0	7.5	5.3	6.1	7.0	5.0	7.1	7.4
Cabbage--------do	4.1	4.7	5.0	3.6	4.7	4.9	4.2	4.7	5.0	3.4	3.6	4.4	3.1	4.2	4.7
Beans, baked ----------No. 2 can	10.6	11.1	10.8	11.0	11.6	11.4	9.9	10.7	10.7	12.9	13.1	13.3	11.1	10.2	10.6
Corn, canned---do	14.7	15.6	15.6	14.5	14.7	14.8	14.8	14.7	15.1	16.3	15.7	15.6	15.3	14.8	14.6
Peas, canned----do	17.6	16.4	16.1	14.7	15.1	15.3	17.4	17.7	17.4	15.9	15.5	15.5	17.4	17.5	17.4
Tomatoes, canned ----------No. 2 can	10.3	10.9	11.0	11.0	11.7	11.5	9.7	10.1	10.2	13.2	13.4	13.4	12.9	12.4	12.3
Sugar---------pound	6.6	6.1	6.1	6.2	6.0	6.0	6.8	6.7	6.7	7.3	7.1	6.9	8.3	7.5	7.2
Tea-------------do	79.5	80.9	80.9	66.5	67.2	67.1	96.4	94.7	94.7	77.8	77.0	77.0	70.5	66.0	66.3
Coffee----------do	35.4	35.0	34.9	46.4	45.4	45.4	48.8	51.0	51.0	53.7	53.6	53.6	48.1	49.4	49.4
Prunes----------do	14.3	13.8	13.8	12.2	12.9	13.5	13.3	13.7	14.0	14.0	14.5	14.8	17.1	14.9	15.4
Raisins---------do	13.2	10.2	10.0	13.2	12.0	11.8	13.5	11.8	11.5	14.7	13.3	13.0	14.2	12.1	12.2
Bananas-------dozen	17.5	17.9	17.5	37.8	39.1	38.7	34.5	32.1	29.2	[2]11.9	[2]11.2	[2]11.4	[2]11.2	[2] 9.8	[2] 9.8
Oranges---------do	46.9	51.7	49.4	62.7	67.3	56.8	51.1	59.5	46.2	54.4	56.1	48.7	49.7	54.3	51.7

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	Philadelphia, Pa.			Pittsburgh, Pa.			Portland, Me.			Portland, Oreg.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak, pound	[1] 61.4	[1] 62.8	[1] 62.4	50.3	55.6	63.5	[1] 64.3	[1] 67.5	[1] 67.8	31.3	36.2	36.0
Round steak, do	46.8	49.0	49.0	41.3	46.9	46.0	47.7	51.2	51.2	29.1	34.6	34.1
Rib roast, do	40.4	42.5	41.7	36.6	40.9	39.7	32.5	36.1	35.6	26.2	29.6	29.6
Chuck roast, do	30.4	35.4	34.5	28.5	34.8	32.7	23.1	27.7	26.4	20.4	25.2	25.0
Plate beef, do	15.8	20.6	20.1	16.4	21.8	20.7	19.3	25.9	25.3	15.7	19.6	19.0
Pork chops, do	36.3	37.8	35.4	34.6	36.3	31.0	33.1	38.0	31.1	34.6	34.6	34.3
Bacon, sliced, do	43.9	42.7	42.0	49.3	48.3	47.1	43.6	42.0	40.6	51.7	51.6	50.3
Ham, sliced, do	53.3	58.4	56.8	56.7	60.5	61.6	51.0	53.8	52.8	54.8	54.7	52.8
Lamb, leg of, do	39.8	40.6	41.7	40.4	40.5	39.3	36.2	37.8	37.5	35.4	35.9	37.0
Hens, do	39.8	41.9	41.9	41.2	46.2	46.1	40.1	41.9	41.9	32.2	35.3	35.1
Salmon, canned, red, do	34.4	29.3	29.3	33.0	30.6	30.5	35.2	30.7	29.5	35.7	32.4	31.6
Milk, fresh, quart	13.0	13.0	13.0	15.0	15.0	15.0	15.0	15.0	15.0	12.0	12.0	12.0
Milk, evaporated, 16-ounce can	11.7	11.3	11.5	11.2	11.0	11.0	12.5	12.3	12.3	10.5	10.1	10.1
Butter, pound	63.7	61.8	62.8	63.2	60.8	61.7	58.8	59.5	60.8	57.8	59.2	58.6
Oleomargarine (all butter substitutes), pound	29.0	29.5	29.0	31.5	28.5	28.7	26.7	26.9	26.9	25.3	26.1	26.1
Cheese, do	41.0	42.8	42.1	41.4	41.9	41.3	39.5	39.5	40.1	38.3	38.5	38.5
Lard, do	18.1	18.6	18.4	19.9	19.2	18.6	18.6	18.7	18.2	20.6	19.6	19.7
Vegetable lard substitute, do	25.0	25.2	25.2	27.5	27.8	27.8	26.6	26.0	26.0	28.6	28.4	29.4
Eggs, strictly fresh, dozen	68.5	66.4	64.6	65.4	60.6	63.3	72.4	74.8	66.9	47.1	54.4	49.4
Eggs, storage, do	45.2	44.7	44.1	45.2	42.6	44.5	48.8	48.6	49.9	35.0	43.0	43.0
Bread, pound	9.4	8.3	8.4	8.6	9.0	9.0	10.2	10.1	9.4	9.2	9.3	9.3
Flour, do	5.0	4.7	4.7	5.0	4.7	4.7	5.3	5.1	5.0	4.7	4.7	4.7
Corn meal, do	5.0	5.2	5.2	5.9	6.0	5.9	5.0	5.3	5.3	5.6	5.6	5.8
Rolled oats, do	8.5	8.3	8.3	9.1	9.1	9.1	7.8	7.8	7.9	10.4	10.4	10.4
Corn flakes, 8-ounce package	9.4	8.9	8.8	9.9	9.8	9.8	9.8	9.4	9.6	9.6	9.6	9.6
Wheat cereal, 28-ounce package	24.6	25.2	24.6	25.1	24.6	24.7	25.5	25.8	25.8	26.8	26.6	26.8
Macaroni, pound	20.9	20.3	20.3	23.4	22.7	22.6	24.2	22.9	23.5	18.3	18.3	18.5
Rice, do	11.1	10.5	10.4	11.2	11.1	11.3	11.9	11.1	11.0	9.7	10.2	10.0
Beans, navy, do	9.4	11.8	12.2	9.0	12.3	12.7	9.8	12.4	12.3	9.6	12.8	12.7
Potatoes, do	3.6	2.2	2.3	2.9	2.0	2.3	2.8	1.8	1.8	2.2	2.1	2.2
Onions, do	4.2	6.4	6.9	4.8	7.1	7.5	4.4	6.3	7.5	3.7	5.0	5.7
Cabbage, do	2.9	4.9	5.4	3.7	4.5	5.1	2.4	3.6	3.6	3.5	3.8	4.8
Beans, baked, No. 2 can	10.8	11.3	11.4	12.6	12.9	13.0	14.2	15.2	15.0	12.0	12.7	12.2
Corn, canned, do	14.3	15.4	15.5	16.3	16.3	16.5	14.4	14.4	14.2	18.4	17.9	17.9
Peas, canned, do	14.6	15.5	16.1	17.3	17.1	17.2	17.4	18.2	17.8	17.8	17.0	17.0
Tomatoes, canned, do	11.6	11.8	12.0	11.5	12.5	12.4	12.2	11.8	11.7	[4] 17.3	[4] 15.6	[4] 15.6
Sugar, pound	6.6	6.2	6.1	7.3	7.0	7.0	7.1	6.6	6.8	7.0	6.6	6.7
Tea, do	67.8	70.4	69.0	82.8	82.3	80.9	62.2	62.4	62.4	76.4	78.0	78.0
Coffee, do	40.4	44.2	43.9	47.6	49.7	49.2	50.1	53.2	52.8	51.9	53.3	53.2
Prunes, do	12.8	12.2	12.0	14.2	14.1	14.5	13.3	12.4	12.2	9.9	13.8	13.4
Raisins, do	13.2	11.2	11.0	13.6	11.9	12.0	13.3	11.2	11.0	12.9	10.6	11.2
Bananas, dozen	33.0	30.2	30.3	42.4	39.6	41.9	[2] 11.7	[2] 11.0	[2] 11.0	[2] 11.9	[2] 10.5	[2] 10.9
Oranges, do	49.4	55.2	44.2	52.0	56.4	49.6	56.0	65.3	47.8	55.9	57.9	45.8

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most other cities included in this report it would be known as "porterhouse" steak.
[2] Per pound.
[4] No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	Providence, R. I.			Richmond, Va.			Rochester, N. Y.			St. Louis, Mo.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak, pound	[1] 76.4	[1] 80.8	[1] 80.4	42.2	48.6	47.9	43.8	47.1	46.0	39.7	46.1	45.0
Round steak, do	53.0	58.2	56.9	37.3	43.5	42.1	37.3	40.7	39.6	38.5	44.3	43.6
Rib roast, do	41.1	44.8	44.5	33.6	36.9	35.7	32.6	35.5	34.1	32.5	36.5	35.9
Chuck roast, do	31.7	36.4	35.7	24.5	30.3	28.5	27.7	31.9	30.5	23.3	29.6	28.8
Plate beef, do	19.3	25.6	24.7	17.6	22.1	22.1	15.7	19.4	19.4	16.2	21.2	20.5
Pork chops, do	35.5	40.7	35.0	33.6	35.9	30.9	35.3	37.8	31.5	28.8	33.2	26.0
Bacon, sliced, do	41.2	41.7	40.7	42.7	40.3	38.5	40.6	39.6	38.7	41.9	41.0	39.6
Ham, sliced, do	55.0	57.3	55.3	46.1	45.7	45.5	51.4	53.0	51.2	51.0	53.2	51.5
Lamb, leg of, do	38.2	39.8	39.0	41.5	44.4	43.6	37.9	36.5	37.1	35.7	35.9	36.5
Hens, do	39.6	42.9	41.9	34.3	35.9	36.4	39.2	40.9	40.5	31.8	35.0	35.7
Salmon, canned, red, do	33.9	32.1	30.6	35.3	33.3	33.0	36.4	31.8	32.3	35.3	32.7	32.4
Milk, fresh, quart	15.7	15.7	15.7	14.0	14.0	14.0	13.5	13.5	13.5	13.0	13.0	13.0
Milk, evaporated, 16-ounce can	12.2	11.9	11.8	12.5	12.3	12.3	11.3	11.5	11.5	10.9	10.8	10.8
Butter, pound	54.1	57.3	57.6	60.6	61.7	63.3	56.2	57.7	59.1	61.3	59.9	62.1
Oleomargarine (all butter substitutes), pound	27.5	26.9	26.5	30.7	29.9	30.0	29.0	28.7	28.8	26.8	27.4	27.2
Cheese, do	38.3	38.4	38.6	37.1	36.9	36.9	39.9	39.9	39.9	38.6	37.4	37.8
Lard, do	18.4	18.6	18.0	19.1	18.6	18.3	18.1	18.1	17.7	15.6	16.0	15.2
Vegetable lard substitute, do	26.2	26.6	26.3	25.6	25.8	25.6	25.6	26.0	26.0	25.3	25.3	25.4
Eggs, strictly fresh, dozen	69.4	78.9	69.6	58.4	54.4	56.0	64.6	69.3	64.8	54.2	52.3	52.0
Eggs, storage, do	47.5	45.3	44.6	41.7	43.6	43.7	44.9	48.3	47.5	36.8	40.9	39.7
Bread, pound	9.0	9.0	9.1	9.3	8.7	8.8	9.0	9.1	9.0	9.9	9.4	9.4
Flour, do	5.6	5.3	5.2	5.4	5.3	5.2	5.2	5.0	5.0	5.1	5.0	4.8
Corn meal, do	5.1	5.0	5.0	4.8	4.9	4.9	6.2	6.3	6.2	4.3	4.3	4.4
Rolled oats, do	9.0	9.0	8.9	8.5	8.6	8.7	9.2	9.2	9.4	8.4	8.1	8.1
Corn flakes, 8-ounce package	9.5	9.4	9.6	9.7	9.6	9.6	9.5	9.2	9.2	9.1	9.0	9.1
Wheat cereal, 28-ounce package	25.1	24.8	24.8	25.9	26.0	26.0	25.6	25.7	25.7	24.7	24.7	24.7
Macaroni, pound	23.1	22.8	22.8	20.9	20.2	20.2	20.8	20.5	20.5	20.1	20.1	19.9
Rice, do	10.8	10.1	9.8	11.4	11.2	11.0	9.9	8.9	9.2	9.9	10.0	10.0
Beans, navy, do	9.9	12.9	13.0	9.5	13.3	13.5	9.3	12.1	12.8	8.4	12.3	12.4
Potatoes, do	2.9	1.8	1.8	3.2	2.4	2.5	2.6	1.5	1.5	3.0	2.0	2.4
Onions, do	4.6	7.0	7.0	5.0	7.2	7.7	4.3	6.0	6.6	5.1	6.5	7.0
Cabbage, do	3.9	4.8	5.1	3.9	4.9	4.7	2.2	3.2	3.4	3.5	3.5	4.4
Beans, baked, No. 2 can	10.8	11.2	11.3	10.1	11.1	11.0	10.2	10.7	10.6	10.2	10.4	10.4
Corn, canned, do	16.8	17.3	17.1	15.2	15.7	15.4	16.3	16.6	16.4	14.7	15.4	15.3
Peas, canned, do	18.7	18.3	18.4	18.5	17.8	17.9	17.5	17.7	17.2	14.7	14.7	14.8
Tomatoes, canned, do	12.9	12.9	12.9	10.1	10.9	10.9	13.6	14.4	14.8	11.0	10.9	11.1
Sugar, pound	6.9	6.4	6.4	7.0	6.8	6.7	6.4	6.2	6.2	6.9	6.8	6.7
Tea, do	61.1	60.4	60.6	92.2	91.9	91.9	69.0	72.8	71.6	75.7	75.7	78.6
Coffee, do	50.0	52.3	52.4	45.8	47.7	47.6	46.0	49.1	49.1	45.8	46.9	47.6
Prunes, do	13.0	13.5	13.7	14.1	15.1	14.7	14.1	14.4	14.2	14.8	15.0	15.2
Raisins, do	13.6	12.7	12.6	12.9	11.8	11.4	13.5	12.7	12.5	13.4	11.3	11.4
Bananas, dozen	31.4	33.6	31.9	39.0	36.4	36.5	38.3	31.5	36.7	32.1	32.3	32.5
Oranges, do	59.3	61.1	54.8	46.8	48.4	40.4	51.3	64.1	52.0	50.3	49.2	48.5

[1] The steak for which prices are here noted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	St. Paul, Minn.			Salt Lake City, Utah			San Francisco, Calif.			Savannah, Ga.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak, pound	38.7	41.9	40.4	33.8	38.7	38.1	35.8	41.2	41.1	35.4	40.5	40.5
Round steak, do	34.1	36.6	36.4	31.8	37.7	37.5	34.0	40.1	40.1	28.8	34.5	34.5
Rib roast, do	31.8	33.7	33.1	26.5	29.6	29.8	33.7	36.9	36.7	27.9	32.3	30.9
Chuck roast, do	25.9	27.9	27.1	21.9	26.2	26.2	22.7	27.2	27.1	19.0	23.4	22.9
Plate beef, do	15.5	17.9	17.5	15.2	19.2	19.3	18.7	21.8	22.0	15.2	19.8	18.8
Pork chops, do	28.5	32.6	27.1	34.4	36.0	33.8	40.5	41.9	39.4	31.1	30.0	27.7
Bacon, sliced, do	44.6	43.6	42.5	46.9	45.4	45.0	56.8	56.5	55.9	40.7	39.6	38.5
Ham, sliced, do	44.7	49.7	46.4	54.2	56.3	55.9	61.4	62.8	62.8	43.8	45.4	44.6
Lamb, leg of, do	31.9	30.6	29.8	34.5	36.8	36.7	39.6	39.7	39.0	40.0	39.0	37.5
Hens, do	30.2	31.9	32.1	30.5	35.2	35.2	42.6	43.5	43.7	30.8	32.0	33.1
Salmon, canned, red, do	38.3	36.1	35.3	34.5	33.2	33.2	33.3	28.9	28.4	34.6	33.1	33.0
Milk, fresh, quart	12.0	12.0	12.0	11.0	10.0	10.0	14.0	14.0	14.0	17.0	17.0	17.5
Milk, evaporated, 16-ounce can	11.9	11.9	11.9	10.5	10.2	10.2	10.1	10.0	10.0	11.5	11.3	11.2
Butter, pound	55.1	53.8	56.6	53.4	54.2	54.6	58.5	58.8	59.9	59.1	59.4	60.0
Oleomargarine (all butter substitutes), pound	25.1	24.1	24.4	26.8	25.5	25.0	25.8	25.3	25.3	30.9	30.3	30.5
Cheese, do	37.9	37.2	36.8	31.0	31.5	31.3	39.8	40.7	39.9	37.5	35.2	35.4
Lard, do	18.7	19.4	19.1	21.4	21.7	20.5	23.3	23.1	22.6	19.6	18.4	18.1
Vegetable lard substitute, do	28.7	28.1	28.1	28.9	29.5	29.3	28.3	27.3	27.5	17.7	16.9	16.9
Eggs, strictly fresh, dozen	54.6	48.0	46.4	45.4	49.9	51.3	49.4	55.5	49.7	58.2	58.6	56.2
Eggs, storage, do	40.8	39.9	38.1	-----	45.0	43.0	45.0	43.8	42.5	43.6	41.7	41.9
Bread, pound	9.5	9.3	9.3	9.7	9.6	9.6	9.5	9.1	9.1	10.7	10.6	10.7
Flour, do	5.2	4.7	4.7	4.1	3.7	3.6	5.6	5.4	5.3	6.6	6.5	6.5
Corn meal, do	5.2	5.1	5.1	5.6	5.9	5.9	6.3	7.3	7.2	3.7	3.7	3.5
Rolled oats, do	10.1	10.1	10.1	8.7	8.6	8.6	10.0	10.1	10.1	8.7	8.4	8.3
Corn flakes, 8-ounce package	10.0	10.1	10.1	10.4	10.2	10.2	10.1	9.7	9.7	9.7	9.8	9.8
Wheat cereal, 28-ounce package	26.5	26.3	26.3	25.8	25.5	25.1	25.3	25.1	25.2	24.5	24.4	24.4
Macaroni, pound	18.3	18.6	18.2	19.6	19.7	19.7	15.9	16.3	16.3	18.5	17.8	18.2
Rice, do	11.0	10.9	10.9	8.6	8.7	8.7	10.7	9.3	9.6	9.8	9.0	8.7
Beans, navy, do	9.8	13.1	13.7	8.7	10.7	11.3	9.8	11.5	11.6	9.7	13.5	13.9
Potatoes, do	1.8	1.2	1.2	1.8	1.6	1.6	3.0	2.6	2.7	3.7	2.9	3.0
Onions, do	4.2	5.7	6.9	2.6	4.4	4.7	3.8	4.9	5.7	5.7	7.3	7.5
Cabbage, do	3.4	2.8	4.0	2.8	2.9	3.4	-----	-----	-----	4.5	5.1	5.2
Beans, baked, No. 2 can	13.7	13.6	13.9	13.1	12.2	12.6	12.7	12.9	13.0	12.2	11.8	11.4
Corn, canned, do	14.6	15.1	14.9	14.9	14.3	14.4	18.1	17.5	17.6	14.8	15.1	15.1
Peas, canned, do	15.5	14.9	14.9	15.6	14.6	15.0	17.8	18.0	18.2	16.6	16.3	16.0
Tomatoes, canned, do	14.0	14.4	14.2	14.0	[4] 13.9	[4] 13.7	[4] 14.7	[4] 14.7	[4] 14.7	10.0	10.0	10.0
Sugar, pound	7.3	7.0	7.1	8.1	7.2	7.2	6.9	6.3	6.4	6.9	6.6	6.5
Tea, do	63.2	66.7	67.0	87.0	85.4	85.4	72.8	71.5	71.3	82.7	77.6	75.3
Coffee, do	51.7	53.4	52.8	54.3	54.3	54.3	52.6	54.3	54.4	45.5	46.8	47.3
Prunes, do	14.2	14.1	14.5	12.9	13.0	13.2	11.2	11.5	11.6	13.3	13.6	13.3
Raisins, do	15.2	13.9	13.8	12.9	12.1	12.1	11.9	10.3	10.3	14.0	11.8	11.8
Bananas, dozen	[2] 12.0	[2] 10.3	[2] 10.9	[2] 12.3	[2] 13.1	[2] 12.7	31.9	30.2	29.7	31.7	30.0	28.5
Oranges, do	57.7	64.9	53.9	51.3	55.9	45.6	50.6	57.6	52.2	42.5	42.1	30.5

[2] Per pound.

[4] No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES, DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Contd.

Article	Scranton, Pa.			Seattle, Wash.			Springfield, Ill.			Washington, D. C.		
	Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928		Dec. 15, 1927	1928	
		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15		Nov. 15	Dec. 15
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak, pound	54.7	63.5	62.5	35.7	41.5	41.8	36.8	43.9	40.9	48.2	55.6	53.7
Round steak, do	45.3	52.5	52.1	32.3	37.5	37.9	35.9	42.5	40.0	41.6	48.9	48.2
Rib roast, do	39.6	44.8	44.5	29.4	34.1	33.8	25.2	31.5	30.9	34.4	39.5	39.2
Chuck roast, do	31.2	36.2	36.2	22.9	26.9	27.1	23.1	29.1	27.4	26.5	33.4	31.3
Plate beef, do	14.6	20.6	19.8	16.7	20.9	21.5	15.6	21.6	20.4	15.0	22.1	21.0
Pork chops, do	37.3	38.3	33.6	37.8	37.4	35.1	27.5	31.6	25.5	32.2	36.1	31.6
Bacon, sliced, do	47.1	48.6	47.3	55.4	56.2	54.8	44.5	43.6	41.4	43.0	41.4	40.4
Ham, sliced, do	55.0	59.3	58.2	58.2	60.7	60.0	46.8	50.9	48.6	56.5	58.8	57.7
Lamb, leg of, do	43.5	43.6	43.4	35.3	37.4	37.2	37.5	39.0	37.9	38.5	39.4	38.9
Hens, do	42.4	44.5	43.8	32.9	35.9	36.1	33.6	33.0	34.7	38.2	41.7	41.6
Salmon, canned, red, do	35.9	34.4	33.6	35.3	33.7	33.2	35.7	34.3	33.8	34.0	31.1	30.1
Milk, fresh, quart	13.0	13.0	13.0	12.0	12.0	12.0	14.4	14.4	14.4	15.0	15.0	15.0
Milk, evaporated, 16-ounce can	11.9	11.9	11.9	10.5	10.3	10.3	11.8	11.9	12.0	12.1	11.9	11.8
Butter, pound	57.2	59.5	59.9	57.7	58.7	56.4	58.7	56.9	58.6	61.7	60.8	61.7
Oleomargarine (all butter substitutes), pound	28.4	26.0	27.3	26.0	25.1	25.4	28.2	28.8	27.8	28.5	27.1	26.9
Cheese, do	37.3	38.8	39.3	35.4	35.7	35.5	39.3	37.2	36.8	41.4	40.8	41.1
Lard, do	19.7	20.1	19.7	20.9	20.3	19.9	18.5	19.3	18.4	17.8	18.1	17.0
Vegetable lard substitute, do	25.7	26.0	25.8	26.9	27.1	26.9	27.7	27.8	27.8	24.3	24.3	24.2
Eggs, strictly fresh, dozen	70.9	68.5	70.4	47.6	53.9	47.7	59.1	49.6	54.5	65.0	64.1	63.4
Eggs, storage, do	45.7	47.0	52.0	41.5	43.3	41.0	41.4	43.7	42.8	46.5	49.8	46.6
Bread, pound	10.6	10.0	9.9	9.7	9.6	9.6	10.3	10.0	10.1	9.1	8.9	8.9
Flour, do	5.8	5.5	5.4	4.6	4.7	4.7	5.3	4.8	4.7	5.6	5.5	5.4
Corn meal, do	7.5	7.6	7.6	5.5	5.9	5.8	4.8	4.8	4.8	5.5	5.1	5.2
Rolled oats, do	9.8	9.8	9.8	8.6	8.7	8.7	10.1	10.0	9.9	9.4	9.1	9.1
Corn flakes, 8-ounce package	10.1	9.9	9.9	10.2	9.7	9.8	10.2	9.8	9.7	9.5	9.4	9.3
Wheat cereal, 28-ounce package	25.3	25.6	25.4	27.1	26.7	26.6	27.6	28.8	28.8	24.3	25.0	24.9
Macaroni, pound	23.2	22.5	22.2	18.2	17.9	17.8	18.6	19.0	19.0	22.5	22.0	22.0
Rice, do	10.4	10.4	10.2	11.1	10.6	10.3	11.0	10.2	10.2	11.2	11.0	11.2
Beans, navy, do	10.9	12.1	12.3	10.2	12.5	12.6	9.3	13.0	12.9	9.2	12.9	12.8
Potatoes, do	3.0	1.8	1.8	1.9	1.7	1.8	2.6	1.6	1.8	3.5	2.6	2.4
Onions, do	4.6	5.9	6.5	3.5	5.5	5.9	4.4	6.8	7.6	4.5	6.7	7.6
Cabbage, do	3.3	4.3	4.5	3.7	3.6	5.2	3.6	3.5	4.5	4.5	4.8	5.5
Beans, baked, No. 2 can	11.2	12.0	11.9	11.8	11.4	11.0	10.2	11.1	11.2	10.1	10.8	10.8
Corn, canned, do	16.9	17.3	16.8	17.4	18.2	18.0	15.1	15.0	14.9	15.5	15.2	15.6
Peas, canned, do	17.6	17.8	17.9	18.4	18.3	18.1	16.1	15.9	15.7	15.6	15.0	14.9
Tomatoes, canned, do	12.4	12.7	12.7	[4] 16.1	[4] 15.8	[4] 15.9	14.0	14.0	14.0	10.5	10.5	10.5
Sugar, pound	7.0	6.8	6.8	7.1	6.6	6.6	7.7	7.4	7.3	6.7	6.4	6.2
Tea, do	71.2	68.1	68.1	76.0	78.0	77.1	84.2	83.5	83.1	90.4	95.2	95.2
Coffee, do	49.7	51.2	50.7	49.9	52.3	52.1	49.7	51.7	51.6	44.1	48.1	47.3
Prunes, do	14.9	14.0	14.3	12.0	12.8	13.1	14.3	14.2	14.2	14.5	14.9	15.4
Raisins, do	13.9	12.4	11.9	13.2	11.2	10.8	14.1	12.3	11.6	13.7	13.2	12.4
Bananas, dozen	33.3	30.4	30.4	[2] 13.0	[2] 11.0	[2] 10.9	[2] 10.1	[2] 9.6	[2] 9.4	37.0	32.5	31.8
Oranges, do	58.1	64.9	59.9	52.5	58.8	44.6	58.5	66.4	53.8	51.5	49.7	40.4

[2] Per pound.

[4] No. 2½ can.

Table 6 shows by index numbers the trend in the retail cost of food in the United States from 1890 to 1928. The percentage decrease in the cost from 1927 to 1928 was 0.7, while the percentage increase from 1890 to 1928 was 122. This means that the cost of food in 1928 was nearly two and a quarter times as much as it was in 1890.

TABLE 6.—INDEX NUMBERS SHOWING THE TREND IN THE RETAIL COST OF FOOD IN THE UNITED STATES, BY YEARS, 1890 TO 1928 [1]

[Average for year 1913=100]

Year	Relative price	Year	Relative price	Year	Relative price	Year	Relative price
1890	69.6	1900	68.7	1910	93.0	1920	203.4
1891	70.6	1901	71.5	1911	92.0	1921	153.3
1892	69.3	1902	75.4	1912	97.6	1922	141.6
1893	71.0	1903	75.0	1913	100.0	1923	146.2
1894	67.8	1904	76.0	1914	102.4	1924	145.9
1895	66.5	1905	76.4	1915	101.3	1925	157.4
1896	64.9	1906	78.7	1916	113.7	1926	160.6
1897	65.4	1907	82.0	1917	146.4	1927	155.4
1898	67.1	1908	84.3	1918	168.3	1928	154.3
1899	67.7	1909	88.7	1919	185.9		

[1] The number of articles included in the index number for each year has not been the same throughout the period, but a sufficient number have been used fairly to represent food as a whole. From 1890 to 1907, 30 articles were used; from 1907 to 1913, 15 articles; from 1913 to 1920, 22 articles; and from 1921, 43 articles. The relatives for the period have been so computed as to be comparable with each other.

Comparison of Retail Food Costs in 51 Cities

TABLE 7 shows for 39 cities the percentage of increase or decrease in the retail cost of food [3] in December, 1928, compared with the average cost in the year 1913, in December, 1927, and November 1928. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.[4]

[3] For list of articles see note 1, p. 146.

[4] The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month, beginning with January, 1921, are given in the Labor Review for March, 1927, p. 26.

TABLE 7.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN DECEMBER, 1928, COMPARED WITH THE COST IN NOVEMBER, 1928, DECEMBER, 1927, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase December, 1928 compared with 1913	Percentage decrease December, 1928, compared with		City	Percentage increase December, 1928 compared with 1913	Percentage decrease December, 1928, compared with	
		December, 1927	November, 1928			December, 1927	November, 1928
Atlanta	62.6	[1] 1.6	[1] 0.2	Minneapolis	54.3	[1] 0.7	[1] 0.3
Baltimore	57.3	3.0	1.4	Mobile	----------	1.0	1.6
Birmingham	61.3	0.9	[1] 0.1	Newark	51.0	1.1	1.4
Boston	57.3	2.7	1.9	New Haven	60.7	[1] 0.7	0.1
Bridgeport	----------	1.2	1.7	New Orleans	55.8	[1] 1.8	0.0
Buffalo	60.0	0.6	1.6	New York	59.7	2.8	1.1
Butte	----------	[1] 0.9	[1] 0.1	Norfolk	----------	0.3	0.7
Charleston, S. C.	58.0	[1] 1.3	0.3	Omaha	48.9	[1] 0.3	0.1
Chicago	66.6	0.0	0.5	Peoria	----------	1.5	[1] 0.2
Cincinnati	58.6	[1] 1.4	1.4	Philadelphia	58.5	2.7	0.3
Cleveland	52.1	1.7	1.1	Pittsburgh	61.2	[1] 0.8	[1] 0.3
Columbus	----------	0.1	0.7	Portland, Me.	----------	1.8	2.7
Dallas	60.3	[1] 1.3	[1] 0.2	Portland, Oreg.	43.3	[1] 3.1	1.0
Denver	42.6	[1] 1.2	0.1	Providence	57.6	[1] 0.5	2.2
Detroit	60.5	1.2	1.0	Richmond	62.4	0.2	0.7
Fall River	56.6	2.0	0.6	Rochester	----------	0.1	1.4
Houston	----------	0.7	[1] 0.2	St. Louis	58.4	[1] 0.1	0.0
Indianapolis	52.7	[1] 1.2	[1] 0.1	St. Paul	----------	1.7	0.7
Jacksonville	45.4	0.9	1.7	Salt Lake City	36.0	[1] 1.8	0.1
Kansas City	50.1	[1] 0.9	1.0	San Francisco	54.5	[1] 1.3	0.8
Little Rock	50.9	[1] 1.8	[1] 0.7	Savannah	----------	0.2	0.8
Los Angeles	47.8	[1] 3.1	0.8	Scranton	64.2	0.7	0.4
Louisville	56.4	[1] 2.2	[1] 0.8	Seattle	46.5	[1] 2.2	1.6
Manchester	55.3	[1] 1.0	0.3	Springfield, Ill.	----------	0.9	0.4
Memphis	51.5	[1] 3.3	0.1	Washington	64.1	[1] 0.2	1.7
Milwaukee	56.2	1.4	0.7				

[1] Increase.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of December 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 38 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Boston, Bridgeport, Butte, Charleston, S. C., Chicago, Cleveland, Columbus, Dallas, Denver, Fall River, Houston, Kansas City, Los Angeles, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Newark, New Haven, New Orleans, New York, Norfolk, Peoria, Pittsburgh, Portland, Me., Providence, Richmond, Rochester, St. Louis, St. Paul, San Francisco, Scranton, Seattle, Springfield, Ill., and Washington.

