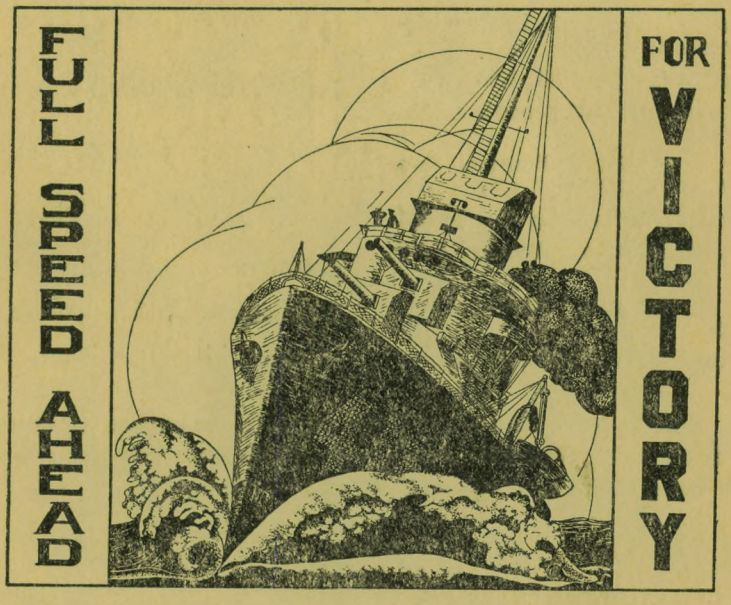
FEBRUARY 1943

Monthly LABOR Review

VOL. 56 • NO. 2



In this Issue . . . Absenteeism in Shipyards . . Wages in Tire Plants . . Workers' Incomes in Puerto Rico . . Common Laborers' Wages

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

UNITED STATES DEPARTMENT OF LABOR

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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

HUGH S. HANNA, EDITOR

FEBRUARY 1943, Vol. 56, No. 2

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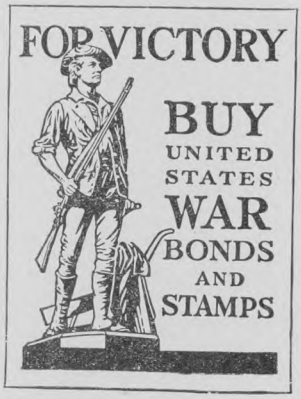

This Issue in Brief

Entrance rates for common labor.

A very wide range of starting wages was disclosed by a Bureau of Labor Statistics survey of the entrance rates of common labor in July 1942. The lowest average rate was paid in South Carolina (35.5 cents per hour) and the highest in Oregon (87.7 cents). By industries, the range was from 43.5 cents in the manufacture of fertilizer to 74.5 cents in blast furnaces, steel works, and rolling mills. For all industries combined, in the United States as a whole, the average entrance rate was 58.5 cents. Page 313.

Types of union recognition under collective agreements.

At the beginning of 1943 about 13 million wage and salaried workers were covered by collective agreements. Of these, over 45 percent were working under closed- or union-shop provisions, more than 15 percent under maintenance-of-membership clauses, somewhat less than 5 percent under preferential-union-shop conditions, and about 35 percent under agreements which provide only that the union shall have the sole bargaining rights in the industry or plant. Page 284.

Income and expenses of wage earners in Puerto Rico.

Even before the United States entered the war, wage-earning families in Puerto Rico were not earning enough to meet their expenses. A WPA study covering 1940–41 indicates that, whereas the yearly cash earnings of the families averaged $341, expenditures averaged $383. The number of wage earners per family averaged 1.58. Cash earnings of all workers in the families averaged $7.08 per week, to which was added other cash income averaging $0.39 and income in kind (gifts, home-produced foods, relief, income in kind, etc.) averaging $1.69 per week in value—a total of $9.16 for an average family of 5.5 persons. Page 223.

Wages in rubber tire and tube plants.

Earnings per hour (not including shift differentials or extra pay for overtime) in the tire and tube division of the rubber industry averaged about $1.04 in August 1942. A study made by the Bureau of Labor Statistics for the National War Labor Board indicated that male workers in tire and tube plants earned on the average $1.12, as compared with 75.8 cents for females. In the various regions where the industry is found, earnings ranged from 71.4 cents per hour in the South to nearly $1.14 in the Akron-Detroit area. Page 233.

Beveridge report on social insurance.

A complete plan providing social-insurance benefits of all kinds for persons of all ages and ways of life was recently presented for consideration by the British Government. This report—the so-called Beveridge report—covers cash benefits for unemployment, disability, retirement, vocational rehabilitation, maternity, widowhood, and burial. It also provides for medical treatment of all kinds. A summary of the plan is given in the article on page 272.

Earnings in manufacture of carbon products for electrical industry.

Average earnings in plants manufacturing carbon products for the electrical industry increased from 70.8 cents an hour in August 1939 to 93.0 cents in the summer of 1942. However, the earnings were affected by a 5-percent increase in the average workweek since August 1939, and the actual increase in rates was about 20 cents an hour. About a fourth of the male workers for whom detailed earnings data are available were in occupations with average hourly earnings of $1 or more in the summer of 1942, exclusive of extra payments for overtime and night work. Less than 3 percent were in groups averaging less than 75 cents an hour. Page 329.

Absenteeism in commercial shipyards.

In the midweek of October 1942, workers in shipyards lost an average of 4 hours each from absenteeism. In commercial shipyards reporting to the Bureau of Labor Statistics, the rate of absence during the period April–October was about 7 or 8 percent. Large yards had higher rates than smaller ones. Among the reported causes of this lost time were inadequate housing, transportation difficulties, and the necessity of recruiting inexperienced workers, many of whom quit without giving notice. Page 211.

Union wage rates in bakeries.

Union workers in bakeries had an average hourly scale of 81.9 cents on June 1, 1942, or 9.6 percent above the average on the same date of the previous year. Over 72 percent of the workers covered by the agreements had a 40-hour workweek; the others worked weeks ranging from 28 to 54 hours Page 347

MONTHLY LABOR REVIEW

FOR FEBRUARY 1943

ABSENTEEISM IN COMMERCIAL SHIPYARDS, 1942

By ELEANOR V. KENNEDY, *Bureau of Labor Statistics* [1]

Summary

ABSENTEEISM in commercial shipyards fluctuated around 7 or 8 percent from April through October 1942. In 81 yards which reported throughout this period, absenteeism rose irregularly from 6.7 percent in April to 7.8 percent in October. In these yards in the midweek of October the time thus lost was equivalent to 4 hours during the week for each wage earner on the pay roll.

Absenteeism is the failure of workers to report on the job when they are scheduled to work. It is a broad term which is applied to time lost because sickness or accident prevent a worker from being on the job, as well as to unauthorized time away from the job for other reasons. Workers who quit without notice are also counted as absentees until they are officially removed from the pay roll. Although absenteeism is a continuing problem of industry, it is only in periods when manpower is at a premium and maximum production is a national necessity that absenteeism becomes a matter of grave concern.

In yards along the Atlantic, Pacific, and Gulf Coasts absenteeism rates were higher than in yards in the Great Lakes and Inland areas. The rates varied widely from one yard to another, ranging from less than 2 percent to over 20 percent of working time. Wide month-to-month variations in the same yard were also reported. A few days of bad weather were frequently responsible for unusually high absenteeism in a yard.

In general, large yards had higher rates of absenteeism than small yards. This fact may explain some of the differences between areas, as the largest yards are all on the Atlantic, Pacific, and Gulf Coasts.

Company officials regarded poor housing and transportation facilities and the necessity of recruiting inexperienced workers, many of whom quit without giving notice, as the major causes of absenteeism. They were practically unanimous in stating that absenteeism was highest on week ends.

Scope and Method of Study

The Bureau of Labor Statistics, acting as agent for the War Production Board, collects monthly reports of operations from shipbuilding and ship-repair companies in the United States. Since April

[1] Prepared in the Division of Construction and Public Employment, Herman B. Byer, chief.

1942, companies engaged in the construction of new vessels have been requested to report the amount of time lost by wage earners because of absenteeism. The yards from which these monthly reports are received employ almost 90 percent of all wage earners engaged on new construction in commercial yards. Because of the irregular working schedules in ship-repair yards, absenteeism data are not collected from companies engaged primarily in repair work.

Absenteeism is measured by the full man-days on which persons scheduled to work fail to appear. Tardiness, or fraction-of-day absences, vacations, authorized days off, and lay-offs are not included. The number of absentees is compiled from daily attendance records and is multiplied by the scheduled working hours to get total man-hours lost from absenteeism.

Rates of absenteeism may be computed in a variety of ways. Unless otherwise noted, the rates given in this article represent the ratio of man-hours lost to man-hours worked plus man-hours lost by wage earners during the midweek of the month.[2]

In addition to collecting the monthly reports on absenteeism, in July 1942 the Bureau of Labor Statistics made a special inquiry of the causes of absenteeism in 20 selected shipyards which had reported absenteeism rates of 6 percent or more. The 4 largest shipbuilding zones were represented in the sample, and the particular yards were selected because their operations were considered representative. Each yard was asked to submit daily records of absenteeism over a 2-week period, and company officials were requested to state what they considered the major causes of absenteeism.

Difficulties in Measuring Absenteeism

Some absenteeism is accepted as a normal factor in industrial operations. However, only sporadic studies of the extent of absenteeism have been made and there are no regularly compiled statistical series (such as have long been available on employment, earnings, industrial accidents, and labor turn-over) to trace the changes in the amount of absenteeism over a period of years and to evaluate differences among industries. Also, because no standardized procedure has been established either for collecting the basic statistical data or for computing absenteeism rates, it is difficult to compare the results of such studies as have been made.

Few companies keep detailed records of absenteeism or require workers to explain their absences. An additional complication is the fact that practice varies in individual companies on such points as the length of time during which a worker who fails to appear is carried as an absentee before he is regarded as a "quit." Some companies count such workers as absentees for as long as a month, whereas others remove their names from the pay roll after 2 or 3 days. Moreover, policies regarding the granting of vacations and authorizing time off, which undoubtedly have some bearing on the amount of unauthorized leave which employees take, vary from company to company as well as from time to time within the same company.

[2] Other methods of computing absenteeism commonly used are: (a) Ratio of man-hours lost to man-hours actually worked; (b) average time lost per employee; and (c) ratio of number of absentees to the total number on the pay roll. (In the last method of computation, the average daily attendance for the week is expressed as a percentage of the total number on the pay roll; the difference between this ratio of average daily attendance and 100 percent is the percent of absenteeism for the week.)

It is difficult, therefore, to determine the irreducible minimum of absenteeism occasioned by sickness and accidents and similar causes beyond the control of either management or labor, and that which is due to irresponsibility among the workers, or to managerial or governmental policies which lower worker morale.

Absenteeism in 1918

What was probably one of the most thorough early studies of absenteeism also dealt with the shipbuilding industry. During the first World War the Emergency Fleet Corporation made a survey of absenteeism in 90 shipyards, for which continuous weekly records were available from January to September 1918, inclusive. These yards employed 320,000 workers in September 1918.

The results of that survey, which are summarized in table 1, show that, during the 9-month period, on the average almost 18 percent of the workers in steel-ship yards were absent daily. The monthly rates varied from 26 percent in January to 13 percent in June. Absenteeism was lower in yards building wooden ships than in those building steel ships; the 9-month average for wooden-ship yards was about 13 percent. For both wooden-ship and steel-ship yards there was wide variation in the extent of absenteeism in different shipbuilding districts. Absenteeism was highest in yards in the Northern Atlantic States and lowest in those on the Pacific Coast. This fact, together with the observation that absenteeism was greater in the winter than in the spring and summer months, led to the conclusion at that time that climatic reasons were a large factor in absenteeism in shipbuilding.[3]

TABLE 1.—*Absenteeism Among All Employees of 90 Shipbuilding Companies, January–September 1918* [1]

District	Steel-ship yards					Wooden-ship yards				
	Number of yards reporting	Daily absentees as a percent of all employees				Number of yards reporting	Daily absentees as a percent of all employees			
		9 months	First quarter	Second quarter	Third quarter		9 months	First quarter	Second quarter	Third quarter
All districts	48	17.8	22.3	16.0	16.5	42	13.2	14.7	12.1	13.4
Atlantic	7	23.7	31.0	23.0	19.6	12	15.1	20.0	13.7	14.5
Delaware River	6	16.9	20.9	14.6	16.4					
Middle Atlantic	2	23.5	28.7	20.7	22.7	2	21.3	25.7	21.4	20.0
Southern	4	14.5	12.7	16.6	13.8	4	19.1	19.4	17.4	20.3
Gulf						5	19.4	20.5	16.9	21.2
Great Lakes	14	15.8	20.1	14.4	14.6	1	11.4	17.5	10.8	.8
North Pacific	8	12.4	9.9	11.3	15.3	6	8.4	10.1	7.7	8.2
No. II [2]						7	8.4	8.9	8.1	8.5
South Pacific	4	10.7	11.3	9.3	11.6	5	8.0	11.1	7.4	6.6
Fabricated [3]	3	21.6	30.2	18.5	18.0					

[1] From Journal of Political Economy, May 1919, p. 387.
[2] Includes all wooden-ship yards in Oregon and on Columbia River, except those of Coos Bay.
[3] Includes yards where parts fabricated in other plants are assembled.

The 1918 survey was made when the shipbuilding industry was experiencing a wartime expansion similar to that at the present time, and absenteeism was considered extremely high. Unfortunately, it

[3] For a more complete discussion, see Journal of Political Economy, May 1919 (pp. 362-396): Labor Administration in the Shipbuilding Industry During War Time, by P. H. Douglas and F. E. Wolfe.

is impossible to make direct comparisons of absenteeism rates in 1918 and 1942, because of basic differences in the coverage of the data and the methods of computing the rates. The 1918 study was based on continuous weekly records for all employees, while current reports are for the midweek of the month and cover wage earners only. The 1918 rates were computed on the basis of the percent that the average daily absentees were of the total employees on the pay roll, whereas the 1942 rates were computed on the basis of man-hours lost in relation to man-hours worked plus man-hours lost.

Absenteeism in 1942

Absenteeism in shipyards fluctuated around 7 or 8 percent during the 7 months from April through October 1942. Shipyard employment expanded rapidly during this period, and with this expansion there was some tendency for absenteeism to increase. Time lost from absenteeism in 81 identical shipyards which reported each month rose irregularly from 6.7 percent in April to 7.8 percent in October.

VARIATIONS AMONG SHIPBUILDING ZONES

Absenteeism was more prevalent among workers in yards on the Atlantic and Gulf Coasts than in the other shipbuilding zones shown in table 2. Throughout the 7-month period the Atlantic Coast rates were above the rates for all zones combined. Absenteeism fluctuated more from month to month in Gulf Coast yards than in any other area, and in some months rates for the Gulf area exceeded those for Atlantic Coast yards. Yards in the Great Lakes zone consistently reported the lowest rates, ranging between 3.1 percent in August and 4.2 percent in April. Absenteeism rates in the Inland yards were somewhat higher than in the Great Lakes area, but well below those in the other 3 zones. Throughout the summer, absenteeism rose in yards on the Pacific[2] Coast, and in October this area had almost as high a rate as the Atlantic Coast yards.

TABLE 2.—*Absenteeism in 81 Identical Commercial Shipyards,[1] by Shipbuilding Zone, April–October 1942*

Month	Man-hours lost as a percent of man-hours worked plus man-hours lost						Man-hours lost per week per wage earner on pay roll					
	All zones	Atlantic Coast	Gulf Coast	Pacific Coast	Great Lakes	Inland	All zones	Atlantic Coast	Gulf Coast	Pacific Coast	Great Lakes	Inland
April	6.7	7.8	6.6	5.7	4.2	4.4	3.4	4.2	3.7	2.7	2.1	2.6
May	6.5	7.7	7.3	4.9	3.7	3.7	3.3	4.1	4.1	2.4	1.8	2.2
June	7.2	7.6	8.3	6.8	3.3	4.2	3.8	4.1	4.5	3.4	1.7	2.5
July	7.3	8.2	6.7	6.8	3.4	4.7	3.8	4.4	3.7	3.3	1.7	2.8
August	7.4	8.7	5.4	7.3	3.1	4.0	3.8	4.6	2.9	3.5	1.6	2.4
September	7.4	8.2	6.7	7.3	3.4	4.6	3.8	4.4	3.5	3.5	1.7	2.6
October	7.8	8.0	8.9	7.7	3.5	5.6	4.0	4.2	4.9	3.7	1.8	3.2

[1] These 81 shipyards employed 60 percent of the total number of wage earners in commercial shipyards engaged in new construction in April. Although employment increased in the 81 yards from April to October, they had only 53 percent of all wage earners in October.

[2] The Atlantic, Pacific, and Gulf Coast and Great Lakes zones are those recognized by the Shipbuilding Stabilization Committee; the Inland zone is the Ohio-Mississippi Valley area.

The average time lost from absenteeism amounted to 4 hours per week for each wage earner on the pay roll in the midweek of October. In the Great Lakes yards the time lost averaged less than 2 hours per week, but in Gulf Coast yards it was almost 5 hours.

The shipbuilding zones with the highest absenteeism rates included by far the largest share of shipyard workers. In October almost 42 percent of all wage earners in commercial yards engaged in new construction were working in yards situated on the Atlantic Coast, 37 percent were in Pacific Coast yards, and 15 percent were in Gulf Coast yards. Thus, nearly 94 percent of the wage earners were in areas where absenteeism averaged at least 7.7 percent in October. Yards in the Great Lakes area had less than 5 percent of the workers and Inland yards less than 2 percent.