The following summary shows the promptness with which the merchants responded in December, 1928:

RETAIL PRICE REPORTS RECEIVED FOR DECEMBER, 1928

Item	United States	Geographical division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received	99.0	99.4	99.0	99.0	97.0	99.0
Number of cities in each section from which every report was received	38	12	6	10	5	5

Retail Prices of Coal in the United States[a]

THE following table shows the average retail prices of coal on December 15, 1927, and November 15 and December 15, 1928, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928

City, and kind of coal	1927	1928	
	Dec. 15	Nov. 15	Dec. 15
United States:			
Pennsylvania anthracite—			
Stove—			
Average price	$15.45	$15.38	$15.40
Index (1913=100)	199.9	199.1	199.3
Chestnut—			
Average price	$15.08	$15.06	$15.07
Index (1913=100)	190.6	190.3	190.4
Bituminous—			
Average price	$9.31	$9.07	$9.11
Index (1913=100)	171.3	166.9	167.6
Atlanta, Ga.:			
Bituminous, prepared sizes	$8.37	$7.97	$8.00
Baltimore, Md.:			
Pennsylvania anthracite—			
Stove	[1] 16.00	[1] 16.00	[1] 16.00
Chestnut	[1] 15.25	[1] 15.50	[1] 15.50
Bituminous, run of mine, high volatile	8.14	8.00	8.00
Birmingham, Ala.:			
Bituminous, prepared sizes	7.79	7.64	7.68
Boston, Mass.:			
Pennsylvania anthracite—			
Stove	16.25	16.25	16.25
Chestnut	16.00	16.00	16.00
Bridgeport, Conn.:			
Pennsylvania anthracite—			
Stove	15.00	15.50	15.50
Chestnut	15.00	15.50	15.50
Buffalo, N. Y.:			
Pennsylvania anthracite—			
Stove	13.97	14.02	14.02
Chestnut	13.57	13.54	13.53
Butte, Mont.:			
Bituminous, prepared sizes	10.95	10.93	10.91
Charleston, S. C.:			
Bituminous, prepared sizes	11.00	9.67	9.67
Chicago, Ill.:			
Pennsylvania anthracite—			
Stove	16.95	16.90	16.90
Chestnut	16.46	16.45	16.45
Bituminous—			
Prepared sizes—			
High volatile	8.61	8.53	8.45
Low volatile	11.85	11.85	11.85
Run of mine—			
Low volatile	8.25	8.25	8.25
Cincinnati, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	6.50	5.57	5.57
Low volatile	7.81	7.79	7.47
Cleveland, Ohio:			
Pennsylvania anthracite—			
Stove	$15.20	$15.35	$15.35
Chestnut	14.80	14.97	14.97
Bituminous, prepared sizes—			
High volatile	7.81	7.26	7.26
Low volatile	9.81	10.03	10.03
Columbus, Ohio:			
Bituminous, prepared sizes—			
High volatile	6.91	6.11	5.82
Low volatile	8.38	8.25	8.13
Dallas, Tex.:			
Arkansas anthracite—			
Egg	15.50	15.75	15.75
Bituminous, prepared sizes	12.70	13.08	13.08
Denver, Colo.:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	16.10	16.00	16.00
Stove, 3 and 5 mixed	16.10	16.00	16.00
Bituminous, prepared sizes	10.58	10.57	10.57
Detroit, Mich.:			
Pennsylvania anthracite—			
Stove	16.00	16.00	16.00
Chestnut	15.50	15.50	15.50
Bituminous—			
Prepared sizes—			
High volatile	8.50	8.27	8.31
Low volatile	10.28	10.16	10.38
Run of mine—			
Low volatile	7.83	8.00	8.00
Fall River, Mass.:			
Pennsylvania anthracite—			
Stove	16.75	16.50	16.50
Chestnut	16.25	16.25	16.25
Houston, Tex.:			
Bituminous, prepared sizes	12.80	13.00	13.20
Indianapolis, Ind.:			
Bituminous—			
Prepared sizes—			
High volatile	6.67	6.46	6.37
Low volatile	8.93	9.00	9.11
Run of mine—			
Low volatile	7.38	7.00	7.00
Jacksonville, Fla.:			
Bituminous, prepared sizes	14.00	12.00	12.00
Kansas City, Mo.:			
Arkansas anthracite—			
Furnace	14.20	12.70	12.60
Stove No. 4	15.33	14.33	14.33

[1] Per ton of 2,240 pounds.

[a] Prices of coal were formerly secured semiannually and published in the March and September issue of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON DECEMBER 15, 1927, AND NOVEMBER 15 AND DECEMBER 15, 1928—Con.

City, and kind of coal	1927	1928	
	Dec. 15	Nov. 15	Dec. 15
Kansas City, Mo.—Con.			
Bituminous, prepared sizes	$7.50	$7.28	$7.28
Little Rock, Ark.:			
Arkansas anthracite—			
Egg	13.50	13.50	13.50
Bituminous, prepared sizes	10.55	9.80	10.25
Los Angeles, Calif.:			
Bituminous, prepared sizes	16.50	16.25	16.25
Louisville, Ky.:			
Bituminous, prepared sizes—			
High volatile	7.14	6.65	7.16
Low volatile	9.50	9.25	9.75
Manchester, N. H.:			
Pennsylvania anthracite—			
Stove	17.50	17.25	17.25
Chestnut	17.25	17.00	17.00
Memphis, Tenn.:			
Bituminous, prepared sizes	8.30	7.41	7.46
Milwaukee, Wis.:			
Pennsylvania anthracite—			
Stove	16.65	16.30	16.30
Chestnut	16.20	15.90	15.90
Bituminous, prepared sizes—			
High volatile	8.00	7.80	7.80
Low volatile	11.12	11.08	11.08
Minneapolis, Minn.:			
Pennsylvania anthracite—			
Stove	18.15	18.28	18.28
Chestnut	17.70	17.90	17.90
Bituminous, prepared sizes—			
High volatile	10.81	10.94	10.93
Low volatile	13.75	13.50	13.50
Mobile, Ala.:			
Bituminous, prepared sizes	9.71	9.69	9.77
Newark, N. J.:			
Pennsylvania anthracite—			
Stove	14.00	14.00	14.00
Chestnut	13.50	13.50	13.50
New Haven, Conn.:			
Pennsylvania anthracite—			
Stove	15.10	14.90	14.90
Chestnut	15.10	14.90	14.90
New Orleans, La.:			
Bituminous, prepared sizes	11.29	10.21	11.21
New York, N. Y.:			
Pennsylvania anthracite—			
Stove	14.75	14.75	14.79
Chestnut	14.42	14.25	14.29
Norfolk, Va.:			
Pennsylvania anthracite—			
Stove	15.00	15.00	15.00
Chestnut	15.00	15.00	15.00
Bituminous—			
Prepared sizes—			
High volatile	7.88	7.88	7.88
Low volatile	10.50	10.50	10.50
Run of mine—			
Low volatile	7.00	7.00	7.00
Omaha, Nebr.:			
Bituminous, prepared sizes	10.21	9.56	9.56
Peoria, Ill.:			
Bituminous, prepared sizes	7.12	6.88	6.91
Philadelphia, Pa.:			
Pennsylvania anthracite—			
Stove	[1] 15.04	[1] 14.57	[1] 14.67
Chestnut	[1] 14.54	[1] 14.11	[1] 14.11
Pittsburgh, Pa.:			
Pennsylvania anthracite—			
Chestnut	$14.88	$15.00	$15.00
Bituminous, prepared sizes	5.69	5.30	5.25
Portland, Me.:			
Pennsylvania anthracite—			
Stove	16.80	16.80	16.80
Chestnut	16.80	16.80	16.80
Portland, Oreg.:			
Bituminous, prepared sizes	13.39	13.15	13.40
Providence, R. I.:			
Pennsylvania anthracite—			
Stove	[2] 16.25	[2] 16.00	[2] 16.00
Chestnut	[2] 16.00	[2] 16.00	[2] 16.00
Richmond, Va.:			
Pennsylvania anthracite—			
Stove	15.67	15.00	15.00
Chestnut	15.50	15.00	15.00
Bituminous—			
Prepared sizes—			
High volatile	9.13	8.63	8.38
Low volatile	10.34	9.78	9.78
Run of mine—			
Low volatile	8.00	7.50	7.50
Rochester, N. Y.:			
Pennsylvania anthracite—			
Stove	14.60	14.69	14.75
Chestnut	14.15	14.19	14.25
St. Louis, Mo.:			
Pennsylvania anthracite—			
Stove	16.90	16.65	16.75
Chestnut	16.45	16.40	16.45
Bituminous, prepared sizes	7.14	6.21	6.25
St. Paul, Minn.:			
Pennsylvania anthracite—			
Stove	18.15	18.30	18.30
Chestnut	17.70	17.90	17.90
Bituminous, prepared sizes—			
High volatile	10.71	10.71	10.70
Low volatile	13.75	13.50	13.50
Salt Lake City, Utah:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	18.00	18.00	18.00
Stove, 3 and 5 mixed	18.00	18.00	18.00
Bituminous, prepared sizes	8.32	8.24	7.93
San Francisco, Calif.:			
New Mexico anthracite—			
Cerillos egg	26.50	26.00	26.00
Colorado anthracite—			
Egg	25.75	25.50	25.50
Bituminous, prepared sizes	17.25	17.25	16.75
Savannah, Ga.:			
Bituminous, prepared sizes	[1] 11.13	[1] 10.62	[1] 10.62
Scranton, Pa.:			
Pennsylvania anthracite—			
Stove	10.75	10.53	10.53
Chestnut	10.50	10.33	10.33
Seattle, Wash.:			
Bituminous, prepared sizes	10.06	10.48	10.48
Springfield, Ill.:			
Bituminous, prepared sizes	4.44	4.24	4.24
Washington, D. C.:			
Pennsylvania anthracite—			
Stove	[2] 15.51	[1] 15.63	[1] 15.63
Chestnut	[2] 15.01	[1] 15.13	[1] 15.13
Bituminous—			
Prepared sizes—			
High volatile	[2] 8.75	[1] 9.25	[1] 9.25
Low volatile	[2] 11.00	[1] 11.42	[1] 11.42
Run of mine—			
Mixed	[2] 7.88	[1] 7.63	[1] 7.63

[1] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.
[2] Per ton of 2,240 pounds.

The following table shows for the United States both average and relative retail prices of Pennsylvania white-ash anthracite coal, stove and chestnut sizes, and of bituminous coal in January and July, 1913 to 1926, and for each month of 1927 and 1928. An average price for the year 1913 has been made from the averages for January and July of that year. The average price for each month has been divided by this average price for the year 1913 to obtain the relative price.

TABLE 2.—AVERAGE AND RELATIVE PRICES OF COAL FOR THE UNITED STATES ON SPECIFIED DATES FROM JANUARY, 1913, TO DECEMBER, 1928

Year and month	Pennsylvania anthracite, white ash—				Bituminous	
	Stove		Chestnut			
	Average price	Relative price	Average price	Relative price	Average price	Relative price
1913—						
Average for year	$7.73	100.0	$7.91	100.0	$5.43	100.0
January	7.99	103.4	8.15	103.0	5.48	100.8
July	7.46	96.6	7.68	97.0	5.39	99.2
1914—						
January	7.80	100.9	8.00	101.0	5.97	109.9
July	7.60	98.3	7.78	98.3	5.46	100.6
1915—						
January	7.83	101.4	7.99	101.0	5.71	105.2
July	7.54	97.6	7.73	97.7	5.44	100.1
1916—						
January	7.93	102.7	8.13	102.7	5.69	104.8
July	8.12	105.2	8.28	104.6	5.52	101.6
1917—						
January	9.29	120.2	9.40	118.8	6.96	128.1
July	9.08	117.5	9.16	115.7	7.21	132.7
918—						
January	9.88	127.9	10.03	126.7	7.68	141.3
July	9.96	128.9	10.07	127.3	7.92	145.8
1919—						
January	11.51	149.0	11.61	146.7	7.90	145.3
July	12.14	157.2	12.17	153.8	8.10	149.1
1920—						
January	12.59	162.9	12.77	161.3	8.81	162.1
July	14.28	184.9	14.33	181.1	10.55	194.1
1921—						
January	15.99	207.0	16.13	203.8	11.82	217.6
July	14.90	192.8	14.95	188.9	10.47	192.7
1922—						
January	14.98	193.9	15.02	189.8	9.89	182.0
July	14.87	192.4	14.92	188.5	9.49	174.6
1923—						
January	15.43	199.7	15.46	195.3	11.18	205.7
July	15.10	195.5	15.05	190.1	10.04	184.7
1924—						
January	15.77	204.1	15.76	199.1	9.75	179.5
July	15.24	197.2	15.10	190.7	8.94	164.5
1925—						
January	15.45	200.0	15.37	194.2	9.24	170.0
July	15.14	196.0	14.93	188.6	8.61	158.5
1926—						
January	[1]	[1]	[1]	[1]	9.74	179.3
July	15.43	199.7	15.19	191.9	8.70	160.1
1927—						
January	15.66	202.7	15.42	194.8	9.96	183.3
February	15.65	202.6	15.44	195.0	9.86	181.4
March	15.60	201.9	15.36	194.0	9.74	179.3
April	14.94	193.4	14.61	184.6	8.95	164.7
May	14.88	192.6	14.53	183.6	8.88	163.4
June	15.06	194.9	14.70	185.7	8.89	163.6
July	15.15	196.1	14.81	187.1	8.91	163.9
August	15.15	196.1	14.80	187.0	8.99	165.4
September	15.38	199.1	15.03	189.9	9.20	169.3
October	15.42	199.6	15.07	190.4	9.33	171.7
November	15.44	199.9	15.07	190.5	9.32	171.5
December	15.45	199.9	15.08	190.6	9.31	171.3

[1] Insufficient data.

TABLE 2.—AVERAGE AND RELATIVE PRICES OF COAL FOR THE UNITED STATES ON SPECIFIED DATES FROM JANUARY, 1913, TO DECEMBER, 1928—Continued

Year and month	Pennsylvania anthracite, white ash—				Bituminous	
	Stove		Chestnut		Average price	Relative price
	Average price	Relative price	Average price	Relative price		
1928—						
January	$15.44	199.8	$15.08	190.6	$9.30	171.1
February	15.44	199.9	15.09	190.6	9.28	170.8
March	15.43	199.8	15.08	190.5	9.26	170.4
April	14.95	193.4	14.64	185.0	8.94	164.6
May	14.74	190.8	14.46	182.7	8.69	159.9
June	14.89	192.7	14.61	184.6	8.72	160.4
July	14.91	192.9	14.63	184.9	8.69	159.9
August	14.95	193.5	14.76	186.5	8.74	160.9
September	15.21	196.9	14.93	188.7	8.84	162.6
October	15.26	197.6	14.98	189.3	8.96	164.8
November	15.38	199.1	15.06	190.3	9.07	166.9
December	15.40	199.3	15.07	190.4	9.11	167.6

Retail Prices of Gas in the United States

THE net price per 1,000 cubic feet of gas for household use in each of 51 cities is shown in the following table. In Table 1 the average family consumption of manufactured gas is assumed to be 3,000 cubic feet per month. In cities where a service charge or a sliding scale is in operation, families using less than 3,000 cubic feet per month pay a somewhat higher rate than here shown, while those consuming more than this amount pay a lower rate. The figures here given are believed to represent quite closely the actual monthly cost of gas per 1,000 cubic feet to the average wage-earner's family. Prices for natural gas and for manufactured and natural mixed gas are shown in Table 2 for those cities where it is in general use. These prices are based on an estimated average family consumption of 5,000 cubic feet per month.

TABLE 1.—NET PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS BASED ON A FAMILY CONSUMPTION OF 3,000 CUBIC FEET, IN SPECIFIED MONTHS FROM APRIL, 1913, TO DECEMBER, 1928, BY CITIES

City	Apr. 15, 1913	Apr. 15, 1918	June 15, 1923	June 15, 1924	June 15, 1925	June 15, 1926	June 15, 1927	Dec. 15, 1927	June 15, 1928	Dec. 15, 1928
Atlanta	$1.00	$1.00	$1.65	$1.55	$1.55	$1.55	$1.55	$1.55	$1.55	$1.55
Baltimore	.90	.75	.92	.85	.85	.85	.85	.85	.85	.85
Birmingham	1.00	.95	.80	.80	.80	.80	.80	.80	.80	.80
Boston	.81	.86	1.25	1.20	1.18	1.18	1.18	1.18	1.18	1.18
Bridgeport	1.00	1.00	1.50	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Buffalo	1.00	1.00								
Butte	1.49	1.49	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
Charleston, S. C	1.10	1.10	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
Chicago	.80	.72	1.07	1.02	1.02	1.02	1.02	1.02	.98	.98
Cleveland	.80	.80	.80	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Denver	.85	.85	.95	.95	.95	.95	.90	.90	.90	
Detroit	.75	.75	.79	.82	.82	.79	.79	.79	.79	.79
Fall River	.80	.95	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Houston	1.00	1.00	1.09	1.09	1.05					
Indianapolis	.60	.55	1.15	1.15	1.10	1.05	1.05	.95	.95	.95

TABLE 1.—NET PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS BASED ON A FAMILY CONSUMPTION OF 3,000 CUBIC FEET, IN SPECIFIED MONTHS FROM APRIL, 1913, TO DECEMBER, 1928, BY CITIES—Continued

City	Apr. 15, 1913	Apr. 15, 1918	June 15, 1923	June 15, 1924	June 15, 1925	June 15, 1926	June 15, 1927	Dec. 15, 1927	June 15, 1928	Dec. 15, 1928
Jacksonville	$1.20	$1.25	$1.65	$1.97	$1.97	$1.97	$1.92	$1.92	$1.92	$1.92
Manchester	1.10	1.00	1.48	1.38	1.38	1.38	1.38	1.38	1.34	1.34
Memphis	1.00	.93	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Milwaukee	.75	.75	.86	.82	.82	.82	.82	.82	.82	.82
Minneapolis	.85	.77	1.05	1.01	.95	.97	.96	.94	.94	.90
Mobile	1.10	1.10	1.80	1.80	1.80	1.80	1.76	1.76	1.76	1.76
Newark	1.00	.97	1.25	1.20	1.20	1.20	1.20	1.20	1.20	1.20
New Haven	.90	1.00	1.18	1.18	1.13	1.13	1.13	1.13	1.13	1.13
New Orleans	1.10	1.00	1.30	1.30	1.30	1.30	1.30	1.30	1.30	-------
New York	.84	.83	1.23	1.23	1.23	1.23	1.24	1.24	1.25	1.25
Norfolk	1.00	1.20	1.40	1.40	1.40	1.33	1.33	1.33	1.33	1.33
Omaha	1.15	1.15	1.18	1.18	1.08	1.08	1.08	1.00	1.00	1.00
Peoria	.90	.85	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Philadelphia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Pittsburgh	1.00	1.00	-------	-------	-------	-------	-------	-------	-------	-------
Portland, Me	1.10	1.00	1.55	1.55	1.55	1.50	1.42	1.42	1.42	1.42
Portland, Oreg	.95	.95	1.16	1.16	1.16	1.19	1.17	1.17	1.17	1.17
Providence	.85	1.00	1.22	1.22	1.17	1.17	1.13	1.13	1.13	1.13
Richmond	.90	.80	1.30	1.30	1.30	1.29	1.29	1.29	1.29	1.29
Rochester	.95	.95	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
St. Louis	.80	.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
St. Paul	.95	.85	.85	.85	.85	.90	.90	.90	.90	.90
Salt Lake City	.87	.87	1.57	1.57	1.54	1.53	1.52	1.52	1.51	1.51
San Francisco	.75	.85	.92	1.00	1.05	.95	.95	.95	.94	.94
Savannah	-------	-------	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Scranton	.95	1.15	1.60	1.50	1.50	1.50	1.40	1.40	1.40	1.40
Seattle	1.00	1.20	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Springfield, Ill	1.00	1.00	1.35	1.35	1.35	1.25	1.25	1.25	1.25	1.25
Washington, D. C	.93	.90	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00

TABLE 2.—NET PRICE PER 1,000 CUBIC FEET OF GAS BASED ON A FAMILY CONSUMPTION OF 5,000 CUBIC FEET IN SPECIFIED MONTHS FROM APRIL, 1913, TO DECEMBER, 1928, BY CITIES

Natural Gas

City	Apr. 15, 1913	Apr. 15, 1918	June 15, 1923	June 15, 1924	June 15, 1925	June 15, 1926	June 15, 1927	Dec. 15, 1927	June 15, 1928	Dec. 15, 1928
Buffalo	$0.30	$0.30	-------	-------	-------	-------	-------	-------	-------	-------
Cincinnati	.30	.35	$0.50	$0.50	$0.75	$0.75	$0.75	$0.75	$0.75	$0.75
Cleveland	.30	.30	.55	.55	.55	.60	.60	.60	.60	.60
Columbus	.30	.30	.45	.45	.55	.55	.48	.48	.48	.48
Dallas	.45	.45	.68	.68	.74	.74	.79	.79	.79	.79
Denver	-------	-------	-------	-------	-------	-------	-------	-------	-------	.99
Houston	-------	-------	-------	-------	-------	.75	.75	.75	.75	.75
Kansas City	.27	.60	.95	.95	.95	.95	.95	.95	.95	.95
Little Rock	.40	.40	.45	.65	.65	.65	.65	.65	.65	.65
Los Angeles	-------	-------	-------	-------	-------	-------	.91	.91	.91	.84
Louisville	-------	.45	.45	.45	.45	.45	.45	.45	.45	.45
New Orleans	-------	-------	-------	-------	-------	-------	-------	-------	-------	.95
Pittsburgh	.28	.28	.50	.53	.60	.60	.60	.60	.60	.60

Manufactured and natural gas mixed

Buffalo	-------	$0.62	$0.60	$0.60	$0.65	$0.65	$0.65	$0.65	$0.65
Los Angeles	$0.68	.68	.68	.68	.68	-------	-------	-------	-------

From the prices quoted on manufactured gas, average prices have been computed for all of the cities combined and are shown in the next table for April 15 of each year from 1913 to 1920, and for May 15, September 15, and December 15, 1921; March 15, June 15, September 15, and December 15, 1922, 1923, and 1924; and June 15 and December 15, 1925, 1926, 1927, and 1928. These prices are based on an estimated average family consumption of 3,000 cubic feet.

Relative prices have been computed by dividing the price in each year by the price in April, 1913.

The price of manufactured gas in December, 1928, showed an increase of 28.4 per cent since April, 1913. From June, 1928, to December, 1928, there was an increase of eight-tenths of 1 per cent in the price of gas.

TABLE 3.—AVERAGE AND RELATIVE NET PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS IN UNITED STATES, BASED ON A FAMILY CONSUMPTION OF 3,000 CUBIC FEET IN SPECIFIED MONTHS OF EACH YEAR, 1913 TO 1928

Date	Average net price	Relative price	Date	Average net price	Relative price
Apr. 15, 1913	$0.95	100.0	June 15, 1923	$1.24	130.5
Apr. 15, 1914	.94	98.9	Sept. 15, 1923	1.24	130.5
Apr. 15, 1915	.93	97.9	Dec. 15, 1923	1.25	131.6
Apr. 15, 1916	.92	96.8	Mar. 15, 1924	1.24	130.5
Apr. 15, 1917	.91	95.8	June 15, 1924	1.24	130.5
Apr. 15, 1918	.95	100.0	Sept. 15, 1924	1.24	130.5
Apr. 15, 1919	1.04	109.5	Dec. 15, 1924	1.24	130.5
Apr. 15, 1920	1.09	114.7	June 15, 1925	1.23	129.5
May 15, 1921	1.32	138.9	Dec. 15, 1925	1.23	129.5
Sept. 15, 1921	1.31	137.9	June 15, 1926	1.23	129.5
Dec. 15, 1921	1.30	136.8	Dec. 15, 1926	1.22	128.4
Mar. 15, 1922	1.29	135.8	June 15, 1927	1.22	128.4
June 15, 1922	1.27	133.7	Dec. 15, 1927	1.22	128.4
Sept. 15, 1922	1.26	132.6	June 15, 1928	1.21	127.4
Dec. 15, 1922	1.25	131.6	Dec. 15, 1928	1.22	128.4
Mar. 15, 1923	1.25	131.6			

Retail Prices of Electricity in the United States

Explanation of Prices

THE following table shows for 51 cities the net rates per kilowatt-hour of electricity used for household purposes for specified months in 1913, 1926, 1927, and 1928. For the cities having more than one tariff for domestic consumers the rates are shown for the schedule under which most of the residences are served.

Several cities have sliding scales based on a variable number of kilowatt-hours payable at each rate. The number of kilowatt-hours payable at each rate in these cities is determined for each customer according to the watts of installation, either in whole or in part, in the individual home. The number of watts so determined is called the customer's "demand."

In Baltimore the demand is the maximum normal rate of use of electricity in any half-hour period of time. It may be estimated or determined by the company from time to time according to the customer's normal use of electricity and may equal the total installation reduced to kilowatts.

In Buffalo the demand consists of two parts—lighting, 25 per cent of the total installation, but never less than 250 watts; and power,

2½ per cent of the capacity of any electric range, water heater, or other appliance of 1,000 watts or over and 25 per cent of the rated capacity of motors exceeding one-half horsepower but less than 1 horsepower. The installation is determined by inspection of premises.

In Chicago the equivalent in kilowatt-hours to 30 hours' use of demand has been estimated as follows: For a rated capacity of 475 to 574 watts, 11 kilowatt-hours; 575 to 674 watts, 12 kilowatt-hours; 675 to 774 watts, 13 kilowatt-hours; and 775 to 874 watts, 14 kilowatt-hours. Although the equivalent in kilowatt-hours to 30 hours' use of demand of from 1 to 1,500 watts is given on the printed tariff, the equivalent is here shown only for installations of from 475 to 874 watts, the connected load of the average home being as a rule within this range.

In Cincinnati the demand has been estimated as being 70 per cent of the connected load, excluding appliances.

In Cleveland Company A determined the demand by inspection as being 40 per cent of the connected load.

In Houston the demand is estimated as 50 per cent of the connected load, each socket opening being rated at 50 watts.

In New Orleans the demand in 1913 was the full connected load.

In New York the demand for Company C, when not determined by meter, has been computed at 50 per cent of total installation in residences, each standard socket being rated at 50 watts and all other outlets being rated at their actual kilowatt capacity.

In Omaha the demand in 1913 was the full connected load.

In Pittsburgh the demand has been determined by inspection, the first 10 outlets being rated at 30 watts each, the next 20 outlets at 20 watts each, and each additional outlet at 10 watts. Household utensils and appliances of not over 660 watts each have been excluded.

In Portland, Oreg., the demand for Company A has been estimated as one-third of the connected lighting load. Ranges, heating devices, and small power up to a rated capacity of 2 kilowatts are not included.

For Company B the demand, when not based on actual measurement, has been estimated at one-third of the connected load, no demand being established at less than 233 watts.

In Springfield, Ill., the demand for Company A in December, 1913, was the active load predetermined as follows: 80 per cent of the first 500 watts of connected load plus 60 per cent of that part of the connected load in excess of the first 500 watts—minimum active load, 150 watts.

In Washington, D. C., the demand is determined by inspection and consists of 100 per cent of the connected load, excluding small fans and heating and cooking appliances when not permanently connected.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN DECEMBER, 1913, AND JUNE AND DECEMBER, 1927 AND 1928, FOR 51 CITIES

City	Measure of consumption, per month	December, 1913	June, 1927	December, 1927	June, 1928	December, 1928
		Cents	*Cents*	*Cents*	*Cents*	*Cents*
Atlanta	First 100 kilowatt-hours	[1] 7.0	8.1	8.1	8.1	8.1
Baltimore	First 20 hours' use of demand [2]	[3] 8.5	7.0	7.0	7.0	7.0
	Next kilowatt-hours up to 800		4.0	4.0	4.0	4.0
Birmingham	First 100 kilowatt-hours	[4] 8.5	7.7	7.7	7.7	7.7
Boston	First 2 kilowatt-hours per 100 square feet of floor area.	[5] 10.0	[6] 8.5	[6] 8.5	[6] 8.5	8.5
	Next 70 kilowatt hours					5.0
	Excess					3.0
Bridgeport	All current	9.0	6.5	6.0	6.0	5.5
Buffalo	First 60 hours' use of demand [2]	7.0	5.0	5.0	5.0	5.0
	Next 120 hours' use of demand [2]	5.0	4.0	4.0	4.0	4.0
	Excess	1.5	1.5	1.5	1.5	1.5
Butte	First 25 kilowatt-hours	[7] 9.5	8.0	8.0	8.0	8.0
	Next 25 kilowatt-hours		4.0	4.0	4.0	4.0
Charleston, S. C	First 50 kilowatt-hours	[8] 10.0	10.0	10.0	10.0	10.0
	Next 50 kilowatt-hours	8.0				
Chicago	First 3 kilowatt-hours per room	[9] 10.0	[9] 8.0	[9] 8.0	7.0	7.0
	Next 3 kilowatt-hours per room	[10] 5.0	[10] 5.0	[10] 5.0	5.0	5.0
	Excess	4.0	3.0	3.0	3.0	3.0
Cincinnati	First 36 kilowatt-hours per room; minimum, 4 rooms.	[9] 9.5	[9] 8.5	[11] 7.5	[11] 7.5	5.0
	Next 60 kilowatt-hours	[10] 6.7	[10] 6.5	5.0	5.0	
	Excess	3.8	3.5	3.5	3.5	3.0
	Service charge per room					10.0
Cleveland:						
Company A	First 80 kilowatt-hours	[12] 10.0	[13] 5.0	[13] 5.0	5.0	5.0
	Excess	5.0				
Company B	All current	[14] 8.0	3.0	3.0	3.0	3.0
	Next 690 kilowatt-hours	5.0				
	Service charge		30.0	30.0	30.0	30.0
Columbus	First 75 kilowatt-hours	[5] 7.0	7.0	7.0	7.0	7.0
Dallas	All current	[15] 10.0	[15] 6.0	[15] 6.0	6.0	6.0
Denver	First 15 kilowatt-hours	[5] 8.0	7.0	7.0	7.0	7.0
	Next 30 kilowatt-hours		6.0	6.0	6.0	6.0
	Excess		5.0	5.0	5.0	5.0
Detroit	First 3 kilowatt-hours per active room; minimum, 3 rooms.	[16] 12.6	9.0	9.0	9.0	9.0
	Next 50 kilowatt-hours					3.6
	Excess	3.6	3.6	3.6	3.6	2.3
Fall River	First 25 kilowatt-hours	[17] 9.5	8.5	8.5	8.0	8.0
	Next 75 kilowatt-hours		[18] 7.5	[18] 7.5	5.0	5.0
Houston	First 30 hours' use of demand [2]	[19] 12.4	7.2	7.2	7.2	7.2
	Excess	7.0	4.5	4.5	4.5	4.5
Indianapolis	First 50 kilowatt-hours	[20] 7.5	6.5	6.5	6.5	6.5
	Next 50 kilowatt-hours		6.0	6.0	6.0	6.0
Jacksonville	All current	7.0	7.0	7.0	7.0	7.0
Kansas City	First 5 kilowatt-hours per active room; minimum, 3 rooms.	[21] 9.9	7.5	7.0	7.0	7.0
	Next 5 kilowatt-hours per room		5.0	5.0	5.0	5.0
	Excess	4.5	2.5	2.5	2.5	2.5
Little Rock	First 200 kilowatt-hours	[5] 13.5	10.0	10.0	10.0	10.0
Los Angeles	First 50 kilowatt-hours	[7] 5.5	[7] 5.6	5.0	5.0	5.0
Louisville	1 to 149 kilowatt-hours	7.6	7.6	7.6	7.6	7.6
Manchester	First step: 3 rooms, 15 kilowatt-hours; 4 rooms, 18 kilowatt-hours; 5 rooms, 21 kilowatt-hours; 6 rooms, 24 kilowatt-hours; 7 rooms, 27 kilowatt-hours; 8 rooms, 30 kilowatt-hours.	[5] 11.4	[8] 12.0	[8] 12.0	11.0	11.0
	Next step: Number of kilowatt-hours equal to the first step.		[22] 6.0	[22] 6.0	7.0	7.0
Memphis	First 6 kilowatt-hours per room	[5] 10.0	8.0	8.0	8.0	8.0
	Excess		5.0	5.0	5.0	5.0
Milwaukee	First 9 kilowatt-hours for each of the first 6 active rooms and the first 7 kilowatt-hours for each active room in addition to the first 6.	[23] 11.4	6.7	6.7	6.7	6.7
	Next kilowatt-hours up to 300	[24] 4.8				2.9
	Excess	3.8	2.9	2.9	2.9	1.9
Minneapolis	First 3 kilowatt-hours per active room; minimum, 2 rooms.	8.6	9.5	9.5	9.5	8.6
	Next 3 kilowatt-hours per active room	[25] 5.7	7.1	7.1	7.1	7.1
Mobile	First 50 kilowatt-hours	7.0	9.0	9.0	9.0	9.0
Newark	First 20 kilowatt-hours	[13] 10.0	9.0	9.0	9.0	9.0
	Next 30 kilowatt-hours		[26] 8.0	8.0	8.0	8.0
New Haven	All current	9.0	6.5	6.0	6.0	5.5

For footnotes see end of table.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN DECEMBER, 1913, AND JUNE AND DECEMBER, 1927 AND 1928, FOR 51 CITIES—Continued

City	Measure of consumption, per month	December, 1913	June, 1927	December, 1927	June, 1928	December, 1928
		Cents	*Cents*	*Cents*	*Cents*	*Cents*
New Orleans	First 20 kilowatt-hours	[9] 13.0	9.1	9.1	9.1	9.1
	Next 30 kilowatt-hours	[25] 6.0	7.8	7.8	7.8	7.8
	Service charge		25.0	25.0	25.0	25.0
New York:						
Company A	First 1,000 kilowatt-hours	[27] 10.0	7.3	7.3	7.3	7.0
Company B	All current	9.5	9.5	9.5	9.5	9.5
Company C	First 60 hours' use of demand [2]	11.0	7.3	7.3	7.3	7.0
Norfolk	First 100 kilowatt-hours	9.0	8.5	8.5	8.5	8.5
Omaha	All current	[8] 11.4	5.5	5.5	5.5	5.5
	Next 125 kilowatt-hours	[25] 5.7				
Peoria	First 5 kilowatt-hours for each of the first 2 rooms, and 4 kilowatt-hours for each additional active room.	[28] 9.9	9.0	9.0	9.0	9.0
	Second 5 kilowatt-hours for each of the first 2 rooms, and 4 kilowatt-hours for each additional active room.		6.0	6.0	6.0	6.0
Philadelphia:						
Company A	First 12 kilowatt-hours	[5] 10.0	8.0	8.0	8.0	8.0
	Next 36 kilowatt-hours		7.0	7.0	7.0	7.0
Company B	First 20 kilowatt-hours	[13] 10.0	9.0	9.0	9.0	9.0
	Next 30 kilowatt-hours		8.0	8.0	8.0	8.0
Pittsburgh	First 10 kilowatt-hours	[5] 10.0	[9] 8.0	[9] 8.0	8.0	8.0
	Next 20 kilowatt-hours		[29] 5.5	[29] 5.5	5.5	5.5
Portland, Me	First 3 rooms, 15 kilowatt-hours; 4 rooms, 18 kilowatt-hours; 5 rooms, 21 kilowatt-hours; 6 rooms, 24 kilowatt-hours; 7 rooms, 27 kilowatt-hours; 8 rooms, 30 kilowatt-hours.	[5] 9.0	[5] 8.0	[11] 8.0	[11] 8.0	8.0
	Next 3 rooms, 35 kilowatt-hours; 4 rooms, 42 kilowatt-hours; 5 rooms, 49 kilowatt-hours; 6 rooms, 56 kilowatt-hours; 7 rooms, 63 kilowatt-hours; 8 rooms, 70 kilowatt-hours.			[30] 5.0	[30] 5.0	5.0
Portland, Oreg.:						
Company A	First 9 kilowatt-hours	7.6	7.6	7.6	7.6	7.6
	Next kilowatt-hours in excess of the first 9 kilowatt-hours until 100 use of demand has been reached. [2]	[30] 6.7	6.7	6.7	6.7	6.7
	Next 50 kilowatt-hours	[31] 5.7	2.9	2.9	2.9	2.9
Company B	First 13 kilowatt-hours	[32] 9.0	7.3	7.3	7.3	7.3
	Next kilowatt-hours: For an installation of 600 watts or less 7 kilowatt-hours will apply. For each 30 watts of installation in excess of 600 watts 1 additional kilowatt-hour will apply.	[33] 7.0	6.7	6.7	6.7	6.7
	Next 50 kilowatt-hours	[25] 4.0	2.9	2.9	2.9	2.9
Providence	All current	10.0	6.8	6.5	6.5	6.5
	Service charge		50.0	50.0	50.0	50.0
Richmond	First 100 kilowatt-hours	9.0	8.5	8.5	8.5	8.5
Rochester	All current	8.0	8.0	8.0	8.0	8.0
St. Louis:						
Company A	First 9 kilowatt-hours per active room	[23] 9.5	6.7	6.7	6.7	6.7
	Excess	5.7	2.4	2.4	2.4	2.4
Company B	First 4 rooms or less, 18 kilowatt-hours; 5 or 6 rooms, 27 kilowatt-hours; 7 or 8 rooms, 36 kilowatt-hours.	[34] 9.0	6.7	6.7	6.7	6.7
	Excess	5.7	2.4	2.4	2.4	2.4
St. Paul	First 3 kilowatt-hours per room	[11] 9.9	9.5	9.5	9.5	8.6
	Next 3 kilowatt-hours per room		7.1	7.1	7.1	7.1
	Excess	6.6	2.9	2.9	2.9	2.9
Salt Lake City	First 250 kilowatt-hours	9.0	8.1	8.1	8.1	8.1
San Francisco:						
Company A	First 200 kilowatt-hours	[7] 7.0	[14] 9.0	[3] 5.0	5.0	5.0
	Next 800 kilowatt hours		[35] 6.0	[36] 2.5	4.0	4.0
	Service charge				40.0	40.0
Company B	First 200 kilowatt-hours	[7] 7.0	[14] 9.0	[14] 9.0	5.0	5.0
	Next 800 kilowatt-hours		[35] 6.0	[35] 6.0	4.0	4.0
	Service charge				40.0	40.0
Savannah	First 100 kilowatt-hours	[14] 12.0	9.0	9.0	9.0	9.0
	Excess	6.0				
Scranton	First 150 kilowatt-hours	[5] 9.0	10.0	10.0	10.0	9.0
Seattle:						
Company A	First 40 kilowatt-hours	[37] 6.0	5.5	5.5	5.5	5.5
	Next 200 kilowatt-hours	[25] 4.0	2.0	2.0	2.0	2.0
Company B	First 40 kilowatt-hours	[37] 6.0	5.5	5.5	5.5	5.5
	Next 200 kilowatt-hours	[25] 4.0	2.0	2.0	2.0	2.0

For footnotes see end of table.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN DECEMBER, 1913, AND JUNE AND DECEMBER, 1927 AND 1928, FOR 51 CITIES—Continued

City	Measure of consumption, per month	December, 1913	June, 1927	December, 1927	June, 1928	December, 1928
		Cents	*Cents*	*Cents*	*Cents*	*Cents*
Springfield, Ill.:						
Company A	First 30 kilowatt-hours	[9] 10.0	6.0	6.0	6.0	6.0
	Next 70 kilowatt-hours	[10] 7.0	3.0	3.0	3.0	3.0
Company B	First 30 kilowatt-hours	.....	6.0	6.0	6.0	6.0
	Next 70 kilowatt-hours	.....	3.0	3.0	3.0	3.0
Washington, D. C.	First 120 hours' use of demand [2]	10.0	6.3	6.3	5.9	5.9

[1] First 150 kilowatt-hours.
[2] For determination of demand, see explanation of prices.
[3] First 50 kilowatt-hours.
[4] The gross rate is 10 cents per kilowatt-hour, with discounts of 10 per cent for a monthly consumption of 1 to 25 kilowatt-hours and 15 per cent for a monthly consumption of 25 to 150 kilowatt-hours. The average family used 25 or more kilowatt-hours per month.
[5] All current.
[6] First 1,000 kilowatt-hours.
[7] First 100 kilowatt-hours.
[8] First 25 kilowatt-hours.
[9] First 30 hours' use of demand. For determination of demand, see explanation of prices.
[10] Next 30 hours' use of demand. For determination of demand, see explanation of prices.
[11] First 30 kilowatt-hours.
[12] First 36 hours' use of demand. For determination of demand, see explanation of prices.
[13] First 500 kilowatt-hours.
[14] First 10 kilowatt-hours.
[15] First 800 kilowatt-hours.
[16] First 2 kilowatt-hours per active room.
[17] First 200 kilowatt-hours.
[18] Next 975 kilowatt-hours.
[19] First 2 kilowatt-hours per 16 candlepower of installation.
[20] All current. This rate applies to a 5-year contract, with a minimum charge of $1 per month. For a 1-year contract the rates per kilowatt-hour are 10 cents without a minimum charge, or 9⅜ cents with a minimum of $1 per month.
[21] First 3 kilowatt-hours per active room; minimum, 3 rooms.
[22] Next 50 kilowatt-hours.
[23] First 4 kilowatt-hours for each of the first 4 active rooms and the first 2½ kilowatt-hours for each additional active room.
[24] Additional energy up to 100 kilowatt-hours.
[25] Excess.
[26] Next 480 kilowatt-hours.
[27] First 250 kilowatt-hours.
[28] 1 to 200 kilowatt-hours.
[29] Next 60 hours' use of demand. For determination of demand, see explanation of prices.
[30] Next 70 kilowatt-hours.
[31] Next 100 kilowatt-hours.
[32] First 6 per cent of demand. For determination of demand, see explanation of prices.
[33] Next 6 per cent of demand. For determination of demand, see explanation of prices.
[34] For a house of 6 rooms or less, 15 kilowatt-hours; for a house of 7 or 8 rooms, 20 kilowatt-hours.
[35] Next 40 kilowatt-hours.
[36] Next 125 kilowatt-hours.
[37] First 60 kilowatt-hours.

Index Numbers of Wholesale Prices in December, 1928

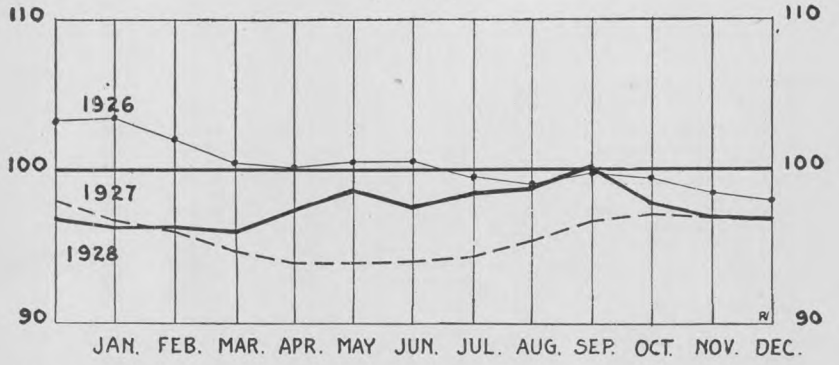
PRACTICALLY no change in the general level of wholesale prices from November to December, 1928, is shown by information collected in representative markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's weighted index number computed on prices in the year 1926 as the base and including 550 commodities or price series, stands at 96.7 for December compared with the same figure for November. Compared with December, 1927, with an index number of 96.8, a decrease of one-tenth of 1 per cent is shown.

Prices of farm products averaged somewhat higher than in the preceding month, due to increases for barley, oats, sheep and lambs, cotton, onions, potatoes, and tobacco. Beef steers, hogs, and eggs were cheaper than in November.

Food prices were lower than in the month before, with decreases reported for most fresh and cured meats, poultry, eggs, flour, corn meal, and lard.

TREND OF WHOLESALE PRICES

[1926=100]



Negligible price increases were recorded in the groups of hides and leather products, metals and metal products, building materials, chemicals and drugs, and miscellaneous commodities, while a minor decrease took place among fuel and lighting materials. No change in the price level was found in the groups of textile products and house-furnishing goods.

Of the 550 commodities or price series for which comparable information for November and December was collected, increases were shown in 133 instances and decreases in 105 instances. In 312 instances no change in price was reported.

Comparing prices in December with those of a year ago, as measured by changes in the index numbers, it is seen that small decreases took place among farm products, foods, hides and leather products, textile products, chemicals and drugs, and house-furnishing goods, with considerable decreases among articles classed as miscellaneous. On the other hand prices of fuel and lighting materials, metals and metal products, and building materials, averaged higher than in December, 1927.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Groups and subgroups	December, 1927	November, 1928	December, 1928	Purchasing power of the 1926 dollar in December, 1928
				Cents
All commodities	96.8	96.7	96.7	103.4
Farm products	104.4	101.6	103.6	96.5
Grains	102.0	94.6	94.3	106.0
Livestock and poultry	97.9	100.6	99.1	100.9
Other farm products	109.7	104.8	110.0	90.9
Foods	100.7	100.1	98.0	102.0
Butter, cheese, and milk	110.0	109.7	110.0	90.9
Meats	99.6	108.7	102.3	97.8
Other foods	97.7	91.0	90.8	110.1

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES—Continued

Groups and subgroups	December, 1927	November, 1928	December, 1928	Purchasing power of the 1926 dollar in December, 1928
				Cents
Hides and leather products	116.9	115.5	115.7	86.4
Hides and skins	136.4	130.0	131.0	76.3
Leather	122.4	118.8	119.3	83.8
Boots and shoes	107.1	108.9	108.4	92.3
Other leather products	109.4	108.4	108.4	92.3
Textile products	97.2	96.1	96.1	104.1
Cotton goods	103.3	101.2	101.3	98.7
Silk and rayon	83.2	83.7	83.7	119.5
Woolen and worsted goods	98.4	99.9	100.0	100.0
Other textile products	96.7	85.8	84.9	117.8
Fuel and lighting materials	82.5	84.4	83.5	119.8
Anthracite coal	96.8	91.2	91.2	109.6
Bituminous coal	97.4	93.6	93.2	107.3
Coke	91.9	84.9	84.5	118.3
Manufactured gas	96.2	93.5	(1)	----------
Petroleum products	66.2	75.5	73.9	135.3
Metals and metal products	98.4	101.7	102.9	97.2
Iron and steel	93.7	96.1	96.6	103.5
Nonferrous metals	92.3	97.9	98.0	102.0
Agricultural implements	98.8	98.8	98.8	101.2
Automobiles	104.6	108.7	111.2	89.9
Other metal products	100.7	96.9	96.9	103.2
Building materials	90.4	96.0	96.8	103.3
Lumber	88.0	92.7	93.6	106.8
Brick	92.2	92.3	93.6	106.8
Cement	96.5	94.6	94.6	105.7
Structural steel	91.9	97.0	97.0	103.1
Paint materials	86.5	88.2	87.7	114.0
Other building materials	92.5	105.7	107.0	93.5
Chemicals and drugs	97.2	96.0	96.1	104.1
Chemicals	102.2	102.3	102.4	97.7
Drugs and pharmaceuticals	81.9	70.9	70.8	141.2
Fertilizer materials	95.0	94.1	94.1	106.3
Fertilizers	95.2	97.6	97.8	102.2
Housefurnishing goods	98.8	96.4	96.4	103.7
Furniture	97.1	95.3	95.3	104.9
Furnishings	99.8	97.1	97.1	103.0
Miscellaneous	89.0	80.0	80.1	124.8
Cattle feed	128.9	137.8	137.0	73.0
Paper and pulp	90.9	88.8	88.6	112.9
Rubber	84.2	37.9	37.0	270.3
Automobile tires	69.9	58.1	58.1	172.1
Other miscellaneous	98.6	98.5	99.7	100.3
Raw materials	99.2	96.2	97.4	102.7
Semimanufactured articles	97.7	96.9	97.2	102.9
Finished products	95.3	97.2	96.4	103.7
Nonagricultural commodities	94.8	95.4	94.8	105.5

[1] Data not yet available.

Index Numbers of Wholesale Prices, 1928

IN THE following table are shown the bureau's weighted index numbers of wholesale prices by commodity groups and their subdivisions for each month of 1928 and for the calendar year. All index numbers are based on average prices in the year 1926 as 100.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS AND SUBGROUPS OF COMMODITIES, 1928

Year and month	Farm products				Foods			
	Grains	Live-stock and poultry	Other farm products	All farm products	Butter, cheese, and milk	Meats	Other foods	All foods
1928								
Average for year	107.3	105.4	105.8	105.9	105.6	107.0	95.5	101.0
January	104.7	100.2	110.7	106.1	108.6	91.6	99.0	98.5
February	108.4	100.1	106.1	104.5	106.4	97.8	96.2	98.7
March	113.6	96.3	105.0	103.5	104.2	94.7	97.7	98.0
April	121.6	102.3	106.4	107.6	101.0	99.2	99.1	99.5
May	127.0	103.9	107.9	109.8	100.1	103.2	100.3	101.2
June	119.9	104.7	103.4	106.7	99.8	104.0	98.1	100.3
July	111.6	112.1	102.1	107.1	103.3	112.7	95.5	102.3
August	95.4	116.7	104.2	107.0	107.3	119.3	93.5	104.1
September	97.5	124.0	102.3	108.8	109.3	126.5	94.0	106.9
October	96.6	106.4	103.9	103.5	108.4	116.4	91.2	102.3
November	94.6	100.6	104.8	101.6	109.7	108.7	91.0	100.1
December	94.3	99.1	110.0	103.6	110.0	102.3	90.8	98.0

Year and month	Hides and leather products				
	Hides and skins	Leather	Boots and shoes	Other leather products	All hides and leather products
Average for year 1928	148.6	126.3	109.9	108.5	121.7
January	151.4	123.8	108.4	108.4	121.0
February	158.7	129.3	109.2	108.4	124.1
March	157.3	129.3	109.5	108.4	124.0
April	167.3	129.8	110.4	108.4	126.7
May	164.5	130.2	110.5	108.4	126.3
June	155.0	127.3	110.8	108.4	123.7
July	155.8	128.5	110.8	108.6	124.2
August	140.6	128.5	110.8	108.6	121.0
September	141.9	126.2	110.8	109.0	120.7
October	129.9	124.2	110.4	109 0	117.5
November	130.0	118.8	108.9	108.4	115.5
December	131.0	119.3	108.4	108.4	115.7

Year and month	Textile products				
	Cotton textiles	Silk textiles	Woolen and worsted textiles	Other textiles	All textiles
Average for year 1928	101.2	83.6	100.4	86.9	96.3
January	102.3	83.7	99.0	90.4	96.7
February	101.4	84.8	99.9	88.2	96.6
March	100.9	84.7	100.6	88.6	96.5
April	100.7	85.5	100.5	86.2	96.5
May	101.3	84.8	100.9	84.5	96.6
June	101.1	82.6	101.2	85.9	96.3
July	102.0	81.7	101.5	89.6	96.8
August	101.4	81.7	101.0	89.1	96.3
September	100.1	82.7	100.1	86.5	95.6
October	100.7	84.4	100.0	86.1	96.1
November	101.2	83.7	99.9	85.9	96.1
December	101.3	83.7	100.0	84.9	96.1

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS AND SUBGROUPS OF COMMODITIES, 1928—Continued

Year and month	Fuel and lighting					
	Anthracite coal	Bituminous coal	Coke	Gas	Petroleum products	All fuel and lighting
Average for year 1928	91 7	93. 6	84. 6	----------	72. 0	82. 8
January	94. 8	94. 9	86. 0	95. 9	65. 6	80. 8
February	95. 3	94. 7	84. 4	95. 9	66. 6	81. 2
March	94. 8	93. 8	84. 4	95. 8	66. 6	80. 8
April	90. 2	92. 2	82. 8	95. 2	69. 0	80. 8
May	89. 8	92. 0	84. 1	94. 6	71. 2	81. 8
June	90. 3	91. 8	84. 7	95. 2	71. 9	82. 1
July	90. 5	91. 4	84. 6	94. 8	73. 5	82. 8
August	90. 3	92. 5	84. 9	95. 0	76. 8	84. 6
September	91. 2	93. 2	84. 9	94. 6	77. 1	85. 1
October	91. 2	93. 9	85. 0	94. 3	76. 3	84. 9
November	91. 2	93. 6	84. 9	93. 5	75. 5	84. 4
December	91. 2	93. 2	84. 5	(1)	73. 9	83. 5

Year and month	Metals and metal products					
	Iron and steel	Nonferrous metals	Agricultural implements	Automobiles	Other metal products	All metals and metal products
Average for year 1928	94. 9	93. 3	98. 8	106. 9	97. 2	99. 8
January	93. 9	91. 7	98. 8	104. 3	98. 2	98. 1
February	94. 9	90. 5	98. 8	104. 3	97. 9	98. 3
March	95. 2	90. 4	98. 8	104. 3	97. 9	98. 4
April	95. 1	91. 3	98. 8	104. 3	96. 9	98. 4
May	94. 8	92. 0	98. 8	104. 7	96. 9	98. 6
June	94. 2	92. 8	98. 8	105. 1	96. 9	98. 7
July	94. 0	92. 6	98. 8	105. 1	96. 9	98. 6
August	94. 5	92. 9	98. 8	108. 9	96. 9	100. 4
September	94. 7	93. 8	98. 8	108. 7	96. 9	100. 5
October	95. 1	95. 8	98. 8	108. 7	96. 9	101. 0
November	96. 1	97. 9	98. 8	108. 7	96. 9	101. 7
December	96. 6	98. 0	98. 8	111. 2	96. 9	102. 9

Year and month	Building materials						
	Lumber	Brick	Cement	Steel	Paint materials	Other building materials	All building materials
Average for year, 1928	90. 1	92. 7	95. 9	95. 2	86. 6	101. 3	93. 7
January	88. 5	92. 4	96. 5	91. 9	88. 0	92. 7	90. 8
February	88. 9	92. 5	96. 5	94. 5	85. 9	93. 2	91. 0
March	88. 9	92. 3	96. 5	97. 0	85. 5	92. 7	91. 0
April	87. 8	92. 9	96. 5	97. 0	85. 0	100. 2	92. 5
May	88. 1	92. 7	96. 5	95. 8	85. 7	103. 5	93. 5
June	88. 7	93. 2	96. 5	94. 5	87. 1	104. 0	93. 9
July	89. 5	93. 2	96. 5	94. 5	87. 6	104. 1	94. 4
August	90. 3	92. 6	96. 5	94. 5	86. 2	104. 4	94. 6
September	91. 3	92. 4	94. 6	94. 5	85. 8	104. 2	94. 7
October	91. 7	92. 4	94. 6	94. 5	87. 1	104. 3	95. 0
November	92. 7	92. 3	94. 6	97. 0	88. 2	105. 7	96. 0
December	93. 6	93. 6	94. 6	97. 0	87. 7	107. 0	96. 8

[1] Data not yet available.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS AND SUBGROUPS OF COMMODITIES, 1928—Continued

Year and month	Chemicals and drugs					House-furnishing goods		
	Chemicals	Drugs and pharmaceuticals	Fertilizer materials	Mixed fertilizers	All chemicals and drugs	Furniture	Furnishings	All house-furnishing goods
1928								
Average for year	101.3	70.8	94.6	97.3	95.5	97.2	97.5	97.4
January	102.4	72.6	94.8	97.0	96.3	98.2	98.8	98.6
February	102.1	71.7	94.0	96.5	95.8	98.0	98.7	98.4
March	101.0	71.1	96.5	96.8	95.6	97.9	98.6	98.3
April	101.1	70.6	97.4	97.0	95.8	97.8	97.9	97.9
May	100.8	70.4	95.5	97.6	95.3	97.8	97.8	97.8
June	100.4	70.3	94.0	98.1	94.9	97.7	96.5	97.0
July	100.2	70.4	93.0	97.5	94.5	97.4	96.6	96.9
August	100.5	70.3	93.4	97.4	94.7	97.6	96.9	97.2
September	101.1	70.1	93.5	97.5	95.1	97.5	97.0	97.2
October	101.8	70.7	93.8	97.5	95.6	95.5	97.1	96.5
November	102.3	70.9	94.1	97.6	96.0	95.3	97.1	96.4
December	102.4	70.8	94.1	97.8	96.1	95.3	97.1	96.4

Year and month	Miscellaneous						All commodities
	Cattle feed	Paper and pulp	Rubber, crude	Automobile tires	Other miscellaneous	All miscellaneous	
1928							
Average for year	138.1	89.4	46.4	64.4	98.6	83.0	97.7
January	133.1	90.9	82.2	69.7	98.8	89.0	96.3
February	139.1	90.9	64.7	69.8	99.2	87.3	96.4
March	154.4	90.5	55.0	69.8	98.3	86.8	96.0
April	153.3	90.2	41.5	69.8	98.4	84.9	97.4
May	160.4	89.8	39.0	69.8	98.8	85.1	98.6
June	148.8	89.2	40.1	62.2	98.4	82.2	97.6
July	132.4	89.2	39.8	61.6	98.4	80.8	98.3
August	111.5	88.8	39.7	61.6	98.1	79.3	98.9
September	121.1	88.8	38.1	61.6	98.0	79.7	100.1
October	128.2	89.0	38.8	60.9	98.5	80.3	97.8
November	137.8	88.8	37.9	50.1	98.5	80.0	96.7
December	137.0	88.6	37.0	58.1	99.7	80.1	96.7

COST OF LIVING

Changes in Cost of Living in the United States

THE cost of living in the United States in December, 1928, was 0.8 per cent higher than in June preceding and 0.4 per cent less than in December, 1927, according to the data compiled by the Bureau of Labor Statistics in its semiannual survey of cost of living in various cities. These data, together with the data that have been given in previous reports, are shown in the tables following. The information is based on actual prices secured from merchants and dealers for each of the periods named. The prices of food and of fuel and light (which include coal, wood, gas, electricity, and kerosene) are furnished the bureau in accordance with arrangements made with establishments through personal visits of the bureau's agents. In each city food prices are secured from 15 to 25 merchants and dealers, and fuel and light prices from 10 to 15 firms, including public utilities. All other data are secured by special agents of the bureau who visit the various merchants, dealers, and agents and secure the figures directly from their records. Four quotations are secured in each city (except in Greater New York, where five are obtained) on each of a large number of articles of clothing, furniture, and miscellaneous items. The number of houses and apartments for which basic rental figures are shown vary in the different cities approximately in proportion to population, the number per city, in round numbers, ranging from 400 to 2,200.

In Table 1 are given index numbers, with 1913 as the base or 100, showing changes in the total cost of living in the United States from 1913 to December, 1928.

TABLE 1.—INDEX NUMBERS SHOWING CHANGES IN COST OF LIVING IN THE UNITED STATES, 1913, TO DECEMBER, 1928

Date	Index numbers	Date	Index numbers	Date	Index numbers
Average, 1913	**100.0**	September, 1921	177.3	June, 1924	169.1
December, 1914	103.0	December, 1921	174.3	September, 1924	170.6
December, 1915	105.1	March, 1922	166.9	December, 1924	172.5
December, 1916	118.3	June, 1922	166.4	June, 1925	173.5
December, 1917	142.4	September, 1922	166.3	December, 1925	177.9
December, 1918	174.4	December, 1922	169.5	June, 1926	174.8
June, 1919	177.3	March, 1923	168.8	December, 1926	175.6
December, 1919	199.3	June, 1923	169.7	June, 1927	173.4
June, 1920	216.5	September, 1923	172.1	December, 1927	172.0
December, 1920	200.4	December, 1923	173.2	June, 1928	170.0
May, 1921	180.4	March, 1924	170.4	December, 1928	171.3

Table 2 shows the per cent of change in cost of living from June, 1920, December, 1927, and June, 1928, respectively, to December, 1928, in 32 cities, and in the United States, as determined by a consolidation of the figures for the 32 cities.

TABLE 2.—PER CENT OF DECREASE IN COST OF LIVING IN SPECIFIED CITIES FROM JUNE, 1920, DECEMBER, 1927, AND JUNE, 1928, TO DECEMBER, 1928

City	Per cent of increase (+) or decrease (−) from—			City	Per cent of increase (+) or decrease (−) from—		
	June, 1920, to Dec., 1928	Dec., 1927, to Dec., 1928	June, 1928, to Dec., 1928		June, 1920, to Dec., 1928	Dec., 1927, to Dec., 1928	June, 1928, to Dec., 1928
Atlanta	−21.2	+1.1	+1.5	New Orleans	−15.8	−0.3	+1.1
Baltimore	−18.9	−.3	+.1	New York	−19.6	−1.6	+1.1
Birmingham	−19.5	−1.3	+.4	Norfolk	−21.6	+.4	+1.5
Boston	−20.2	−.8	+2.1	Philadelphia	−18.3	−2.1	−.5
Buffalo	−18.9	−.3	+.5	Pittsburgh	−16.6	−.3	+1.7
Chicago	−19.3	−.7	+.9	Portland, Me	−19.7	−.2	+1.7
Cincinnati	−17.6	−.1	+.2	Portland, Oreg	−24.0	−.3	+1.3
Cleveland	−20.4	−2.0	−.5	Richmond	−19.5	−.6	+.3
Denver	−22.6	−.3	+1.2	St. Louis	−19.1	−.8	+.4
Detroit	−24.8	−.9	+.6	San Francisco	−17.5	+.6	+1.8
Houston	−21.6	−.9	+1.4	Savannah	−24.0	+.6	+1.6
Indianapolis	−21.1	−.6	+.3	Scranton	−15.6	−.5	+.7
Jacksonville	−21.9	−2.3	+.5	Seattle	−20.6	+.1	+.8
Kansas City	−26.3	−.5	+.1	Washington	−20.4	−.4	+.3
Los Angeles	−15.2	+.2	+2.2				
Memphis	−19.7	+.2	+.9	Average, United States	−20.9	−.4	+.8
Minneapolis	−19.7	−.2	−.5				
Mobile	−20.0	+.1	+1.3				

Table 3 shows the changes in each item of expenditure in 19 cities from December, 1914, to December, 1928. Figures for certain months are omitted from Tables 3 and 4 to curtail space.