VARIATIONS AMONG YARDS

Opinion varies as to where to draw the line between absenteeism which must be expected as a "normal" part of industrial operations and that caused by situations which, theoretically at least, could be remedied. However, the wide variation in the absenteeism rates of individual shipyards, shown in table 3, leads to the conclusion that in some yards absenteeism far exceeds that which can be explained by sickness and accidents and a moderate amount of time off for other reasons. In April, 57 of the 81 yards for which absenteeism records were available each month reported that man-hours lost from absenteeism were less than 6 percent. These 57 yards employed 47 percent of the wage earners in the 81 reporting yards. More than half of the wage earners in the 81 yards worked in yards where absenteeism was equal to 4 to 8 percent in April. If 8 percent is arbitrarily set as the maximum amount of absenteeism which can be regarded as "normal" in shipyards, it would appear that excessive absenteeism occurred in yards with almost 25 percent of the wage earners in April.

TABLE 3.—*Distribution of 81 Identical Commercial Shipyards According to Absenteeism Rates* [1] *in April and October 1942*

Absenteeism rate	April 1942		October 1942	
	Number of yards	Percent of total wage earners in 81 yards	Number of yards	Percent of total wage earners in 81 yards
Total	81	100.0	81	100.0
0.1 and under 2 percent	17	9.2	13	7.7
2 and under 4 percent	25	13.0	19	6.0
4 and under 6 percent	15	25.0	16	19.8
6 and under 8 percent	13	28.2	13	23.1
8 and under 10 percent	4	8.6	8	11.2
10 and under 12 percent	4	7.9	5	19.2
12 and under 14 percent	2	1.6	3	7.0
14 and under 16 percent	0	0	2	5.0
16 and under 18 percent	1	6.5	1	.9
18 percent and over	0	0	[2] 1	.1

[1] Ratio of man-hours lost to man-hours worked plus man-hours lost.
[2] Absenteeism rate between 20 and 30 percent.

By October, employment in these same 81 yards had increased 50 percent, and the number of yards reporting absenteeism rates of 8 percent or more had grown. Less than 34 percent of the wage earners in October worked in yards where absenteeism was under 6 percent, while more than 43 percent were in yards where the rate was 8 percent or more.

Absenteeism appeared to be more of a problem in large shipyards than in small ones. Although the figures in table 4 show that some

yards with fewer than 500 wage earners in October reported absenteeism of 8 percent or more, in three-fourths of these yards absenteeism was below 6 percent. In a few yards with 5,000 or more wage earners absenteeism was kept below 6 percent, but almost half of these large yards reported rates of 8 percent or more.

Table 4 throws some light on the differences in the extent of absenteeism in various shipbuilding zones which were observed earlier. Practically all of the yards in the Great Lakes and Inland zones, where absenteeism was lowest, had fewer than 5,000 wage earners each. As a matter of fact, employment in over half of the yards in these 2 zones was below 500 each in October. In practically 9 out of 10 yards in these areas absenteeism was kept below 8 percent.

TABLE 4.—*Distribution of All Commercial Shipyards Reporting in October 1942, According to Absenteeism Rates* [1] *and Size and Location of Yards*

Zone and absenteeism rate	Number of yards distributed according to number of wage earners						
	All yards	Less than 500	500 and under 1,000	1,000 and under 5,000	5,000 and under 10,000	10,000 and under 20,00	20,000 and over
All zones	206	102	32	35	13	12	12
0.1 and under 2 percent	41	28	6	5	1	0	1
2 and under 4 percent	51	27	11	10	2	0	1
4 and under 6 percent	47	22	8	9	2	4	2
6 and under 8 percent	29	16	2	5	2	3	1
8 and under 10 percent	18	5	3	3	3	1	3
10 and under 12 percent	8	2	0	1	0	2	3
12 and under 14 percent	4	0	0	0	2	1	1
14 percent and over	8	2	2	2	1	1	0
Atlantic, Gulf, and Pacific zones	157	75	20	26	12	12	12
0.1 and under 2 percent	33	21	6	4	1	0	1
2 and under 4 percent	34	20	6	6	1	0	1
4 and under 6 percent	33	15	5	5	2	4	2
6 and under 8 percent	23	12	0	5	2	3	1
8 and under 10 percent	16	4	2	3	3	1	3
10 and under 12 percent	7	1	0	1	0	2	3
12 and under 14 percent	4	0	0	0	2	1	1
14 percent and over	7	2	1	2	1	1	0
Great Lakes and Inland zones	49	27	12	9	1	0	0
0.1 and under 2 percent	8	7	0	1	0	0	0
2 and under 4 percent	17	7	5	4	1	0	0
4 and under 6 percent	14	7	3	4	0	0	0
6 and under 8 percent	6	4	2	0	0	0	0
8 and under 10 percent	2	1	1	0	0	0	0
10 and under 12 percent	1	1	0	0	0	0	0
12 and under 14 percent	0	0	0	0	0	0	0
14 percent and over	1	0	1	0	0	0	0

[1] Ratio of man-hours lost to man-hours worked plus man-hours lost.

All the very large shipyards, i. e., those with more than 10,000 wage earners each in October, were on the Atlantic, Pacific, or Gulf Coasts. Half of these large yards reported that absenteeism was at least 8 percent in October. Similarly high absenteeism occurred in half of the yards with 5,000 to 10,000 wage earners in these 3 zones. However, the small yards in these areas reported absenteeism rates which compared very favorably with those reported by similar yards in the Great Lakes and Inland zones. Almost 9 of every 10 yards with fewer than 500 wage earners in the Atlantic, Pacific, and Gulf yards reported absenteeism rates of less than 8 percent in October, as was the case in the other 2 zones.

These differences between large and small yards in the same areas lend some weight to two of the explanations frequently given for the

current high absenteeism—inadequate housing and transportation. Although these two factors constitute problems in all localities where shipbuilding employment has expanded rapidly, it is probably true that the problems of overcrowding and poor transportation increase disproportionately with the expansion of large yards as compared with expansion of smaller ones. It is also probable that in the smaller yards closer contacts can be maintained between management and workers, as well as between individual workers, than is possible in yards with 20,000 or 30,000 workers.

Causes of Absenteeism

Fourteen of the 20 yards from which the Bureau obtained information through its special survey of the causes of absenteeism furnished daily records of the amount of absenteeism for 2 weeks during July (see table 5), but the remaining information obtained through this survey consisted of opinions of company officials.

In most cases a general tendency was observed for absenteeism to rise over the week end. Absences on Saturday and Monday accounted for about 40 percent of the man-hours lost throughout the week. Several explanations of this attendance pattern were offered. Friday is pay day in many yards. Many workers whose homes were quite distant visited their families over the week end and frequently did not return until Tuesday. Others took Monday off to rest up from week-end activities. In yards scheduling Sunday work regularly, absenteeism was usually greatest on Sunday.[a]

TABLE 5.—*Daily Record of Absenteeism in 14 Selected Shipyards, July 6–July 18, 1942*

Period	July 6–July 11		July 13–July 18	
	Man-days lost as percent of man-days worked plus man-days lost	Percent of total man-days lost each day	Man-days lost as percent of man-days worked plus man-days lost	Percent of total man-days lost each day
Monday through Saturday	8.3	100.0	8.2	100.0
Monday	10.2	20.2	9.8	19.6
Tuesday	8.3	16.6	8.1	16.4
Wednesday	7.7	15.5	7.7	15.7
Thursday	7.0	14.1	7.1	14.5
Friday	7.2	14.7	7.3	14.8
Saturday	9.4	18.9	9.4	19.0

The other reasons offered by company officials for the high absenteeism in their yards are summarized in table 6. Most of them felt that absenteeism resulted from a combination of factors. In specific areas inadequate housing and transportation facilities were decidedly the most important causes of absenteeism. High on the list of other reasons was the large number of workers quitting without notice, which was associated with the increasing number of inexperienced workers being hired.

[a] In one yard with 14.5 percent absenteeism, almost a third of the absenteeism occurs on Sunday, which is the seventh day of work in this yard. All workers in some departments are offered an opportunity to report for work on Sunday, although it is understood that many of them will not report. Those who do not report in these departments are counted as absent.

TABLE 6.—*Causes of Absenteeism in Selected Commercial Shipyards*

Zone and yard	Week-end absences	Quits without notice	Housing	Transportation	High earnings	Long hours	Sickness and accidents	Other work (farms, etc.)	Climate or weather	Inexperienced labor	Unexplained or miscellaneous
Atlantic Coast:											
I-A	X				X						
I-B	X						X				X
I-C	X	X	X						X		
I-D	X	X			X						
I-E	X	X			X						
I-F	X	X			X					X	
I-G	X	X	X								
I-H	X		X	X				X	X		
I-J											X
Gulf Coast:											
II-A	X	X	X	X		X			X		
II-B	X		X	X		X					
II-C	X	X			X				X	X	
II-D	X		X	X							
Pacific Coast:											
III-A	X		X								
III-B	X		X				X				X
III-C	X										
III-D	X		X				X				X
III-E	X	X	X								
III-F	X		X				X				
Great Lakes: IV-A											X

HOUSING AND TRANSPORTATION

Lack of housing accommodations was undoubtedly the principal cause of absenteeism in many yards, particularly in the Gulf and Pacific areas. The tendency of workers to take time off for week-end visits to their families has already been mentioned. In some areas workers bringing their families with them were forced to live in trailer or tent camps without adequate facilities for water supply and sewage disposal, and being accustomed to and able to pay for decent housing, took time off to look for better accommodations or, in extreme cases, quit their jobs because housing conditions were intolerable.

Shortage of housing facilities has caused many workers to commute as much as 50 to 150 miles (round trip) daily. Rationing of tires and gasoline have resulted in workers' forming car pools, and a blow-out or engine trouble may keep 5 or 6 workers away from work. As previously stated, absenteeism in this report does not include fraction-of-day absences. If time lost because of tardiness were included, transportation would be a still more important factor, because automobile trouble and congested traffic make many workers tardy. Some workers traveling long distances prefer to work fewer days and make less money than to make the long trip to and from work every day.

Although both publicly and privately financed war housing has been built in shipbuilding centers, in many areas the supply of housing has failed to keep pace with the increase in employment. Since the natural requirements for launching large vessels limit the number of possible locations for certain types of yards, many of the proposals for placing war industries where labor and housing are already available are not applicable to the shipbuilding industry. Moreover, shortages of critical materials preclude any large-scale building of new ways.

QUITS WITHOUT NOTICE AND INEXPERIENCED WORKERS

A large percentage of absenteeism resulted from carrying on the pay roll persons who had quit work without giving notice to the company. Such workers are counted as absentees for varying periods (in some yards for as long as a month) until their names are removed from the pay roll. Detailed records of one shipyard, employing more than 2,500 workers and reporting an absenteeism rate of 9 percent, illustrate the effect of unreported quits in absenteeism rates. Approximately one-fifth of this company's absenteeism was caused by keeping on the pay roll persons who were probable terminations.

Bureau of Labor Statistics' reports on labor turn-over in the shipbuilding industry show that quits rose from 4.29 per 100 workers in April 1942 to 5.39 per 100 workers in October. This was in addition to discharges, military separations, and lay-offs. Shipbuilding officials attribute a large share of the quits to the necessity of hiring inexperienced workers who are recruited from a wide variety of occupations. Many workers after a few days find they cannot do the work or cannot stand the grind, take time off to look for another job, and do not return. One large shipbuilding company on the Atlantic Coast submitted reports showing that of over 500 workers who had quit in the first half of November, almost half had been employed no longer than a month. Nearly seven-eighths of those quitting had been employed by this company 6 months or less.

Many workers after being trained believe they can obtain better wages elsewhere, take time off to seek other employment, and then leave permanently. In some localities shipyards were hiring each other's workers. A survey of workers hired by representative shipyards on the west coast during June 1942 showed that 14 percent of the new persons hired had come from other shipyards. However, about a third of the workers reported as recruited from other shipyards were, in reality, employees shifted between two yards operated by the same company, and were doubtless transferred by an arrangement of the management.[4]

HIGH EARNINGS AND LONG HOURS

Officials of 4 companies attributed absenteeism to high earnings in combination with other causes, and an official of a fifth company mentioned high earnings alone. Frequently workers who were separated from their families preferred a visit home to more money. However, many of these workers probably would not have taken jobs away from home in the first place had it not been for the inducement of high wages and the prospects which they afforded of visits to the families. Company officials also felt that some workers were interested merely in making a living and would work only until they made enough to satisfy their wants. During the first World War "wage income higher than the standard of living" was also advanced as a cause of absenteeism in certain sections of the shipbuilding industry.[5]

Comparison of average weekly earnings and absenteeism rates for the 20 companies does not show any consistent relation between changes in earnings and changes in absenteeism. In fact, the absenteeism records of individual companies show chiefly that absenteeism

[4] Monthly Labor Review, November 1942 (p. 926): Sources of Labor Supply in West Coast Shipyards and Aircraft Parts Plants.

[5] Political Science Quarterly, December 1919 (p. 603): Absenteeism in Labor, by Paul H. Douglas.

rates change so erratically from month to month that in all yards the explanation must lie in a variety of factors. In one Atlantic Coast yard absenteeism rose from 2 percent in April to over 9 percent in August and declined slightly in the following 2 months. In another Atlantic Coast yard absenteeism dropped from 11.3 percent in April to 8.0 in June, but rose to 14.4 in October. In a Pacific yard where employment was more than doubled from April to October, but where average weekly hours and average weekly earnings were about the same in both months, absenteeism rose from 0.8 percent in April to 10.0 percent in October. In other yards absenteeism remained between 3 and 7 percent throughout the 7-month period. On the other hand, in a large yard on the Atlantic Coast absenteeism was consistently high, but whereas employment increased 50 percent, absenteeism was reduced from 16.0 percent in April to 11.9 percent in October. This yard also reduced average weekly hours from 54.5 to 49.9 per week over the 7 months.

The two Gulf yards which mentioned long hours, along with other causes, as the explanation for high absenteeism reported average weekly hours of 52.8 and 53.6 in July, when the average for all shipyard workers was 48.3. Scheduled workweeks in these yards were 54 and 58 hours, respectively.

SICKNESS AND ACCIDENTS

None of the shipbuilding companies questioned reported sickness and accidents as a major cause of absenteeism. One company reporting an absenteeism rate of 11.8 submitted a detailed analysis of this time lost, which showed that industrial injuries accounted for 1.8 percent and reported sickness 0.3 percent of the total.

WEATHER AND CLIMATE

Weather is probably a more important factor of absenteeism in shipbuilding than in any other industry with the possible exception of the construction industry. Much shipbuilding work is in the open and is affected by heavy rains and severe heat or cold. It is very common for shipyards to report on their monthly schedules that high absenteeism was caused by heavy rain, and this may account for some of the apparently erratic fluctuations in absenteeism rates for individual companies. Since the available 1942 data cover only the months from April through October, it is too early to tell whether the increase in absenteeism which occurred during the winter of 1918 will be duplicated in 1942 and 1943.

OTHER CAUSES

All of the reasons offered by shipyard officials for the current high absenteeism rates had been observed by Prof. Paul H. Douglas in a general article on absenteeism, written shortly after the close of World War I.[6] In addition, his list of causes included: Employment of women; nature of employment, e. g., heat, dust, excessive noise, monotony; payment of overtime bonus; lack of materials; liquor; and separation of interests between workman and employer.

[6] Political Science Quarterly, December, 1919 (pp. 600-604): Absenteeism in Labor, by Paul H. Douglas.

Although woman workers in shipyards increased appreciably in number during the summer of 1942, they represented no more than 2 percent of the workers in commercial shipyards in October.[7] The increasing employment of women may result in higher absenteeism, but women were not numerous enough in the fall of 1942 to have much effect on the rates.

Absenteeism attributable to the nature of the work was doubtless implied when shipyard officials called attention to the large number of quits, particularly among new workers. The effect of liquor was probably also associated by company officials with week-end absences. Separation of interests of workman and employer may have some bearing on the fact that absenteeism seemed to be more of a problem in large than in small yards in 1942.

The payment of overtime bonuses was regarded as such an important factor in absenteeism in the spring and summer of 1942 that an agreement abolishing calendar premium days, which will be discussed later, was made effective in all zones by August 1, 1942.

The extent to which worker morale is lowered and absenteeism is thereby increased because of faulty planning of work and lack of materials and equipment cannot be measured. Rapid expansion of yards and difficulties in getting materials have unquestionably complicated the orderly planning of work and the most effective use of workmen in many yards.

Methods of Reducing Absenteeism

Although the majority of shipyard officials questioned stated that they had taken steps to eliminate as much absenteeism as possible, many reported that they had been unable to reduce it to any appreciable extent. The Navy Department, U. S. Maritime Commission, War Production Board, and other Federal agencies have also attempted to assist labor and management in minimizing this loss of working time.

Abolition of calendar premium days.—One step to reduce absenteeism was the abolition of calendar premium days as the result of the Shipbuilding Stabilization Committee agreement which was effective in all zones by August 1, 1942. Shipbuilding companies were of the opinion that employees were working on Saturday and Sunday in order to receive premium pay and were then taking time off during the week. The agreement provided that Saturdays and Sundays would be considered as regular workdays and that work performed on these days would be paid for at straight-time rates except when Saturday and Sunday were the sixth or seventh regular shift of the established workweek. Time and a half would be paid for the sixth regular shift and double time for the seventh regular shift worked in an employee's regularly established workweek.

Personal appeals to workers.—Most yards considered that appeals made to the workers through foremen, through posters supplied by the War Production Board, Navy, and Maritime Commission, and through labor management committees were the most effective methods of reducing absenteeism.

One Pacific Coast shipyard planned to maintain large bulletin boards showing the relative percentage of absentees by crafts, shifts,

[7] For data on employment of women in shipyards, see p. 277 of this issue.

and divisions, with the hope that these boards would stimulate competition and thus reduce absenteeism.