In studying this and the following tables it should be borne in mind that the figures for the 19 cities in Table 3 are based on the prices prevailing in December, 1914, the figures for the 13 cities in Table 4 are based on the prices prevailing in December, 1917, while the figures for the United States, shown in Table 5, are a summarization of the figures in Tables 3 and 4, computed on a 1913 base.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1928

Baltimore, Md.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	[1] 4.1	2.7	[1] 0.2	0.5	5.6	[1] 1.4	[1] 1.4
December, 1916	20.9	24.0	.9	9.1	26.4	18.5	18.5
December, 1917	64.4	52.1	3.0	25.5	60.8	51.3	51.3
December, 1918	96.4	107.7	13.8	46.0	122.3	78.7	84.7
December, 1919	92.5	177.4	25.8	48.1	167.0	99.4	98.4
June, 1920	110.9	191.3	41.6	57.6	191.8	111.4	114.3
December, 1920	75.6	159.5	49.5	79.0	181.9	112.9	96.8
May, 1921	43.4	123.2	63.0	70.9	147.5	111.8	77.4
December, 1921	46.9	88.6	64.7	85.5	123.7	108.6	73.2
June, 1922	39.9	78.9	65.4	84.8	113.3	104.4	67.6
December, 1922	46.1	80.5	66.9	94.9	116.6	102.6	70.9
June, 1923	46.5	81.4	69.6	91.6	127.5	103.8	72.0
December, 1923	50.6	81.8	71.9	93.5	130.2	105.2	74.8
June, 1924	44.0	78.3	72.4	84.8	129.4	109.9	71.9
December, 1924	53.0	76.2	72.2	88.7	125.7	107.1	74.8
June, 1925	57.7	76.0	72.0	85.3	122.8	111.0	77.3
December, 1925	66.2	76.2	72.2	90.9	122.1	111.6	81.2
June, 1926	62.2	73.0	71.3	89.8	112.8	111.2	78.4
December, 1926	63.0	72.5	70.6	87.3	110.5	112.3	78.6
June, 1927	56.7	71.3	69.9	82.2	106.9	112.9	75.3
December, 1927	56.7	68.4	68.0	85.5	104.8	112.3	74.5
June, 1928	52.9	68.1	66.7	82.0	103.2	118.7	73.7
December, 1928	51.9	68.3	65.7	87.3	102.0	120.9	73.9
Boston, Mass.							
December, 1915	[1] 0.3	6.6	[1] 0.1	1.1	8.4	1.6	1.6
December, 1916	18.0	21.9	.1	10.5	26.3	15.7	15.7
December, 1917	45.8	47.5	[1] .1	29.2	58.4	38.1	38.1
December, 1918	74.9	117.5	2.8	56.6	137.6	62.0	70.6
December, 1919	80.8	192.4	12.2	63.2	198.7	81.1	92.3
June, 1920	105.0	211.1	16.2	83.6	233.7	91.8	110.7
December, 1920	74.4	192.7	25.8	106.0	226.4	96.6	97.4
May, 1921	41.9	150.3	29.8	97.8	171.2	96.2	74.4
December, 1921	50.4	106.3	33.8	98.5	136.9	93.0	70.2
June, 1922	32.5	96.7	34.4	92.5	124.2	89.5	59.6
December, 1922	44.9	92.0	36.7	99.9	133.6	87.8	65.1
June, 1923	39.7	93.0	40.2	88.8	150.5	89.2	63.5
December, 1923	48.8	92.6	47.0	97.0	148.2	93.0	69.4
June, 1924	37.9	91.2	50.7	90.7	136.9	88.0	63.2
December, 1924	47.8	89.1	52.4	93.7	138.1	85.9	67.3
June, 1925	44.5	88.9	52.9	90.4	136.9	86.3	65.8
December, 1925	60.6	87.8	54.0	107.2	136.7	91.0	74.7
June, 1926	51.5	85.9	53.2	94.4	133.1	91.0	69.4
December, 1926	56.6	85.3	53.5	98.7	129.6	92.3	71.9
June, 1927	50.5	82.9	53.2	92.5	125.5	91.5	68.1
December, 1927	54.4	80.2	52.4	96.5	124.4	91.3	69.5
June, 1928	45.0	80.2	52.2	90.4	123.1	90.2	64.8
December, 1928	50.5	80.4	51.6	96.7	118.4	94.4	68.2
Buffalo, N. Y.							
December, 1915	2.4	9.0	1.2	1.3	7.1	3.5	3.5
December, 1916	30.1	29.6	4.7	9.3	24.1	24.4	24.4
December, 1917	64.1	58.5	9.4	23.5	50.2	51.1	51.1
December, 1918	87.8	123.1	20.7	49.3	106.3	76.0	80.9
December, 1919	94.7	190.8	29.0	55.7	165.4	90.3	102.7
June, 1920	115.7	210.6	46.6	69.8	199.7	101.9	121.5
December, 1920	78.5	168.7	48.5	74.9	189.2	107.4	101.7
May, 1921	37.7	131.6	61.1	73.9	151.3	107.8	80.3
December, 1921	50.8	96.5	61.7	79.7	124.7	103.0	76.8
June, 1922	38.5	83.6	64.7	78.8	108.0	97.9	68.6
December, 1922	48.8	81.4	64.9	115.7	112.8	97.5	73.9
June, 1923	41.6	83.4	70.0	119.1	127.9	100.5	74.1
December, 1923	51.9	83.8	71.8	120.4	127.5	102.5	78.6
June, 1924	39.5	81.7	76.3	116.6	121.0	101.9	73.9
December, 1924	51.6	79.9	76.8	117.9	121.0	100.9	77.8
June, 1925	52.0	80.3	79.1	115.5	119.5	107.7	79.7
December, 1925	66.5	79.8	79.5	117.9	118.2	107.9	84.8
June, 1926	60.9	76.7	78.1	127.3	113.6	110.6	82.8
December, 1926	63.6	74.6	77.4	127.1	110.2	112.5	83.6
June, 1927	56.7	72.2	75.8	126.9	106.2	111.4	79.8
December, 1927	55.9	71.2	73.7	128.5	106.0	116.3	80.2
June, 1928	51.6	71.7	72.7	126.7	105.4	117.8	78.7
December, 1928	54.9	72.4	69.4	128.5	104.2	117.8	79.6

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1928—Continued

Chicago, Ill.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	2.7	7.5	[1] 0.1	[1] 0.9	5.9	3.0	3.0
December, 1916	25.2	24.2	.7	6.6	20.0	19.5	19.5
December, 1917	53.4	50.6	1.4	19.3	47.5	41.8	41.8
December, 1918	78.7	138.9	2.6	37.1	108.9	58.7	72.2
December, 1919	93.1	224.0	14.0	40.1	176.0	84.3	100.6
June, 1920	120.0	205.3	35.1	62.4	215.9	87.5	114.6
December, 1920	70.5	158.6	48.9	83.5	205.8	96.5	93.3
May, 1921	41.9	122.7	78.2	65.3	162.4	98.5	78.4
December, 1921	48.3	74.3	83.9	69.4	133.7	94.5	72.3
June, 1922	41.6	63.0	87.4	55.4	108.5	87.9	65.0
December, 1922	44.8	67.5	88.9	65.6	120.4	86.7	68.0
June, 1923	45.1	72.2	92.1	54.9	133.1	87.7	69.6
December, 1923	52.5	76.0	95.4	59.3	132.9	88.1	73.7
June, 1924	47.9	72.6	104.4	53.0	122.2	90.7	72.6
December, 1924	56.2	67.8	105.8	56.1	121.9	90.7	75.3
June, 1925	61.4	65.8	105.6	53.9	118.1	93.9	77.1
December, 1925	69.4	65.3	104.4	65.8	118.5	93.9	80.6
June, 1926	67.2	62.7	99.5	55.4	112.4	94.3	77.8
December, 1926	69.6	61.9	96.7	64.4	109.2	95.7	79.0
June, 1927	68.2	58.7	93.9	57.2	105.2	96.7	77.1
December, 1927	62.4	53.8	90.0	59.2	104.4	99.7	74.3
June, 1928	59.4	53.3	86.8	51.2	96.0	98.5	71.5
December, 1928	62.4	52.1	83.6	56.5	97.2	101.7	73.1

Cleveland, Ohio

December, 1915	1.4	2.0	0.1	0.3	4.7	1.4	1.4
December, 1916	26.4	18.0	.9	10.0	19.7	19.1	19.1
December, 1917	54.3	43.7	11.3	26.8	47.8	42.9	42.9
December, 1918	79.4	102.6	16.5	51.9	102.4	67.1	71.4
December, 1919	92.9	171.2	39.9	62.9	165.5	85.9	98.2
June, 1920	118.7	185.1	47.3	90.3	186.5	117.9	120.3
December, 1920	71.7	156.0	80.0	94.5	176.8	134.0	107.3
May, 1921	37.4	124.0	88.1	89.6	133.6	129.6	87.5
December, 1921	40.9	85.8	81.2	103.8	100.8	123.2	78.8
June, 1922	34.6	72.4	69.6	102.2	87.8	110.7	68.9
December, 1922	41.1	70.9	74.0	116.3	104.8	109.4	72.9
June, 1923	42.1	77.6	73.8	151.6	129.6	108.1	77.1
December, 1923	43.6	79.6	78.7	147.0	129.3	113.1	79.6
June, 1924	37.2	78.4	77.7	142.6	118.0	112.7	75.9
December, 1924	46.2	72.9	78.6	144.1	113.4	112.1	78.1
June, 1925	53.8	71.9	76.8	143.9	111.9	112.3	80.4
December, 1925	58.3	71.9	75.6	168.8	113.4	111.5	82.7
June, 1926	60.0	70.7	71.6	162.3	106.1	111.9	81.9
December, 1926	58.7	68.3	71.8	170.7	105.3	112.7	81.5
June, 1927	56.6	67.5	67.5	163.9	103.2	115.9	80.2
December, 1927	55.1	66.0	66.3	164.2	97.9	115.9	79.0
June, 1928	50.6	65.7	61.8	161.3	90.2	118.1	76.3
December, 1928	48.5	63.9	60.5	163.7	89.2	119.0	75.4

Detroit, Mich.

December, 1915	4.1	2.3	2.1	1.6	8.7	3.5	3.5
December, 1916	26.5	18.9	17.5	9.9	24.5	22.3	22.3
December, 1917	59.7	46.7	32.6	30.2	50.4	49.9	49.9
December, 1918	82.5	113.8	39.0	47.6	107.3	72.6	78.0
December, 1919	99.5	181.8	60.2	57.9	172.6	100.1	107.9
June, 1920	132.0	208.8	68.8	74.9	206.7	141.3	136.0
December, 1920	75.6	176.1	108.1	104.5	184.0	144.0	118.6
May, 1921	41.1	134.1	101.4	83.6	134.0	140.1	93.3
December, 1921	47.3	92.5	91.1	77.5	96.8	130.7	82.4
June, 1922	43.1	81.4	86.9	75.2	76.0	121.3	75.3
December, 1922	44.8	79.9	92.1	95.5	81.1	121.5	78.2
June, 1923	46.7	84.0	96.9	87.3	105.7	124.2	81.7
December, 1923	47.5	85.3	107.5	84.9	105.3	128.4	84.7
June, 1924	45.5	82.3	105.6	81.8	103.4	127.2	82.8
December, 1924	49.7	76.1	103.8	82.7	98.1	125.4	82.2
June, 1925	60.6	75.2	98.7	78.9	94.1	124.7	84.5
December, 1925	68.1	74.8	97.7	101.1	93.7	122.5	87.8
June, 1926	65.7	73.4	95.5	76.4	91.8	122.5	84.7
December, 1926	63.8	71.0	95.5	86.8	88.7	121.6	84.1
June, 1927	65.2	68.3	89.6	73.4	86.8	125.1	82.7
December, 1927	57.6	64.1	84.1	76.9	84.7	128.3	79.0
June, 1928	53.5	64.3	79.1	73.2	81.4	128.8	76.4
December, 1928	55.7	62.5	78.2	77.0	81.2	131.1	77.4

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1928—Continued

Houston, Tex.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	[1] 1.0	2.7	[1] 2.3	[1] 0.9	6.1	[1] 0.3	[1] 0.3
December, 1916	19.9	25.0	[1] 7.3	8.3	29.6	16.4	16.4
December, 1917	57.3	51.5	[1] 7.7	22.7	62.3	44.9	44.9
December, 1918	86.1	117.3	[1] 1.7	47.5	119.9	67.6	75.7
December, 1919	97.5	192.0	13.4	60.0	181.8	88.2	101.7
June, 1920	107.5	211.3	25.3	55.1	213.9	90.4	112.2
December, 1920	83.2	187.0	35.1	74.2	208.2	103.9	104.0
May, 1921	45.6	143.4	39.4	46.0	173.7	100.8	79.7
December, 1921	50.1	104.9	39.8	39.4	148.2	99.0	73.6
June, 1922	38.9	98.4	38.5	32.9	133.7	94.0	65.9
December, 1922	45.0	98.2	37.3	39.2	140.4	93.0	68.4
June, 1923	41.2	100.4	36.7	36.5	150.2	91.5	67.2
December, 1923	46.4	102.6	36.4	55.8	148.2	93.2	70.6
June, 1924	37.3	100.8	34.9	45.0	143.7	89.5	65.0
December, 1924	54.4	95.6	34.7	44.3	143.0	88.0	70.5
June, 1925	57.3	95.6	34.3	38.7	142.5	87.8	71.1
December, 1925	65.8	92.5	33.0	45.2	143.2	88.0	74.3
June, 1926	55.0	91.2	32.9	38.2	138.6	87.4	69.2
December, 1926	59.8	88.9	32.6	43.7	137.9	86.8	70.6
June, 1927	50.4	86.8	32.2	32.8	136.7	86.6	66.3
December, 1927	52.5	86.2	31.8	34.3	134.1	91.8	67.9
June, 1928	45.6	85.8	30.4	29.2	132.0	89.7	64.1
December, 1928	51.4	86.4	30.1	33.6	131.1	89.3	66.4

Jacksonville, Fla.

December, 1915	[1] 0.3	10.5	[1] 6.9	[2]	15.1	1.3	1.3
December, 1916	17.6	33.7	[1] 18.2	2.3	43.4	14.7	14.7
December, 1917	50.8	71.9	[1] 18.7	15.1	73.7	41.6	41.6
December, 1918	76.2	130.5	5.9	55.2	126.5	60.5	71.5
December, 1919	80.9	217.2	22.0	64.1	186.2	80.9	101.5
June, 1920	90.1	234.0	28.9	72.6	224.2	102.8	116.5
December, 1920	65.6	209.3	34.1	92.6	222.3	105.6	106.2
May, 1921	32.6	167.5	36.5	80.7	182.7	107.5	85.8
December, 1921	40.6	117.9	38.3	68.9	134.9	99.3	75.1
June, 1922	30.6	99.9	35.3	58.9	115.3	95.5	65.7
December, 1922	34.8	99.3	35.1	65.7	127.1	94.7	67.8
June, 1923	32.0	101.1	34.3	63.6	137.9	95.3	67.7
December, 1923	39.9	104.5	33.4	75.1	139.4	96.6	71.9
June, 1924	30.2	102.7	33.3	72.1	132.9	95.0	67.3
December, 1924	40.0	94.6	33.5	72.9	132.4	99.1	70.4
June, 1925	41.8	94.0	33.5	69.3	134.0	99.3	70.9
December, 1925	58.3	93.6	55.3	87.1	135.6	105.3	81.7
June, 1926	53.4	93.4	66.6	95.3	134.7	105.5	81.8
December, 1926	53.5	90.9	69.9	91.2	128.1	105.7	81.3
June, 1927	45.0	88.0	57.2	87.8	126.0	104.5	75.7
December, 1927	41.3	85.4	51.2	84.0	124.6	104.5	73.0
June, 1928	36.4	85.0	32.3	74.4	119.2	105.1	68.3
December, 1928	40.0	84.6	27.4	78.9	119.6	105.1	69.1

Los Angeles, Calif.

December, 1915	[1] 4.1	2.8	[1] 2.7	0.4	6.3	[1] 1.9	[1] 1.9
December, 1916	.4	14.3	[1] 2.5	2.3	23.1	7.7	7.7
December, 1917	33.4	45.0	[1] .6	10.4	56.4	28.9	28.9
December, 1918	61.8	109.1	4.4	18.3	118.5	52.0	58.0
December, 1919	71.0	167.6	26.8	35.3	175.5	76.9	85.3
June, 1920	90.8	184.5	42.6	53.5	202.2	86.6	101.7
December, 1920	62.7	166.6	71.4	53.5	202.2	100.6	96.7
May, 1921	33.2	127.4	85.3	52.7	156.6	96.8	78.7
December, 1921	38.4	94.3	90.1	52.7	143.2	99.6	76.4
June, 1922	30.6	81.3	95.6	39.1	128.8	103.8	72.5
December, 1922	39.4	78.0	94.8	35.6	138.1	101.2	74.5
June, 1923	36.2	82.5	97.7	33.7	153.6	100.8	75.1
December, 1923	42.1	83.0	100.9	34.1	152.0	104.2	78.8
June, 1924	35.2	81.4	99.4	33.6	136.1	105.4	75.1
December, 1924	38.8	80.4	93.3	34.4	137.7	104.2	75.4
June, 1925	44.1	79.0	83.6	34.0	133.9	108.9	76.9
December, 1925	48.7	77.7	73.7	34.4	133.7	110.6	77.4
June, 1926	39.9	75.7	67.4	34.1	126.7	104.7	71.2
December, 1926	44.7	75.2	61.7	34.8	123.8	105.7	72.2
June, 1927	40.4	74.0	59.9	61.0	120.4	108.2	71.5
December, 1927	40.4	71.6	57.7	56.8	118.6	108.0	70.6
June, 1928	34.9	71.4	54.1	56.5	110.7	107.2	67.4
December, 1928	44.7	70.5	49.8	51.5	108.4	110.9	71.0

[1] Decrease. [2] No change.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1928—Continued

Mobile, Ala.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	[1] 1.0	2.0	[1] 1.9	[2]	4.1	[1] 0.4	[1] 0.4
December, 1916	19.9	9.0	[1] 4.3	8.8	15.3	13.8	13.8
December, 1917	57.3	38.8	[1] 3.6	27.1	42.8	43.2	43.2
December, 1918	80.6	86.0	11.2	57.1	108.3	72.4	71.4
December, 1919	98.4	123.7	29.6	75.6	153.3	87.0	94.5
June, 1920	110.5	137.4	34.6	86.3	177.9	100.3	107.0
December, 1920	73.5	122.2	53.6	122.3	175.4	100.7	93.3
May, 1921	39.1	90.6	53.3	102.1	140.7	96.9	70.8
December, 1921	42.4	57.7	49.9	98.2	116.9	94.3	63.6
June, 1922	33.2	49.7	47.7	84.4	97.8	87.5	55.3
December, 1922	39.1	50.8	43.8	96.4	97.9	91.0	58.8
June, 1923	37.7	51.8	42.5	93.3	114.0	89.8	58.6
December, 1923	44.7	55.4	42.6	98.1	114.8	91.3	62.6
June, 1924	33.4	54.3	41.4	91.4	109.3	92.7	58.0
December, 1924	49.7	53.4	40.9	90.2	107.2	94.3	63.9
June, 1925	50.3	52.0	40.1	85.6	104.3	95.5	63.9
December, 1925	59.0	49.4	40.4	89.1	103.7	102.0	68.5
June, 1926	53.1	49.5	39.7	94.6	100.8	102.2	66.2
December, 1926	58.0	48.8	40.5	97.7	96.4	102.2	68.1
June, 1927	52.0	47.6	40.4	90.4	97.2	102.4	65.2
December, 1927	51.1	47.6	41.9	92.1	97.2	104.0	65.5
June, 1928	45.4	47.5	41.0	90.0	93.3	107.3	63.5
December, 1928	49.6	48.1	41.6	92.1	92.3	108.3	65.7

New York, N. Y.

December, 1915	1.3	4.8	[1] 0.1	[1] 0.1	8.4	2.0	2.0
December, 1916	16.3	22.3	[1] .1	11.0	27.6	14.9	14.9
December, 1917	55.3	54.2	2.6	19.9	56.5	44.7	44.7
December, 1918	82.6	131.3	6.5	45.5	126.5	70.0	77.3
December, 1919	91.0	219.7	23.4	50.6	172.9	95.8	103.8
June, 1920	105.3	241.4	32.4	60.1	205.1	111.9	119.2
December, 1920	73.5	201.8	38.1	87.5	185.9	116.3	101.4
May, 1921	42.5	159.5	42.2	95.9	156.5	117.6	81.7
December, 1921	51.8	117.8	53.7	90.7	132.0	116.9	79.3
June, 1922	40.0	103.0	55.7	89.0	118.3	112.8	70.7
December, 1922	49.5	98.3	56.7	95.7	121.6	111.6	74.2
June, 1923	44.4	100.7	59.4	89.1	130.3	110.8	72.6
December, 1923	52.0	102.7	62.4	94.2	131.5	113.5	77.3
June, 1924	41.1	100.7	64.5	88.8	121.4	115.0	72.5
December, 1924	50.0	97.7	67.1	93.3	119.4	116.7	76.5
June, 1925	48.9	97.5	67.8	91.0	110.6	116.9	75.8
December, 1925	62.6	95.9	69.5	126.0	110.4	118.2	83.2
June, 1926	56.0	94.7	69.5	95.9	106.6	117.3	78.6
December, 1926	59.1	93.7	70.2	96.1	106.0	117.5	80.0
June, 1927	54.0	92.9	70.2	92.2	102.5	119.0	77.8
December, 1927	57.5	91.4	70.2	96.0	102.9	118.8	79.1
June, 1928	47.5	90.3	69.3	94.4	97.8	118.6	74.4
December, 1928	53.0	88.4	68.6	96.3	96.4	118.8	76.3

Norfolk, Va.

December, 1915	0.8	0.8	0.1	[2]	0.6	0.6	0.6
December, 1916	22.4	6.0	[1] 1.7	17.0	8.7	14.7	14.7
December, 1917	63.9	31.6	[1] 1.7	33.3	39.0	45.2	45.2
December, 1918	86.2	94.6	39.0	74.6	105.5	76.8	80.7
December, 1919	91.5	158.4	63.3	89.9	143.6	97.5	107.0
June, 1920	107.6	176.5	70.8	110.6	165.0	108.4	122.2
December, 1920	76.3	153.6	90.8	128.9	160.5	106.3	109.0
May, 1921	45.4	121.6	94.6	97.3	129.0	106.3	88.1
December, 1921	43.4	90.2	93.4	91.6	106.1	109.3	79.2
June, 1922	33.5	77.6	88.1	87.7	88.4	100.8	69.5
December, 1922	38.6	73.2	77.2	106.5	89.1	99.6	69.9
June, 1923	36.9	79.1	73.0	102.1	101.0	102.2	71.1
December, 1923	40.7	80.8	67.0	96.9	103.8	104.4	72.4
June, 1924	33.1	78.6	64.2	94.4	100.1	103.0	68.4
December, 1924	46.0	75.4	59.4	99.1	102.1	103.4	72.1
June, 1925	47.9	74.7	58.4	96.7	96.0	103.4	71.9
December, 1925	60.8	74.0	53.0	107.9	96.8	103.8	76.4
June, 1926	56.0	73.0	52.1	102.1	93.7	100.5	73.1
December, 1926	58.7	72.8	49.2	109.6	90.4	103.7	74.6
June, 1927	54.7	71.1	45.9	96.8	88.9	114.9	73.9
December, 1927	55.5	70.9	43.6	98.2	88.5	112.5	73.4
June, 1928	50.2	71.6	41.7	95.6	85.7	114.6	71.5
December, 1928	55.0	71.8	39.6	100.3	86.1	118.2	74.1

[1] Decrease. [2] No change.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1928—Continued

Philadelphia, Pa.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	0.3	3.6	[1] 0.3	[1] 0.8	6.9	1.2	1.2
December, 1916	18.9	16.0	[1] .7	5.4	19.9	14.7	14.7
December, 1917	54.4	51.3	2.6	21.5	49.8	43.8	43.8
December, 1918	80.7	111.2	8.0	47.9	107.7	67.5	73.9
December, 1919	87.2	190.3	16.7	51.3	162.8	88.6	96.5
June, 1920	101.7	219.6	28.6	66.8	187.4	102.8	113.5
December, 1920	68.1	183.5	38.0	96.0	183.4	122.3	100.7
May, 1921	37.8	144.7	44.2	85.6	135.5	119.2	79.8
December, 1921	43.9	104.6	48.1	92.0	101.6	116.2	74.3
June, 1922	38.1	89.5	49.6	85.7	90.0	112.3	68.2
December, 1922	43.4	87.6	52.9	93.0	96.9	110.7	70.7
June, 1923	42.7	87.6	58.1	89.9	110.8	112.4	72.1
December, 1923	45.1	88.2	66.9	102.2	111.6	112.0	74.7
June, 1924	39.3	85.5	72.4	91.7	102.3	110.7	71.5
December, 1924	46.4	84.4	75.3	94.8	100.5	117.6	76.1
June, 1925	51.3	83.8	76.0	87.0	98.9	117.6	77.6
December, 1925	62.0	83.6	77.1	100.5	97.9	117.6	82.6
June, 1926	56.6	82.5	77.1	98.3	93.7	120.6	80.6
December, 1926	61.2	80.3	77.3	98.5	92.3	121.5	82.3
June, 1927	53.8	79.2	75.3	89.4	88.6	120.8	78.0
December, 1927	55.9	77.4	72.1	90.5	87.7	121.2	78.3
June, 1928	51.3	76.5	67.1	81.5	85.4	121.4	75.3
December, 1928	51.7	74.0	63.8	87.3	83.9	120.3	74.5
Portland, Me.							
December, 1915	[1] 2.0	2.1	0.2	0.4	6.2	[1] 0.4	[1] 0.4
December, 1916	18.6	9.7	.6	11.4	20.9	13.8	13.8
December, 1917	49.8	32.8	2.4	28.9	43.5	38.0	38.0
December, 1918	86.8	85.8	2.5	67.7	110.8	65.6	72.2
December, 1919	91.9	148.5	10.7	69.8	163.7	83.2	91.6
June, 1920	114.5	165.9	14.5	83.9	190.3	89.4	107.6
December, 1920	78.7	147.8	20.0	113.5	191.2	94.3	93.1
May, 1921	46.7	116.3	23.1	96.8	152.2	94.1	72.1
December, 1921	54.8	88.1	26.6	99.5	123.6	91.2	69.6
June, 1922	39.9	76.7	24.8	96.1	108.1	88.2	59.7
December, 1922	49.1	74.8	30.7	94.7	114.2	88.0	64.1
June, 1923	45.3	77.3	27.3	94.9	129.7	88.0	63.3
December, 1923	52.3	76.7	31.7	100.0	130.2	89.3	66.9
June, 1924	44.1	75.4	27.4	96.2	126.7	87.9	62.4
December, 1924	52.4	75.0	28.8	99.6	126.0	87.2	66.0
June, 1925	52.2	75.0	25.5	95.8	126.0	87.8	65.3
December, 1925	64.5	74.0	24.4	100.3	126.9	87.6	70.3
June, 1926	58.7	71.7	23.7	100.5	121.7	88.4	67.3
December, 1926	63.3	70.3	23.8	102.9	120.8	88.6	69.2
June, 1927	59.4	67.6	23.6	98.6	118.8	88.6	66.8
December, 1927	60.0	66.8	23.0	102.2	118.4	89.0	67.0
June, 1928	54.2	66.5	21.5	98.4	112.5	88.8	63.8
December, 1928	57.0	64.8	20.9	102.4	112.3	97.3	66.9
Portland, Oreg.							
December, 1915	[1] 3.8	3.0	[1] 10.9	[1] 1.0	2.9	[1] 3.1	[1] 3.1
December, 1916	9.8	15.8	[1] 19.6	3.4	18.0	6.1	6.1
December, 1917	42.2	44.4	[1] 22.2	20.2	54.5	31.2	31.2
December, 1918	70.6	96.6	12.3	30.9	109.0	57.9	64.2
December, 1919	81.6	142.1	27.7	42.3	145.1	71.6	83.7
June, 1920	107.1	158.6	33.2	46.9	183.9	79.7	100.4
December, 1920	60.9	122.1	36.9	65.9	179.9	81.1	80.3
May, 1921	26.0	91.2	42.9	67.1	148.0	81.1	62.2
December, 1921	33.1	65.3	43.3	59.4	121.9	80.0	58.3
June, 1922	26.5	53.2	43.3	50.3	101.9	78.5	52.1
December, 1922	34.3	54.9	43.6	65.7	102.9	79.4	56.1
June, 1923	29.5	61.3	42.5	61.3	109.8	75.8	54.6
December, 1923	35.1	61.8	42.7	67.1	109.0	79.6	57.8
June, 1924	28.5	61.1	43.3	55.5	102.2	73.0	52.8
December, 1924	36.1	59.2	42.9	62.4	102.2	74.4	55.8
June, 1925	40.6	57.6	40.9	52.2	98.6	73.0	55.8
December, 1925	43.2	57.0	40.1	60.0	100.6	73.0	56.9
June, 1926	38.6	56.5	37.9	50.9	95.2	74.2	54.6
December, 1926	40.6	54.0	33.5	61.9	90.7	76.6	55.1
June, 1927	39.2	53.2	30.3	56.9	87.8	76.4	53.7
December, 1927	37.5	51.1	26.9	65.7	86.1	77.1	52.8
June, 1928	36.6	50.8	20.9	51.6	80.5	76.4	50.5
December, 1928	41.8	49.4	16.4	63.0	80.1	78.0	52.4

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1928—Continued

San Francisco and Oakland, Calif.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	[1] 4.3	2.5	[1] 0.7	[1] 0.1	6.0	[1] 1.7	[1] 1.7
December, 1916	9.6	14.5	[1] 2.5	4.6	21.7	8.3	8.3
December, 1917	35.9	43.6	[1] 4.0	14.4	48.2	28.6	28.6
December, 1918	66.2	109.0	[1] 3.9	30.1	103.4	50.5	57.8
December, 1919	74.2	170.4	4.7	41.3	143.8	74.7	87.8
June, 1920	93.9	191.0	9.4	47.2	180.1	79.6	96.0
December, 1920	64.9	175.9	15.0	66.3	175.6	84.8	85.1
May, 1921	33.3	140.9	21.7	63.3	143.9	84.4	66.7
December, 1921	40.4	106.3	25.8	65.3	113.9	86.8	63.6
June, 1922	31.1	90.7	29.4	59.5	104.4	83.7	56.8
December, 1922	38.8	85.4	30.0	52.5	105.4	84.2	58.8
June, 1923	34.2	92.1	33.4	42.6	116.7	79.4	57.6
December, 1923	42.3	94.4	36.0	48.8	116.9	81.2	62.1
June, 1924	35.0	91.5	38.0	49.9	113.4	73.2	57.3
December, 1924	42.1	90.5	39.4	53.5	114.7	72.7	60.1
June, 1925	47.6	90.5	40.1	54.3	115.1	72.9	62.2
December, 1925	53.3	89.7	40.0	50.8	115.7	74.6	64.7
June, 1926	44.3	88.4	39.6	48.5	105.6	75.3	60.7
December, 1926	48.3	85.6	39.5	51.0	104.6	75.3	61.7
June, 1927	45.4	83.7	38.7	47.1	103.8	77.8	60.5
December, 1927	46.1	82.4	37.3	48.6	103.4	79.2	60.7
June, 1928	41.5	82.9	35.7	45.9	102.0	79.6	58.8
December, 1928	48.0	83.4	33.5	47.5	99.0	83.2	61.7
Savannah, Ga.							
December, 1915	[1] 0.3	0.8	[1] 1.4	[1] 1.3	1.8	[1] 0.2	[1] 0.2
December, 1916	17.6	24.1	[1] 3.0	[1] 1.7	12.8	14.6	14.6
December, 1917	50.8	56.6	[1] 4.3	21.1	50.7	42.5	42.5
December, 1918	76.2	133.6	5.9	37.5	128.6	67.3	75.0
December, 1919	80.9	195.9	22.0	52.2	182.1	82.0	98.7
June, 1920	91.7	212.1	33.5	65.3	207.2	83.8	109.4
December, 1920	63.5	171.5	58.6	94.4	206.6	91.5	98.7
May, 1921	28.7	133.2	61.9	74.2	175.9	93.0	77.6
December, 1921	33.7	84.2	60.9	66.1	133.7	87.4	66.2
June, 1922	22.7	71.7	57.8	55.2	120.1	81.1	56.8
December, 1922	27.6	76.2	52.7	68.3	123.8	79.5	59.2
June, 1923	22.6	81.3	49.5	61.9	135.9	77.4	57.9
December, 1923	25.0	80.9	47.5	64.1	133.4	76.7	58.2
June, 1924	17.5	79.1	45.3	59.7	130.6	77.5	54.8
December, 1924	25.1	75.8	41.0	62.2	128.7	77.5	56.3
June, 1925	31.5	75.1	39.7	59.1	128.2	77.5	57.9
December, 1925	44.9	73.7	38.6	62.9	128.9	79.1	62.9
June, 1926	39.1	73.7	38.0	61.9	126.6	79.5	60.6
December, 1926	39.7	72.0	38.1	68.4	123.9	79.0	60.5
June, 1927	35.4	69.8	37.7	58.3	121.7	80.6	58.3
December, 1927	35.3	68.6	37.1	59.9	121.9	80.8	58.1
June, 1928	31.1	68.8	35.9	56.9	120.8	81.9	56.6
December, 1928	35.0	69.0	33.9	59.6	118.8	87.0	59.1
Seattle, Wash.							
December, 1915	[1] 2.8	1.2	[1] 2.4	[1] 0.2	8.5	[1] 1.0	[1] 1.0
December, 1916	8.5	11.3	[1] 5.4	2.9	27.4	7.4	7.4
December, 1917	38.7	36.4	[1] .6	23.9	52.3	31.1	31.1
December, 1918	72.5	88.0	44.3	51.8	141.5	58.5	69.9
December, 1919	80.9	154.5	71.5	63.8	201.0	86.8	97.7
June, 1920	102.3	173.9	74.8	65.8	221.2	90.4	110.5
December, 1920	54.1	160.5	76.7	78.7	216.4	95.5	94.1
May, 1921	27.1	128.7	74.8	78.7	177.2	105.5	80.2
December, 1921	30.5	88.7	69.2	69.0	149.9	102.6	71.5
June, 1922	30.0	78.0	64.7	64.0	137.3	97.6	67.0
December, 1922	33.9	74.2	63.1	59.6	136.1	96.4	66.7
June, 1923	31.0	76.7	62.3	58.0	143.9	96.6	66.4
December, 1923	35.8	77.6	62.9	59.1	144.2	96.6	68.5
June, 1924	33.1	76.2	64.0	56.8	140.7	94.6	66.7
December, 1924	35.8	74.4	63.7	59.6	141.1	96.4	67.8
June, 1925	43.7	74.6	64.7	57.8	141.6	96.4	70.5
December, 1925	47.3	74.8	63.7	58.1	142.1	97.0	71.7
June, 1926	42.3	74.8	62.6	49.4	139.4	97.0	69.4
December, 1926	41.6	73.1	60.3	61.2	137.5	97.6	69.1
June, 1927	43.0	71.9	59.0	59.3	136.8	98.4	69.4
December, 1927	37.9	69.5	56.9	59.8	134.7	98.2	66.9
June, 1928	36.9	68.8	55.5	57.1	133.5	97.4	65.8
December, 1928	40.8	68.3	54.1	62.9	132.6	97.4	67.1

[1] Decrease.

TABLE 3.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO DECEMBER, 1928—Continued

Washington, D. C.

Date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1915	0.6	3.7	[1] 1.5	[2]	6.3	0.4	1.0
December, 1916	15.7	23.2	[1] 3.7	7.3	30.5	15.3	14.6
December, 1917	61.1	60.1	[1] 3.4	24.9	72.1	44.3	47.3
December, 1918	90.9	112.6	[1] 1.5	40.9	127.4	55.9	73.8
April, 1919	84.6	109.5	[1] 1.4	41.8	126.0	57.4	71.2
November, 1919	93.3	165.9	5.4	42.8	159.3	62.7	87.6
June, 1920	108.4	184.0	15.6	53.7	196.4	68.2	101.3
December, 1920	79.0	151.1	24.7	68.0	194.0	73.9	87.8
May, 1921	47.4	115.9	28.8	57.1	149.0	72.0	67.1
December, 1921	51.1	87.1	30.4	49.9	122.4	75.8	63.0
June, 1922	44.3	77.5	31.4	44.5	108.1	73.7	57.6
December, 1922	49.2	74.8	32.6	55.1	112.6	72.0	59.5
June, 1923	48.8	78.9	33.9	51.2	129.0	72.5	60.9
December, 1923	52.3	81.2	34.3	47.0	128.8	74.9	63.2
June, 1924	43.7	78.9	35.7	42.9	124.5	75.0	59.2
December, 1924	53.6	75.8	36.7	44.9	125.2	76.5	63.1
June, 1925	57.2	75.4	37.7	39.8	119.8	76.5	64.0
December, 1925	65.6	73.5	40.3	48.7	115.0	75.4	67.3
June, 1926	63.3	73.3	38.6	41.7	112.6	75.0	65.5
December, 1926	66.3	70.9	37.4	45.7	107.5	75.0	66.0
June, 1927	55.0	69.2	36.4	39.3	104.4	73.6	60.5
December, 1927	57.9	67.0	33.8	40.3	103.2	73.8	60.8
June, 1928	55.5	67.0	32.7	38.8	102.2	73.6	59.7
December, 1928	58.2	65.2	31.0	41.0	99.4	73.8	60.2

[1] Decrease. [2] No change.

Table 4 shows the changes in the cost of living from December 1917, to December, 1928, for 13 cities. The table, is constructed in the same manner as the preceding one and differs from it only in the base period and in the length of time covered.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1928

Atlanta, Ga.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	19.0	29.1	14.0	17.0	24.9	14.8	19.7
June, 1919	18.0	40.7	14.5	17.9	30.1	21.5	23.3
December, 1919	27.9	66.9	32.6	30.8	49.9	31.7	37.9
June, 1920	34.0	80.5	40.4	61.0	65.0	34.6	46.7
December, 1920	12.8	56.5	73.1	66.8	58.4	39.7	38.5
May, 1921	[1] 8.9	35.2	78.8	56.1	38.0	40.5	25.2
December, 1921	[1] 7.2	8.3	75.4	43.7	23.0	39.7	18.7
June, 1922	[1] 10.5	.4	68.1	39.1	15.2	34.5	13.7
December, 1922	[1] 8.9	2.8	62.7	57.6	17.4	34.1	15.1
June, 1923	[1] 10.3	5.9	61.4	42.7	23.9	32.8	14.2
December, 1923	[1] 6.3	6.9	62.2	39.3	23.5	33.3	16.0
June, 1924	[1] 10.2	5.7	60.1	32.0	20.4	33.8	13.6
December, 1924	[1] 5.5	4.9	56.9	33.1	20.4	33.7	14.9
June, 1925	[1] 1.2	4.5	55.5	26.2	19.9	34.9	16.2
December, 1925	6.5	4.3	49.3	34.7	18.8	35.6	19.0
June, 1926	4.5	3.9	44.4	36.6	17.4	34.0	17.3
December, 1926	4.3	2.9	42.1	46.0	15.5	33.9	17.4
June, 1927	4.1	2.1	41.5	31.7	14.6	33.9	16.2
December, 1927	1.3	.2	39.5	38.0	15.9	31.5	14.3
June, 1928	[1] 1.0	.2	38.9	31.8	15.2	35.6	13.9
December, 1928	2.9	.4	38.2	36.3	14.9	35.3	15.6

[1] Decrease.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1928—Continued

Birmingham, Ala.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	17.7	23.9	8.1	22.8	19.4	13.8	17.0
June, 1919	18.3	29.8	12.8	31.9	20.2	16.3	19.8
December, 1919	26.5	57.6	34.9	39.8	45.1	26.8	34.3
June, 1920	36.4	66.4	40.3	55.3	55.6	28.7	41.9
December, 1920	11.9	45.1	68.5	74.2	48.1	30.4	33.3
May, 1921	[1] 9.1	24.8	77.4	54.3	32.0	33.8	22.1
December, 1921	[1] 8.5	[1] .4	70.9	44.1	12.0	35.5	16.2
June, 1922	[1] 13.1	[1] 6.1	67.0	25.0	3.3	30.4	10.7
December, 1922	[1] 9.9	[1] 1.7	62.3	49.9	8.9	29.6	13.2
June, 1923	[1] 9.9	1.8	63.1	40.7	17.8	28.5	13.6
December, 1923	[1] 6.6	3.8	67.9	50.2	19.7	27.2	16.0
June, 1924	[1] 12.6	3.2	68.6	40.5	14.3	27.2	13.1
December, 1924	[1] 3.1	1.6	68.6	45.7	14.9	27.3	16.8
June, 1925	[1] .9	1.5	68.3	33.8	15.5	27.2	16.9
December, 1925	4.5	[1] .3	68.0	41.4	15.5	27.8	19.2
June, 1926	1.5	[1] .9	66.5	41.0	13.5	26.9	17.5
December, 1926	1.8	[1] 1.9	65.8	51.3	12.4	26.9	17.8
June, 1927	[1] 3.1	[1] 3.1	64.5	39.6	11.2	26.4	14.8
December, 1927	[1] 1.3	[1] 4.1	61.7	45.9	14.1	28.5	15.7
June, 1928	[1] 4.7	[1] 4.3	59.4	37.1	13.9	28.2	13.7
December, 1928	[1] 2.2	[1] 4.2	54.8	43.4	12.3	27.2	14.2

Cincinnati, Ohio

December, 1918	15.3	33.8	0.2	10.0	25.7	20.4	17.3
June, 1919	18.1	48.3	.8	5.6	30.5	21.8	21.1
December, 1919	22.9	84.2	12.8	11.0	51.1	40.3	35.2
June, 1920	38.7	96.7	13.6	26.9	75.5	47.6	47.1
December, 1920	10.3	73.5	25.0	34.1	66.7	53.4	34.7
May, 1921	[1] 7.4	49.0	27.6	15.7	39.7	52.3	21.7
December, 1921	[1] 8.3	13.9	28.5	42.4	22.3	47.3	15.3
June, 1922	[1] 8.9	4.9	31.0	35.2	15.8	44.0	12.7
December, 1922	[1] 10.4	5.5	35.2	61.0	17.2	42.7	13.8
June, 1923	[1] 9.3	8.8	40.7	51.9	24.3	42.8	15.5
December, 1923	[1] 6.7	9.2	45.6	53.0	26.2	43.3	17.7
June, 1924	[1] 10.2	6.4	49.3	39.3	23.2	46.9	16.3
December, 1924	[1] 8.3	1.5	50.1	44.5	23.2	52.3	17.6
June, 1925	[1] .9	1.2	51.2	61.1	23.4	55.0	22.1
December, 1925	3.9	[1] 1.1	51.8	70.4	21.3	49.9	23.0
June, 1926	2.7	[1] 1.2	54.8	62.2	17.7	50.5	22.6
December, 1926	3.1	[1] 1.7	55.9	83.6	16.9	50.5	23.8
June, 1927	3.9	[1] 2.3	56.8	66.7	16.1	50.0	23.3
December, 1927	[1] 1.0	[1] 3.9	57.9	66.9	16.6	50.0	21.3
June, 1928	[1] .5	[1] 3.9	57.1	61.1	15.4	49.7	21.0
December, 1928	.4	[1] 5.5	57.1	61.6	14.7	49.6	21.2

Denver, Colo.

December, 1918	20.0	40.1	12.8	8.1	22.6	14.8	20.7
June, 1919	20.7	53.2	21.8	8.4	31.3	17.7	25.3
December, 1919	26.0	82.1	33.5	19.6	46.3	32.3	38.2
June, 1920	41.5	96.8	51.9	22.3	60.2	35.4	50.3
December, 1920	7.9	78.3	69.8	47.1	58.9	38.8	38.7
May, 1921	[1] 13.1	53.9	76.9	37.5	42.5	42.8	26.9
December, 1921	[1] 8.8	27.7	82.6	39.7	27.9	43.1	24.5
June, 1922	[1] 14.2	15.3	84.8	32.8	20.4	38.1	18.8
December, 1922	[1] 9.0	16.6	86.9	40.7	21.2	37.6	21.6
June, 1923	[1] 11.5	16.9	85.4	30.4	26.1	37.1	19.9
December, 1923	[1] 8.7	17.9	88.9	37.2	27.0	36.8	22.1
June, 1924	[1] 13.5	16.1	84.4	19.7	23.8	35.1	17.8
December, 1924	[1] 7.8	15.1	84.0	25.4	24.2	35.6	20.2
June, 1925	[1] 5.3	14.5	82.5	27.0	24.8	35.6	21.1
December, 1925	[1] 1.3	13.1	78.5	37.4	25.2	35.6	22.5
June, 1926	[1] 3.8	12.4	71.9	25.3	24.2	35.1	19.7
December, 1926	[1] 3.0	11.8	65.5	38.1	23.5	36.6	20.4
June, 1927	[1] 2.8	10.1	61.2	20.8	22.9	36.1	18.4
December, 1927	[1] 6.9	8.9	58.3	32.9	21.2	34.2	16.6
June, 1928	[1] 8.6	8.4	55.8	26.9	20.5	33.4	14.9
December, 1928	[1] 6.3	8.2	54.1	39.3	19.8	33.8	16.3

[1] Decrease.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1928—Continued

Indianapolis, Ind.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	17.8	32.4	1.6	19.8	18.9	21.9	19.1
June, 1919	16.4	40.1	2.6	16.7	24.8	26.8	21.1
December, 1919	28.2	73.8	11.6	27.3	48.4	38.2	36.5
June, 1920	49.0	87.9	18.9	45.6	67.5	40.5	50.2
December, 1920	11.0	72.3	32.9	60.3	63.0	47.5	37.6
May, 1921	[1] 10.1	45.8	37.4	49.4	35.3	47.4	23.9
December, 1921	[1] 8.4	16.2	43.8	42.5	22.5	46.2	19.3
June, 1922	[1] 9.9	7.9	41.3	44.9	13.7	45.4	16.4
December, 1922	[1] 11.1	8.6	44.1	73.4	16.7	46.7	18.8
June, 1923	[1] 8.0	11.6	44.6	54.9	23.2	46.1	19.4
December, 1923	[1] 6.5	13.4	47.1	41.5	24.0	49.2	20.6
June, 1924	[1] 10.0	11.9	46.5	38.2	21.4	51.5	19.3
December, 1924	[1] 4.9	10.4	46.7	41.5	21.5	53.3	21.4
June, 1925	[1] 2.3	9.8	44.1	33.9	20.6	53.8	21.5
December, 1925	4.4	7.5	41.7	44.9	21.8	54.1	24.2
June, 1926	2.6	7.4	38.3	33.9	20.6	51.6	21.9
December, 1926	2.9	5.4	36.5	47.8	19.9	51.8	22.3
June, 1927	3.5	5.9	34.6	34.6	18.0	52.3	21.4
December, 1927	[1] 1.5	4.3	33.4	34.2	17.5	52.6	19.2
June, 1928	[1] 1.8	4.3	31.3	29.2	13.7	52.3	18.2
December, 1928	[1] .3	3.2	30.4	32.3	12.6	52.0	18.5

Kansas City, Mo.

December, 1918	17.3	40.7	5.4	18.0	31.1	15.6	19.6
June, 1919	15.1	44.8	6.7	9.6	37.9	20.8	20.6
December, 1919	24.5	89.9	26.0	27.5	61.8	31.5	38.2
June, 1920	44.9	104.5	29.4	35.2	73.0	37.1	51.0
December, 1920	10.2	76.3	63.9	55.1	68.7	40.3	39.5
May, 1921	[1] 8.3	52.3	65.0	43.3	50.0	40.4	27.3
December, 1921	[1] 6.6	24.1	69.7	42.6	26.2	37.6	22.5
June, 1922	[1] 13.5	15.9	59.4	36.3	11.6	32.3	15.0
December, 1922	[1] 12.0	14.6	61.4	40.2	12.1	33.3	16.2
June, 1923	[1] 12.5	14.5	53.7	36.1	22.5	33.8	15.3
December, 1923	[1] 10.2	15.2	56.8	36.7	22.6	36.2	17.2
June, 1924	[1] 12.7	13.3	49.5	34.5	16.8	35.3	14.3
December, 1924	[1] 7.7	12.0	46.2	32.9	16.1	34.3	15.3
June, 1925	[1] 3.9	11.4	40.6	32.8	15.6	36.4	16.3
December, 1925	2.0	9.2	39.5	32.3	14.1	36.3	18.0
June, 1926	.5	8.7	35.9	29.4	12.8	36.3	16.6
December, 1926	[1] 1.7	6.3	34.1	33.5	10.8	36.3	15.2
June, 1927	[1] 2.2	5.4	29.1	29.8	8.6	36.6	14.0
December, 1927	[1] 6.8	3.7	28.3	29.0	7.7	36.5	11.9
June, 1928	[1] 5.4	2.7	24.8	28.7	6.8	35.0	11.2
December, 1928	[1] 6.0	2.9	23.8	26.8	5.6	37.8	11.3

Memphis, Tenn.

December, 1918	20.3	27.7	[2]	26.8	25.4	16.1	18.3
June, 1919	22.7	38.3	8.2	23.4	30.7	20.9	23.3
December, 1919	28.4	66.2	23.1	34.1	53.2	28.3	35.2
June, 1920	38.8	77.5	35.9	49.7	67.1	38.8	46.4
December, 1920	7.0	59.0	66.2	105.4	53.9	43.2	39.3
May, 1921	[1] 14.2	36.1	79.7	64.5	29.9	42.9	26.7
December, 1921	[1] 11.2	15.3	77.3	67.1	14.7	42.3	23.2
June, 1922	[1] 15.1	7.3	74.8	56.3	6.8	37.8	18.2
December, 1922	[1] 14.9	6.7	72.5	68.5	12.2	37.4	18.6
June, 1923	[1] 13.9	9.8	72.3	62.8	23.2	38.1	19.9
December, 1923	[1] 11.2	11.0	72.5	65.0	23.4	37.3	21.0
June, 1924	[1] 17.1	9.5	72.4	66.2	18.6	36.3	18.2
December, 1924	[1] 9.2	6.4	68.6	66.2	20.1	37.4	20.4
June, 1925	[1] 7.1	5.9	66.4	55.7	20.1	38.5	20.5
December, 1925	[1] 2.0	4.7	60.4	71.4	20.1	37.8	22.0
June, 1926	[1] 4.1	4.0	57.0	63.3	18.2	36.7	19.9
December, 1926	[1] 5.7	3.9	53.9	80.1	17.1	37.7	19.9
June, 1927	[1] 7.2	1.9	50.2	79.4	16.0	36.6	18.1
December, 1927	[1] 8.0	1.6	47.3	76.0	16.0	36.6	17.3
June, 1928	[1] 8.1	1.5	46.3	60.0	16.0	36.9	16.4
December, 1928	[1] 4.9	.2	43.7	68.8	14.8	37.7	17.5

[1] Decrease. [2] No change.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1928—Continued

Minneapolis, Minn.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	17.7	33.5	[1] 0.1	14.7	18.1	12.3	15.8
June, 1919	21.4	40.1	[1] 2.0	13.4	23.6	15.9	18.8
December, 1919	34.1	67.0	8.0	22.4	45.6	25.4	32.7
June, 1920	50.0	76.7	10.7	36.9	65.5	31.3	43.4
December, 1920	13.0	63.6	36.8	60.3	65.8	37.6	35.7
May, 1921	[1] 7.9	41.0	39.0	52.8	43.3	37.9	23.7
December, 1921	[1] 4.9	14.3	46.7	50.2	27.9	37.4	20.7
June, 1922	[1] 6.0	7.9	44.6	43.7	21.4	32.6	17.3
December, 1922	[1] 5.3	6.5	46.8	47.0	22.5	32.6	18.0
June, 1923	[1] 6.4	9.2	42.5	44.9	29.7	32.8	17.4
December, 1923	[1] 4.7	9.3	47.4	45.6	28.2	32.0	18.8
June, 1924	[1] 7.9	7.4	44.7	42.2	22.8	31.3	16.2
December, 1924	[1] 4.3	5.6	44.9	43.2	23.3	31.2	17.3
June, 1925	[1] .8	4.9	40.7	40.9	23.2	31.1	17.6
December, 1925	6.9	4.4	41.0	42.6	22.1	30.6	20.3
June, 1926	5.8	3.4	36.8	45.9	19.9	32.8	19.6
December, 1926	2.3	2.5	36.1	46.6	17.0	33.5	18.2
June, 1927	4.1	1.1	30.2	44.3	15.1	32.6	17.2
December, 1927	[2]	[1] 1.4	29.9	45.6	14.9	33.0	15.4
June, 1928	1.6	[1] 1.1	27.2	45.2	12.3	34.6	15.8
December, 1928	.7	[1] 1.5	27.5	44.6	10.5	34.5	15.2

New Orleans, La.

December, 1918	16.6	36.8	[2]	19.7	23.8	15.9	17.9
June, 1919	17.4	48.8	0.1	20.8	30.0	17.5	20.7
December, 1919	21.1	83.2	10.8	24.7	57.7	35.1	33.9
June, 1920	28.6	94.9	12.9	36.3	75.9	42.8	41.9
December, 1920	10.7	69.4	39.7	41.5	63.9	57.1	36.7
May, 1921	[1] 10.7	45.0	46.7	29.2	47.7	58.2	23.8
December, 1921	[1] 9.3	24.9	57.9	40.4	28.5	60.2	22.7
June, 1922	[1] 12.8	15.6	58.5	33.4	17.9	58.6	18.9
December, 1922	[1] 10.5	16.2	54.7	38.5	26.2	51.9	18.6
June, 1923	[1] 13.2	17.8	55.5	32.9	34.8	50.1	17.7
December, 1923	[1] 8.7	19.5	57.4	37.1	33.6	50.3	20.2
June, 1924	[1] 14.6	18.6	57.1	32.9	29.2	48.7	16.8
December, 1924	[1] 5.7	17.2	57.2	36.2	30.0	48.7	20.6
June, 1925	[1] 5.7	17.0	57.0	33.7	27.0	48.3	20.2
December, 1925	.9	15.9	56.8	34.2	27.5	47.9	22.7
June, 1926	[1] 5.2	15.7	57.0	39.6	26.6	47.4	20.1
December, 1926	[1] 1.6	15.6	56.2	43.8	25.0	47.4	21.7
June, 1927	[1] 3.9	13.4	56.0	38.5	21.8	48.6	20.3
December, 1927	[1] 4.9	13.4	56.2	38.5	21.8	48.5	19.9
June, 1928	[1] 6.8	13.1	55.9	34.5	17.9	46.1	18.2
December, 1928	[1] 3.2	13.1	54.8	28.4	17.9	46.8	19.5

Pittsburgh, Pa.

December, 1918	18.8	35.9	7.6	9.2	26.3	16.3	19.8
June, 1919	16.2	45.3	13.5	9.4	34.1	16.7	21.8
December, 1919	25.1	82.8	15.5	9.8	63.1	28.3	36.2
June, 1920	36.5	91.3	34.9	31.7	77.4	41.2	49.1
December, 1920	14.3	75.4	35.0	64.4	78.1	46.3	39.3
May, 1921	[1] 8.8	50.7	55.5	59.8	58.2	48.6	27.7
December, 1921	[1] 5.6	23.6	55.3	66.2	31.6	48.0	22.8
June, 1922	[1] 12.2	17.3	56.7	66.0	20.1	43.4	17.8
December, 1922	[1] 5.4	13.1	56.7	72.8	25.1	42.8	20.1
June, 1923	[1] 5.4	14.8	60.4	68.4	29.4	44.1	21.3
December, 1923	[1] 2.1	14.9	60.7	76.9	29.0	43.1	22.9
June, 1924	[1] 7.5	13.7	71.8	74.8	29.0	45.3	22.4
December, 1924	[1] 2.4	11.2	72.1	92.2	29.8	46.6	24.9
June, 1925	[1] .2	11.1	75.2	91.2	27.7	46.7	26.0
December, 1925	6.2	10.5	75.2	89.9	28.0	46.8	28.5
June, 1926	2.6	7.8	75.4	88.0	25.3	46.1	26.2
December, 1926	5.6	5.5	75.0	91.9	24.3	46.4	27.2
June, 1927	2.2	5.2	74.7	88.8	22.6	46.3	25.4
December, 1927	1.4	3.8	74.4	88.0	21.9	46.2	24.8
June, 1928	[1] 3.8	4.2	72.8	85.6	15.9	46.9	22.3
December, 1928	2.1	3.5	71.6	86.0	16.4	46.9	24.4

[1] Decrease. [2] No change.

TABLE 4.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO DECEMBER, 1928—Continued

Richmond, Va.

Date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1918	20.5	33.8	1.0	11.8	26.3	9.0	17.9
June, 1919	20.6	42.3	3.6	11.4	28.6	13.5	20.6
December, 1919	23.1	78.6	9.8	18.7	55.9	24.0	32.0
June, 1920	36.1	93.6	12.5	36.1	75.4	32.4	43.8
December, 1920	11.9	69.0	25.9	62.2	70.0	36.0	33.3
May, 1921	[1] 7.4	43.8	29.4	47.1	48.8	38.7	20.2
December, 1921	[1] 2.9	21.2	34.1	46.8	33.0	38.4	18.3
June, 1922	[1] 7.8	12.9	34.5	33.4	27.6	34.7	13.2
December, 1922	[1] 6.3	10.6	35.3	54.2	29.4	33.5	14.4
June, 1923	[1] 7.2	12.5	35.7	52.7	40.0	33.9	14.9
December, 1923	[1] 4.8	12.9	39.4	61.2	40.5	35.4	17.1
June, 1924	[1] 11.3	11.9	39.5	49.1	37.8	35.8	13.5
December, 1924	[1] 3.3	8.9	41.3	47.9	38.5	35.7	16.5
June, 1925	[1] 2.4	8.6	41.4	44.2	38.2	36.0	16.7
December, 1925	4.8	8.4	40.4	53.6	39.2	39.1	20.8
June, 1926	1.6	8.1	39.6	51.0	38.1	40.8	19.7
December, 1926	.9	7.0	36.0	61.4	36.7	40.8	19.3
June, 1927	[1] 1.2	5.8	34.0	51.9	35.6	40.9	17.4
December, 1927	[1] 2.9	5.3	31.1	54.2	35.3	40.9	16.4
June, 1928	[1] 3.8	5.0	30.6	43.9	33.8	41.0	15.3
December, 1928	[1] 3.1	5.4	28.9	47.5	32.7	40.9	15.7

St. Louis, Mo.

December, 1918	18.0	32.4	2.7	4.8	21.8	14.5	16.7
June, 1919	16.1	39.3	3.8	3.7	32.5	15.7	17.9
December, 1919	26.2	78.1	16.8	8.2	52.9	30.3	34.2
June, 1920	46.2	89.7	29.8	19.6	73.1	37.6	48.9
December, 1920	8.8	70.0	42.4	42.6	70.2	43.2	35.4
May, 1921	[1] 10.1	43.8	52.5	30.9	43.5	42.1	23.1
December, 1921	[1] 11.6	17.2	63.8	33.4	19.2	40.6	18.5
June, 1922	[1] 12.1	7.9	65.7	32.3	12.8	33.2	15.1
December, 1922	[1] 9.5	6.3	68.0	48.9	14.9	33.4	17.0
June, 1923	[1] 11.5	9.0	74.6	30.8	29.8	33.4	17.7
December, 1923	[1] 7.5	9.6	79.5	32.1	30.5	35.8	20.6
June, 1924	[1] 11.4	8.6	83.4	21.6	26.2	35.7	18.8
December, 1924	[1] 6.5	7.9	83.4	24.6	27.4	35.8	20.7
June, 1925	[1] 2.5	7.4	85.2	19.5	28.0	36.6	22.4
December, 1925	3.4	6.9	85.4	26.9	27.9	37.0	25.0
June, 1926	2.8	6.8	84.7	18.3	27.1	36.6	24.1
December, 1926	2.0	7.0	83.2	38.9	22.7	36.6	24.5
June, 1927	1.2	4.4	81.0	34.0	22.3	36.5	23.2
December, 1927	[1] 2.3	3.4	78.3	34.3	23.3	36.9	21.4
June, 1928	[1] 3.5	3.1	76.3	18.9	21.6	37.2	19.9
December, 1928	[1] 2.2	2.5	74.2	23.1	19.5	38.7	20.4

Scranton, Pa.

December, 1918	21.3	34.4	0.5	24.7	27.0	21.4	21.9
June, 1919	18.1	49.6	6.2	25.7	35.6	24.9	25.0
December, 1919	26.9	82.1	2.4	31.5	48.9	34.7	37.1
June, 1920	41.4	97.7	17.2	43.5	62.8	47.9	51.5
December, 1920	17.8	76.5	18.5	67.3	62.0	50.4	39.1
May, 1921	[1] 4.0	54.3	41.5	62.8	48.6	54.6	28.2
December, 1921	4.1	29.1	44.6	67.1	30.7	52.4	26.3
June, 1922	[1] 6.7	24.2	52.8	68.0	24.2	49.9	20.9
December, 1922	[1] 2.1	20.7	53.6	68.6	28.5	49.3	22.4
June, 1923	[1] 5.1	21.7	59.0	65.2	34.7	51.4	22.4
December, 1923	.2	23.2	60.8	75.3	34.9	51.7	25.8
June, 1924	[1] 8.7	22.2	67.6	68.9	31.6	53.7	22.4
December, 1924	[1] 1.6	21.1	68.6	75.7	34.6	53.7	25.8
June, 1925	1.4	20.3	71.0	70.3	33.9	54.8	27.0
December, 1925	9.6	20.2	70.5	99.8	33.9	55.4	32.0
June, 1926	4.7	19.5	71.4	77.8	34.4	55.9	29.0
December, 1926	6.7	18.3	72.4	78.5	33.7	55.9	29.8
June, 1927	4.2	17.2	73.1	71.4	32.4	55.7	28.2
December, 1927	5.0	16.3	73.4	75.3	32.1	55.9	28.5
June, 1928	2.4	16.2	71.7	69.0	30.1	56.2	26.9
December, 1928	4.3	15.3	71.7	72.2	29.3	57.8	27.8

[1] Decrease.