A popular method of appealing to the workers was to have speakers in the yards, who pointed out to the workers the value of every day's work and the importance of their jobs in the war.

One of the most direct appeals was reported by a Pacific Coast yard which printed an "Open Letter to Joe Lay-off" in the plant magazine. This letter set forth the number of workers who were absent on 1 day, the losses in terms of production, the essential part that shipping plays in the war, and the importance of every worker to his job and his country.

Assistance in housing and transportation problems.—Two companies reported taking steps to alleviate transportation and housing difficulties. One of these companies arranged for shuttle train service between the city in which the yard was situated and a neighboring city where a large proportion of workers were forced to reside because of housing shortages. The second company established a division responsible for trying to eliminate the causes of absenteeism, which assisted employees in obtaining houses.

Decrease in hours of work.—Although two yards reported that long hours undoubtedly were a principal cause of absenteeism, only one of them reduced hours—from a scheduled workweek of 58 to 48 hours. Another yard reported that by allowing employees to work only 6 shifts a week, absenteeism had been reduced 50 percent.

INCOMES AND EXPENDITURES OF WAGE EARNERS IN PUERTO RICO, 1940–41 [1]

Summary

A TYPICAL wage-earning family in Puerto Rico before the United States entered the present war had less than $350 in yearly cash earnings. On these funds, an average of 5.5 persons depended for their living. This is a larger average family size and a distinctly lower annual-earnings figure than is found in continental United States. Average yearly expenditures of these families were $383, or $42 more than their average yearly earnings. Although 60 percent of this expenditure went for food—a much larger proportion than is spent by wage earners' families in the States—the food purchased was insufficient to provide adequate nutrition.

There was an average of 1.58 wage earners per family, and their cash earnings in a week averaged $7.08 per family. Other cash income averaged $0.39, bringing the total cash income to $7.47 per family per week. It ranged by industry from $2.56 for families whose chief earner was employed in the coffee industry in rural highland areas to $13.60 for those in the liquor industry in urban areas. Income in kind averaged $1.69 per family, raising the average total family income per week to $9.16.

Cash incomes in Puerto Rico are largely dependent upon shipping and market conditions outside the Island. This beautiful tropical island is one of the most densely populated areas of the world, yet agricultural pursuits provide its chief employment and revenues. In normal times the greatest net returns have come from concentration upon the export of cash crops of sugar and rum, and to a lesser extent of tobacco, coffee, and fruits. In 1940, out of the total of 517,000 wage earners reported by the Bureau of the Census as working on the Island, more than 229,000 were employed in agriculture. These exports have been balanced by importation of manufactured articles and staple foods. Work in these agricultural lines is highly seasonal, with about 6 months' employment in the active season followed by little or no employment in the slow season until the next crop has grown.

Stevedoring, for which the steady coming and going of ships in the pre-war period provided year-round demand, gave relatively well-paid employment to a small group. The same was true of the liquor industry whose raw material was sugar. Needlework, prior to 1940, was one of the major sources of cash revenue to the Island, employing many people on a piece-work basis at rates of pay which averaged as little as 3 and 5 cents per hour. Fine handwork was done on handkerchiefs, underwear, infants' wear, and similar articles, mostly by contract with New York firms. Needlework declined sharply in 1940 as a result of the 25-cent minimum-wage hourly rate under the Federal wage and hour law. Under the amendment adapting the act to Puerto Rican conditions, minimum wages were set at 12.5 cents for hand-sewing operations and 20 cents for all other operations. The industry went through a period of readjustment to the types of needlework which could meet the higher rates of pay.

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[1] Prepared in the Bureau's Cost of Living Division, by Alice C. Hanson, on the basis of preliminary returns from Work Projects Administration Project No. 144, sponsored by the Insular Department of Labor. Technical guidance to the project was furnished by the U. S. Bureau of Labor Statistics. Manuel A. Perez, now chairman of the Insular Minimum Wage Commission, was the initial State supervisor of the survey and Conchita Rodriguez-Ema the director of field work and editing. Tabulation is being completed under the direction of I. W. Jacobs, present State supervisor of the project. All tabular data are preliminary figures from a forthcoming report on Work Projects Administration Project No. 144.

Aside from needlework, employment in 1940 and more particularly by 1941 was at a relatively high level for Puerto Rico, largely because of the extensive program of road and airfield development sponsored by the Federal Government. Wages and employment in building construction were unusually high because of the same factors.

Problems of living costs, food supply, and employment have all become acute in Puerto Rico as a consequence of wartime conditions. A serious dislocation of the Island's economy has followed the drastic curtailment of shipping. The submarine campaign in the Caribbean, together with the urgent need for ships for the United Nations' supply program, has resulted in a severe cut in shipping bound for Puerto Rico. To an area whose cash income is dependent on exports and food supply on imports, this is a crippling blow. The shortage of shipping means that much of the goods produced for export cannot reach the mainland, and that the employment usually furnished by the export industries is greatly curtailed. Likewise such revival of the needlework industry as was under way in 1941 and 1942 has been hard hit. The military construction which was mainly responsible for the building boom of 1941 has been largely completed and private construction has ceased for lack of imported materials. These contractions have their repercussions throughout the Island, so that the employment situation resulting from the war is one of severe depression, the exact reverse of the straining of productive capacities on the mainland.

On the supply side, food, clothing, and all essentials of living which were formerly imported have become very scarce. Though notable efforts have been made to encourage increases in domestic food production, the local foods alone cannot supply all the needs of the very large population; furthermore, these foods have been increasing rapidly in price.

There has always been a certain amount of locally grown foods consumed on the Island. Some foods are produced on the Island, among them bananas, plantains, yautia, breadfruit, and sweetpotatoes—all starchy foods—and citrus fruits, mangoes, and some beans. There are comparatively few meat-producing animals, aside from pigs and chickens and a relatively small number of dairy cattle. Such food as was locally produced has been far from meeting the total requirements of the Island's population of almost 2 million persons.

The main items in the Puerto Rican diet have been rice which was almost entirely imported, beans of which about 60 percent was imported, and salt codfish all of which was imported. These provided cheaper sources of calories and proteins than could be produced on the Island, and they are foods easily shipped. The high value of sugar crops on much of the Puerto Rican land and the poor quality of the other land in the mountainous interior were further explanations of the relatively small domestic food production.

The data presented in this article are based on an Island-wide cross section of 2,000 families of wage earners surveyed between March and November 1941. The returns are preliminary, since they are for the first 2,000 families covered,[2] out of a total of 5,000. However, they represent an adequate sample of the families of city and rural workers. Further details for families classified by income level and by area will be available from final tabulations. The survey was made as a WPA

[2] A few of the tables are based on a smaller number of families but represent the only material available in Washington at present.

project, sponsored by the Insular Department of Labor, with technical guidance furnished by the United States Bureau of Labor Statistics. It furnishes data on family incomes and expenditures in detail for 1 week and in summary for a year. The families surveyed constitute a random sample of the entire wage-earning population of the Island as it was in 1941, with appropriate proportions of urban and rural families, and representation of each industry in accordance with its relative importance at that time. White-collar and professional workers, who form a relatively small part of the total population of Puerto Rico, were not included in the survey.

The data gathered provide a large body of basic information regarding pre-war economic conditions in Puerto Rico, and, when account is taken of the changes in the Island's economy brought about by the wartime curtailment of shipping, the acute nature of Puerto Rico's present problems of supplying her population with food and other essentials.

Age Composition of Population

The age composition of the population is much lower than that found in the States, reflecting both very high birth rates and high death rates. The 1940 Census shows 41 percent of the population below 15 years and 76 percent below 35. The age distribution in 1941 of the 11,054 persons in the sample of 2,000 wage-earner families follows:

	Percent of total		*Percent of total*
Under 5 years of age	17. 4	35 to 39 years of age	5. 7
5 to 9 years of age	15. 6	40 to 44 years of age	4. 7
10 to 14 years of age	12. 9	45 to 49 years of age	3. 5
15 to 19 years of age	9. 9	50 years of age and over	7. 8
20 to 24 years of age	9. 1		
25 to 29 years of age	7. 8	Total	100. 0
30 to 34 years of age	5. 6		

Estimated Yearly Earnings

Yearly earnings per family for this group averaged $341. Thirty-five percent of the families received less than $200 per year and 72 percent less than $400. The rather unusual earnings of building-construction workers at the time of the study result in a considerably larger percentage of families with combined yearly earnings in excess of $400 than would normally be found. Estimated yearly earnings per family exclusive of all workers in building construction were only $298.

Amounts earned per year were quite different as among various industries. The differences in distribution of families, by yearly earnings class and by industry, are shown in table 1. Averages by industry are shown in table 2. The building-trades workers were clearly in the most favorable position, with those in the tobacco and coffee industries showing the lowest yearly earnings. The latter two crops are raised principally by small farmers on mountainous lands, who can afford to hire only low-paid wage workers for part of the year. Stevedoring, the liquor industry, and the fruit industry provided relatively high earnings but employed only a small proportion of the total workers. Of the larger industries, the sugar industry afforded

relatively high earnings, despite its annual slack season. Next to the tobacco and coffee industries needlework showed the lowest yearly earnings.

TABLE 1.—*Distribution of 2,000 Puerto Rican Families, by Annual Earnings [1] and by Industry in Which Chief Earner Was Employed*

Item	Total number of families	Percent of families	Estimated yearly earnings class						
			Under $100	$100 to $199	$200 to $299	$300 to $399	$400 to $499	$500 to $999	$1,000 and over
All families:									
Number	2,000		174	534	448	287	176	322	59
Average number persons per family	5.53		4.93	5.21	5.57	5.68	6.10	5.72	6.42
Average number earners per family	1.58		1.21	1.37	1.56	1.66	1.97	1.73	2.20
			Percentage distribution						
Industry employing chief family earner:									
Sugarcane	721	100.0	7.6	34.5	27.7	13.2	7.4	9.2	0.4
Tobacco	130	100.0	22.3	46.2	20.8	6.1	2.3	1.5	.8
Fruit	11	100.0	0	18.2	27.3	27.3	9.1	18.1	0
Coffee	107	100.0	23.4	42.0	20.6	10.3	.9	1.9	.9
Building	411	100.0	1.7	11.2	18.0	18.3	14.6	28.7	7.5
Stevedoring	67	100.0	4.5	16.4	20.9	10.4	7.5	32.8	7.5
Needlework	93	100.0	19.4	30.1	15.0	16.1	8.6	10.8	0
Liquor	9	100.0	0	0	11.1	22.2	11.1	44.5	11.1
Other industries	451	100.0	8.2	20.6	20.6	15.7	9.8	21.3	3.8
All families	2,000	100.0	8.7	26.7	22.4	14.3	8.8	[1] 16.1	3.0

[1] In 12 months during period, March 1940–November 1941.

Weekly Income

Variations in money income, by urban and rural areas, for the week of the survey, are shown in table 2. Incomes were substantially higher in urban than in rural areas in all industries. Number of earners per urban family was also higher in all industries except needlework and the miscellaneous industry group. In rural areas, families living in the lowlands, where most of the good sugar and fruit lands are found, had distinctly higher average incomes than those living in the highlands, where there are principally coffee and minor crops. Weekly earnings figures when multiplied by 52 do not check exactly with estimated annual earnings, because of the differences between slow and active seasons. Work in sugar, tobacco, coffee, and fruit is highly seasonal, whereas work in the other industries is spread more evenly throughout the year.

An average of 1.58 persons in the family reported some earnings. Number of earners in the family varied somewhat with industry, as shown in table 2. Needlework had the highest number, showing over 2 earners per family in the rural highlands (where the work is mostly home work), but with average weekly income per family of only $2.67. In the cities where the finished needlework is assembled in shops for shipment, 1.7 workers had a weekly family income of $7.66.

Income from other sources as well as from earnings is shown in table 3 for a 1-week period. Of the money income, 6.7 percent was accounted for by such miscellaneous sources as sale of poultry, livestock, or garden produce, gifts in cash, and income from boarders. No direct relief in cash was dispensed in Puerto Rico, but there were some earnings in 1941 from WPA and NYA. Income in kind (in the

form of goods and services received as pay, gift, or relief) and value of home-produced food and of owner-occupied housing added an average weekly supplement of $1.69 per family to the average weekly money income of $7.47.

TABLE 2.—*Number of Earners and Annual Money Earnings, per Family, and Total Money Income for 1 Week, by Location and Industry* [1]

Industry in which chief earner was employed	All areas		Rural highlands		Rural lowlands		Urban	
	Number of earners per family	Estimated yearly earnings	Number of earners per family	Average total money income of family for 1 week	Number of earners per family	Average total money income of family for 1 week	Number of earners per family	Average total money income of family for 1 week
All industries	1.58	$341	1.53	$3.97	1.59	$7.12	1.60	$11.42
Sugarcane	1.56	269	1.49	4.15	1.59	6.83	1.66	11.60
Tobacco	1.70	180	1.61	2.95	1.92	3.20	2.50	8.07
Coffee	1.51	188	1.48	2.56	1.67	4.14	1.80	11.01
Fruit	1.18	352	(2)	(2)	1.22	7.25		
Building	1.54	509	1.54	8.79	1.52	10.28	1.55	13.07
Stevedoring	1.30	470			1.18	7.91	1.38	10.82
Needlework	1.90	256	2.21	2.67	2.17	3.47	1.73	7.66
Liquor	1.67	578			(2)	(2)	1.75	13.60
Other	1.59	381	1.46	3.45	1.68	6.07	1.59	10.79

[1] Data based on 2,000 Puerto Rican wage-earner families: Earnings in 12 months during period, March 1940–November 1941; total money income in 1 week during period, March 1941–November 1941.
[2] Average not computed for fewer than 5 cases.

TABLE 3.—*Average Family Income in 1 Week, by Source of Income* [1]

Item	Average per family	Percent
Total current family income	$9.16	100.0
Money income	7.47	81.6
Income in kind	1.69	18.4
Total current family income	9.16	100.0
Relief income	.59	6.4
Nonrelief income	8.57	93.6
Number of persons in family	5.5	
Number of earners in family	1.6	
Money income		
Nonrelief money income:		
Nonrelief earnings of economic family	6.70	
Income from roomers and boarders	.10	
Gifts in cash	.13	
Sale of poultry, livestock, or garden produce	.10	
Other nonrelief money income	.17	
Gross total	7.20	
Minus deductions from other than family income	.11	
Net total	7.09	94.9
Relief money income:		
Relief earnings	.38	
Direct relief in cash	0	
Total	.38	5.1
Total money income	7.47	100.0
Income in kind		
Nonrelief income in kind:		
Value of goods and services received as pay	.14	
Value of goods and services received as gift	.58	
Value of home-produced or wild foods consumed by family	.32	
Value of rent of owned home, minus current housing expense of home owners	.44	
Total	1.48	
Relief income in kind	.21	
Total income in kind	1.69	

[1] Data based on 2,000 Puerto Rican wage-earner families: Income for 1 week during period March–November 1941.

Estimated Yearly Expenditures

The estimated average yearly money expense for these families was $383 (table 4), or $42 more than their average yearly earnings. Of this expenditure, $230 (60 percent) went for food—a much larger proportion than is found among the wage-earning group in continental United States. Nevertheless, the actual amount of food purchased was inadequate when compared with standard nutritional requirements. Clothing was the next most important source of expense, averaging $38 per family, or nearly 10 percent of annual money expenditures.

TABLE 4.—*Average Yearly Expense per Family, by Item of Expenditure* [1]

Item of expenditure	Yearly expense per family	Percent of total
Current money expenditures, all items	$383.00	100.0
Food	230.00	60.0
Housing	17.00	4.4
Fuel and light	14.00	3.7
Other household operation	8.00	2.0
Furnishings and equipment	15.00	3.9
Clothing	38.00	9.9
Medical care	9.00	2.3
Personal care	11.00	2.9
Recreation	20.00	5.2
Transportation	11.00	2.9
School	1.00	.3
Vocation	1.00	.3
Gifts and contributions	6.00	1.6
Mutual-aid society and funerals	1.00	.3
Miscellaneous	1.00	.3

[1] Data are based on 2,000 Puerto Rican wage-earning families: Expenditures in 12 months during period, March 1940–November 1941.

Housing, on the other hand, represented a much lower percentage than is found in the States. Housing expense is low in Puerto Rico, partly because, in the mild climate, the houses in which wage earners live are of very flimsy construction; and partly because many families are squatters who have erected huts on vacant land where they are permitted to remain. The housing facilities occupied by these wage-earner families were not at all comparable with those in the States. Most of the homes were without running water and had neither window glass nor screens; many had no electricity and no sanitary privy; many were not equipped with sufficient furniture to provide a sleeping place for each family member. Huts built on stilts to avoid the swampy ground were common. Expenditures for items other than food, clothing, and housing were extremely low as compared with families of wage earners in continental United States.

The great difficulty these families had in making ends meet is indicated by the large amount of their indebtedness in relation to their incomes. Returns for 2,000 families showed the following average outstanding debts for the year:

Total debts for family living, exclusive of mortgage	$32.60
Debts for food	18.27
Debts for rent	1.79
Debts for clothing	1.80
Debts for furnishings	5.38
Debts to individuals	2.96
Other debts	2.40

The debt for food alone represented 5 percent of average annual earnings and over 2½ times as much as 1 week's cash income. Total debts for current living (exclusive of mortgage) amounted to nearly 10 percent of annual earnings and almost 5 times the amount of 1 week's money income. Addition of mortgage indebtedness would bring the figure to 11 percent of annual earnings.