The following table shows the increase in each item of expenditure in the United States from 1913 to December, 1928. These figures are a summarization of the figures for the 32 cities, the results of which appear in the preceding tables, but computed on a 1913 base.

TABLE 5.—CHANGES IN COST OF LIVING IN THE UNITED STATES, 1913, TO DECEMBER, 1928

Date	Per cent of increase over 1913 in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
December, 1914	5.0	1.0	(1)	1.0	4.0	3.0	3.0
December, 1915	5.0	4.7	1.5	1.0	10.6	7.4	5.1
December, 1916	26.0	20.0	2.3	8.4	27.8	13.3	18.3
December, 1917	57.0	49.1	.1	24.1	50.6	40.5	42.4
December, 1918	87.0	105.3	9.2	47.9	113.6	65.8	74.4
June, 1919	84.0	114.5	14.2	45.6	125.1	73.2	77.3
December, 1919	97.0	168.7	25.3	56.8	163.5	90.2	99.3
June, 1920	119.0	187.5	34.9	71.9	192.7	101.4	116.5
December, 1920	78.0	158.5	51.1	94.9	185.4	108.2	100.4
May, 1921	44.7	122.6	59.0	81.6	147.7	108.8	80.4
September, 1921	53.1	92.1	60.0	80.9	124.7	107.8	77.3
December, 1921	49.9	84.4	61.4	81.1	118.0	106.8	74.3
March, 1922	38.7	75.5	60.9	75.8	106.2	103.3	66.9
June, 1922	40.7	72.3	60.9	74.2	102.9	101.5	66.4
September, 1922	39.7	71.3	61.1	83.6	102.9	101.1	66.3
December, 1922	46.6	71.5	61.9	86.4	108.2	100.5	69.5
March, 1923	41.9	74.4	62.4	86.2	117.6	100.3	68.8
June, 1923	44.3	74.9	63.4	80.6	122.2	100.3	69.7
September, 1923	49.3	76.5	64.4	81.3	122.4	101.1	72.1
December, 1923	50.3	76.3	66.5	84.0	122.4	101.7	73.2
March, 1924	43.7	75.8	67.0	82.2	121.3	101.1	70.4
June, 1924	42.4	74.2	68.0	77.3	116.0	101.1	69.1
September, 1924	46.8	72.3	68.0	79.1	114.9	101.1	70.6
December, 1924	51.5	71.3	68.2	80.5	116.0	101.7	72.5
June, 1925	55.0	70.6	67.4	76.5	114.3	102.7	73.5
December, 1925	65.5	69.4	67.1	86.9	114.3	103.5	77.9
June, 1926	59.7	68.2	65.4	80.7	110.4	103.3	74.8
December, 1926	61.8	66.7	64.2	88.3	107.7	103.9	75.6
June, 1927	58.5	64.9	62.1	80.8	105.2	104.5	73.4
December, 1927	55.9	62.9	60.2	83.2	104.6	105.1	72.0
June, 1928	52.6	62.6	57.6	77.2	101.1	105.5	70.0
December, 1928	55.8	61.9	55.9	81.3	99.7	107.1	71.3

[1] No change.

The following table shows the per cent of decrease in the price of electricity on the dates specified as compared with the price in December, 1913. These figures are based on the average prices for household use in 32 cities and are included in the preceding tables under the item "Fuel and light."

TABLE 6.—PER CENT OF DECREASE IN THE PRICE OF ELECTRICITY AT SPECIFIED PERIODS AS COMPARED WITH DECEMBER, 1913

Date	Per cent of decrease from December, 1913	Date	Per cent of decrease from December, 1913	Date	Per cent of decrease from December, 1913
December, 1914	3.7	December, 1921	4.9	September, 1924	8.6
December, 1915	6.2	March, 1922	4.9	December, 1924	8.6
December, 1916	8.6	June, 1922	6.2	June, 1925	9.9
December, 1917	11.1	September, 1922	6.2	December, 1925	9.9
December, 1918	6.2	December, 1922	7.4	June, 1926	11.1
June, 1919	6.2	March, 1923	7.4	December, 1926	11.1
December, 1919	7.4	June, 1923	7.4	June, 1927	12.3
June, 1920	7.4	September, 1923	8.6	December, 1927	12.3
December, 1920	4.9	December, 1923	8.6	June, 1928	13.6
May, 1921	4.9	March, 1924	8.6	December, 1928	14.8
September, 1921	4.9	June, 1924	8.6		

Cost of Living in the United States and in Foreign Countries [1]

THE trend of cost of living in the United States and in various foreign countries since 1913 is shown by the index numbers in the following tables. Table 1 contains general cost of living index numbers, while Tables 2, 3, 4, and 5 show changes in the cost of food, clothing, fuel and light, and rent, respectively.

Caution should be observed in the use of these figures, since not only are there differences in the base periods and in the number and kind of articles included, and the number of markets represented, but also there are radical differences of method in the construction of the index numbers. The number of countries included in the five tables varies according to the information available. Several countries publish an index number for food only, while others omit clothing and in some instances also rent.

[1] Preceding articles on this subject appeared in the Labor Review for December, 1922, July, 1923, January and July, 1924, January and July, 1925, January, 1926, February, 1927, and August, 1928.

TABLE 1.—INDEX NUMBERS OF **COST OF LIVING** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928

Country	United States	Canada	Belgium	Czecho-slovakia	Den-mark	Finland	France	Ger-many	Ireland	Italy
Number of localities	32	60	59	Prague	200	21	Paris	71	200	Milan
Commodities included	Food, clothing, fuel and light, rent, house-furnishings, etc.	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, taxes, etc.	Food, clothing, fuel, rent, taxes, etc.	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries
Computing agency	Bureau of Labor Statistics	Department of Labor	Ministry of Labor and Industry	Office of Statistics	Department of Statistics	Central Statistical Office	Commission for Study of Cost of Living	Federal Statistical Bureau	Department of Industry and Commerce	Municipal Administration
Base period	1913	1913	1921	July, 1914	July, 1914	January-June, 1914	1914	1913–14	July, 1914	January-June, 1914
1913	100	100								
1914	[1] 103	[1] 103		[2] 100	[2] 100	[3] 100	100	[4] 100	[2] 100	[3] 100
1915	[1] 105	[1] 107			[2] 116					114
1916	[1] 118	[1] 124			[2] 136					146
1917	[1] 142	[1] 143			[2] 155					197
1918	[1] 174	[1] 162			[2] 182					285
1919	[1] 199	[1] 176			[2] 211		[3] 238			327
1920	[1] 200	[1] 190			[2] 262		[5] 341			442
1921	[1] 174	[1] 161	100		[2] 237	[1] 1172	[5] 307			541
1922	[1] 170	[1] 157	[2] 90		[2] 199	[1] 1157	[5] 302		[2] 185	501
1923	[1] 173	[1] 159	[2] 109	690	[2] 204	1147	[5] 334	[1] 142	[2] 180	494
1924			[2] 125	692		1170				527
Dec	173	156	137	707		1217	[6] 377	135		573
1925			[2] 133	721		1212				611
Dec	178	160	143	703		1197	[6] 421	141		649
1926						1183				654
Jan			139	707	194	1166		140	188	661
Feb			140	699		1175		139		667
Mar		159	137	687		1172	[6] 451	138		642
Apr			140	685		1163		140	180	642
May			147	692		1159		140		650
June	175	157	155	693		1175	[6] 485	141		659
July			174	718	184	1183		142	182	642
Aug			182	723		1213		143		657
Sept		156	179	723		1203	[6] 539	142		647
Oct			188	726		1197		142	189	672
Nov			196	734		1193		144		657
Dec	176	157	199	735		1197	[6] 545	144		657
1927						1207				
Jan		158	202	741	181	1187		145	182	655
Feb		157	204	740		1189		145		667
Mar		157	200	738		1183	[6] 524	145		663
Apr		155	199	740	178	1173		146	171	651
May		155	197	750		1166		147		612
June	173	155	210	755		1184	[6] 525	148		586
July		155	204	747	176	1203		150	171	548
Aug		155	201	733		1237		147		543
Sept		155	204	730		1230	[6] 507	147		537
Oct		156	207	727	176	1237		150	175	536
Nov		156	207	729		1251		151		536
Dec	172	157	207	734		1243	[6] 498	151		531
1928:										
Jan		157	209	734	176	1216		151	177	532
Feb		156	206	732		1206		151		533
Mar		156	203	730		1214	[6] 507	151		531
Apr		156	204	734	176	1212		151	170	531
May		155	202	736		1207		151		526
June	170	155	204	734		1219	[6] 519	151		530
July		155	205	746	176	1236		153	173	526
Aug		157	206	754		1258		154		522
Sept		157	209	749		1249	[6] 519	152		526
Oct		158	212	726	172	1254		152	176	528
Nov		158	216	721		1262		152		
Dec	171	158						153		

[1] December.
[2] July.
[3] January–June.
[4] October, 1913; January, April, and June, 1914.
[5] April–June.
[6] Quarter ending with month.

TABLE 1.—INDEX NUMBERS OF **COST OF LIVING** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928—Continued

Country	Netherlands	Norway	Poland	Sweden	Switzerland	United Kingdom	South Africa	India	Australia	New Zealand
Number of localities	The Hague	30	Warsaw	49	33	630	9	Bombay	30	25
Commodities included	All commodities	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent	Food, clothing, fuel, light, rent, sundries	Food, fuel, light, rent, sundries	Food, clothing, fuel, light, rent	Food, groceries, rent	Food, clothing, fuel, light, rent, sundries
Computing agency	Municipal Administration	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Ministry of Labor	Office of Census and Statistics	Labor Office	Bureau of Census and Statistics	Census and Statistics Office
Base period	1921	July, 1914	January, 1914	July, 1914	June, 1914	July, 1914	1914	July, 1914	1911	July, 1914
1913									108	
1914		[7] 100	100	[2] 100	[2] 100	[2] 100	100	[2] 100	111	[2] 100
1915		[7] 117				[2] 125	105		126	107
1916		[7] 146		[1] 139		[2] 148	112		130	116
1917		[7] 190				[2] 180	122		129	129
1918		[7] 253		[2] 219	204	[2] 203	131	154	134	143
1919		[7] 275		[2] 257	222	[2] 208	145	175	148	157
1920		[7] 302		[2] 270	224	[2] 252	179	183	175	178
1921	100	[7] 302		[2] 236	200	[2] 219	162	173	167	177
1922	[1] 83	[7] 255		[2] 190	164	[2] 184	135	164	156	160
1923	[1] 82	[7] 239		[2] 174	164	[2] 169	131	154	168	158
1924				[2] 171	169	[2] 170	133	157	166	160
Dec.	84	267				181	133	160	[6] 165	
1925					168			155	170	162
Dec.	82	236			167	177	131	155	[6] 172	[6] 164
1926					162				176	163
Jan.			121	174	166	175	131	155		
Feb.			114		164	173	131	154		162
Mar.	80	227	111		163	172	131	155	[6] 175	
Apr.			95	173	162	168	131	153		
May			87		162	167	132	153		163
June	82	221	98		162	168	131	155	[6] 180	
July			102	172	162	170	130	157		
Aug.			104		161	170	130	155		163
Sept.	79	221	109		161	172	130	155	[6] 176	
Oct.			111	171	161	174	131	155		
Nov.			114		161	179	131	154		163
Dec.	80	216	115		161	179	129	156	[6] 174	
1927					160				174	162
Jan.		213	117	171	160	175	130	156		
Feb.		221	117		160	172	130	155		162
Mar.	80	208	116		159	171	131	155	[6] 174	
Apr.		206	118	170	158	165	131	153		
May		205	119		160	164	132	152		162
June	80	204	119		160	163	132	154	[6] 172	
July		206	115	169	160	166	132	156		
Aug.		205	116		160	164	131	157		161
Sept.	80	199	117		161	165	131	154	[6] 175	
Oct.		199	119	172	161	167	132	151		
Nov.		198	122		162	169	132	150		161
Dec.	82	197	121		162	169	132	151	[6] 177	
1928:										
Jan.		197	120	171	161	168	132	154		
Feb.		197	118		161	166	131	148		161
Mar.	83	196	119		160	164	132	145	[6] 175	
Apr.		196	121	171	160	164	133	144		
May		196	121		160	164	133	147		162
June	82	195	122		161	165	132	146	[6] 175	
July		196	123	173	161	165	131	147		
Aug.		195	122		161	165	131	146		161
Sept.	81	187	122		161	165	131	145		
Oct.			123	172	162	166	131	146		
Nov.			125		162	167	131	147		
Dec.			125			168		148		

[1] December. [2] July. [6] Quarter ending with month. [7] June.

TABLE 2.—INDEX NUMBERS OF **COST OF FOOD** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928

Country	United States	Canada	Belgium	Czecho-slovakia	Den-mark	Fin-land	France	Ger-many	Ireland	Italy
Number of localities	51	60	59	Prague	200	21	Paris	71	200	Milan
Comput-ing agen-cy	Bureau of Labor Statis-tics	Depart-ment of Labor	Minis-try of Labor and Indus-try	Office of Statis-tics	Depart-ment of Statis-tics	Central Statis-tical Office	Com-mission for Study of Cost of Living	Federal Statis-tical Bureau	Depart-ment of In-dustry and Com-merce	Munic-ipal Admin-istra-tion
Base pe-riod	1913	1913	1921	July, 1914	July, 1914	January–June, 1914	1914	1913–14	July, 1914	January–June, 1914
1913	100	100								[3] 100
1914	[1] 105	[1] 108		[2] 100	[2] 100	[3] 100	100	[4] 100	[2] 100	116
1915	[1] 105	[1] 111								149
1916	[1] 126	[1] 138								205
1917	[1] 157	[1] 167								320
1918	[1] 187	[1] 186								359
1919	[1] 197	[1] 201					[3] 260			455
1920	[1] 178	[1] 202					[5] 344			559
1921	[1] 150	[1] 150	100			[1] 1230	[5] 323			522
1922	[1] 147	[1] 142	[2] 87		[2] 184	[1] 1122	[5] 316		[2] 185	500
1923	[1] 150	[1] 146	[2] 105	769	[2] 188	1079	[5]346	[1] 166	[2] 182	528
1924	146	[1] 144	[2] 124	787		1093				579
Dec	152	144	140	810		1160	[6] 389	146		622
1925	157			827		1147				660
Dec	166	157	147	796		1138	[6] 437	146		655
1926	161					1108				681
Jan	164		142	800	177	1090		143	187	676
Feb	162		142	787		1106		142		654
Mar	160	156	138	767		1100	[6] 473	141		645
Apr	162		142	761		1085		142	175	664
May	161		152	774		1078		142		657
June	160	151	161	775		1090	[6] 507	143		654
July	157		185	808	159	1105		145	174	660
Aug	156		193	817		1153		146		652
Sept	159	149	186	816		1137	[6] 562	145		654
Oct	160		197	823		1126		145	178	630
Nov	162		206	837		1114		148		631
Dec	162	152	208	840		1110	[6] 574	150		625
1927	155					1115				642
Jan	159	155	208	849	156	1092		151	178	635
Feb	156	153	212	848		1095		152		617
Mar	154	151	205	844		1086	[6] 554	151		565
Apr	154	147	204	853	152	1069		150	165	541
May	155	147	201	865		1058		151		524
June	159	148	207	878		1072	[6] 559	153		518
July	153	149	210	863	153	1102		157	166	509
Aug	152	149	204	849		1159		150		509
Sept	154	148	207	840		1146	[6] 525	151		510
Oct	156	150	210	834	152	1156		152	172	513
Nov	157	151	211	836		1175		152		
Dec	156	152	211	844		1171	[6] 504	153		
1928:										
Jan	155	152	210	845	152	1126		152	175	514
Feb	152	150	207	842		1112		151		518
Mar	151	149	201	838		1123	[6] 521	151		516
Apr	152	148	202	844	152	1119		151	162	516
May	154	147	199	847		1113		151		513
June	153	146	203	843		1126	[6] 544	152		520
July	153	147	204	858	153	1155		154	166	513
Aug	154	151	206	871		1191		156		506
Sept	158	152	208	861		1174		153		513
Oct	157	154	213	821	146	1183		152	171	515
Nov	157	154	217	813				152		
Dec	156	154						153		

[1] December.
[2] July.
[3] January–June.
[4] October, 1913; January, April, and June, 1914.
[5] April–June.
[6] Quarter ending with month.

TABLE 2.—INDEX NUMBERS OF **COST OF FOOD** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928—Continued

Country	Netherlands	Norway	Poland	Sweden	Switzerland	United Kingdom	South Africa	India	Australia	New Zealand
Number of localities	The Hague	30	Warsaw	49	33	630	9	Bombay	30	25
Computing agency	Municipal administration	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Ministry of Labor	Office of Census and Statistics	Labor Office	Bureau of Census and Statistics	Census and Statistics Office
Base period	1921	July, 1914	January, 1914	July, 1914	June, 1914	July, 1914	1914	July, 1914	July, 1914	July, 1914
1914		[2] 100	100	[2] 100	[2] 100	[2] 100	100	[2] 100	[2] 100	[2] 100
1915		[2] 123							[2] 131	112
1916		153		[1] 152					[2] 130	119
1917		203							[2] 126	128
1918		271		[2] 258					[2] 131	139
1919		290		[2] 318					[2] 147	146
1920		319		[2] 287					[2] 164	168
1921	100	295		[2] 231	213				[2] 161	164
1922	[1] 76	231		[2] 178	163	[2] 180		[2] 160	[2] 148	142
1923	[1] 78	217		[2] 158	165	[2] 162	[1] 118	[2] 148	[2] 164	143
1924				[2] 155	172					148
Dec.	82	274			175	180	121	156	148	150
1925					169					151
Dec.	79	221	125		167	174	116	151	155	156
1926					160					150
Jan.		216	136	163	165	171	116	151	155	154
Feb.		212	138		163	168	117	150	154	153
Mar.	77	205	124		161	165	118	151	159	152
Apr.		198	109	158	161	159	119	150	163	151
May		195	101		159	158	119	150	163	151
June	80	194	114		159	158	118	152	162	151
July		198	118	156	159	161	117	155	159	149
Aug.		196	122		157	161	117	153	157	149
Sept.	74	193	131		158	162	117	152	155	148
Oct.		191	133	156	160	163	120	153	153	147
Nov.		186	140		159	169	119	152	155	146
Dec.	76	184	142		159	169	117	154	158	149
1927					158					145
Jan.		180	143	155	158	167	116	155	158	148
Feb.		177	144		157	164	117	152	153	146
Mar.	76	173	141		156	162	118	152	151	146
Apr.		169	142	149	156	155	119	151	151	145
May		169	145		156	154	121	150	152	145
June	77	172	146		157	154	120	151	153	145
July		175	143	148	157	159	119	154	152	144
Aug.		175	143		157	156	118	155	155	144
Sept.	77	174	143		159	157	117	151	157	143
Oct.		173	144	154	159	161	119	148	159	143
Nov.		171	149		161	163	119	147	157	144
Dec.	80	171	147		160	163	119	149	155	146
1928:										
Jan.		170	143	152	159	162	119	151	154	147
Feb.		170	138		158	159	118	146	152	145
Mar.	82	171	140		157	155	118	142	153	145
Apr.		171	142	152	156	155	119	140	154	144
May		172	142		156	154	120	144	154	147
June	79	171	143		156	156	118	142	154	147
July		173	144	156	157	157	116	143	152	146
Aug.		170	143		156	156	115	142	150	146
Sept.	76	164	142		157	156	115	141	150	147
Oct.		163	144	154	158	152	115	142	149	149
Nov.		161	148		158	159	115	144		150
Dec.		161	147			160		145		

[1] December. [2] July.

TABLE 3.—INDEX NUMBERS OF **COST OF CLOTHING** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928

Country	United States	Canada	Belgium	Czecho-slovakia	Den-mark	Finland	France	Germany	Italy
Number of localities	32	60	59	Prague	100+	21	Paris	71	Milan
Computing agency	Bureau of Labor Statistics	Depart-ment of Labor	Ministry of Labor and In-dustry	Office of Statistics	Depart-ment of Statistics	Central Statis-tical Office	Commis-sion for Study of Cost of Living	Federal Statis-tical Bureau	Munici-pal Ad-minis-tration
Base period	1913	1913	1921	July, 1914	July, 1914	January–June, 1914	1914	1913–14	January–June, 1914
1913	100	100							
1914	[1] 101	[1] 103		[2] 100	[2] 100	[3] 100	100	[4] 100	[3] 100
1915	[1] 105	[1] 115			[2] 100				
1916	[1] 120	[1] 136			[2] 160				
1917	[1] 149	[1] 158			[2] 190				
1918	[1] 205	[1] 185			[2] 260				[2] 284
1919	[1] 269	[1] 210			[2] 310		[3] 296		[2] 221
1920	[1] 259	[1] 232			[2] 355		[5] 485		[2] 692
1921	[1] 184	[1] 177	100		[2] 248	[1] 1107	[5] 353		[2] 512
1922	[1] 172	[1] 162	[2] 99		[2] 217	[1] 1090	[5] 315		610
1923	[1] 176	[1] 164	[2] 113	963	[2] 239	1065	[5] 365	[1] 194	615
1924				964		1039			611
Dec.	171	159	140	1006		1046	[6] 440	173	667
1925				996		1043			655
Dec.	169	159	144	995		1043	[6] 510	173	702
1926				988		1042			699
Jan.			144	995	230	1043		171	702
Feb.			144	995		1043		169	702
Mar.		157	144	988		1044	[6] 524	168	702
Apr.			145	988		1049		167	702
May			150	988		1049		165	691
June	168	157	155	988		1047	[6] 577	164	692
July			166	988	210	1044		163	692
Aug.			172	988		1039		161	692
Sept.		157	178	988		1039	[6] 635	160	692
Oct.			186	982		1037		160	711
Nov.			191	982		1035		158	709
Dec.	167	157	199	982		1035	[6] 616	158	709
1927				987		1036			
Jan.		157	203	975	196	1035		157	705
Feb.		157	207	975		1035		156	705
Mar.		157	210	975		1035	[6] 565	156	705
Apr.		154	212	975	193	1035		156	705
May		154	213	975		1035		156	643
June	165	154	215	975		1035	[6] 565	156	616
July		154	217	975	192	1035		156	616
Aug.		154	219	975		1036		158	597
Sept.		155	223	1002		1036	[2] 563	160	597
Oct.		155	230	1013	196	1037		162	597
Nov.		155	232	1013		1038		164	596
Dec.	163	155	234	1013		1038	[6] 581	166	591
1928:									
Jan.		155	236	1013	196	1039		167	591
Feb.		155	237	1013		1040		168	591
Mar.		155	240	1020		1043	[6] 581	169	591
Apr.		157	241	1020	198	1043		170	591
May		157	240	1020		1044		170	566
June	163	157	242	1033		1048	[6] 581	170	559
July		157	244	1040	198	1048		171	561
Aug.		157	243	1040		1049		171	561
Sept.		157	246	1032		1052		171	561
Oct.		157	247	1026	198	1052		172	558
Nov.		157	248	1023					
Dec.	162	157							

[1] December.
[2] July.
[3] January–June.
[4] October, 1913; January, April, and June, 1914.
[5] April–June.
[6] Quarter ending with month.

TABLE 3.—INDEX NUMBERS OF **COST OF CLOTHING** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928—Continued

Country	Norway	Poland	Sweden	Switzerland	United Kingdom	India	Australia	New Zealand
Number of localities	30	Warsaw	49	33	100	Bombay	6	4
Computing agency	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Ministry of Labor	Labor Office	Bureau of Census and Statistics	Census and Statistics Office
Base period	July, 1914	January, 1914	July, 1914	June, 1914	July, 1914	July, 1914	November, 1914	July, 1914
1914	[7] 100	100	[2] 100	[2] 100	[2] 100	[2] 100	[8] 100	[2] 100
1915					[2] 125		[8] 105	109
1916			[1] 160		[2] 155		[8] 117	127
1917					[2] 200		[8] 132	156
1918	312		[2] 285		[2] 310		[8] 145	179
1919	[7] 388		[2] 310		[2] 360		[8] 164	216
1920	[7] 336		[2] 390		[2] 430		[8] 181	245
1921	[7] 292		[2] 270	232	[2] 290	[2] 263	[8] 165	226
1922	247		[2] 210	186	239	247	[8] 140	188
1923	230		[2] 196	176	222	214	[8] 136	176
1924	246		[2] 192	179	226	226		168
December	257			181		214		
1925				181				164
December	225	154		179		176		
1926				172	225			155
January		178	190	179	225	173		
February		178		179	225	172		157
March	213	165		179	225	174		
April		134	188	172	223	175		
May		128		172	223	170		156
June	207	145		172	223	162		
July		145	187	172	220	160		
August		146		172	220	160		154
September	200	148		172	220	160		
October		148	184	166	220	159		
November		148		166	218	156		154
December	191	148		166	218	148		
1927				162				149
January		148	182	166	215	143		
February		146		166	215	148		152
March	176	152		166	215	152		
April		152	181	161	215	143		
May		152		161	215	147		149
June	173	152		161	313	147		
July		152	180	161	213	149		
August		159		161	213	152		147
September	172	165		161	213	163		
October		169	181	162	215	163		
November		169		162	215	157		147
December	172	169		162	215	154		
1928:								
January		169	182	162	215	152		
February		169		162	215	153		145
March	169	169		162	218	151		
April		169	184	166	218	153		
May		169		166	220	155		146
June	169	169		166	220	156		
July		169	185	166	220	158		
August		169		166	220	159		145
September	168	169		166	220	157		
October		169	186	169	220	156		
November		169			220	158		
December		169			220			

[1] December.
[2] July.
[7] June.
[8] November.

TABLE 4.—INDEX NUMBERS OF **COST OF FUEL AND LIGHT** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928

Country	United States	Canada	Belgium	Czechoslovakia	Denmark	Finland	France	Germany
Number of localities	32	60	59	Prague	100+	21	Paris	71
Computing agency	Bureau of Labor Statistics	Department of Labor	Ministry of Labor and Industry	Office of Statistics	Department of Statistics	Central Statistical Office	Commission for Study of Cost of Living	Federal Statistical Bureau
Base period	1913	1913	1921	July, 1914	July, 1914	January–June, 1914	1914	1913–14
1913	100	100						
1914	[1] 101	[1] 98		[2] 100	[2] 100	[3] 100	100	[4] 100
1915	[1] 101	[1] 96			[2] 130			
1916	[1] 108	[1] 109			[2] 175			
1917	[1] 124	[1] 125			[2] 220			
1918	[1] 148	[1] 146			[2] 275			
1919	[1] 157	[1] 148			[2] 292		[3] 164	
1920	[1] 195	[1] 200			[2] 563		[5] 296	
1921	[1] 181	[1] 172	100		[2] 401	[1] 1249	[5] 308	
1922	[1] 186	[1] 177	[2] 92		[2] 301	[1] 1340	[5] 287	
1923	[1] 184	[1] 172	[2] 120	1,041	[2] 282	1477	[5] 317	[1] 177
1924				881		1473		
December	181	162	127	837		1439	[6] 368	137
1925				829		1362		
December	187	166	114	807		1288	[6] 402	142
1926						1271		
January			114	807	227	1254		143
February			116	807		1243		143
March		166	116	805		1248	[6] 447	143
April			116	805		1248		142
May			118	805		1250		140
June	181	162	130	805		1254	[6] 452	140
July			144	805	215	1238		141
August			163	805		1242		141
September		160	168	810		1257	[6] 541	143
October			179	814		1276		144
November			197	814		1349		144
December	188	162	206	814		1389	[6] 577	144
1927						1405		
January			204	814	230	1404		145
February			197	814		1406		145
March			189	814		1408	[6] 570	145
April			184	814	212	1409		143
May			181	820		1405		141
June	181		185	820		1388	[6] 530	140
July			186	820	201	1386		142
August			184	814		1371		143
September			184	814		1392	[6] 543	145
October			182	814	194	1403		146
November			181	819		1439		146
December	183	158	177	819		1449	[6] 555	146
1928:								
January		159	176	819	190	1440		146
February		159	170	819		1430		146
March		159	168	819		1438	[6] 547	146
April		159	168	819	190	1436		145
May		158	168	819		1434		144
June	177	158	170	819		1436	[6] 504	144
July		157	168	819	185	1424		144
August		157	169	819		1421		145
September		157	170	842		1429		147
October		157	172	842	183	1426		150
November		157	174	842				
December	181	157						

[1] December.
[2] July.
[3] January–June.
[4] October, 1913; January, April, and June, 1914.
[5] April–June.
[6] Quarter ending with month.

TABLE 4.—INDEX NUMBERS OF **COST OF FUEL AND LIGHT** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928—Continued

Country	Italy	Norway	Poland	Sweden	Switzerland	United Kingdom	India	New Zealand
Number of localities	Milan	30	Warsaw	49	33	26–30	Bombay	4
Computing agency	Municipal Administration	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Ministry of Labor	Labor Office	Census and Statistics Office
Base period	January–June, 1914	July, 1914	1914	July, 1914	June, 1914	July, 1914	July, 1914	July, 1914
1914	[3] 100	[7] 100	100	[2] 100	[2] 100	[2] 100	[2] 100	[2] 100
1915								101
1916				[1] 168				110
1917								126
1918	[2] 220			[2] 286				136
1919	[2] 220			[2] 326				149
1920	[2] 611			[2] 372		[2] 230		178
1921	[2] 899			[2] 264	213	[2] 260	[2] 176	199
1922	524	301		[2] 188	181	202	168	183
1923	529	282		[2] 185	173	183	163	175
1924				[2] 182	165			174
December	515	307			161	185	167	
1925	520				153			174
December	533	232	106		150	180	165	
1926	523				146			177
January	516	232	121	171	149	183	165	
February	505	229	114		148	185	165	176
March	505	227	108		147	185	165	
April	505	225	86	170	146	185	165	
May	505	220	87		145	185	164	176
June	512	218	85		145	190	164	
July	512	214	90	168	145	195	164	
August	512	228	101		144	200	164	177
September	512	238	105		144	213	164	
October	565	257	113	166	145	230	164	
November	565	303	108		146	255	164	177
December	565	279	108		146	250	166	
1927					142			177
January	627	234	111	186	146	215	166	
February	661	224	110		144	310	166	177
March	661	217	108		144	200	166	
April	661	210	108	108	143	190	166	
May	661	203	108		142	185	166	177
June	548	198	106		142	175	166	
July	548	193	107	176	141	170	166	
August	548	189	106		141	170	166	177
September	548	183	108		141	170	166	
October	530	180	111	171	141	170	156	
November	522	179	112		141	170	156	179
December	422	177	113		141	170	156	
1928:								
January	420	177	113	168	139	170	156	
February	409	177	113		139	170	144	179
March	407	176	115		139	170	144	
April	407	174	116	166	138	168	145	
May	407	172	120		137	170	145	179
June	407	171	124		136	168	158	
July	407	169	121	164	136	165	158	
August	407	169	121		135	165	158	179
September	407	166	123		135	168	151	
October	407		130	163	135	170	144	
November			135			170	143	
December			137			170		

[1] December. [2] July. [3] January-June. [7] June.

TABLE 5.—INDEX NUMBERS OF **COST OF RENT** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928

Country	United States	Canada	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Number of localities	32	60	59	Prague	100+	21	Paris	71	Milan
Computing agency	Bureau of Labor Statistics	Department of Labor	Ministry of Labor and Industry	Office of Statistics	Department of Statistics	Central Statistical Office	Commission for Study of Cost of Living	Federal Statistical Bureau	Municipal Administration
Base period	1913	1913	1921	July, 1914	July, 1914	January-June, 1914	1914	1913–14	January–June, 1914
1913	100	100							
1914	[1] 100	[1] 97		[2] 100	[2] 100	[3] 100	100	[4] 100	[3] 100
1915	[1] 102	[1] 94			[2] 100				
1916	[1] 102	[1] 95			[2] 102				
1917	[1] 100	[1] 102			[2] 105				
1918	[1] 109	[1] 111			[2] 108				[2] 100
1919	[1] 125	[1] 122			[2] 113		[3] 100		[2] 100
1920	[1] 151	[1] 142			[2] 130		[5] 100		[2] 108
1921	[1] 161	[1] 150	100		[2] 141	[1] 603	[5] 110		[2] 139
1922	[1] 162	[1] 155	[2] 99		[2] 155	[1] 795	[5] 160		202
1923	[1] 167	[1] 158	[2] 134	206	[2] 160	901	[5] 200	[1] 22	234
1924				213		1088			328
Dec	168	158	140	222		1165	[6] 200	69	393
1925				236		1224			414
Dec	167	158	152	244		1266	[6] 220	89	477
1926						1306			517
Jan			153	250	178	1266		91	477
Feb			153	250		1266		91	477
Mar		158	153	250		1266	[6] 220	91	477
Apr			153	256		1266		97	477
May			154	256		1266		99	477
June	165	156	156	256		1334	[6] 250	100	477
July			158	256	185	1334		104	477
Aug			162	256		1334		105	477
Sept		156	164	256		1334	[6] 250	105	477
Oct			165	256		1334		105	633
Nov			166	256		1334		105	633
Dec	164	156	167	256		1334	[6] 250	105	633
1927						1379			
Jan		156	180	261	185	1334		105	638
Feb		156	181	261		1334		105	638
Mar		156	182	261		1334	[6] 250	105	638
Apr		156	182	261	189	1334		115	638
May		156	182	261		1334		115	608
June	162	156	183	261		1411	[6] 260	115	638
July		156	183	261	189	1411		115	400
Aug		156	183	261		1411		115	400
Sept		156	183	261		1411	[6] 275	115	400
Oct		156	184	261	189	1411		125	400
Nov		156	184	261		1411		125	400
Dec	160	156	184	261		1411	[6] 275	125	400
1928:									
Jan		156	208	261	189	1411		126	400
Feb		156	209	261		1411		126	400
Mar		156	209	261		1411	[6] 275	126	400
Apr		156	209	261	193	1411		126	400
May		157	209	261		1411		126	400
June	158	157	209	261		1430	[6] 275	126	400
July		157	210	278	193	1430		126	401
Aug		157	210	278		1430		126	401
Sept		157	210	278		1430		244	401
Oct		157	211	278	193	1430		126	408
Nov		157	212	278					
Dec	156	157							

[1] December.
[2] July.
[3] January-June.
[4] October, 1913; January, April, and June, 1914.
[5] April-June.
[6] Quarter ending with month.

TABLE 5.—INDEX NUMBERS OF **COST OF RENT** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1928—Continued

Country	Norway	Poland	Sweden	Switzerland	United Kingdom	India	Australia	New Zealand
Number of localities	30	Warsaw	49	27	20–30	Bombay	6	25
Computing agency	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Ministry of Labor	Labor Office	Bureau of Census and Statistics	Census and Statistics Office
Base period	July, 1914	January, 1914	July, 1914	June, 1914	July, 1914	July, 1914	1911	July, 1914
1914	[7] 100	100	[2] 100	[2] 100	[2] 100	[2] 100		[2] 100
1915								101
1916			[1] 108					101
1917								102
1918	111		[2] 112					105
1919	[7] 123		[2] 120					108
1920	[7] 147		[2] 130		118			114
1921	[7] 161		[2] 155	138	145	[2] 165	141	126
1922	171		[2] 163	146	153	165	149	136
1923	173		[2] 163	150	148	165	155	148
1924	176		[2] 178	155	147	165	162	160
December	176			158		172		
1925				162			165	169
December	179	41		163	148	172		
1926				166			168	180
January		51	188	163	148	172		
February		51		163	148	172		174
March	179	47		163	148	172		
April		41	188	163	148	172		
May		36		167	149	172		178
June	179	40		167	149	172		
July		43	188	167	150	172		
August		44		167	150	172		182
September	179	44		167	150	172		
October		44	188	167	150	172		
November		44		167	150	172		184
December	179	44		167	150	172		
1927				172			168	187
January		53	188	167	151	172		
February		53		167	151	172		185
March	181	53		167	151	172		
April		57	198	167	151	172		
May		57		174	151	172		187
June	181	57		174	151	172		
July		46	198	174	151	172		
August		46		174	151	172		189
September	181	46		174	151	172		
October		49	198	174	151	172		
November		49		174	151	172		189
December	181	49		174	151	172		
1928								
January		53	198	174	151	172		
February		53		174	151	172		188
March	179	53		174	151	172		
April		56	199	174	151	172		
May		56		177	151	172		189
June	179	56		177	151	172		
July		58	199	177	151	172		
August		58		177	151	172		190
September	179	58		177	151	172		
October		58	199	177	151	172		
November		58			150	172		
December		58			150			

[1] December. [2] July. [7] June.

Changes in English Working-Class Rents, 1914 to 1928

OWING to the effect of a restrictive act passed in 1915, rents of working-class dwellings in England remained at the same level, except for changes in local taxes and water rates, from 1915 to 1920, when a new act, permitting certain specified increases, became operative. In 1923 another act freed from legal restriction the rents of houses or parts of houses which were then in the actual possession of the landlord or which should thereafter come into his actual possession. The number of houses thus "decontrolled" has become considerable, and official inquiries have recently been made into their rents, in addition to the usual inquiries into the rents of controlled dwellings, which have been made regularly for some years past. The result of these inquiries is given in the Ministry of Labor Gazette for December, 1928.

The average permissible increase in controlled urban working-class rents in Great Britain, it is pointed out, is approximately 51 per cent of the gross rents of 1914. These permissible increases have not been made, in all cases, but inquiries showed that they are operative to the extent of 97 to 98 per cent, and that "the actual increase in the controlled gross rents of urban working-class dwellings in Great Britain since July, 1914, averages approximately 50 per cent in December, 1928."

The decontrolled rents form only a small proportion of all rents of working-class dwellings, varying from district to district, but averaging about 6 per cent in December, 1928. Their movement has been irregular, some having been kept at the controlled figure, some having been largely increased, and some increased to a moderate extent. "In general, the information received indicates that the decontrolled urban working-class rents in December, 1928, average about 85 to 90 per cent above the level of July, 1914." The proportion of decontrolled rents is so small, however, that their influence on the general level of rents is not marked.

If the average increase in decontrolled rents is combined, in appropriate proportion, with the average increase of approximately 50 per cent in controlled rents, the general average increase for controlled and decontrolled urban working class rents together is approximately 52 per cent in December, 1928.

This combined figure has been used in the calculation of the cost-of-living figures for December 1, making the index number one point higher than it would otherwise have been—68 instead of 67 above the level of July, 1914. As a result of recalculating the statistics for dates from March 1 to November 1, 1928, "it is found that if figures for decontrolled rents had been included the final cost-of-living index numbers, as published for those dates, would not have been altered."

30562°—29——14

LABOR AGREEMENTS

Recent Agreements in Bituminous Coal Industry

AGREEMENTS have been made by the United Mine Workers of America with bituminous coal operators in many of the districts comprising the central competitive field and the outlying districts since July, 1928, when the United Mine Workers of America authorized the districts to enter into wage negotiations with their respective operators upon a basis mutually satisfactory. Agreements resulting from these negotiations are submitted for ratification to a district convention or a referendum vote of the respective districts.

The new agreements show a reduction in the basic day wage rate provided in the Jacksonville agreement. The right of the company to install mechanical loaders and conveyors is recognized, and a daily wage scale is adopted to be in effect until such time as a tonnage rate may be agreed upon.

The agreement of district No. 6 with the Central Ohio Coal Operators' Association provides for the appointment of a commission to study and investigate the conditions in their field in relation to other districts, and submit a report in a joint convention to be held in the city of Columbus, beginning the second Tuesday of February, 1930; this report is to be used as a basis for the negotiation of a new agreement.

A summary of the new agreements, as reported in the trade journals, follows:

Illinois

THE agreement between the Illinois Coal Operators' Association and district No. 12 of the United Mine Workers, effective September 16, 1928, to March 31, 1932, provides for a wage rate of $6.10 per day, and a reduction of 17 cents per ton for pick-mined coal.

The right of the company to install mechanical loaders and conveyors of all types is recognized. With the purpose of establishing a tonnage rate for loading and conveying coal by machine, it is agreed that a commission be appointed, consisting of two operators and two miners, to study the conditions surrounding the use of such machinery within the State of Illinois and to fix a rate that will be equitable to both miners and operators and will enable the operators to meet competition.

The following scale of daily wages was agreed upon until such time as the commission completes its work: Men loading coal on conveyors, $8.04; men employed drilling, snubbing, and shooting, $8.20; cutting machine operators and helpers, $10.07; mechanical loading

machine operators, $10.07; mechanical loading machine helpers, $9; men employed at face as members of loading machine crew, $7.50.

When an individual operator or group of operators, contemplating the installation of loaders and conveyors, believe that conditions of mining at their property or properties will not permit the payment of the above scale they may appeal to the commission for reduced rates suitable to the conditions, and the commission is authorized to establish such temporary rates as in its judgment seem necessary under the existing conditions, these to be effective until final decision by the commission.

Indiana

DISTRICT No. 8 of the United Mine Workers in agreement with the operators in the block coal field established the following wage scale: Shaft miners—$1.60 per ton on screened coal basis, $1.28 per ton on run of mine basis, and $6.10 at day rates; strip miners (where only day men are employed, aside from pumpers, engineers, etc.), $6.10 per day.

The same working conditions as prevailed under the Jacksonville agreement are to prevail under the new agreement.

The new agreement of the Indiana Bituminous Coal Operators' Association with district No. 11 of the United Mine Workers, effective November 1, 1928, to March 31, 1930, provides for the following wage scale:

Pick mining, 91 cents per ton of 2,000 pounds; machine mining, 79 cents per ton of 2,000 pounds for cutting, loading, timbering, and preparation of shots; shot firers, $10 per shift in pick mines and $8.20 per shift in machine mines; yardage and dead work reduced 20 per cent.

All classifications of day work paid for at $7.50 or more under the old agreement are reduced $1.40 per day, except motormen, who will receive $6.85 per day, and trip riders, $6.25 per day under the new agreement.

The right to install mechanical loading machines and conveyors of all types is recognized, and the following wage scale for a day of eight hours was adopted:

Men employed drilling, snubbing, and shooting, $8.20; men loading coal on conveyors, cutting machine runners, cutting machine helpers, mechanical loading machine operators, mechanical loading machine helpers, shearing machine runners, and shearing machine helpers, $9.

The wages of the engineers in the new agreement have been reduced as follows: First engineer, $38 per month; second engineer, $36 per month; and third engineer, $35 per month.

Iowa

THE new agreement between the Iowa mine operators and district No. 13 of the United Mine Workers, covering subdistricts Nos. 2, 3, and 4, effective October 1, 1928, to March 31, 1930, provides the following wage scale: Subdistrict No. 2, mine run coal, $1.04 per ton; subdistrict No. 3, mine run coal, $1.06½ per ton; subdistrict No. 4, screen lump coal, $1.80 per ton; day men (old rate $7.50), $5.80 per day; motormen, $6.10 per day; boy couplers, $3.85 per

day; oilers and trappers, $3.50 per day; spike team drivers engaged in regular switching, $5.95 per day; all other inside adult labor, $5.65 per day; stablemen receiving $7.50 per day or over, reduced $1.70 per day; those receiving less than $7.50 per day, reduced $1.55 per day; all yardage and dead work to be reduced 14 per cent.

The scale per ton for machine loading is 82 cents in subdistrict No. 2, 83½ cents in subdistrict No. 3, and $1.1677 in subdistrict No. 4. For machine mining, subdistricts Nos. 2 and 3 have a reduction of 2 cents per ton on local cutting agreements.

For top labor the rates per day are $5.18 for car repairers, dumpers, chunkers, screening carmen, box carmen, drivers, and teamsters; for motormen, $5.58; for slate pickers (boys), $3.50; for blacksmiths and machinists, a minimum of $5.80.

Where loading machines are installed, the following daily rates will govern for both mining machines and loaders: Runners, $6.41; shovelers and loaders, $6.15. The loader is to furnish his own tools.

Kansas

THE agreement of district No. 14 of the United Mine Workers with the Southwestern Interstate Coal Operators' Association, effective September 1, 1928, to April 1, 1931, provides for the wage scale of the November 1, 1917, agreement. It also provides that the rules, regulations, and working conditions under the Southwestern Interstate Coal Operators' Association agreement of 1924–1927, as amended October, 1927, and expiring March 31, 1928, shall govern the industrial relationship.

Michigan

THE agreement of district No. 24 of the United Mine Workers with the coal operators of Michigan provides for a reduction of 19 per cent on all classes of labor except for mechanical loading, which carries the old rate. The agreement is effective until March 31, 1930.

Montana

THE agreement of district No. 27 of the United Mine Workers with the coal operators of Montana, effective December 1, 1928, to June 30, 1932, provides for the following *reductions* from the former wage rates: Pick mining, 16 cents per ton; machine mining, 16 cents per ton (divided between miners and machinemen); loading coal, 10 cents per ton; yardage rates and dead work, 20 per cent; all outside day labor receiving $7.45 and over, $1.05 per day; all inside day labor receiving $7.97 and over, $1.20 per day; drill boys, outside, 54 cents per day; boys on picking tables, 48 cents per day; greasers (outside), 72 cents per day; barn men, $30 per month; greasers and boy couplers (inside), 57 cents per day; trappers, 63 cents per day. The new basic day wage rate for miners is now $7.19.

The following day rates are to govern the operation of mechanical loaders and conveyers until tonnage rates, or a combination of day and tonnage rates, are agreed upon:

Operators of Joy, Goodman shovel, and similar loading machines	$9.25
Helpers on above types of machines	8.25
Operators of arc wall undercutting machines	9.25
Operators of combination shearing and drilling machines	9.25
Scraper loader operators (hoist men)	9.25
Scraper loader helpers (handling rope and scoop)	8.25
Operators of small scraper loaders (hoist men)	7.75
Mining-machine operators and helpers	8.75
Shearing-machine operators and helpers	8.75
Shoveling on to conveyors and conveyor loaders	7.75
Face men	7.75
Drillers	8.25
Shot firers	8.25
Greasers, inspectors, and repairers of mining machinery	6.98

Ohio

THE new agreement of district No. 6 of the United Mine Workers with the Central Ohio Coal Operators' Association, effective September 1, 1928, to March 31, 1930, provides for the following wage scale: Pick mining rate, $0.8764 per ton; machine mining (drilling, shooting, and loading), 60 cents per ton; cutting, breast machine 10 cents per ton, short wall machine 8½ cents per ton, arc wall machine 7 cents per ton. Differentials as applied to the rates paid during the scale period beginning November, 1917, are maintained.

The inside day wage scale for tracklayers, bottom cagers, drivers, trip riders, snappers on gathering locomotives, water haulers, machine haulers, timbermen, motormen, and wiremen is $5 per day; tracklayers' helpers, $4.75 per day; trappers, $3 per day; and all other inside day labor, $4.75 per day.

Where engineers and firemen are employed by the day, the minimum rate for 8 hours is $5 for engineers, and $4.75 for firemen.

A temporary daily wage scale for machine coal loaders and conveyors, to be effective until a tonnage wage rate shall be agreed upon, was adopted, as follows: Loading machine and conveyor machine operators, $7.50; loading machine helpers, $7; hand loaders on conveyors and drillers and shooters, $6.

This agreement provides that the rules in effect March 31, 1927, shall govern in each scale district until November 1, 1928. In such districts as fail to meet in joint conference to establish rules to govern their districts, the rules in effect March 31, 1927, shall be continued.

This agreement also provides for the appointment of a commission of three operators and three miners, whose duties are defined as follows:

1. To study and investigate working conditions, wage earnings, production costs, and contractual relations between employer and employee, within the district and between scale districts in Ohio, and to investigate the wage relationship existing between the nonunion districts south of the Ohio River, located in the States of West Virginia, Virginia, and Kentucky, and the State of Ohio.

2. It shall be the duty of this commission to proceed forthwith and to earnestly and painstakingly investigate the above questions and report the actual facts found to the operators and miners of Ohio in joint convention, which shall be held in the city of Columbus, beginning the second Tuesday of February, 1930. The report submitted by the commission to be used as a basis for the negotiation of a contract (*a*) for Ohio basing district, (*b*) for the other districts within the State.

3. This commission shall be composed of representatives of the miners who have had ample experience in the mines and representatives of coal companies whose activities in the mining industry have brought them in contact with the miners and the physical conditions of the mines under which the men have to work, so that said report will contain all essential data affecting both parties:

(1) As to the conditions under which the men work and the income resulting therefrom.

(2) As to the ability of the operator to pay a given scale of wages and maintain a union standard of employment.

4. The members of the miners' committee are to be selected by district No. 6, United Mine Workers of America, the members of the operators' committee are to be selected by those operators who sign the present agreement, and both to be selected and begin functioning not later than November 1, 1928. The expense of the commission to be equally shared by the miners and operators and shall include all necessary clerical and engineering assistance.

5. It shall also be the duty of this commission to:

(*a*) Work for a proper readjustment of the discriminatory freight rate on coal, both interstate rates and intrastate rates, by urging upon the Interstate Commerce Commission and the Public Utilities Commission of Ohio, that all discriminatory rates now in effect and against Ohio mines and in favor of other mining districts, may be modified to that extent, and that Ohio coal can be placed on the market.

(*b*) To protect the industry by opposing adverse legislation and to encourage the enactment of legislation of value to the industry and helpful in the saving of human lives and reducing the accidents to a minimum.

(*c*) To strive for conditions in the industry which will bring proper return for capital invested therein and will protect and advance the living standards of those employed, and to take such necessary action that the commission may deem advisable in the interest of those depending upon the industry.

Wyoming

THE agreement of district No. 22 of the United Mine Workers with the District Coal Operators of Wyoming, effective December 1, 1928, to April 1, 1932, provides for the following wage rates: Loading machine operators, $9 per day; hoisting engineers, $8 per day (monthly wage eliminated); power-house engineers, $185.50 per month. Pick mining reduced 16 cents per ton; shooting and loading reduced 13 cents per ton; loading coal reduced 10½ cents per ton; yardage rates reduced 20 per cent; all day labor inside reduced $1.20 per day; all day labor outside reduced $1.05 per day; trappers, boys, reduced 12 cents per day; greasers, slate pickers, switch boys, and boys coupling at partings reduced 85 cents per day.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for November, 1928

By J. J. Kunna, Chief Statistician United States Bureau of Immigration

THERE was a decrease in both the inward and the outward alien passenger movement in November, 1928, as compared with the average for the preceding four months. In that month 39,285 aliens were admitted and 21,160 departed, while the monthly average for the period from July 1 to October 31, 1928, was 47,584 aliens admitted and 24,999 departed. The same month, however, saw an increase in debarments as well as in deportations. In November last 1,694 aliens were debarred from entering the United States and 927 were deported under warrant proceedings after landing, against a monthly average for the first four months of the current fiscal year of 1,465 debarred and 919 deported.

Of the total admitted in November 29,477 aliens, or over three-fourths, came in at the seaports and 9,808 entered the country at stations along the northern and southern land boundaries. New York continues to be the principal port of landing for arrivals from overseas, 25,250, or 85.7 per cent of the seaport admissions during this month being recorded as coming that way, while only 4,227 aliens entered at the other seaports.

Of the 1,694 aliens debarred this month, 1,549 were turned back at the land border stations and 145 at the seaports. Of the latter only 48 were rejected at New York and all but two of these arrived without proper immigration visas. At the other seaports, over two out of every 100 applicants in November failed to gain admission to this country, but practically all of these debarred were seamen or stowaways found on board tramp steamers and combination freight-passenger vessels who sought permanent entry to the United States without first securing visas abroad as required by the immigration act of 1924.

The figures for November, 1928, show a decrease in immigration from Europe as well as from Canada and Mexico compared with the previous month, 14,953 immigrant aliens from Europe, 5,591 from Canada, and 2,988 from Mexico having been admitted during November, as against 17,231, 7,025, and 3,990 immigrants from these respective sources in October, 1928. While emigration to all countries also dropped from 7,479 to 6,549, the Italians are leaving in increasing numbers, 1,917 emigrant aliens having left during November to make their future homes in Italy as against 1,307 emigrants departed for that country in October.

Just a little over one-fourth of the 229,620 aliens of all classes admitted to the United States from July to November, 1928, were immigrants charged to the quota, 61,472 being recorded as of this class. The other principal classes entering the country during the same five months include 56,649 aliens who came in under the immigration act of 1924 as returning residents, 50,994 as natives of nonquota countries, principally Canada and Mexico, 29,349 as temporary visitors for business or pleasure, and 10,988 passing through the country on their way elsewhere. Another large group admitted during the same period comprised 13,540 aliens who were admitted under the act as the wives or unmarried children of United States citizens. Of this class, 11,852, or 87.5 per cent, were born in countries of southern and eastern Europe, nearly three-fourths (8,821) of whom gave Italy, Poland, or Greece, as their country of birth. About three out of every five of the immigrants now coming from these three countries are the wives or unmarried children of American citizens. Of the remaining aliens of the same class admitted from July to November last, 856, or 6.3 per cent, are natives of northwestern European countries, and 832, or 6.2 per cent, are natives of Syria, Turkey, or the other countries.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1 TO NOVEMBER 30, 1928

Period	Inward					Aliens debarred from entering [1]	Outward					Aliens deported after landing [2]
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens departed	Total	
	Immigrant	Non-immigrant	Total				Emigrant	Non-emigrant	Total			
1928												
July	20,682	15,976	36,658	32,974	69,632	1,286	7,804	20,249	28,053	68,463	96,516	768
August	24,629	18,620	43,249	63,191	106,440	1,412	6,488	15,960	22,448	50,323	72,771	1,186
September	29,317	26,397	55,714	80,233	135,947	1,364	8,093	17,231	25,324	42,105	67,429	915
October	29,917	24,797	54,714	49,831	104,545	1,798	7,479	16,693	24,172	34,643	58,815	807
November	24,805	14,480	39,285	23,198	62,483	1,694	6,549	14,611	21,160	22,380	43,540	927
Total	129,350	100,270	229,620	249,427	479,047	7,554	36,413	84,744	121,157	217,914	339,071	4,603

[1] These aliens are not included among arrivals, as they were not permitted to enter the United States.
[2] These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

Migration of Philippine Labor to and from Hawaii, 1923 to 1927

DURING 1927 the number of Filipino emigrants to Hawaii was 10,074—an increase of 200 per cent, compared with 1926.

Among these emigrants there were 9,784 men, 120 women, and 170 minors as compared with 2,977 men, 160 women, and 219 minors in 1926. All but 5 of the emigrants in 1927 paid their own transportation to the Territory. Approximately 800 emigrants who chartered the steamer *Consuelo* from the Philippines to Hawaii are included in the above figures.

The number of Filipino emigrants returning from Hawaii in 1927 was 3,565, an increase of only 5.16 per cent as compared with 1926.

The above data are taken from the report of the Governor General of the Philippines for 1927, which is also the source of the following figures showing Filipino migration to and from Hawaii for five years, 1923 to 1927.

FILIPINO EMIGRANTS GOING TO AND RETURNING FROM HAWAII, 1923 TO 1927

Year	Going to Hawaii				Returning from Hawaii			
	Males	Females	Minors	Total	Males	Females	Minors	Total
1923	4,520	1,797	944	7,261	1,226	112	158	1,496
1924	8,171	1,116	582	9,869	1,730	204	261	2,195
1925	6,104	256	159	6,519	2,183	264	307	2,754
1926	2,977	160	219	3,356	2,562	348	480	3,390
1927	9,784	120	170	10,074	2,410	510	645	3,565
Total	31,556	3,449	2,074	37,079	10,111	1,438	1,851	13,400

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Public Old-Age Pensions in Canada: A List of References [1]

Compiled by LAURA A. THOMPSON, LIBRARIAN, U. S. DEPARTMENT OF LABOR

The subject of old-age pensions was first brought before the Canadian Parliament by a resolution introduced during the session of 1906/1907. It was debated in several subsequent sessions and in 1924 a special committee was appointed by the House of Commons to inquire into an old-age pension scheme for Canada. Following the recommendations of this committee, a bill was introduced in Parliament in 1926 and adopted unanimously by the House of Commons, but was rejected by the Senate. During the election campaign of 1926, the question of old-age pensions was very widely discussed, and in 1927 when the bill was reintroduced it received the approval of both branches of Parliament. The old-age pensions act, 1927, provides for a Dominion-Provincial noncontributory system of old-age pensions for persons 70 years of age and over who are in receipt of less than $365 in annual income and who have been residents of Canada for 20 years and of the Province in which application is made for the five preceding years. The maximum pension is $240 yearly, contributed in equal parts by the Dominion and the Provincial Governments, with whom the adoption of the plan is optional. The cost of administration is borne by the Provincial Government. At the end of 1928 the Federal act had been accepted by British Columbia, Manitoba, Saskatchewan, and the Yukon Territory and was under consideration by provincial commissions in Nova Scotia and Ontario.

A number of years previous to the passage of the old-age pensions act the Canadian Government had instituted a system of voluntary old-age insurance under State guaranty and with the expenses of administration borne entirely by the State. The Government annuities act, 1908, adopted partly as a substitute proposal for old-age pensions, provides under several plans for the purchase of annuities, either immediate or deferred, by individuals, or by associations on behalf of their members, or by employers on behalf of their employees. A special effort is being made to popularize the scheme. In the debate on the old-age pensions act the Government spokesman expressed the hope that the annuity plan might in time be developed into a broad scheme of social insurance. Because the two movements are closely related a section on the government annuities plan has been included in the following bibliography.

Government Annuities

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Old age annuities. Speeches delivered in the Senate of Canada during the third session of the tenth Parliament 6–7 Edward VII., 1906–7, by . . . Sir Richard Cartwright . . . James McMullen . . . George W. Ross . . . Donald Ferguson . . . Michael Sullivan. Ottawa, 1907. 86 pp.

See also Debates, House of Commons, 1906–7, v. 2, pp. 3374–3396; 1907–8, pp. 2398–2435.

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The Government annuities act, 1908. (As amended by Acts of 1909, ch. 4; 1910, chs. 4 and 5; 1913, ch. 7; 1920, ch. 12; 1925, ch. 12.)

Summary of act in Labour Gazette (Canada), September, 1908, v. 9, pp. 301, 302.

The different amendments lowered the minimum annuity purchasable to $10 and increased the maximum to $5,000. A series of "Annuity tables" has been issued by the superintendent of Government annuities (Dept. of Labour) showing cost of the different authorized plans.

[1] Civil service retirement plans are not included. For list of references on "Public old-age pensions in the United States" *see* Labor Review, June, 1926, v. 22, pp. 1414–1422.

CANADA.—*Department of Labour.*
Report of the Department of Labour, 1922/23–1926/27. Ottawa, 1923–1928.
1922/23: Dominion Government annuities, pp. 126–130. (Includes brief history of the act.)
1923/24: Dominion Government annuities, pp. 125, 126.
1924/25: Government annuities act, pp. 119, 120.
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1926/27: Government annuities act, pp. 87–90.
The administration of the Government annuities act, 1908, was first placed under the Ministry of Trade and Commerce; in 1912 it was transferred to the Post Office Department: and in May, 1922, to the Ministry of Labour. For later statistics *see* Labour Gazette, August 1928, v. 28, pp. 848–850.

—— —— An old age of comfort and happiness is guaranteed by the steady income of Canadian Government annuities. Ottawa, 1928. 16 pp.
Booklet describing the different plans under which annuities may be purchased.

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Manual containing the rates for determining the value of annuities at different ages and under the different plans.

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Canadian Government annuities. A provision for comfort in old age. [n. p., 1916?] 40 pp.

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Labour Gazette (Canada), July, 1923, v. 23, pp. 750–752.
Address before the Canadian Manufacturers' Association explaining benefits of the Government annuities act to employers and employees.

BLACKADAR, E. G.
Canadian Government annuities.
Labour Gazette (Canada), May and July, 1928, v. 28, pp. 469, 470, 708, 709.
Addresses delivered over the Canadian national radio system by the superintendent of Canadian Government annuities. Explains the various plans under which Government annuities may be purchased.

—— Canadian Government annuities.
Labour Gazette (Canada), August, 1928, v. 28, pp. 848–850.
Address delivered at the postmasters' conventions held June 28, 1928, at Saskatoon, Saskatchewan, and July 5, 1928, at Calgary, Alberta. (Commissions are paid postmasters on sales of Government annuities.) Includes statistics, by Provinces, of the number of persons who purchased annuities, 1908–1928.

CANADIAN GOVERNMENT ANNUITIES. Effect of recent amendments to annuities act.
Labour Gazette (Canada), October, 1925, v. 25, pp. 972–974.
Amendment of 1925 reduced minimum annuity purchasable from $50 to $10 to make it possible to purchase at any time and at any age single premium cumulative annuities of a minimum amount of $10. The change is suggested as meeting the requirements of employers who wish to assist their employees in making provision for old age. The annuity becomes the property of the employee as soon as purchased.

CARMAN, FRANCIS A.
Canadian Government annuities, a study of their relation to the problem of poverty and old age. Reprinted from Political Science Quarterly, vol. XXX, No. 3, September, 1915. New York, Ginn & Co., 1915, pp. 425–447.
Reviews the origin of the Canadian Government annuities system, aims and methods, various annuity plans, cost, and scope and success of the scheme after six years of operation. Conclusion reached is that: "Canadian Government annuities have not reached the poor, but they have been purchased in large proportions by persons of moderate income, by members of the employee classes, by persons whose incomes fall clearly below the standard of what is usually known as the "middle class." Suggests that, given a proper method of propaganda, a much wider response might be expected to its appeal.
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PROGRESS IN DOMINION GOVERNMENT ANNUITIES.
Labour Gazette (Canada), December, 1927, v. 27, p. 1272.
See also Labour Gazette for August, 1928, pp. 848–850.