FOOD PURCHASE AND CONSUMPTION

Living costs have certainly advanced tremendously since these figures were obtained in 1941, although there is no cost-of-living index available for Puerto Rico.[3] There is, however, a retail food-cost index, prepared by the Agricultural Experiment Station at the University of Puerto Rico. According to that index, food costs in Puerto Rico on October 15, 1942, stood at 196 percent of the July 1939 average, and were 54.3 percent higher than the average for the year November 1940–November 1941 (the period to which most of the present survey data apply). Thus, it would have cost $355 at October 1942 prices to buy the equivalent of the $230 worth of food which wage-earning families purchased in 1941.

Since their annual earnings of $341 in 1941 have declined rather than advanced, because of the restriction of the building program and the serious reduction in shipping, it is difficult to see how these families at the present time can purchase food and have any money left for other items of family living. Though there has been some reduction since the summer of 1942 in prices of most imported foods, as a result of OPA action, these foods have been extremely limited in quantity. In the stores covered on December 15 in and around San Juan, the compilers of the retail-food index reported that there were practically no supplies of rice, red kidney beans, salt codfish, lard, or salt pork—items which comprise the greater part of the Puerto Rican diet. On January 1, however, according to a report by the Division of Territories and Island Possessions of the Interior Department, there was on the Island a 44-day supply of rice, an 80-day supply of beans, and enough codfish, including supplies in transit, for 100 days. Prices of domestic foods, such as plantains, yautia, and beans, have increased very rapidly.

The War Shipping Administration now assigns monthly tonnage for shipments to Puerto Rico to the Interior Department, which allocates space for foodstuffs to the Food Distribution Administration. The latter fills this space mainly with food from its stock piles. Since this plan of allocating shipping space to Puerto Rico was put into effect the food situation there has gradually improved until, at the present time, ample supplies of basic foods are being shipped to the Island. The shipping tonnage now transporting foodstuffs to Puerto Rico is only a small percentage of that used in normal times by commercial shippers. The Food Distribution Administration is supplying the Island and building stock piles by eliminating all bulky and nonessential foods and those whose calorie content does not justify shipping space during the present emergency.

It will be seen from table 5 that 73 percent of the quantity, or 87 percent of the value, of foods consumed by Puerto Rican wage earners in the pre-war period was purchased. About 7 percent of the quantity

[3] The Bureau of Labor Statistics, in cooperation with local agencies, plans to construct one soon, utilizing existing data on food prices supplemented by material collected with funds provided by the Office of Price Administration.

was received in the form of food as pay or as relief, almost 6 percent was given by neighbors or friends, and about 14 percent was produced at home or picked from wild plants.

TABLE 5.—*Total Weekly Purchased Food, and Received Free* [1]

Source of food	Amount of food	Value of food	
		Amount	Percent of total
	Pounds		
Purchased	63.49	$4.35	86.6
Received as pay	2.76	.06	1.2
Received as relief	3.17	.20	4.0
Received as gift	4.85	.11	2.2
Home produced and wild foods	12.65	.32	6.4
Food given away (deduct)	.95	.02	.4
Total, net [2]	85.97	5.02	100.0

[1] Data based on 2,000 Puerto Rican wage-earning families: Food purchased or otherwise received in 1 week during period, March-November 1941.
[2] Value of total net food consumption per person weekly, 89 cents; average number of net pounds of food consumed per person weekly, 15.5.

TABLE 6.—*Average Weekly Food Consumption, per Family of 5.54 Persons* [1]

Item	Pounds	Value	Item	Pounds	Value
Meat and fish:			Vegetables—Continued:		
Fowl	0.26	$0.08	Yautia	3.15	$0.07
Fresh meat (pork)	.61	.10	Other	.47	.03
Salt pork	.84	.09	Fruits:		
Fresh meat (beef)	.57	.11	Citrus	1.49	.03
Dried salt meat	.11	.02	Coconut	.03	(2)
Ham	.52	.13	Bananas, ripe	.82	.01
Tripe (mondongo)	.17	.02	Mangoes	.03	.01
Fresh fish	.35	.04	Other	.26	.03
Other fresh sea food	.02	(2)	Sweets:		
Codfish, salt	1.62	.20	Sugar	5.92	.29
Canned salmon and other canned sea food	.14	.02	Candies	.07	.01
Other	.13	.02	Honey	(2)	(2)
Grain products, including peas and beans:			Other	.03	(2)
Bread	2.21	.18	Eggs	.51	.10
Crackers	.17	.03	Dairy products, oils and fats:		
Wheat flour	1.22	.05	Milk, canned	.47	.07
Cornmeal	1.64	.06	Milk, fresh, cow	8.85	.45
Rice flour	.12	.01	Milk, fresh, goat	.65	.03
Cornstarch	.03	(2)	Cheese	.06	.02
Cereals to cook	.25	.03	Butter	.05	.02
Rice	15.74	.79	Oleomargarine	.09	.02
Cow peas (frijoles)	.15	.01	Olive oil	.15	.05
Pigeon peas (gandules)	.47	.03	Lard (coconut or vegetable)	.37	.04
Chick-peas (garbanzos)	.69	.07	Lard (pork)	2.16	.24
Navy beans	1.12	.09	Cod liver oil	(2)	(2)
Kidney beans	2.37	.20	Olives	.05	.02
Macaroni and spaghetti	.26	.03	Other	.01	.01
Other	.18	.01	Proprietary foods	.02	.01
Vegetables:			Condiments and spices:		
Sweetpotatoes	6.62	.10	Tomato sauce	.70	.07
Potatoes	2.78	.03	Garlic (ajos)	.12	.03
Green bananas	5.92	.06	Pepper	.04	(2)
Plantains	1.57	.05	Achiote (annato)	.10	.01
Corn on cob	.08	.01	Other	2.16	.05
Yams	1.29	.03	Drinks:		
Breadfruit (panapen)	4.18	.03	Cocoa or chocolate	.07	.03
Avocado (aguacate)	.06	(2)	Coffee	1.41	.39
Tomatoes	.81	.04	Soft drinks	.50	.07
Green vegetables	.18	.01	Alcoholic drinks	.28	.09
Yellow vegetables	.20	.01	Other	.02	.01
			Total	86.76	5.15

[1] Data based on 628 Puerto Rican wage-earning families: Food consumption in 1 week during period, March–August 1941.
[2] Less than 0.005.

The heavy role played in the Puerto Rican diet by rice, beans, codfish, and salt pork is shown in table 6. The great importance of rice

regardless of the amount of family income is clear from table 7. Other foods which form a large part of the total bulk consumed are the starchy foods—bread and flour, potatoes and green bananas, breadfruit and yautia, and sugar. Analysis of the dietary adequacy of this food consumption will be made by nutrition experts in Puerto Rico. Preliminary indications, however, are that the diet is below conservative standards for requirements in calories and proteins as well as in protective elements furnished by minerals and vitamins.

TABLE 7.—*Weekly Rice Consumption per Family and per Person* [1]

Yearly income class	Total rice consumed per family		Rice consumed per person	
	Pounds	Value [2]	Pounds	Value [2]
All incomes	15.72	$0.81	2.84	$0.15
Under $100	13.03	.65	2.64	.13
$100 to $199	14.34	.73	2.75	.14
$200 to $299	16.14	.84	2.90	.16
$300 to $399	16.79	.87	2.96	.15
$400 to $499	17.99	.93	2.95	.15
$500 to $999	16.41	.84	2.87	.15
$1,000 and over	17.46	.96	2.72	.15

[1] Data based on 1,959 Puerto Rican wage-earning families: Rice consumption in 1 week during period, March–November 1941.
[2] Valued at approximately 5 cents per pound. The ceiling price on rice in January 1943 was 8 cents.

CLOTHING PURCHASES

Details of clothing expenditures are as yet available for only a small number of families in a few industries. Nevertheless, these returns give some indication of the clothing purchases which were customary before wartime restrictions altered the situation. Almost all of the garments were of cotton or rayon and silk. Because of the climate, almost no wool was used by wage earners' families. Thus, the men averaged a little over 2 pairs of trousers a year, at slightly more than $1.00 per pair and about as many shirts at about 75 cents per shirt. Suits were rare, and those purchased were chiefly of seersucker or other cotton material at an average price of about $3.00. The men bought a little more than 1 pair of shoes a year on the average, paying less than $2.00 for them.

The women and girls purchased an average of a little more than 2 cotton dresses a year at less than $1.00 each, about 1 rayon dress at a little over $1.50, and about 1 pair of shoes a year priced under $2.00. They averaged about 2 pairs of stockings a year—1 cotton at about 15 cents a pair and 1 rayon at around 50 cents. Hats and headbands were relatively unimportant. Coats or other similar outer garments were not purchased at all because of the climate. Underwear was principally cotton, and even major garments, such as cotton slips, averaged less than 40 cents in price.

TABLE 8.—*Average Yearly Purchases of Clothing per Person* [1]

Item	Average number purchased per person	Average expenditure per person	Item	Average number purchased per person	Average expenditure per person
Men and boys' clothing		$9.15	Women's, girls', and infants' clothing—Continued.		
Trousers	2.16	2.30	Shoes	1.21	$2.02
Shirts	2.13	1.58	Handkerchiefs	.38	.03
Overalls	.10	.07	Handbags	.15	.12
Suits	.54	1.65	Umbrellas	.08	.12
Shoes	1.12	2.00	Hats and headbands	.01	.01
Straw hats	.22	.17	Belts	.09	.02
Handkerchiefs	1.70	.11	Hairpins and hair ornaments		.02
Socks	2.11	.27	Garters	.03	.01
Neckties	.27	.08	Panties, cotton	1.66	.31
Underwear	2.12	.57	Panties, rayon or silk	.95	.29
Belts	.32	.19	Brassieres, cotton	.12	.03
Garters	.02	(2)	Brassieres, rayon or silk	.03	.02
Watches and jewelry		.12	Corsets	.01	(2)
Cloth for sewing garments for own use	.08	.02	Slips, cotton	1.26	.44
Thread, buttons, etc		(2)	Slips, rayon or silk	.71	.46
Paid help for sewing			Sleeping garments, cotton	.25	.09
Other (specify)	.03	.03	Sleeping garments, rayon or silk	.04	.03
Women's, girls', and infants' clothing		6.64	Rompers	.40	.11
Blouses or middies	.21	.11	Diapers	.51	.07
Skirts	.15	.10	Jewelry and accessories	(3)	.11
Cotton dresses	2.35	1.95	Cloth for sewing garments	.49	.13
Rayon or silk dresses	.90	1.48	Thread, buttons, etc		.04
Cotton hose	1.20	.21	Paid help for sewing	.09	.09
Rayon or silk hose	.98	.45			

[1] Data based on 180 families of Puerto Rican wage earners in fruit, stevedoring, needlework, and liquor industries' Clothing purchases in 12 months during period, March 1940–November 1941.
[2] Less than 0.5 cent.
[3] Less than 0.005 article.

Since the period covered by the field survey, clothing costs have advanced appreciably. Preliminary price data indicate that in January 1943, in San Juan, prices for many clothing items were 50 to 100 percent higher than in 1940–41.

WAGES IN RUBBER TIRE AND TUBE PLANTS, AUGUST 1942[1]

By H. M. Douty, *Bureau of Labor Statistics*

Summary

THE tire and tube division of the rubber-manufacturing industry, despite drastic limitation upon the use of rubber for civilian transportation, employed a substantially larger number of workers in 1942 than in 1939. The facilities of the industry are being intensively utilized in the production of a wide variety of rubber articles for direct military use. Thousands of workers are now engaged in the manufacture of self-sealing fuel tanks for aircraft, barrage balloons, rubber boats, life rafts, pontoons, and other products required by the armed forces of the United Nations. Tires and tire products for military and essential civilian use are being manufactured in important quantities.

Workers in the tire and tube division received average hourly earnings, exclusive of overtime premium pay and shift differentials, of almost $1.04 in August 1942. Male factory workers averaged $1.12 an hour, and the average for women was 75.8 cents. The highest level of wages was found in the important Akron-Detroit area, where straight-time earnings averaged almost $1.14 an hour. Workers in the southern division of the industry averaged 71.4 cents an hour.

These findings are the result of a detailed study of wages in the tire and tube and mechanical rubber goods branches of the rubber-manufacturing industry, undertaken by the Bureau of Labor Statistics at the request of the National War Labor Board. A report on wages in the mechanical rubber goods division will appear in a later issue of the Monthly Labor Review. The survey was designed to provide primary data for use by the Board in its consideration of wage-dispute cases in these industry divisions. The major portion of rubber-manufacturing employment is found in these two branches of the industry.

Some Characteristics of the Industry

CONCENTRATION AND COMPETITION

The tire and tube industry is characterized both by marked concentration of control and by sharp competition. The industry often is cited as one in which the benefits of large-scale production and continuous improvement of product have accrued largely to the benefit of consumers. At the same time, four multiple-plant corporations control the greater part of the productive capacity of the industry.

Tire and tube manufacture is dominated by the Firestone Tire & Rubber Co., B. F. Goodrich Co., Goodyear Tire & Rubber Co., and the United States Rubber Co.—commonly termed the "Big Four." In 1935, each of these four corporations was listed among the 65 largest industrial corporations in the country, and their combined assets,

[1] One of a series of two articles, the second of which (dealing with the manufacture of mechanical rubber goods) will appear in a future issue of the Monthly Labor Review. Prepared in the Division of Wage Analysis with the assistance of Joseph W. Bloch and W. H. Weidowke.

including foreign investments, amounted to over $600,000,000.[2] These companies in 1935 employed 79.9 percent of the wage earners and accounted for 80.9 percent of the value of product in this division of the rubber industry. The acquisition of new plants since 1935 and the decrease in the number of independent establishments probably has increased the extent to which production in the industry is controlled by the Big Four.

Some measure of the present importance of the four major companies can be derived from data secured by the Bureau in this wage study. Of the 32 plants surveyed in August 1942, 13 were operated by the four major companies, and these 13 plants employed 85.2 percent of the total number of wage earners reported. However, these figures slightly overstate the relative importance of the four major companies, since a number of plants, estimated to employ less than 2 percent of the workers in the industry, were not covered by the survey.

Despite the concentration of production in a few companies, the industry has been highly competitive. During the past two decades, prices, profits, and employment have exhibited marked instability. Competition for the original-equipment trade and for the trade of large distributors of replacement tires has been severe, and price wars have been frequent and bitter. A new phase of distribution obviously began, however, when the Government became the principal consumer of tires and the only consumer of the special war products that now constitute an important part of the output of the industry.

LOCATION OF INDUSTRY

In the fourth decade of the last century, rubber-manufacturing plants were established in Massachusetts, Connecticut, and Rhode Island. The industry later spread to other Eastern States, notably New York, New Jersey, and Pennsylvania. The Eastern States remained the dominant area of rubber manufacture until the early years of the present century, and certain types of rubber goods are still produced predominantly in the East.[3]

The importance of Akron and the Middle West in the rubber industry is based largely upon the rise of the middlewestern area as the major center of automobile production. The original Akron plant was established in 1870, and still bears the name of one of its founders, Dr. B. F. Goodrich. Other rubber firms were established in Akron before the turn of the century. The Akron companies found difficulty in competing successfully with the older eastern establishments in rubber footwear and other forms of rubber goods output then of major significance in the industry, and tended to concentrate, therefore, on the manufacture of solid carriage tires and pneumatic bicycle tires in which competition was less severe. When the demand for pneumatic tires for automobiles began, the small but vigorous Akron firms were in an advantageous position to secure this new business.

Tires soon became the most important product made of rubber. Even in 1914, the value of tire production represented almost 49 percent of the value of the total output of the rubber industry. The importance of Ohio as a center of tire and tube production appears to have increased until about 1935. After 1935, a number of new

[2] National Resources Committee, The Structure of the American Economy, Part I (p. 274). Washington, 1939.

[3] Gaffey, John Dean: The Productivity of Labor in the Rubber Tire Manufacturing Industry (pp. 149–175). New York, Columbia University Press, 1940.

branch factories of major Akron companies were established outside of the State, and the position of important competitors of the Akron firms apparently improved. Moreover, the Ford Motor Co. opened a tire plant at Dearborn, Mich. These developments combined to reduce the proportion of workers employed in tire and tube plants in Ohio from 68.4 percent of the industry total in 1935 to 55.3 percent in 1939.

At the time of the Bureau's wage survey in August 1942, however, employment in Ohio tire and tube plants had climbed to approximately 64 percent of the industry total. This gain in relative position is accounted for entirely by the almost phenomenal increase in employment in Akron plants between 1939 and 1942; other Ohio plants, with one exception, had fewer workers in 1942 than in 1939.

Akron, in any case, remains the dominant rubber-manufacturing center of the country. The principal plants of Firestone, Goodyear, and Goodrich are situated there, together with the plants of three smaller companies. Half a dozen other tire plants are found in Ohio outside of Akron, but the combined labor force of these plants does not equal that in any one of the three big Akron plants.

The largest tire plant of the United States Rubber Co. is in Detroit. The industry also is represented in Indiana and Illinois. About three-fourths of the workers in the industry in August 1942 were in the Middle West.

In the Far West, tire and tube manufacture is carried on chiefly in Los Angeles. Each of the Big Four has a plant there, the Goodyear plant dating from 1920. Between 1919 and 1938, the number of tires built in California increased from less than 1 percent to approximately 10 percent of the national output.

The eastern tire plants are scattered from Pennsylvania to Massachusetts. The East is somewhat less important than the Far West in this division of the rubber industry, but somewhat more important than the South. Two of the three plants in the South are branch factories of Big Four companies, and the third southern plant is affiliated with an eastern tire company. The rise of tire manufacturing in the South dates from the late 1920's.

UNIONIZATION OF WORKERS

Attempts to unionize the rubber industry prior to 1933 were sporadic and short lived. The passage of the National Industrial Recovery Act, however, ushered in a period of vigorous organizational effort. Initial success was slight. Indeed, it was not until 1937, after the validation by the Supreme Court of the National Labor Relations Act, that the United Rubber Workers of America (by this time affiliated with the C. I. O.), obtained a written agreement with any of the large companies. Unionism in the industry obviously has enjoyed effective recognition for only a few years. The spread of organization, however, has been rapid. By 1942, the major portion of the tire and tube division of the industry was operating under the terms of collective agreements. Akron and Los Angeles are major centers of union strength.

Twenty-four of the 32 tire and tube plants covered by the present study reported union agreements with locals of the United Rubber Workers of America. The United Automobile Workers, also affiliated with the C. I. O., exercised collective-bargaining rights in an

additional plant. No agreements in this division of the industry were reported with unions affiliated with the American Federation of Labor. Independent unions functioned in two plants. Five plants were operating without union agreements at the time of the wage survey. It is estimated that at least 80 percent of the workers in the tire and tube division of the industry are covered by collective agreements.

The jurisdiction of the United Rubber Workers of America extends to all incentive or straight-time workers employed in the manufacture of rubber products or in the metal-fabricating departments and plants operated by rubber companies. Collective agreements are usually restricted to the individual plant. The prevalence of incentive methods of wage payment throughout the industry and frequent alterations in products and specifications make for constant participation in wage negotiations. Union locals typically act independently in adjusting disputes over wage rates. They enjoy likewise a large measure of independence in negotiating general wage changes.

LABOR PRODUCTIVITY

The various stages in the manufacture of tires and tubes—preparation of crude rubber, processing, curing and finishing—are highly mechanized.[4] Although no fundamental changes in technology have occurred during the past decade, many new devices have been introduced. The extensive application of time and motion study throughout the industry undoubtedly has played an important role in the rationalization of production.

Between 1929 and 1940, labor productivity, as measured in physical terms, increased remarkably in the tire and tube division.[5] Average output per man-hour approximately doubled, and average output per wage earner increased by almost 62 percent. Stated differently, production in 1940 was about 10 percent greater than in 1929, and this output was achieved by the use of about 68 percent as many workers and only 54 percent of the man-hours necessary in 1929.

Several factors that help to account for the very large gain in labor productivity over the past decade have already been mentioned. The cumulative effect of many relatively small technological changes probably has been great. The wide use of incentive-wage systems, which in turn involves careful job analysis and tends in general to stimulate managerial effort, has been important. Over this period, moreover, a material reduction in the number of plants in the industry has taken place, and it is reasonable to suppose that production has been concentrated in the more efficient plants. Some new and superbly equipped plants have been added to the industry since 1935.

In terms of technology and production organization, the fabrication of rubber war products included in the survey stands in sharp contrast to the fabrication of tires and tubes. The manufacture of these products—barrage balloons, rubber boats, other inflatable products, and self-sealing fuel tanks—does not appear to lend itself readily to high mechanization. Moreover, the large-scale production of these products is so recent that production methods are in a state of flux, and neither precise job classification nor time and motion study had been undertaken by many plants at the time of the wage survey. The

[4] For a description of the processes in tire and tube manufacture, see U. S. Bureau of Labor Statistics Bulletin No. 585: Labor Productivity in the Automobile Tire Industry, by Boris Stern, Washington, 1933. Although this study is 10 years old, the description of basic processes is still valid.

[5] U. S. Bureau of Labor Statistics, Productivity and Unit Labor Cost in Selected Manufacturing Industries, 1919–1940 (p. 94). Mimeographed.

separation of stock preparation, assembly, curing, and finishing were relatively clear cut, but within these stages of fabrication the differentiation of workers by jobs had not, as a rule, proceeded far. This statement, in general, is less true of the production of self-sealing fuel tanks than of the other products covered.

EFFECT OF THE WAR

Few industries have been affected more decisively by the war than rubber manufacturing. The major sources of plantation rubber are in the hands of the enemy, and a tremendous development of synthetic rubber production is under way to meet the basic raw-material requirements of the industry. Production for normal civilian needs has been largely suspended, except to the extent that such needs fit into the war production program. The market mechanism as a guide to production policy has been replaced by governmental controls calculated to secure the most effective use of available rubber supplies for the war effort. The production of new rubber products for direct military use has assumed large proportions.

In view of this, the basic factors affecting rubber manufacture—rubber supply, use of plant capacity in establishments normally devoted largely to the manufacture of tires and tire products, and the effect of the war on the labor requirements of the industry—are of great importance.

Rubber Requirements and Raw Material Supply

The basic requirements for rubber products in the present situation have been authoritatively described as follows:

> The demands now placed upon us are enormous. Without any allowance whatsoever for civilian passenger car tires, the estimated requirements for the year 1943 are 574,000 tons (of crude rubber or its synthetic equivalent). This contrasts with the total average over-all consumption in the United States before the war of about 600,000 tons.
>
> We must supply not only the needs of our own armed forces but much of those of the military machines of our Allies as well. We must equip our busses and trucks and other commercial vehicles and provide on a large scale specialty items for such purposes as factory belting, surgical, hospital and health supplies. And in addition to all these we *must* maintain the tires on *at least* a substantial portion of our 27,000,000 civilian passenger automobiles. Otherwise an economy geared to rubber-borne motor transport to an extent not approached elsewhere in the world will break down.[6]

The precise quantitative estimates of rubber supply and basic rubber requirements for the 1942–44 period contained in the report of the Baruch Committee are unquestionably the best available. It is unnecessary in this article to discuss these estimates in detail. Barring a possible shortage of milling, mixing, and tire-building capacity in 1944, all of the crude, synthetic, and reclaimed rubber available for consumption during this period can be used. The really crucial question relates to rubber supply, and its answer hinges on the fulfillment of the planned synthetic-rubber production program. The planned program provides for an output of more than 500,000 tons of synthetic rubber in 1943 and of more than 900,000 tons in 1944. These figures gain perspective when viewed against the record consumption of 775,000 tons of crude rubber in 1941.

[6] Rubber Survey Committee (Bernard M. Baruch, James B. Conant, and Karl T. Compton), Report September 10, 1942 (p. 23).

It seems reasonable to assume that the volume of rubber available for consumption will be sufficiently large to sustain a relatively high level of employment in rubber manufacturing as a whole in 1943, and that in 1944 the labor requirements will be even higher. Available rubber in 1943, if the planned synthetic program is pushed through, should be close to the average amount consumed in recent normal years, and appreciably above this level in 1944. Moreover, the labor-time used in the processing of a ton of synthetic rubber, at least at present, is greater than the labor-time required to process a ton of natural rubber.

Present Use of Plant Capacity in Tire and Tube Establishments

It was reasonable to anticipate a decline in employment in the tire and tube division of the industry when normal civilian production was virtually eliminated. Actually, this anticipated decline in employment failed to materialize, at least in an acute form. The Bureau's index of employment in tire and tube establishments does indicate that employment during the first 6 months of 1942 was measurably below the very high plateau attained in the second half of 1941. In no single month during this period, however, did employment fall below the average level in 1939. The index began to climb sharply in June 1942, and in August, at the time of the wage survey, employment was more than 25 percent above the 1939 level. In fact, labor shortages had begun to appear in the major tire-producing areas.

The general maintenance of employment in the tire and tube division may at first glance appear surprising. Tire production did decline drastically. During the first 4 months of 1942, the output of pneumatic tires was only about 26 percent as great as in the corresponding period in 1939. The publication of tire-production data ceased in April 1942, and the level of output in August, at the time of the survey, may well have exceeded the level for the first 4 months of the year. It should be noted, in any case, that the measurement of production in terms of number of units probably understates the importance of tire output in the first 4 months of 1942 as compared with corresponding periods for earlier years. Rubber tonnage consumed would be a better measure. The 1942 output undoubtedly consists of a larger proportion of heavy-duty tires than in normal periods. It is probable, therefore, that man-hour requirements for tire production did not fall so drastically as the production figures would indicate. Moreover, retreading and other forms of tire reconditioning undoubtedly helped to cushion the effects of the decline in tire output in some plants.

It is not possible, from the information obtained in the survey, to indicate in any detail the adjustments made by the tire and tube division of the industry to the changes growing out of the war. A rough picture can be drawn, however, of production at the time of the wage survey in August 1942.

(a) Tire plants were still producing tires. During the course of the wage survey, one or two plants were discovered in which the production of tires had been replaced entirely in recent months by some other form of rubber output. These plants represent highly exceptional cases. Although almost all tire plants continue to manufacture tires and tubes, the relative importance of these products has, of course, declined. Twenty-three plants, however, reported that the value of their tire and tube output in August 1942 represented at least 60

percent of the value of their total output in that month. These plants, on the whole, are relatively small, and accounted for only 31.4 percent of the total employment in all tire plants covered by the survey. Nine plants, on the other hand, reported that tire and tube production represented less than 60 percent of the value of their total output in August 1942. These plants employed 68.6 percent of the total number of workers found in all tire and tube establishments.

(b) The war created an enormous demand for certain types of rubber products not normally produced in large volume. Some of the tire and tube plants were able to move swiftly into the production of the required military products. At the time of the survey, thousands of workers were employed on self-sealing fuel tanks, barrage balloons, rubber boats, pontoons, and other rubber products designed for direct military use. Slightly more than half of the plants—18 out of 32—reported some production of special war products. In 8 of these plants, 20 percent or more of the value of output in August 1942 was accounted for by the production of such goods. These 8 plants employed 58.7 percent of the total number of workers in all of the 32 plants.

(c) The output of mechanical rubber goods or of other categories of rubber products is of appreciable importance in a few plants producing tires and tubes. The continued production of such goods into the war period helped to sustain employment in these particular plants.

(d) Conversion of tire and tube plant facilities to the war effort has not ordinarily taken the form of nonrubber production. In a few plants, however, extensive machine-shop and other facilities are being utilized in the manufacture of nonrubber war products. Important instances of this form of conversion were encountered in the Akron area.

It should not be inferred from this discussion that the war had no adverse effect on production and employment in individual plants, for such is not the case. The adjustment of the industry division as a whole, however, was remarkably favorable.

Changes in the Labor Force

War conditions have not resulted, to any appreciable extent, in the use of female labor in tasks performed traditionally by men. A large influx of female workers and boys has occurred, however, for fabrication work on special war products.

The preparation of rubber and the manufacture of tires have always required a moderate amount of skill and considerable physical stamina in most occupations. The production of heavy tires for military use has increased rather than diminished the need for male labor in these departments. At the time of the survey, women were employed in the processing departments of tire and tube plants principally as band builders, bead flippers, inspectors, splicers, and in a scattering of other jobs.

The fabrication of inflatable rubber-fabric products (barrage balloons, pontoons, rubber boats, life rafts, lift belts, and life jackets) has by no means reached the ultimate limits of process rationalization. Many of the operations, however, have been divided into light and relatively simple tasks, and large numbers of women have been brought into the departments engaged in the fabrication of these

products. At the time of the wage survey, approximately 80 percent of the workers engaged in cutting, assembling, testing, and curing inflatable rubber-fabric products were women. The production of self-sealing and rubber-covered fuel tanks requires a greater amount of male labor, but women constituted a substantial proportion (38 percent) of the workers employed in this division. For the most part, the operations performed in constructing these special products have no counterpart in the normal operations of the rubber industry. The specific skill, dexterity, and experience acquired by the workers appear to have largely, although not entirely, a wartime value.

The total employment of women in the plants included in the tire and tube division is impressive. Almost 18,000 women were found in these plants in August 1942. This number represented 27 percent of the total labor force at that time. In the Far West, 39 percent of the workers were women, as compared with 27 percent in Akron-Detroit, 22 percent in the East, 17 percent in other Midwest (Middle West exclusive of Akron-Detroit), and 16 percent in the South. Special war-product output was relatively greater in both the Far West and Akron-Detroit than in the other three areas.

Negroes constituted about 5 percent of the total labor force of the industry in August 1942. The proportion of Negro employment was less than 5 percent in other Midwest, Far West, and East, and approximately 5 percent in the Akron-Detroit area. In the South, Negroes formed 20 percent of the labor force. Negroes were employed principally in compounding and milling occupations, and as janitors and general plant laborers.

Scope and Method of Survey

The present survey of earnings in the tire and tube division of the rubber industry represents the first detailed study of wages by occupation in this industry division since 1923.[7] In 1940 the Bureau conducted a mail-questionnaire survey of hours and earnings in the entire rubber industry,[8] but did not obtain data on occupational wages. The 1940 study did yield valuable information on the distribution of workers, by hourly earnings, in the various divisions of the industry.

The data for the present survey were collected by trained field representatives of the Bureau from actual pay-roll and other plant records. The pay-roll period covered was generally that ending nearest August 29, 1942, but in a few plants was a representative week shortly before or shortly after this period.

The information secured in the course of the survey includes occupational average hourly earnings, exclusive of premium payments for overtime hours and shift-differential payments.[9] Information also was obtained on method of wage payment for each occupation

[7] U. S. Bureau of Labor Statistics. Bulletin No. 358: Wages and Hours of Labor in the Automobile Tire Industry, 1923. Washington, 1924.

[8] Monthly Labor Review, June 1941 (pp. 1490-1513): Earnings in the Manufacture of Rubber Products, May 1940.

[9] In some plants earnings data were obtained only for workers employed on the first daylight shift. This was done to expedite the study by reducing the number of workers for which wage data had to be obtained, and by avoiding the problem of shift-differential premiums to the extent that such premiums were being paid. In plants where only first-shift workers were scheduled, information was obtained on the number of workers employed in each occupation on the other shifts. Total employment by occupation was used as a weighting factor in combining the data for any given plant with other plants. To a limited extent, the procedure of sampling wages by occupation was employed to increase the rapidity with which the field work could be accomplished.

and on the sex of the workers. General plant information of various kinds was secured to facilitate the interpretation of the earnings data. Information was gathered, for example, on the character of production, general wage changes since July 1940, plant minimum-wage policy, shift operation, unionization, and aggregate employment, man-hours, and earnings for selected periods from August 1939 to August 1942.

Virtually all plants known to be engaged in the manufacture of tires and tubes prior to the entrance of the United States into the war were covered by the study. A few plants employing less than 100 workers in the past were excluded. Data also were not secured for one medium-sized plant. The influence of these omissions upon the data reported is negligible; the labor force in these plants is estimated to represent less than 2 percent of the total employed in the tire and tube division in August 1942. The full scope of the study is indicated in table 1, which shows, by region, the number of plants included in the survey, together with total employment in these plants.

TABLE 1.—*Number of Tire and Tube Plants and Total Number of Workers Covered by Survey, by Region, August 1942*

Region	Number of plants	Number of workers	Percentage of—	
			Plants	Workers
All regions	32	66,721	100	100
Akron and Detroit	[1] 8	45,367	25	68
Other Midwest	[2] 9	4,486	28	7
Far West	[3] 5	7,764	16	12
East	[4] 7	4,940	22	7
South	[5] 3	4,164	9	6

[1] 6 plants in Akron; 2 in Detroit.
[2] 6 plants in Ohio; 1 in Indiana; 1 in Michigan; 1 in Illinois.
[3] 5 plants in California; data for 1 plant in the Far West primarily manufacturing mechanical goods are not included in this table, although occupational wages for the tire-and-tube operations of this plant are included in subsequent tables.
[4] 3 plants in Pennsylvania; 1 in New York; 2 in Connecticut; 1 in Massachusetts.
[5] 1 plant in Tennessee; 1 in Alabama; 1 in Mississippi.

As table 1 shows, the survey covered 32 plants. Fully 68 percent of the 66,721 workers employed in these plants were found in the Akron-Detroit area,[10] and approximately 7 percent in the other Midwest. Twelve percent of the workers were employed in plants in the Far West, 7 percent in the East, and 6 percent in the South.

Within the limits of the survey, the occupational coverage is comprehensive in scope. The selection of occupations for coverage was based primarily upon two criteria: (1) The importance of an occupation in terms of number of workers employed, and (2) the strategic importance of a job in the occupational structure. It is estimated that from 80 to 90 percent of the workers engaged in the manufacture of tires and tubes are included in the occupational data here presented. Over 90 percent of the workers engaged in the production of selected war products in tire and tube plants likewise are found within the occupations for which wage data were collected.

In normal times, most plants in this division of the industry are relatively homogeneous with respect to product. The requirements

[10] There are too few plants in Detroit to allow separate presentation for this area. Wage levels in Detroit in the rubber industry approximate Akron wage levels, and for this reason the Detroit data were combined with Akron rather than with the other Midwest.

of a war economy have modified this characteristic of the tire and tube division. Greater diversification of product, as pointed out earlier, has developed from two principal factors—(1) the ability and readiness of some of the large plants to undertake metal-fabricating operations and (2) the growth in output of special rubber products of direct military use. Mechanical-goods production is important in a few plants producing tires and tubes.

In order to make the occupational data comparable from plant to plant, operations relating to the manufacture of metal products, synthetic rubber, rubber products[11] other than mechanical goods, miscellaneous specialty goods, and the construction of new plant equipment were not covered by the survey. Workers employed in reclaiming departments operated by rubber companies were scheduled separately, but data for reclaiming operations are not included in the present report. In substance, the occupational data presented in this report relate to rubber preparatory operations, tire and tube manufacture, the production of self-sealing fuel tanks, barrage balloons, rubber boats, pontoons, and life rafts, and plant maintenance.

A special problem obviously arose in connection with those plants producing mechanical rubber goods in addition to tires and tubes and special war products. Direct production jobs on mechanical goods created no difficulty, of course, and these jobs were scheduled separately. Where there was no physical separation of preparatory and maintenance jobs credited to the production of mechanical rubber goods or of products falling outside the scope of the survey, the proration of employment was necessary. Data pertaining to mechanical-rubber-goods operations, as pointed out earlier, will be included in a subsequent report on that branch of the industry.