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CANADA. *Parliament.*

Old age annuities. Speeches delivered in the Senate of Canada during the third session of the tenth Parliament 6–7 Edward VII, 1906–7, by . . . Sir Richard Cartwright . . . James McMullen . . . George W. Ross . . . Donald Ferguson . . . Michael Sullivan. Ottawa, 1907. 86 pp.

A resolution introduced in Parliament in 1906 called for Government action for the relief of the aged poor. For early debates on old-age pensions *see* Debates, House of Commons, Canada, 1906–7, v. 2, pp. 3374–3396; 1907–8, pp. 2398–2435; 1911–12, pp. 1362–1390; 1822–1839; 1914, pp. 1333–1358.

For summary of report of the Select Committee of the House of Commons on Old Age Pensions, 1912, *see* Labour Gazette, March, 1913, v. 13, pp. 983–986.

For resolutions adopted by provincial legislatures and by various labor and civic organizations favoring Federal action on old-age pensions consult files of Labour Gazette, 1908–1927.

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An old-age pension system for Canada. Proceedings of the special committee appointed to make an enquiry into an old-age pension system for Canada, comprising the order of reference, the final report of the committee presented to the House, and the evidence given before the committee together with certain papers relating thereto. February–July session, 1924. Ottawa, 1924. 99 pp. (App. No. 4, 1924.)

Includes (pp. 11–47) a review of legislation in various countries. The committee in its final report (*see also* Labour Gazette, July, 1924, v. 24, p. 580) recommended that a noncontributory old-age pension system be established at the earliest possible date for indigent persons 70 years of age and over, the expense of the pensions to be borne jointly by the Federal and the provincial governments. The committee estimated the number of pensioners eligible as 98,841 and the probable cost as approximately $23,000,000 annually.

The committee further recommended that the provincial governments be asked to state what action they would be prepared to take in regard to the committee's proposal. The committee was continued in the session of 1925 to consider the resulting correspondence. For the report of the special committee of 1925 *see* Journals of the House of Commons, Canada, 1925, v. 62, pp. 455–458; Labour Gazette, July, 1925, v. 25, pp. 669, 670.

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For debates and record of vote on the old-age pension act, 1927, consult the index volumes of the 1926 and 1927 sessions. For debate on the various reports submitted by the special committee on old-age pensions *see* index volumes of sessions of 1924 and 1925.

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Labour Gazette (Canada), January, 1929, v. 29, pp. 19–22.

HEENAN, PETER.
Old-age pension bill before Parliament of Canada. Minister of Labour outlines provisions of Government measure.
Labour Gazette (Canada), March, 1927, v. 27, pp. 268–271.

Includes brief review of the history of the measure and of the various proposals made in Parliament for dealing with the problem of old-age dependency. Urged the noncontributory pension as necessary to meet the immediate problem of the indigent aged but expressed the hope that the existing Government annuity plan might be developed into a broad scheme of social insurance on a contributory basis.

—— Old-age pensions in Canada.
Labour Gazette (Canada), June, 1927, v. 27, pp. 623–625.

Address by the Minister of Labour before the Union of Canadian Municipalities, Ottawa, June, 1927. Reviews the parliamentary history of old-age pensions in Canada and summarizes the provisions of the 1927 act.

KING, W. L. MACKENZIE.
[Speech by the Premier in support of old-age pensions bill, March 26, 1926.]
House of Commons Debates (Canada), 1926, pp. 2052–2057 (unrev. ed.).

Favored a contributory plan in general but called attention to the fact that most of the systems of social insurance in effect today had started as noncontributory schemes. Urged the need of old-age pensions to meet the existing conditions of the aged in Canada. "The whole principle of this old-age pension is based, not on the thought that the State is giving something to an indigent or that the State owes something to individuals, but on a sense of social justice arising out of a condition of society based on the rights of private property."

Provincial Action

DOMINION-PROVINCIAL CONFERENCE. Meeting of representatives of Dominion and provincial governments, Ottawa, November 3–10, 1927.
Labour Gazette (Canada), November, 1927, v. 27, pp. 1168–1173.

For discussion on old-age pension act, see pp. 1171, 1172.

PROGRESS OF OLD-AGE PENSIONS LEGISLATION IN CANADA.
Labour Gazette (Canada), February, April, May, 1928, v. 28, pp. 100, 339, 437.

On developments in Alberta, British Columbia, Manitoba, Saskatchewan, and Yukon Territory.

[BRITISH COLUMBIA.]
Adoption of old-age pensions in British Columbia. Agreement executed by Dominion Government with provincial government under the old-age pension act.
Labour Gazette (Canada), October, 1927, v. 27, p. 1050.

See also text of regulations from British Columbia Gazette placing administration of act in British Columbia under Workmen's Compensation Board, in Labour Gazette, September, 1927, v. 27, pp. 925, 926.

—— Another forward step in social legislation. Old-age pensions.
British Columbia Public Service Bulletin (Bureau of Provincial Information), October, 1927, v. 2, pp. 129, 130.

—— Number of old-age pensioners in British Columbia.
Labour Gazette (Canada), March, 1928, v. 28, p. 238.

Summary of statement of Attorney General of British Columbia in the provincial legislature as to number of pensions granted up to February, 1928.

—— Old-age pensions in Canada. Statement of payments made for pensions in British Columbia.
Labour Gazette (Canada), June, 1928, v. 28, pp. 588, 589.

Statement covers operation of British Columbia act through Mar. 31, 1928. For later statistics, *see* Labour Gazette, January, 1929, p. 19.

—— Presentation of first old-age pension in Canada.
Labour Gazette (Canada), December, 1927, v. 27, pp. 1272–1274.

[MANITOBA.]
Labour legislation in Manitoba.
Labour Gazette, May, 1928, v. 28, pp. 463, 464.

Includes outline of the old age pensions act adopted March, 1928. Province's one-half share of cost to be met by a levy on municipalities and on school districts in unorganized territory. Workmen's Compensation Board is charged with administration of act.
For 1926 resolution of Legislative Assembly favoring purely federal act, *see* Labour Gazette, April, 1926, p. 307.

NOVA SCOTIA. *Commission on Old-age Pensions and Miners' Relief Societies.* Report of commission appointed under chapter 16, Acts 1907, entitled "An act respecting old-age pensions and miners' relief societies." [Halifax, 1908.] 134 pp.

This commission, appointed in 1907 "for the purpose of examining into and reporting upon the feasibility of adopting some scheme providing old-age pensions for workmen and particularly for such workmen as have either by themselves or in conjunction with their employers established benefit and relief societies," found that a general scheme for old-age pensions was not then feasible for Nova Scotia, the principal reason given being that the number of aged men per 1,000 was very high in Nova Scotia, higher perhaps than that in any other of the Provinces of the Dominion, and the financial ability of the Province limited. The commission made various recommendations regarding the extension of miners' relief societies to cover total disability and old age.

Summary in Labour Gazette, March, 1908, v. 8, pp. 1122, 1123.

—— Old-age pension commission in Nova Scotia.
Labour Gazette (Canada), September, 1928, v. 28, p. 941.

Notice of appointment of Mr. Harry E. Mahon, of Halifax, as commissioner to inquire into old-age pensions in Nova Scotia. Inquiry to cover besides numbers eligible and probable cost, some alternative methods of taxation to provide needed revenue.

[ONTARIO.]
Progress of old-age pension legislation in Canada.
Labour Gazette (Canada), May, 1928, v. 28, pp. 437, 438.

Text of announcement of the Premier of Ontario of a survey of that Province to secure data as to number of persons over 70 years of age who would be eligible for old-age pensions in the Province and the aggregate cost; also a summary of some preliminary estimates made by the Attorney General of Ontario.

—— Old-age pensions bill to be introduced in Ontario.
Labour Gazette (Canada), October, 1928, v. 28, p. 1037.

Quotation from address of Hon. G. Howard Ferguson, Premier of Ontario, at Toronto, October 12.

[SASKATCHEWAN.]
Old-age pensions in Saskatchewan.
Labour Gazette (Canada), May, 1928, v. 28, pp. 467, 468.

Text of regulations governing the payment of old-age pensions in Saskatchewan and of the agreement between the Dominion Government and the Province of Saskatchewan. Reprinted from the Saskatchewan Gazette of May 5, 1928. The Saskatchewan act (Statutes of Saskatchewan 1928, ch. 75) came into force on May 1, 1928.

—— Old-age pensions in Saskatchewan.
Public Service Monthly, May, 1928, v. 16, No. 10, p. 5.

—— First old-age pensioner is deaf and dumb.
Public Service Monthly, August, 1928, v. 17, No. 1, p. 2.

Gives an account of the early proceedings in connection with the administration of the old-age pensions act in Saskatchewan. Reprinted in part in Labour Gazette, September, 1928, p. 965.

[YUKON TERRITORY.]
Ordinance passed respecting old-age pensions act.
Labour Gazette (Canada), October, 1927, v. 27, p. 1054.

See also Labour Gazette, April, 1928, p. 339.

General Discussion

CANADA ADOPTS AN OLD-AGE PENSION PLAN.
Monthly Labor Review, May, 1927, v. 24, pp. 972–974.

Outlines the plan adopted and gives a brief survey of the old-age pension movement in Canada. *See also* issue of August, 1928, v. 27, p. 291, for summary of action taken by the Provinces.

CANADA'S NEW OLD-AGE PENSION LAW.
American Labor Legislation Review, June, 1927, v. 17, p. 119.

COHEN, J. L.
Old-age pensions in Canada. An analysis and comparison.
Canadian Congress Journal (Trades and Labor Congress of Canada), December, 1926, v. 5, No. 12, pp. 19–21.

Criticizes the bill before Parliament as too conservative.

COMPARISON OF AUSTRALIAN AND CANADIAN OLD AGE PENSION ACTS.
Labour Gazette, August, 1927, v. 27, p. 832.

DRAPER, PATRICK M.
Social insurance and old-age pensions in Canada.
American Labor Legislation Review, June, 1928, v. 18, pp. 205–207.

By the Secretary of the Trades and Labor Congress of Canada.

EPSTEIN, ABRAHAM.
The Challenge of the Aged. New York, Vanguard Press, 1928. 435 pp.

"Pension systems abroad": Canada, pp. 321–324. *See also* Pennsylvania commission on old-age pensions. Report, January, 1927, pp. 158–161.

GOULD, MARGARET S.
The need for old-age pensions in Canada.
Social Welfare (Social Service Council of Canada), January, 1927, v. 9, pp. 340–343.

KEMP, HUBERT R.
The old-age pension plan in Canada.
Social Welfare (Social Service Council of Canada), November, 1928, v. 11, pp. 34, 35; December, 1928, pp. 63–65.
CONTENTS.—Pt. I. Probable cost in the various Provinces. II. The financing of old-age pensions in Eastern Canada.
Shows that the cost of putting old-age pensions into operation is much greater in the Eastern Provinces than in the more recently settled Western Provinces, ranging from 50 cents per capita in Saskatchewan to $2.47 in Prince Edward Island. Urges the need of joining definite suggestions for raising revenue with agitation for the adoption of the scheme by the Maritime Provinces.

KING, W. L. MACKENZIE.
Industry and humanity; a study in the principles underlying industrial reconstruction. Boston, Houghton Mifflin, 1918. 567 pp.
"Old-age pensions": pp. 347, 348. *See also* speech in support of government bill in House of Commons Debates (Canada), Mar. 26, 1926, pp. 2052–2057.

MICHELL, HUMFREY.
What will old-age pensions cost Canada? Estimates of cost are invariably much lower than is proved in the event—they never grow less, but always greater, proving a heavier burden.
Industrial Canada (Canadian Manufacturers' Association), February, 1928, v. 28, No. 10, pp. 41–43.
Includes tables on the cost of old-age pensions in Australia, New Zealand, and Great Britain.

MOORE, TOM.
Old-age pensions.
Social Welfare (Social Service Council of Canada), December, 1926, v. 9, pp. 312, 322.
By the president of the Trades and Labor Congress of Canada. *See also* memorandum presented to the Parliamentary committee on old-age pensions, in Canadian Congress Journal, June, 1924, p. 20.

O'DONOGHUE, JOHN G.
Old-age pensions.
Social Welfare (Social Service Council of Canada), August–September, 1925, v. 7, pp. 228, 229.

OLD-AGE PENSION LEGISLATION AROUSES INTEREST. Canada's new social legislation commented upon by press.
Canadian Congress Journal, January, 1928, v. 7, pp. 21–23.

OLD-AGE PENSIONS.
Canadian Congress Journal (Trades and Labor Congress of Canada), June, 1924, v. 3, pp. 20, 21.
Includes text of memorandum presented to the Parliamentary committee appointed to study old-age pensions, by Tom Moore, on behalf of the Trades and Labor Congress of Canada.

ROBINSON, T. R.
Old-age pensions.
Social Welfare (Social Service Council of Canada), November, 1923, v. 6, pp. 25, 26.

SOCIAL SERVICE COUNCIL OF CANADA.
Preliminary report on old-age pensions submitted by the committee on research, April, 1928. Toronto, 1928. 63 pp.
CONTENTS.—History and description of old-age pensions legislation.—Outline of investigations and legislative developments in Canada.—Some data on the problem of age pensions in Canada.—The administration of old-age pensions.—Appendix. Text of act passed by Dominion Parliament; The old-age pensions regulations.
A more complete report is to be issued with data gathered from institutions and social agencies caring for dependent aged people in Canada.
Summary in Labour Gazette, July, 1928, v. 28, pp. 710, 711.

TRADES AND LABOR CONGRESS OF CANADA.
Report of the proceedings of the annual conventions.
Consult indexes of the volumes for the section of the report of the executive council and resolutions relating to old-age pensions adopted by the conventions over a period of years. The Trades and Labor Congress favored a purely Federal law under which pensions would be payable upon reaching the age of 65 years and after 15 years' domicile anywhere in Canada, the sum of such pensions to be not less than $30 per month and payable to those whose income, including the old-age pensions, did not exceed the cost of living as published in the official Labour Gazette. The congress, however, supported the Government's Federal-provincial scheme and through the provincial executives and federations has urged the adoption of the act by the various provincial governments. (*See* reports on legislation in 1928 Proceedings.)

PUBLICATIONS RELATING TO LABOR

Official—United States

HAWAII.—Governor. *Annual report for the fiscal year ended June 30, 1928. Washington, D. C., Department of the Interior, 1928. 140 pp.*

Includes statistics of immigration and labor, of workmen's compensation, and of the territorial retirement system.

KENTUCKY.—Bureau of Agriculture, Labor, and Statistics. Department of Labor. *Thirteenth biennial report, 1926–1927. Frankfort, 1928. 48 pp.*

Special attention is called in this report to the need in Kentucky for a free public employment service, for the regulation of private commercial employment agencies, for labor and industrial statistics, and for safety in industry.

MASSACHUSETTS.—Department of Industrial Accidents. *Annual report for the year ending June 30, 1927. Boston, 1928. 89 pp.*

Reviewed on page 48 of this issue.

NORTH DAKOTA.—Department of Agriculture and Labor. *Twentieth biennial report, for the period ending June 30, 1928. Bismarck, 1928. 100 pp.*

This report is devoted almost entirely to agricultural statistics. It is noted that the farms employed, by the month, 24,847 males and 5,344 females in 1926, paying them a total of $18,916,344 in wages, or an average of $47.57 per month to males and $31.62 to females, in addition to board. In 1927 the number of employees had increased to 27,243 males and 6,048 females, with a total expenditure of $21,632,820 in wages. This was an average of $50.92 per month for males, but dropped to $30.48 for females.

In 1926, 310 coal mines employed 883 workers, who worked an average of 8 hours per day and received in wages a total of $1,280,254, which is an average of $1,449.89 for each worker. In 1927, reports from 231 mines gave an employment of 987 with average wages of $969.70, the total being $957,093. The average production cost per ton of coal was $1.85 in 1926 and $2.07 in 1927.

PHILIPPINE ISLANDS.—Governor General. *Annual report, 1927. Washington, D. C., 1928. 315 pp. (U. S. House Doc. No. 325, 70th Cong., 1 sess.)*

This issue of the Review contains statistics, taken from the above report, on industrial accidents (p. 50), industrial disputes (p. 101), adjustment of employees' wages and other claims against employers (p. 107), and migration of Philippine labor to and from Hawaii (p. 210).

UNITED STATES.—Department of Commerce. Bureau of Mines. *Bibliography of fire hazards and prevention, and safety in the petroleum industry, No. 7, July, 1928. Compiled by H. Britton and G. B. Shea. Washington, 1928. 7 pp. (Mimeographed.)*

——— ——— ——— *Bulletin No. 288: Quarry accidents in the United States during the calendar year 1926, by William W. Adams. Washington, 1928. 90 pp.*

Reviewed on page 45 of this issue.

——— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 469: Building permits in the principal cities of the United States in 1927. Washington, 1928. 105 pp.*

Advance summaries of the data contained in this bulletin were published in the Labor Review for May, 1928 (pp. 130–147), and June, 1928 (pp. 55–68).

UNITED STATES.—Department of Labor. Bureau of Labor Statistics. *Bulletin No. 470: Labor legislation of 1927. Washington, 1928. 90 pp.*

An outline of the more important labor laws listed in this bulletin was published in the Labor Review for March, 1928 (pp. 82–88).

—— —— —— *Bulletin No. 481: Joint industrial control in the book and job printing industry, by Emily Clark Brown. Washington, 1928. 234 pp.*

Reviewed on page 30 of this issue.

—— —— Employment Service. *Industrial, agricultural, and general employment prospects for 1929. Washington, 1929. 21 pp.*

—— Employees' Compensation Commission. *Twelfth annual report, July 1, 1927, to June 30, 1928. Washington, 1928. 87 pp.*

Reviewed on page 51 of this issue.

—— Federal Board for Vocational Education. *Bulletin No. 132: A study of rehabilitated persons; a statistical analysis of the rehabilitation of 6,391 disabled persons. Washington, 1928. 41 pp.; charts.*

Reviewed on page 91 of this issue.

—— Interstate Commerce Commission. *Forty-second annual report. Washington, 1928. 324 pp.*

The report includes data on number and compensation of railroad employees during the fiscal year ended June 30, 1928, and in earlier years.

Official—Foreign Countries

AUSTRALIA (NEW SOUTH WALES).—Department of Labor and Industry. *Report on the working of the factories and shops act, 1912, during the year 1927. Sydney, 1928. 47 pp.*

At the end of November, 1927, there were 11,413 factories registered in the whole State, employing 148,958 persons. This represented a decrease of 416 in the number of factories, and of 2,664 in the number of employees, as compared with the preceding year. Of the total number of employees, 107,018, or 71.8 per cent, were males, and 41,940, or 28.2 per cent, were females.

—— (QUEENSLAND).—Department of Labor. *Fifth annual report on operations under the unemployed workers' insurance acts, 1922 to 1927. Brisbane, 1928. 15 pp.*

Reviewed on page 57 of this issue.

—— Insurance Office. *Twelfth annual report, for the year ended June 30, 1928. Brisbane, 1928. 31 pp.*

The Queensland Government insurance office carries on an insurance business covering workmen's compensation, life, fire, marine, and miscellaneous accident insurance. Full details of the year's activities along these various lines are given, showing sound progress and a continuous expansion of the work.

—— (VICTORIA).—Department of Labor. *Report of the chief inspector of factories and shops for the year ending December 31, 1927. Melbourne, 1928. 58 pp.*

Some of the material in this report is summarized on pages 34 and 93 of this issue.

CANADA (BRITISH COLUMBIA).—Minimum wage board. *Report for the year ended December 31, 1927. Victoria, 1928. 16 pp. (Reprinted from the annual report of the Department of Labor for the year 1927.)*

Data from this report are given on page 43 of this issue.

ESTONIA.—Bureau Central de Statistique. *Annuaire de la statistique agricole, 1927. Tallinn, 1928. 207 pp.; diagram.*

Annual report on agricultural statistics. Includes wages of agricultural workers in Estonia for the 5 years 1923 to 1927 inclusive.

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FINLAND.—Ministère des Affaires Sociales. *Informations XXVI: L'Oeuvre de protection sociale en Finlande, par Eino Kuusi. Helsingfors, 1928. 108 pp.; chart, illus.*

A report on Government social welfare activities, including various kinds of social insurance.

GERMANY.—Reichsarbeitsministerium. *Deutsche Sozialpolitik, 1918–1928. Berlin, 1929. 319 pp.*

Written in commemoration of the 10 years' existence of the German Ministry of Labor. This volume reviews the economic reconstruction of Germany since the war with particular reference to the enactment of new labor laws and social insurance.

GREAT BRITAIN.—Board of Trade. *Report under section 12 on the working of Part I of the [mining industry] act. (Provisions for facilitating the reorganization of the coal mining industry.) London, 1928. 9 pp. (Cmd. 3214.)*

Reviewed on page 39 of this issue.

—— Ministry of Health. *Unemployed persons in receipt of domiciliary poor-law relief in England and Wales during the week ending June 16, 1928. London, 1928. 23 pp. (Cmd. 3218.)*

The figures, which are confined to the able-bodied unemployed, show that, comparing June 16, 1928, with June 18, 1927, the total number of unemployed persons in receipt of out-relief in England and Wales decreased from 116,342 to 84,159, a reduction of 32,183, or nearly 28 per cent. More than one-half of the total of 84,159 had been continuously in receipt of relief for a year or more; 16,639, or nearly one-fifth of the total, for three years or more; and 9,471 for four years or more.

—— Registry of Friendly Societies. *Report for the year 1927. Part 3: Industrial and provident societies. London, 1928. 173 pp.*

The societies covered by this report represent a wide diversity of objects, including agricultural and fishing societies; societies for distributive, wholesale and productive trading; business services; land and housing societies; and general cooperative development societies. The figures presented cover the year 1926, during which period the number of societies registered decreased by 47, but the membership increased by 300,000 and the assets by approximately £7,000,000 ($34,000,000).

—— Treasury. Unemployment Grants Committee. *Seventh (interim) report of proceedings, from July 1, 1927, to June 30, 1928. London, 1928. 14 pp.*

The report shows a continued diminution in the number of applications for grants and in the number and amount of the grants made. As compared with the year 1926–27, applications for grants fell from 166 to 82 in number, and from £1,822,409 to £986,720 ($8,868,753 to $4,801,873) in value. The value of grants authorized during the year covered amounted to £319,000 ($1,552,414) as against £792,000 ($3,854,268) during the preceding year. The steady decrease in the number of applications received is attributed by the committee "to the more rigid conditions as to grants now obtaining, and also to the fact that local authorities are now more cognizant of these conditions and therefore less disposed to submit applications."

INDIA.—Department of Commercial Intelligence and Statistics. *Index numbers of Indian prices, 1861–1926. Calcutta, 1928. 24 pp.; charts.*

NETHERLANDS EAST INDIES.—Departement Van Landbouw, Nijverheid en Handel. Centraal Kantoor voor de Statistiek te Weltevreden. *Mededeelingen No. 60: Onderzoek naar gezinsuitgaven in Nederlandsch-Indië gedurende Augustus 1925, en het jaar 1926. Weltevreden, 1928. 225 pp.; charts, folders. (In Dutch and English.)*

Gives the results of two Government inquiries into family budgets in the Dutch East Indies. One investigation was made in August, 1925, and covered 314 households. The second survey was made in 1926, the report on which is based on 46 budgets.

NORWAY.—Statistiske Centralbyrå. *Statistisk årbok for kongeriket Norge, 1928. Oslo, 1928. 18*, 272 pp.*

The 1928 issue of the statistical yearbook for Norway contains much data on topics of labor interest, such as social insurance, prices and cost of living, unemployment, wages, strikes and lockouts, collective agreements, and agricultural and consumers' cooperative associations.

SWEDEN.—Socialdepartementet. Socialstyrelsen. *Yrkesinspektionens verksamhet, år 1927. Stockholm, 1928. 124 pp.; diagrams, illus.*

Covers the activities of the inspection services for factories, mines, etc., for 1927, including data regarding measures for the prevention of industrial accidents and diseases.

Unofficial

AMALGAMATED CLOTHING WORKERS OF AMERICA. *Report of the general executive board and proceedings of the eighth biennial convention, May 14–19, 1928. Cincinnati, 1928. 314 pp.*

Among the various matters agreed upon in adopted resolutions at this convention were: The instruction of the general executive board to formulate plans for the introduction of life insurance among the members of the union and also plans for the extension of the organization's cooperative housing activities in New York and other cities; the instruction of the organization's officers to take steps to secure the 40-hour week as soon as practicable; the favoring of the amalgamation of the needle trades, the creation of a labor party, and the recognition of Soviet Russia by the United States Government.

BELLERBY, J. R. *Coal mining: A European remedy. London, Macmillan & Co. (Ltd.), 1928. 73 pp.*

The author's thesis is that a strictly national treatment of the coal industry can not under present conditions be satisfactory, since changes in any important feature in one country immediately affect the industry in another. What is needed, he holds, is an international agreement under which standards may be raised uniformly and, if possible, simultaneously, by concerted action. Measures suitable for immediate adoption might be covered by an international agreement (*a*) for the limitation of hours of work, (*b*) for the regulation of wages, and (*c*) for the control of output.

BOWLEY, ARTHUR L. *Official statistics, what they contain and how to use them. London, Oxford University Press, 1928. 72 pp.*

A second edition of this handbook, first published in 1922, was deemed necessary because of changes in the form and content of the official statistics of the United Kingdom during the last six years. The handbook deals with the statistics of population; industry, trade, and prices; income and wages; and social conditions, giving the principal sources of information, and stating when and where the data are published, and, approximately, what they cover.

BUREAU OF RAILWAY ECONOMICS. *Miscellaneous series No. 46: Economic situation in the railway industry. Washington, 1928. 16 pp.*

Extracts from this pamphlet are published on page 41.

CANADIAN COOPERATIVE WHEAT PRODUCERS (LTD.). *Directors' report, 1927–28. [Winnipeg?], 1928. 40 pp.*

CANADIAN WHEAT POOL. *Wheat prices, 1927–28. The pool and the grain trade. Winnipeg, 1928.*

Data and charts showing prices paid by the cooperative wheat pool to its members for their wheat and the prices paid in the grain trade in general.

CHAPPLE, JOE MITCHELL. *"Our Jim"—a biography. Boston, Chapple Publishing Co. (Ltd.), 1928. 299 pp.*

An account of the life and work of James J. Davis, Secretary of Labor in the cabinets of two Presidents.

CHINA FOUNDATION FOR THE PROMOTION OF EDUCATION AND CULTURE. Social Research Department. *Factory workers in Tangku, by Sung-Ho Lin. Peking, 1928. 128 pp., illus.*

Reviewed on page 35 of this issue.

DOBBS, S. P. *The clothing workers of Great Britain. London, George Routledge & Sons, (Ltd.), 1928. xiv, 216 pp.*

LABOR PARTY (GREAT BRITAIN). *Report of the twenty-eighth annual conference, Birmingham, 1928. London, Transport House (South Block), 1928. 354 pp.*

—— Committee of Inquiry. *The distress in South Wales. London, Labor Publications Department, 1928. 18 pp.*

Gives the report of an investigation made during the week February 27 to March 2, 1928. The investigators found widespread distress, a complete lack of primary employment in places, and no prospect of improvement within any reasonable time, if at all. They recommend the transference of population from regions which are hopelessly derelict to other places, immediate relief, especially to the children suffering for clothing and shoes, on a large scale, and help for the local authorities who face bankruptcy as a result of the extent of the destitution and the falling off of normal sources of income as industry closes down.

LASSERRE, GEORGES. *Des obstacles au développement du mouvement coopératif. Paris, Société Anonyme du Recueil Sirey, 1927. xiv, 267 pp.*

Discusses what the author considers the chief obstacles to the development of consumers' cooperation. These include: The youth and inexperience of cooperative societies; departures from cooperative principles; divisions within the movement along occupational, political, and religious lines; lack of sufficient capital; the difficulty of securing and maintaining the democratic character of cooperative societies and of enlisting the services and interest of all the members; relations with the employees in regard to wages, strikes, etc.; management and directors of the society; and finally, the difficulties arising from the reputation of cooperation—general public indifference due to lack of knowledge of its aims and accomplishment, its "shabbiness," losses from cooperative failures, and the damage done through spurious cooperative societies. Remedies or ways of meeting the situation are suggested throughout.

NATIONAL CHRISTIAN COUNCIL OF CHINA. *Findings of the national conference on Christianizing economic relations, Shanghai, August 18–28, 1927. Shanghai, [1927?]. 11 pp.*

This conference resolved to advocate the following principles: A minimum wage, limitation of the working hours per day, one day of rest in seven, the abolition of child labor, protection for woman workers, and the promotion of understanding between employers and employees.

NATIONAL CONFERENCE OF SOCIAL WORK. *Proceedings at the fifty-fifth annual session, held in Memphis, Tenn., May 2–9, 1928. Chicago, University of Chicago Press, 1928. 670 pp.*

The great variety of subjects treated in this volume indicates the ever-widening field of social work. The following papers are among those dealing specifically with industrial and labor problems: America's basic human needs from the standpoint of industry; the impact of industry upon the Orient and its implications for the West; the southern mill village; the new industrial South; economic stabilization of the family—the standard of living and workmen's compensation and the family; some criteria of social progress; the effect of changing economic conditions upon the living standards of negroes.

NATIONAL CONSUMERS' LEAGUE. *Youth's compensation for industrial injuries, by Florence Kelley and Marguerite Marsh. New York, 156 Fifth Avenue, 1929. 32 pp., illus. No. 4.*

Contains accounts of specific accidents to minors and discussions of existing legislative provisions for compensation for injuries to minors. A bibliography of literature on industrial hazards and injuries to minors is included.

NATIONAL SAFETY COUNCIL. *Industrial accident experience of members, 1927. Chicago, 108 East Ohio Street, 1928. 48 pp.*

PENNSYLVANIA HOUSING AND TOWN PLANNING ASSOCIATION. *Fourth annual report. Philadelphia, Seventeenth and Walnut Streets, 1928. 19 pp.*

Reviewed on page 79 of this issue.

PINK, LOUIS H. *The new day in housing. New York, John Day Co., 1928. xiv, 208 pp.; plans, illus.*

Traces the movement, abroad and in this country, against slums and bad housing conditions, giving brief accounts of the more successful efforts at improvement. The book is brought down to the present time, and contains a discussion of the New York housing law, the experiments in tax exemption, the buildings erected by labor unions, life insurance companies, and private philanthropists, and the possibilities of cooperative housing.

RAYNES, JOHN R. *Coal and its conflicts. London, Ernest Benn (Ltd.), 1928. 342 pp.*

An account of the disputes between capital and labor in the coal industry of Great Britain, much the larger part of the discussion being given to the developments during the present century.

REGIONAL PLAN OF NEW YORK AND ITS ENVIRONS. *Regional survey, Vol. V: Public recreation—a study of parks, playgrounds, and other outdoor recreation facilities, by Lee F. Hanmer. New York, 1928. 256 pp.; maps, diagrams, illus.*

ROWE, J. W. F. *Wages in practice and theory. London, George Routledge & Sons (Ltd.), 1928. 277 pp.*

SIMONDS, GIFFORD K., AND THOMPSON, JOHN G. *The American way to prosperity. Chicago, A. W. Shaw Co., 1928. 249 pp.; charts.*

Reviewed on page 33 of this issue.