Method of Wage Payment

USE OF WAGE INCENTIVES

The determination of earnings on an incentive basis is found predominantly in the tire and tube industry. Each of the plants represented in the occupational data operated some form of incentive plan. In the main, workers were guaranteed certain basic rates and were rewarded in direct proportion to output, usually above a standard production level. The particular incentive system in use varied from plant to plant; some plants had installed the Bedaux system, but the majority of plans were less complex.

At least 60 percent of the workers for whom occupational data were reported were paid on an incentive basis. Approximately 95 percent of the preparatory workers and 88 percent of the workers engaged in tire and tube processing were compensated in this manner. About one-third of the general and maintenance workers were covered by incentive plans.

The application of incentive methods to the manufacture of rubber war products was much less advanced. In August 1942 slightly less than 50 percent of the workers constructing fuel tanks and less than 20 percent of the workers fabricating other war products were paid on an incentive basis. It is likely, however, that further rationalization of production and time study will extend considerably the cover-

[11] Such as heels and soles, drug sundries, boots and shoes, sponge-rubber products, and household goods.

age of incentive plans to workers on rubber war products. The effect of the extension of incentive methods of wage payment upon the wage structure of these divisions of the industry will undoubtedly be substantial.

SHIFT PRACTICES AND SHIFT DIFFERENTIALS

Multishift operation has been characteristic of the tire and tube industry for many years. All of the plants covered by the wage survey reported continuous operation, 11 working four 6-hour shifts and the remainder working three 8-hour shifts. Of the 11 plants in which four shifts were found, 6 were in Akron, 2 in other Midwest, 2 in the East, and 1 in the Far West. In these plants, however, substantial numbers of workers were employed on a 3-shift basis, usually in the departments devoted to special war products. It is estimated that only one-third of the workers in the industry were employed on the first daylight shift.

The payment of shift differentials is not common practice in the industry. Only 4 of the 32 plants covered granted premium pay to workers on night shifts. These 4 plants are relatively small, and it is estimated that not more than 1,500 workers received shift-premium pay at the time of the wage survey.

OVERTIME-PAYMENT PRACTICES

Although 36 hours constituted the standard workweek for a substantial portion of the industry at the time of the wage survey, each company included in the study reported the payment of time and a half for hours in excess of 8 per day and 40 per week.

Occupational Earnings, August 1942

The basic information obtained in this survey consists of hourly earnings, exclusive of overtime premium pay or shift-differential premiums, for a comprehensive group of occupations in rubber preparation, tire and tube processing, self-sealing fuel tank, and inflatable rubber war products fabrication, and in service and maintenance.[12] Occupational wage information is here shown for nearly two-thirds of the total number of workers employed in the plants scheduled. The data reflect earnings as of August 1942.

CHARACTER OF OCCUPATIONAL WAGE DATA

In reporting occupational wage data, every effort was made to classify occupations on the basis of duties performed and not merely on the basis of job titles. Field representatives of the Bureau were provided with an occupational glossary for general guidance in the reporting of occupational data. It is believed that in this way reasonable uniformity of reporting was obtained from plant to plant.

It should be recognized, however, that many occupations are likely to vary from plant to plant in terms of specific duties and responsi-

[12] These occupational data relate to 33 plants rather than to only the 32 plants for which general information has been provided. The additional plant is engaged primarily in the manufacture of mechanical rubber goods, but occupations in the tire and tube department of this plant were scheduled separately, and preparatory and maintenance occupations were prorated between tire and mechanical-rubber-goods production.

bilities, despite their basic comparability. Some occupations are more affected by the factor of variability than others. The duties of Banbury mixers, for example, are quite similar from plant to plant; the duties of hand truckers, on the other hand, may vary considerably. In small plants, millmen may be employed during the same workweek, or even the same day, on different types of mills. In tire processing, a worker in one plant may perform tasks that are divided among two or more workers in another plant.

Another type of problem often encountered in occupational wage studies may be illustrated by the case of tire builders. Tire building is a clear-cut occupation. Although there may have been some point in segregating tire builders broadly by size of tire, inquiry indicated that such an approach would have been wholly impractical at the time of the wage survey, since many tire builders were constructing various sizes of tires during the workweek. The earnings here shown for tire builders therefore simply reflect the average earnings of such workers, irrespective of tire size. Similarly, no distinction was made between mixing millmen on 60- and 84-inch mills.

Care often must be exercised in a wage study to keep the data in manageable form. For example, considerable numbers of machine operators' helpers are employed in the rubber industry. These workers are distributed among many occupations, and to have shown them separately by occupation would have greatly increased the number of table entries. These workers, for the most part, were grouped. Data on learners by occupation were obtained, but, except in a few instances, such workers were combined into general learner classifications.

These comments are designed to indicate the limitations inherent in any industry-wide study of occupational wages. It is never possible to introduce all of the refinements that suggest themselves during the course of a survey. To do so, as a matter of fact, would prove more confusing than helpful. What can be done, and what this report attempts to do, is to show earnings data for a large number of occupations capable of relatively precise definition and found widely throughout the industry. Such data should reveal the nature of the wage structure of the industry.

AVERAGE HOURLY EARNINGS BY OCCUPATION, AUGUST 1942

A summary of the data obtained on wages by occupation in tire and tube plants is shown in table 2. Average hourly earnings, exclusive of overtime premium pay or shift premiums, amounted to approximately $1.04 in August 1942 for all of the workers for whom data on earnings by occupation were obtained. Since the occupational coverage was broad and representative, this single figure dependably reflects the general level of straight-time hourly earnings in the industry. Even the summary data shown in table 2, however, serve to reveal the wide range within which earnings move. Thus, all male workers averaged $1.12 an hour; the average for all woman wage earners was approximately 76 cents. Male workers engaged in rubber preparation averaged nearly $1.16 an hour in the industry as a whole; the average for these workers was $1.28 in the Akron-Detroit area and about 73 cents in the southern region.

TABLE 2.—*Average Hourly Earnings* [1] *in Tire and Tube Plants, by Plant Division, Sex, and Region, August 1942*

Division and sex	Average hourly earnings in—					
	United States	Akron-Detroit	Other Mid-west	Far West	East	South
All workers	$1.037	$1.138	$0.967	$0.880	$0.930	$0.714
Males	1.120	1.245	1.002	.954	.979	.748
Females	.758	8.01	.728	.713	.640	.535
Rubber preparation (males)	1.155	1.281	1.049	1.127	.978	.727
Tire and tube processing	1.166	1.279	1.041	1.077	1.042	.778
Males	1.229	1.366	1.106	1.101	1.093	.800
Females	.843	.899	.759	.769	.712	.558
General, service, and maintenance	1.003	1.109	.831	.926	.813	.676
Males	1.016	1.125	.843	.952	.819	.680
Females	.718	.768	.706	.603	.588	.530
Self-sealing fuel tank fabrication	.937	1.106	(2)	.796	(2)	(2)
Males	1.046	1.215	------	.861	------	------
Females	.760	.854	------	.716	------	------
Barrage balloons and other inflatable rubber fabric products	.766	.796	(2)	(2)	(2)	(2)
Males	1.021	1.047	------	------	------	------
Females	.702	.728	------	------	------	------

[1] The average hourly earnings shown in this table are exclusive of premium overtime pay and shift-differential premiums.

[2] Number of workers and/or plants too few to justify computation of averages. The earnings data have been included in the totals for the United States and for the region.

The detailed occupational wage data are shown in tables 3 and 4. Table 3 shows occupational average hourly earnings by region and sex for workers in three broad plant divisions: rubber preparation, tire and tube processing, and general, service, and maintenance. The number of workers in each occupation could not be shown because of necessary restrictions on the disclosure of certain types of information in time of war. Instead, the total number of workers in each division was taken as 100 percent, and the number of workers in each occupation was expressed as a percentage of this total. It is thus possible to indicate the relative importance of various kinds of workers in the occupational structure of a given plant division. Calender operators, for example, comprised 7.2 percent of the workers in rubber preparation; 26.9 percent of the workers in tire and tube processing were tire builders.

Occupational wages in the fabrication of specified rubber war products made in tire and tube plants are shown in table 4. It should be clear, of course, that a portion of the workers in rubber preparation and general and maintenance (table 3) was engaged in preparing stock or maintaining plant and equipment for the production of barrage balloons and other war products.

All of the rubber-preparation workers for whom data are shown in table 3 are men. The average straight-time hourly earnings of these workers amounted to almost $1.16 in August 1942. In the individual occupations, earnings for experienced workers ranged from 99.7 cents for compound sifters to $1.55 for spreaders. The relatively small group of learners averaged 59.5 cents an hour. Calender operators, a highly skilled group, averaged $1.34. The average earnings of workers in three occupations containing 43.9 percent of the workers—calender operators' helpers, mixing millmen, and warm-up millmen—fell in the narrow range of from $1.12 to $1.16.

It has already been pointed out that practically all workers engaged in rubber preparation were paid on an incentive basis. The most skilled jobs probably are calendering and spreading, with spreaders subject to more unpleasant working conditions because of the presence of fumes from solvents. The other jobs, on the whole, require moderate skill and considerable physical effort.

Earnings in the Akron-Detroit area for preparatory workers as a group were consistently above earnings for preparatory workers in the other regions. The general level in the Far West was about 15 cents lower than the level in Akron-Detroit; in the other Midwest about 22 cents lower; in the East 30 cents lower; and in the South 55 cents lower. These differences reflect to some extent differences in occupational structure from region to region; spreaders, for example, were found only in Akron-Detroit.

More than 83 percent of the workers engaged in tire and tube processing in August 1942 were men. Hourly earnings of all processing workers, male and female, amounted to almost $1.17. The level of earnings of processing workers was heavily affected by the earnings of male tire builders, who constituted about 27 percent of the labor force and whose earnings averaged $1.36 an hour.

The earnings of male processing workers alone averaged $1.23; female employees averaged approximately 84 cents. The range in earnings among experienced male workers was from 88.4 cents for class C inspectors to more than $1.37 for tire mold handlers and solid tire builders. Tire builder learners [13] averaged 73.5 cents and other male learners, 69.5 cents. Hourly earnings for experienced male employees averaged less than $1.00 in only 5 occupations, and these occupations contained only 3 percent of all male workers. The earnings of experienced women ranged from 68 cents for the handful of tire builders [14] to almost 94 cents for band builders. As in the case of preparatory workers, the greater part of the processing workers (about 88 percent) were paid on an incentive basis.

The general level of earnings in the processing division in the Akron-Detroit area was $1.28, as compared with almost $1.08 in the Far West, about $1.04 in other Midwest and the East, and approximately 78 cents in the South.

The workers grouped in the general, service, and maintenance category averaged almost exactly $1.00 an hour in August 1942 (table 3). Male workers earned an average hourly wage of approximately $1.02, while the small group of woman workers averaged almost 72 cents. Among the experienced male workers, hourly earnings ranged from 79.6 cents for janitors to $1.24 for rubber-cement mixers. Average earnings for class A carpenters and electricians, sheet-metal workers, tool and die makers, and machine repairmen fell within the very narrow range of from $1.178 to $1.190. Hand truckers, who comprised 15 percent of the workers in this division, averaged $1.00 an hour. About one-third of the workers in the general, service, and maintenance group were paid on an incentive basis.

The general level of earnings for the workers in this division in Akron-Detroit was approximately $1.11. This compares with a level of about 93 cents in the Far West, 83 cents in other Midwest, 81 cents in the East, and about 68 cents in the South.

[13] I. e., less than 3 months of experience.
[14] Woman tire builders are employed principally on bicycle tires.

TABLE 3.—*Average Hourly Earnings* [1] *in Tire and Tube Industry, by Division, Occupation, Sex, and Region, August 1942*

Division, occupation, and sex	United States		Akron-Detroit		Other Mid-west		Far West		East		South	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
Preparatory processes												
All workers: Males	100.0	$1.155	100.0	$1.281	100.0	$1.049	100.0	$1.127	100.0	$0.978	100.0	$0.727
Bale openers	2.3	.940	2.0	1.153	.9	.750	1.7	1.038	3.5	.873	6.0	.521
Banbury mixers	9.1	1.128	6.7	1.243	19.3	1.103	10.6	1.083	7.8	.987	9.5	.854
Calender operators	7.2	1.339	6.6	1.450	8.3	1.156	11.2	1.348	5.9	1.231	6.3	1.032
Calender operators, helpers	14.3	1.145	12.9	1.273	17.2	1.014	19.3	1.139	14.3	.957	13.9	.840
Compound sifter operators	.9	.997	1.0	1.173	1.3	.898	------	------	------	------	2.2	.577
Learners, miscellaneous	1.6	.595	.6	.736	------	------	------	------	8.6	.577	4.4	.503
Millmen, break-down	4.3	1.100	5.0	1.275	2.1	1.131	.8	(2)	.5	(2)	11.1	.594
Millmen, mixing	14.7	1.120	13.0	1.193	21.2	1.042	17.0	1.128	24.2	1.027	2.8	.619
Millmen, sheeting	8.2	1.090	8.5	1.223	4.3	1.012	7.0	1.107	8.4	.860	13.9	.746
Millmen, warm-up	14.9	1.162	16.0	1.248	9.8	1.020	20.6	1.086	14.1	1.067	10.4	.815
Millmen, washing	2.5	1.014	2.0	1.107	4.3	(2)	3.4	.968	------	------	4.4	.617
Plasticator tenders	1.2	1.061	.9	1.223	1.9	.904	1.4	1.077	1.6	1.019	.9	(2)
Rubber compounders	9.8	1.113	10.7	1.207	6.8	1.028	6.7	1.066	9.2	1.113	12.0	.663
Rubber cutters	1.6	1.030	1.4	1.185	2.6	.929	.3	(2)	1.9	.907	2.2	.646
Spreaders	7.4	1.552	12.7	1.552	------	------	------	------	------	------	------	------
Tire and tube processing												
All workers	100.0	1.166	100.0	1.279	100.0	1.041	100.0	1.077	100.0	1.042	100.0	.778
Male workers	83.7	1.229	81.4	1.366	81.4	1.106	92.8	1.101	86.5	1.093	90.9	.800
Air-bag extractors	.9	1.169	.7	1.409	.5	1.111	2.0	1.071	1.2	1.157	1.7	.690
Band builders	3.5	1.060	2.3	1.269	4.7	1.015	6.0	1.014	5.9	.948	5.2	.688
Bead builders	.3	1.132	.2	1.262	.6	.940	.7	1.030	.2	1.096	------	------
Bead coverers	.2	.977	------	------	.1	(2)	.1	(2)	.9	1.015	.3	(2)
Bead flippers	.5	1.036	.3	1.259	.3	1.053	1.5	.973	1.2	1.028	.8	(2)
Bead-wire insulators	.5	1.164	.5	1.302	.3	1.040	.4	1.033	.5	.934	.6	.791
Bias-machine operators	2.1	1.201	1.7	1.356	3.6	1.083	3.0	1.059	2.6	1.088	1.8	.856
Buffers	1.3	1.161	1.5	1.290	.4	.873	.4	(2)	2.0	.930	1.2	.735
Creel tenders	.1	1.164	.1	1.244	------	------	.4	(2)	.7	1.166	------	------
Foremen, working:												
Class A	.5	1.281	.3	1.429	.1	(2)	2.1	1.165	1.1	(2)	------	------
Class B	2.8	1.250	3.7	1.326	1.3	.860	1.2	.880	.6	.962	2.5	.962
Gum dippers	.2	1.128	.1	1.325	.1	(2)	1.4	1.053	.2	1.031	.1	(2)
Helpers, machine operators	5.9	1.245	7.7	1.335	4.7	.918	1.1	.811	2.0	.894	3.3	.746
Inner-tube builders	1.2	1.213	1.4	1.300	2.8	.970	.3	(2)	------	------	------	------
Inner-tube curers	1.8	1.218	1.5	1.337	4.6	1.081	1.1	1.109	1.8	1.198	.9	.824
Inner-tube inflators and deflaters	.2	.913	.1	1.117	.7	.740	.1	(2)	.1	(2)	------	------
Inner-tube splicers	1.8	1.159	2.1	1.264	1.5	.941	1.8	(2)	.5	1.134	1.5	.767
Inspectors:												
Class A	.8	1.265	.6	1.386	------	------	1.6	(2)	1.6	1.139	1.2	(2)
Class B	4.2	1.181	4.6	1.289	4.5	.958	2.6	1.077	2.4	1.000	4.0	.825
Class C	.3	.884	(3)	------	------	------	1.9	.856	.7	.920	.3	.766
Learners, miscellaneous	1.5	.695	1.0	.787	------	------	2.2	.627	4.0	.638	2.9	.622
Pot-heater tenders	2.2	1.289	1.4	1.380	3.3	1.162	5.8	1.273	4.9	1.246	.2	(2)
Slitting-machine operators	.3	1.170	.3	1.253	.5	1.109	.7	1.094	.2	.943	.1	.705
Soapstoners	.5	.931	.3	1.319	.3	.761	------	------	.6	.846	2.7	.720
Solid-tire builders	.6	1.377	.9	1.385	.1	(2)	------	------	------	------	------	------
Solid-tire tread preparers	.1	1.283	.2	1.354	.1	(2)	------	------	------	------	------	------
Splicers	1.8	.938	.7	1.145	1.8	.915	6.0	1.016	3.2	.965	4.3	.634
Tire balancers	.8	1.225	1.1	1.270	.5	1.033	.8	.995	.2	.850	------	------
Tire builders	26.9	1.359	27.6	1.467	23.3	1.293	28.4	1.243	28.8	1.211	24.6	.948
Tire builders, learners	3.8	.735	2.6	.883	------	------	3.7	(2)	2.8	.682	17.1	.610
Tire-mold handlers	5.5	1.372	6.8	1.446	5.6	1.156	3.4	1.131	3.9	1.155	1.1	(2)
Tire shapers	2.8	1.350	2.7	1.471	3.6	1.125	5.1	1.325	1.8	1.206	2.1	.932
Tire wrappers	.3	1.225	.3	1.292	.2	.993	.1	(2)	.7	1.196	------	------
Tread splicers	.2	1.054	.1	(2)	.8	.858	------	------	.1	(2)	------	------
Trimmers, hand	.5	1.187	.5	1.285	.7	.849	.4	(2)	.3	1.292	.2	.687
Trimmers, machine	.3	1.100	.2	1.224	.6	.902	.2	(2)	.4	(2)	.5	(2)
Tube cutters	1.5	1.201	1.6	1.343	1.0	.918	2.0	1.033	1.1	1.010	1.5	.761

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings* [1] *in Tire and Tube Industry, by Division, Occupation, Sex, and Region, August 1942*—Continued

Division, occupation, and sex	United States		Akron-Detroit		Other Mid-west		Far West		East		South	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
Tire and tube processing—Continued												
Male workers—Con.												
Tube-machine operators:												
Inner tube	0.6	$1.184	0.4	$1.454	2.7	$1.051	0.7	$1.094	0.3	$1.033	0.6	$0.915
Tread	1.1	1.223	.7	1.419	2.8	1.083	2.3	1.109	.9	1.144	.7	.874
Miscellaneous	.3	1.069	.2	1.296	.5	.937	.3	.923	1.1	.988	.1	(2)
Valve assemblers	.3	1.064	.1	1.426	.5	.980	1.0	.915	.4	1.204	.5	.737
Vulcanizers, miscellaneous	.9	1.240	1.1	1.346	------	------	------	------	.7	(2)	1.3	.804
Watchcase vulcanizer tenders	1.8	1.249	1.2	1.418	1.7	1.277	------	------	3.9	1.271	5.0	.968
Female workers	16.3	.843	18.6	.899	18.6	.759	7.2	.769	13.5	.712	9.1	.558
Band builders	3.0	.937	4.0	.966	.1	(2)	------	------	4.5	.793	------	------
Bead builders	.2	.833	.1	(2)	.1	(2)	1.0	(2)	------	------	.2	(2)
Bead coverers	.7	.859	1.0	.901	.9	.710	------	------	.2	(2)	.3	(2)
Bead flippers	1.2	.841	1.4	.880	.9	.676	.9	.802	1.4	.739	------	------
Bias-machine operators	.5	.936	.6	.920	1.2	(2)	------	------	------	------	------	------
Creel tenders	.2	.887	.2	.885	------	------	.2	(2)	------	------	------	------
Helpers, machine operators	.8	.880	1.1	.895	.7	.781	------	------	.6	(2)	------	------
Inner-tube builders	.3	.768	.2	(2)	2.0	.669	------	------	------	------	------	------
Inner-tube inflators and deflators	.1	.753	.1	(2)	.5	.756	------	------	.2	.650	.1	(2)
Inner-tube splicers	.3	.857	.3	.954	1.2	.783	------	------	.1	.525	.1	(2)
Inspectors and testers	3.2	.800	4.1	.819	3.8	.758	.7	.800	1.5	.652	.3	(2)
Learners, miscellaneous	1.2	.610	.4	.676	.1	(2)	1.4	.629	2.7	.540	6.0	.526
Skivers	.2	.811	.2	.842	.5	.753	------	------	------	------	------	------
Splicers	3.3	.897	4.4	.930	2.1	.723	1.4	(2)	.9	(2)	1.4	(2)
Tire builders	.5	.680	------	------	3.5	.638	.6	(2)	.9	(2)	------	------
Trimmers, hand	.1	.752	.1	(2)	.3	(2)	------	------	------	------	.4	(2)
Valve assemblers	.5	.836	.4	.926	.7	.751	1.0	(2)	.5	.607	.3	(2)
General, service, and maintenance												
All workers	100.0	1.003	100.0	1.109	100.0	.831	100.0	.926	100.0	.813	100.0	.676
Male workers	95.6	1.016	95.2	1.125	97.3	.843	92.7	.952	97.6	.819	97.0	.680
Carpenters:												
Class A	1.5	1.178	1.8	1.219	1.5	.978	1.4	1.135	.4	.907	.2	(2)
Class B	.6	.976	.2	1.111	.3	.800	2.0	.997	2.4	.936	.5	.873
Cement mixers	4.7	1.243	6.3	1.290	.4	.827	4.2	.977	.8	.871	1.2	.791
Cleaners, equipment	2.1	.986	2.6	1.043	1.5	.886	.2	(2)	.9	.900	2.3	.587
Electricians:												
Class A	2.5	1.188	2.6	1.239	2.2	1.055	4.0	1.187	1.5	1.008	1.9	.993
Class B	.6	1.002	.2	1.133	.8	.947	1.8	1.029	2.0	.945	1.0	.934
Elevator operators	3.5	.914	4.8	.942	1.1	.702	1.3	.805	2.2	.701	.4	(2)
Firemen	1.8	1.062	1.3	1.229	3.9	.901	3.0	1.128	3.2	.775	.7	.980
Helpers, journeymen	3.6	.867	1.8	1.003	3.4	.755	4.2	.949	14.5	.774	3.9	.769
Janitors	10.7	.796	9.7	.895	12.6	.690	12.0	.794	10.6	.673	14.3	.482
Laborers	4.0	.827	3.2	1.006	8.8	.705	1.0	(2)	4.4	.745	7.6	.480
Learners, miscellaneous	2.5	.708	1.6	.839	------	------	7.1	.693	4.7	.640	5.7	.507
Loaders and unloaders, racks and conveyors	2.7	1.132	3.5	1.206	.4	(2)	.7	(2)	2.2	.789	1.8	.618
Millwrights:												
Class A	.9	1.096	.8	1.204	.7	.771	.5	1.080	1.4	1.004	2.3	.979
Class B	.5	.891	.1	.955	1.3	.723	------	------	2.3	.963	1.1	.882
Packers and craters	2.1	1.036	1.8	1.228	4.8	.780	5.0	.848	.6	.863	.7	.768
Pipefitters	3.3	1.158	3.3	1.215	3.8	1.069	2.1	1.199	2.6	1.037	4.3	.967
Repairmen, machine	10.2	1.187	11.0	1.238	10.1	.982	13.7	1.165	5.7	1.011	5.1	.959
Sheet-metal workers	.7	1.190	.7	1.249	.8	(2)	.1	(2)	.4	1.050	.7	.980
Stock clerks	9.8	1.041	8.5	1.196	14.2	.824	9.6	.926	13.3	.873	11.6	.781

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings*[1] *in Tire and Tube Industry, by Division, Occupation, Sex, and Region, August 1942*—Continued

Division, occupation, and sex	United States		Akron-Detroit		Other Mid-west		Far West		East		South	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
General, service, and maintenance—Continued												
Male workers—Con.												
Time clerks	0.9	$1.036	1.0	$1.117	----	----	1.2	(2)	0.7	$0.606	1.9	$0.882
Tool and die makers	.4	1.184	.2	1.317	1.2	$1.134	.8	$1.213	.6	1.067	.2	.975
Truck drivers	1.1	1.018	1.1	1.118	1.8	.863	1.5	.888	1.5	.893	.2	.590
Truckers, hand	15.0	1.001	15.7	1.116	12.3	.853	9.6	.889	11.0	.847	21.6	.592
Truckers, power	4.3	1.191	6.1	1.224	.2	.745	.6	.982	2.6	.845	.6	(2)
Watchmen	5.6	.924	5.3	1.035	9.2	.740	5.1	.881	5.1	.672	5.2	.742
Female workers	4.4	.718	4.8	.768	2.7	.706	7.3	.603	2.4	.588	3.0	.530
Janitors	1.6	.710	2.0	.729	1.0	.597	1.4	.725	.9	.568	.2	(2)
Learners, miscellaneous	.4	.557	.1	.515	----	----	2.5	(2)	.2	(2)	1.4	(2)
Packers	.6	.728	.4	.824	1.7	.768	1.3	.548	1.1	.643	.1	(2)
Stock clerks	1.1	.754	1.4	.803	----	----	2.1	(2)	.2	.540	.2	(2)
Time clerks	.7	.765	.9	.797	----	----	----	----	----	----	1.1	(2)

[1] The average hourly earnings shown in this table are exclusive of premium overtime pay and shift-differential premiums.
[2] Number of plants insufficient to justify the computation of an average.
[3] Less than a tenth of 1 percent.

EARNINGS IN FABRICATION OF RUBBER WAR PRODUCTS

Table 4 shows straight-time average hourly earnings by occupation, sex, and region for workers engaged in the fabrication in tire and tube plants of self-sealing fuel tanks and inflatable rubber war products. Data can be shown only for Akron-Detroit, Far West, and for the three other regions combined.

In the fabrication of fuel tanks, 62 percent of the workers were males and 38 percent females. Average hourly earnings for all workers amounted to 93.7 cents in August 1942—approximately $1.05 for men and 76 cents for women. About 12 percent of the total number of workers were classified as learners, and the existence of this appreciable proportion of learners served to depress somewhat the general level of earnings.

Among the male workers, stock cutters, metal-fuel-tank coverers, and builders averaged $1.19, $1.21, and $1.18 an hour, respectively. In only 2 male occupations, buffer and curer, were average earnings less than $1.00 an hour. Female builders, who constituted almost 22 percent of the labor force, average 80.3 cents an hour. It should be noted that fuel tanks are of various sizes and shapes, and the duties of builders differ in difficulty and responsibility. These differences may help to explain the wide spread between the earnings of male and of female builders. About half of the workers engaged in fuel-tank fabrication were being paid on an incentive basis at the time of the wage survey.

The hourly earnings of fuel-tank fabricators as a group amounted to more than $1.10 in Akron-Detroit, almost 80 cents in the Far West, and about 70 cents elsewhere. Fuel-tank production outside of Akron-Detroit and the Far West is of distinctly minor importance.

TABLE 4.—*Average Hourly Earnings* [1] *in Fabrication of Specified Rubber War Products, Tire and Tube Industry, by Product, Occupation, Sex, and Region, August 1942*

Product, occupation, and sex	United States		Akron-Detroit		Far West		All other areas	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
Fuel tanks: All workers	100.0	$0.937	100.0	$1.106	100.0	$0.796	100.0	$0.697
Male workers	62.0	1.046	69.9	1.215	55.4	.861	50.1	.788
Buffers	.9	.893	.3	1.097	1.5	.857	.4	(2)
Builders	14.0	1.182	18.7	1.311	10.8	.966	1.3	(2)
Builders, learners	3.8	.719	.6	(2)	7.1	.701	2.9	(2)
Curers	2.8	.967	1.5	1.208	3.9	.890	3.4	.799
Finishers	7.2	1.095	10.6	1.180	3.6	.943	9.6	.786
Foreman, working	2.4	1.073	1.6	1.244	3.1	.993	2.2	.940
Form builders	1.1	1.104	1.0	(2)	1.2	1.035	1.6	(2)
Inspectors and testers	9.9	1.088	14.4	1.154	5.7	.956	7.5	.860
Learners, miscellaneous	3.2	.687	.2	1.080	5.8	.687	6.7	.611
Metal-fuel-tank coverers	3.4	1.215	6.5	1.251	------	------	6.5	.902
Repairmen, tanks	9.5	1.051	11.7	(2)	7.9	.920	4.9	(2)
Repairmen, tanks, learners	2.1	.618	------	------	4.2	.615	2.2	(2)
Stock cutters	1.7	1.186	2.8	1.268	.6	(2)	.9	(2)
Female workers	38.0	.760	30.1	.854	44.6	.716	49.9	.605
Builders	21.8	.803	22.4	.871	30.4	.758	27.7	.614
Builders, learners	5.3	.623	.3	(2)	10.5	.630	3.8	(2)
Foremen, working	.4	.828	.1	(2)	.8	(2)	------	------
Inspectors and testers	1.5	.778	1.9	.821	1.3	(2)	.2	(2)
Learners, miscellaneous	1.3	.615	.1	(2)	2.1	.640	5.6	(2)
Metal-fuel-tank coverers	.3	.742	------	------	------	------	6.1	.742
Repairmen, tanks	2.8	.762	------	------	6.0	.762	------	------
Repairmen, tanks, learners	1.2	.621	------	------	2.2	.638	1.8	(2)
Stock cutters	3.4	.786	5.3	.806	1.3	(2)	4.7	.674
Barrage balloons, rubber boats, pontoons, life belts, and rafts: All workers	100.0	.766	100.0	.796	(3)	(3)	100.0	.551
Male workers	19.9	1.021	21.2	1.047	------	------	10.8	.657
Assemblers	8.3	1.035	9.4	1.036	------	------	.2	(2)
Buffers	1.2	.935	1.1	.958	------	------	2.1	.850
Curers	1.0	1.255	1.1	1.277	------	------	.4	(2)
Fabric cutters	2.6	1.019	2.8	1.031	------	------	1.5	.864
Foremen, working	.9	1.243	1.0	1.248	------	------	.2	(2)
Inspectors and testers	.8	1.066	.9	1.066	------	------	------	------
Learners	3.6	.865	3.3	.960	------	------	5.8	(2)
Rope splicers and servers	1.5	1.075	1.6	1.082	------	------	.6	.930
Female workers	80.1	.702	78.8	.728	------	------	89.2	.539
Assemblers	54.0	.754	60.4	.757	------	------	6.5	.585
Cementers, hand	2.5	.571	------	------	------	------	20.8	.571
Fabric cutters	.9	.648	.6	.661	------	------	3.3	.632
Inspectors and testers	1.6	.703	1.4	.752	------	------	2.9	.534
Lay-up girls	.6	.651	.6	.674	------	------	.6	(2)
Learners	19.9	.581	15.6	.615	------	------	51.3	.507
Markers	.6	.691	.2	(2)	------	------	3.8	.639

[1] The average hourly earnings shown in this table are exclusive of premium overtime pay and shift-differential premiums.

[2] Number of plants insufficient to justify the computation of an average.

[3] Data for a small department of 1 plant in the Far West engaged in the fabrication of inflatable war products were combined with "all other areas."

Table 4 indicates that 80 percent of the workers engaged in fabricating barrage balloons, rubber boats, pontoons, life belts, and life rafts were women. It was originally intended to present data separately for some of these inflatable rubber products, but this did not prove feasible. It is not believed that the data are distorted by the combination that proved necessary.

Average hourly earnings of all workers, male and female, amounted to 76.6 cents in August 1942; male workers averaged about $1.02 and female workers 70 cents. The level of earnings for women was pulled down measurably by the large proportion of learners (about 20 percent) on the pay rolls at the time of the wage survey. Moreover, less than 20 percent of the workers on inflatable rubber products were being paid on an incentive basis in August 1942.

The most numerous group of experienced workers on inflatable rubber war products, female assemblers, averaged 75.4 cents an hour; male assemblers averaged $1.035. As in the case of fuel tanks, differences in duties probably exist between men and women in this occupation.

VARIATIONS IN REGIONAL WAGE LEVELS

Inspection of the data in tables 3 and 4 indicates that appreciable variations existed in August 1942 in regional wage levels in the tire and tube division of the industry. A more precise measure of the extent of these variations is given in this section.

It should first be pointed out, however, that the level of wages in the Akron area for many years has exceeded wage levels in tire and tube manufacture in other parts of the country. This fact appears clearly in the study of wages in this industry division made by the Bureau in 1923. The differences prevailing in 1923 in regional wage levels are shown in the following tabulation,[15] which gives average hourly earnings in identical occupations in four areas, expressed as percentages of the Akron average in 1923. At that time there were no tire plants in the South, and the development of the industry on the west coast was just getting under way.

	Percent of Akron wage level, 1923
Akron	100. 0
Ohio (except Akron) and Michigan	84. 7
Indiana and Wisconsin	70. 8
Connecticut, Massachusetts, New York	78. 2
New Jersey and Pennsylvania	73. 9

The Bureau's 1940 questionnaire survey of wages in the rubber industry yielded regional comparisons on a plant basis; that is, the average earnings of all workers in the plants in a given area can be compared with the average earnings of all workers in the plants in other areas. This comparison is not so precise as one based upon common occupations and an assumed identity of occupational structure from region to region. For the 1940 period, however, usable comparisons can be made on this latter basis, since the plants in the industry were, with a few noteworthy exceptions, reasonably homogeneous as to product. The tabulation below shows the relation of plant wage levels in other areas to the level existing in the Akron-Detroit area in May 1940.[16]

	Percent of Akron-Detroit wage level, May 1940
Akron-Detroit	100. 0
Other Midwest	73. 1
California	87. 7
East	73. 1
South	57. 1

In an effort to measure regional variations in wages in August 1942 with as much precision as possible, a group of 21 occupations was chosen from the list of occupations shown in table 3 for rubber prep-

[15] The tabulation was constructed by first obtaining an average of occupational wages in Akron. Averages for the other areas shown in the 1923 study were obtained by weighting wages for each occupation in each area by the number of workers in that occupation in Akron plants. The purpose of this form of weighting is to eliminate the influence of differences in regional occupational structures on the wage averages. The basic data used may be found in U. S. Bureau of Labor Statistics Bulletin No. 358, table A (pp. 16–25).

[16] Monthly Labor Review, June 1941 (p. 1494).

aration, tire and tube processing, and service and maintenance. Each of these occupations is found in all five areas for which data are shown in table 3, and the duties associated with each occupation are clear cut and vary little from plant to plant.[17] Straight-time average hourly earnings in each of these occupations were weighted in each area by the number of workers employed in the occupation in the Akron-Detroit area. It was assumed, in other words, that each occupation had the same relative importance in the other areas as in the Akron-Detroit area. In this manner, an average of the earnings in the 21 occupations in August 1942 was computed for each area. The relationships thus developed are shown in the following tabulation:

	Percent of Akron-Detroit wage level, August 1942
Akron-Detroit	100. 0
Other Midwest	83. 0
Far West	85. 9
East	80. 9
South	63. 7

These data indicate that tire and tube wage levels in August 1942 in the other Midwest, Far West, and East were from about 81 percent to 86 percent of the Akron-Detroit level, and that the southern wage level was approximately 64 percent of this level.

Undoubtedly these variations are due to some extent to differences in size of city and differences in size of plant as well as to broader regional factors. In general, wages tend to be higher in large cities and large plants than in small ones. On the whole, plants in the other Midwest, the East, and South are in relatively small communities and tend to be somewhat smaller in size than the plants in other areas. No effort is made in this report to analyze the various aspects of the regional differential problem.

Trend of Employment, Hours, and Earnings From 1939 to 1942

For the 32 plants in the tire and tube division, data were secured on total employment, man-hours, and pay rolls for representative payroll periods in 6 selected months from 1939 to 1942. Table 5 shows employment, average weekly earnings, average weekly hours, average hourly earnings including overtime premium payments for these six periods, and estimates of straight-time average hourly earnings.

These figures provide a rough general picture of the trend in employment, hours, and earnings in the industry from 1939 to 1942. Certain limitations are inherent in combined earnings data of the type shown in table 5. Comparison of one period with another, or even of one region with another, may be affected by changes or differences in occupational patterns. Thus, considerable differences exist between the occupational structure for the industry as a whole in the 1942 periods and in the 1939–41 periods. In addition to new occupations and appreciable change in the sex composition of the labor force, the proportion of learners was certainly greater in the 1942 periods than in the earlier years. It must be remembered, moreover, that even in normal times some of these plants manufacture products other than tires and tubes, and the wages paid to the workers on these other products are included within the aggregate figures.

[17] These 21 carefully selected occupations contained 22.4 percent of the workers in rubber preparation, tire and tube processing, and service and maintenance.

As pointed out earlier, product diversification has increased as a result of the war. Despite these limitations, the material in table 5 is the most convenient and useful summary available of the trend of employment and pay rolls in the industry division.

TABLE 5.—*Number of Workers and Average Hours and Earnings, in Tire and Tube Plants, by Region, August 1939–August 1942*

Month and year	Employment	Average weekly earnings	Average weekly hours	Average hourly earnings with punitive overtime	Estimated straight-time average hourly earnings	Employment	Average weekly earnings	Average weekly hours	Average hourly earnings with punitive overtime	Estimated straight-time average hourly earnings
	United States					Akron-Detroit				
August 1939	49,162	$33.51	35.5	$0.944	$0.936	30,442	$35.53	33.2	$1.069	$1.066
July 1940	49,878	32.77	34.1	.962	.957	33,188	34.63	32.1	1.079	1.079
January 1941	56,809	36.63	38.4	.953	.936	38,430	38.49	37.0	1.040	1.026
July 1941	64,101	39.26	37.7	1.040	1.024	42,621	41.13	35.8	1.149	1.139
June 1942	60,214	44.50	40.5	1.100	1.066	42,435	46.35	39.4	1.177	1.151
August 1942	66,721	46.17	41.7	1.106	1.061	45,367	48.59	40.7	1.194	1.156
	Other Midwest					Far West				
August 1939	5,655	$30.33	39.2	$0.775	$0.759	3,805	$38.11	39.4	$0.968	$0.947
July 1940	4,712	26.06	35.1	.742	.736	3,360	37.66	39.1	.964	.944
January 1941	4,982	28.25	36.8	.768	.758	3,860	38.60	39.3	.982	.960
July 1941	6,035	34.00	41.6	.818	.785	4,535	40.64	39.1	1.040	1.018
June 1942	4,173	39.41	41.3	.954	.918	5,905	44.58	46.1	.966	.895
August 1942	4,486	41.14	41.7	.987	.947	7,764	43.19	44.6	.969	.907
	East					South				
August 1939	5,685	$27.44	36.8	$0.746	$0.736	3,575	$26.18	43.1	$0.607	$0.575
July 1940	4,947	28.66	37.5	.764	.753	3,671	29.59	41.5	.617	.592
January 1941	5,595	32.28	41.4	.780	.750	3,942	33.30	49.3	.676	.611
July 1941	6,351	37.32	42.7	.874	.831	4,559	30.10	42.8	.703	.668
June 1942	4,197	39.63	41.7	.951	.912	3,504	33.91	41.6	.816	.783
August 1942	4,940	41.12	42.7	.963	.916	4,164	36.70	46.9	.783	.721

In the industry division as a whole, employment in the 32 plants increased from 49,162 in August 1939 to 66,721 three years later. It will be observed that employment rose very sharply from July 1940, when the National Defense program got under way, to July 1941, at which time automobile production was at a high level and consumer incomes were rising rapidly. Employment in June 1942 was somewhat below the July 1941 level; by August 1942, however, the level of July 1941 had been exceeded.

Average weekly hours per worker reached 41.7 in August 1942, as compared with only 35.5 in August 1939. This represents an increase in average hours per worker per week of more than 17 percent and indicates, of course, that the data on increase in number of workers understates the real increase in employment between these two periods.

Average hourly earnings, including premium overtime pay, rose in the industry as a whole from 94.4 cents in August 1939 to $1.106 in August 1942, an increase of approximately 17.1 percent. Average weekly earnings, which are affected not only by average earnings per hour but also by the number of hours worked per week, rose by

almost 38 percent over the 3-year period. Estimated straight-time hourly earnings rose from 93.6 cents to $1.06—about 13 percent.[18]

Gross average hourly earnings in Akron-Detroit increased from $1.069 to $1.194 between August 1939 and August 1942, or by about 11.6 percent, and estimated straight-time average hourly earnings by 8.4 percent. Since the level of hourly earnings declined in the Akron-Detroit area between August 1939 and January 1941, the percentage change in hourly earnings between this latter month and August 1942 is greater than the change as measured from August 1939.

In the other areas, except the Far West, average hourly earnings increased more sharply than hourly earnings in Akron-Detroit. Between August 1939 and August 1942, the level of hourly earnings (both on an estimated straight-time basis and including premium pay for overtime) increased by more than 20 percent in the other Midwest, East, and South. Except in the South, almost all of these increases took place after January 1941. In the Far West, the level of hourly earnings, including premium overtime, remained virtually unchanged from August 1939 to August 1942, and the level of straight-time earnings declined over this period. Between January 1941 and August 1942, the level of earnings in the Far West declined on the basis both of straight-time rates and of earnings including overtime.

It must be emphasized that changes in these general earnings data need to be interpreted with care. The data for the Far West provide a striking illustration. In 1939, the plants of this area were engaged largely in the production of tires and tubes; in 1942, these plants were engaged largely in the production of special rubber war goods. Between these two periods, the character of the occupational structure of the plants in the area changed materially. It will be recalled that in August 1942 the west coast plants had a higher proportion of female workers than plants in any other part of the country. Large numbers of learners also were employed at this time. The reduction in straight-time hourly earnings in these plants between August 1939 (or January 1941) and August 1942 appears to be adequately explained on the basis of changes in the composition of the labor force and in occupational requirements.

[18] It will be recalled that the straight-time average hourly earnings for all of the workers for whom occupational wage data were secured amounted to $1.037 in August 1942 (table 2). Estimated straight-time hourly earnings for August 1942 as shown for the plant employment in table 5 amounted to $1.061. This is a difference of 2.4 cents. This relatively small difference is probably due in part to the fact that not all operations in these plants were included in the occupational data. Moreover, straight-time earnings in table 5 are estimated, and a portion of the difference may reflect this fact.

REORGANIZATION OF WAR MANPOWER COMMISSION

TAKING advantage of the broad powers granted him by the Executive order of December 5, 1942,[1] Paul V. McNutt, Chairman of the War Manpower Commission, announced a reorganization of the Commission.

Five bureaus were established, with full control over the many divisions, offices, and services which have been added to the Commission in recent months. These bureaus are the Bureau of Selective Service, Bureau of Placement, Bureau of Training, Bureau of Labor Utilization, and Bureau of Program Planning and Review. The Bureau of Selective Service operates along the lines prescribed by the Selective Service Act, but has coordinated its activities with the placement services and other offices of the War Manpower Commission. The Bureau of Placement has responsibility for industrial employment, agricultural employment, the placement of professional and scientific manpower, and employment in Government services. The Bureau of Training is responsible for professional and technical training, vocational training, the National Youth Administration, the training-within-industry program, and apprentice training. The Bureau of Program Planning and Review is responsible for all reports and research, compilation and relation of labor-market data, and relations with war agencies. It also is required to coordinate the statistical activities of the Commission and maintain technical consulting services. The detailed organization of the Bureau of Labor Utilization has not been completed. It now includes the Manning Table Division, and is expected to include analyses of in-plant employment problems.

The office of the Executive Director was also strengthened, and under the new organization the Executive Director is the general manager in charge of all administration and operations in Washington and in the field. He has two assistant executive directors; one of these has general responsibilities, and the other will be in charge of field management.

At the same time all Washington offices were instructed to make a study of their operations in order to cut down the volume of paper work and the number of reports required from the field, and to determine how much additional authority could be delegated to the regional offices and from regional to local offices.

[1] See Monthly Labor Review, January 1943 (p. 26).

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BLANKET SUSPENSION OF STATE LABOR LAWS NOT FAVORED BY FEDERAL AGENCIES

A JOINT statement to State labor commissioners, advising against blanket suspension of State labor laws, was issued on January 4, 1943, by the Federal War, Navy, and Labor Departments, War Production Board, War Manpower Commission, Maritime Commission, and Office of Defense Transportation.[1] Because of the effective use of power to grant exceptions from labor legislation in order to meet war emergencies, the agencies were unanimously of the opinion that enforcement of labor standards had not interfered with production of war material.

The statement was as follows:

The War, Navy, and Labor Departments, War Production Board, the War Manpower Commission, the Maritime Commission, and the Office of Defense Transportation are being asked by State labor commissioners and others whether the war production and transportation programs require further amendment of State labor legislation. The legislatures of 44 States will meet in regular session in 1943 and will probably consider legislation which will speed the war effort.

The Federal departments concerned have reviewed the action taken by State labor departments during 1942 following the joint statement of policy on State laws issued in January by the War, Navy, and Labor Departments. This statement recommended that State laws and regulations embracing the following basic principles should be preserved except where modification may be necessary during the war period to insure maximum production:

1. A maximum 48-hour week.
2. An 8-hour day.
3. One day of rest in seven.
4. Adequate rest and meal periods.
5. Adaptation of hours of work and working conditions to the age and sex of the worker, except that there must be no relaxation or modification of standards governing the employment of minors under 16.
6. Proper safeguards for health and safety.
7. The same wage rates for women as for men.

Reports from the field show that State labor standards have not interfered with war production. Temporary modification of certain labor standards has been permitted under proper safeguards, and at the same time maximum long-time production has been aided by preserving laws regulating hours of work and establishing safe working conditions. In some States it has been necessary to enact legislation authorizing such action for the war period; in other States temporary modification has been authorized under existing laws or under the emergency powers of the Governor.

This operating experience demonstrates that there is no need for blanket suspension or lowering of labor standards as stated above in any State. We wish to commend the State labor commissioners for their assistance and good offices in meeting emergency situations, and to assure them of our full support in the maintenance of the basic labor standards which have been built up by their several States over the years. The continuance of the agreed program of 1942 is recommended.

It was pointed out that recommendation 1 (as to hours of work) does not affect the requirement of the Fair Labor Standards Act that time and a half must be paid for all work over 40 hours a week. "Late reports to the Department of Labor show that practically all war production plants in the United States are now operating at least 48 hours a week."

[1] Office of War Information. Press release 1053, January 4, 1943.

SUSPENSION OF 8-HOUR LAW FOR WAR DEPARTMENT LABORERS

IN AN Executive order issued on December 28, 1942 (No. 9290), the President suspended the Federal law covering laborers and mechanics employed by the War Department on public works within the United States, which prohibited more than 8 hours of labor in 1 day. In announcing the suspension of this provision, the President specified that the laborers and mechanics concerned shall receive overtime pay for all hours of work in excess of 8, at the rate of time and one-half.

The President pointed out that the War Department is engaged in public work activities (including the storage and movement of war materials and the embarkation of troops) which are essential to the prosecution of the war, but that their efficient and speedy completion was threatened by "an acute shortage of laborers and mechanics."

RATIONING OF BUTTER IN CANADA

THE only foods subject to strict rationing in Canada prior to December 21, 1942, were tea and coffee and sugar. The rationing orders for these commodities, issued in May and June 1942, restricted their use to fractional parts of their ordinary consumption. Coupons attached to a ration card were used for sugar purchases.[1] Coupon rationing for butter was introduced December 21, 1942, by an order (No. 220) of the Wartime Prices and Trade Board, issued December 15,[2] under authority conferred by order P. C. 8528 of November 1, 1941.

Purchase of butter for personal or household consumption is dependent upon the surrender to the merchant of ration coupons, which must be detached by or in the presence of the retailer. The value of each coupon was specified to be one-half pound of butter, representing a week's ration. Each butter coupon except the second was to cease to be valid at the expiration of 2 weeks after the date when it became valid. The period of validity of the second coupon was 1 week. The first ration book contained 11 coupons, the last of which is not valid before March 1, 1943. The order provides for the registration of public caterers and institutions, and fixes the amounts which a public caterer can serve to a customer at one-third of an ounce at any one sitting, and provides further that butter may not be served to any customer unless he requests it. Sales of butter by other than licensed retailers or suppliers are prohibited.

[1] See Monthly Labor Review, August 1942 (p. 283).
[2] Canadian War Orders and Regulations, Ottawa, December 19, 1942.

Employment and Labor Conditions

EFFECT OF THE WAR ON EMPLOYMENT IN THE IRON AND STEEL INDUSTRY [1]

Summary

THE increase in the production of iron and steel caused by the defense program carried employment in the industry to a peak of 550,000 wage earners in August 1941. Up to that time the average hours of individual workers were maintained at 40 per week or less, and increased man-hour requirements were met by the employment of additional workers on "swing" shifts.

Although production continued to increase, employment leveled off after October 1941 and then declined to 525,000 in October 1942, average weekly hours remaining at about 40 over the period. The indicated decrease in man-hour requirements resulted principally from a change in the pattern of finished steel production, emphasizing types of steel whose manufacture required relatively fewer man-hours.

Increased labor requirements caused by expected additions to productive facilities in 1943 may be offset by a lengthening of the workweek, resulting in only a relatively small increase in employment between November 1942 and December 1943.

Employment Trends in the Steel Industry [2]

THE PRE-WAR DECADE, 1929–39

Perhaps the most significant development affecting the volume of employment in the steel industry in the decade ending in 1939 was the marked decrease in the length of the normal workweek. In 1929 the average number of hours worked during a week was 51.4, and the scheduled full-time hours were 54.6.[3] In 1940, although the level of production was somewhat higher than in 1929, average weekly hours, as reported to the Bureau of Labor Statistics, were 37.0.

The introduction of a shorter week as a basic policy developed gradually over the decade. In 1932 a "spread-the-work" employment policy induced by the abnormally low level of production brought weekly hours down to an average of 26.1. (Production of ingots fell as low as 14.1 percent of capacity during 1932 and averaged 19.7 percent over the year.) The decrease, however, was due more to the prevalence of part-time work than to a fundamental change in scheduled hours. The first definite indication of a more permanent decrease in scheduled hours came with the promulgation under the

[1] Prepared in the Bureau's Occupational Outlook Division by Richard H. Lewis.
[2] Includes blast furnaces, steel works, and rolling mills.
[3] Average workweek is derived from Daugherty et al, Economics of the Iron and Steel Industry, Vol. II, p. 814. Average scheduled full-time workweek is based on a Bureau of Labor Statistics wage and hour study (see Handbook of Labor Statistics, 1936, p. 962).

NRA of the steel code, which established a maximum 8-hour day and 6-day week. Even though production expanded substantially at times during the life of the steel code, average weekly hours did not rise above 40. In 1937 a 40-hour workweek was adopted as regular practice by many of the steel companies, and the passage of the Fair Labor Standards Act in 1938 has further reinforced the trend toward a shorter workweek.

This development has significantly affected the volume of employment in the iron and steel industry, since it has made necessary a much larger labor force to achieve production levels equivalent to former years. For example, average employment in 1939 was 2 percent higher than in 1929, while ingot production was 14.5 percent less. Another indication of the influence of this trend is an estimate made by the United States Steel Co. that on the basis of 1929 hours it would have employed 64,447 fewer workers in July 1939 than its actual employment of 214,205.[4]

The effect of the shorter workweek on the volume of employment is particularly significant because it offsets the substantial rise in output per man-hour which occurred over the same period. An index of man-hour productivity developed by the National Research Project of the Work Projects Administration and extended by the Bureau of Labor Statistics shows a gain from a base of 100 in 1929 to 136.9 in 1939.[5] There was a steady rise in productivity after 1934, with the greatest increase between 1938 and 1939. These gains in productivity were largely the result of widespread introduction of technological improvements, particularly in rolling mills and finishing plants. Some of these were minor refinements of technique, while others were major modifications of equipment. The most striking innovation was the continuous hot-strip mill which displaced many thousands of workers in sheet and tinplate mills. Highly automatic in operation, these mills produced a larger volume of steel sheets with fewer workers than the conventional hand mills they replaced. The Steel Workers Organizing Committee estimated that, between 1929 and 1939, 38,470 workers in obsolete hand sheet mills were displaced because of the competition of the tremendously productive continuous mills.[6] Increased efficiency of open-hearth operation and improved methods of producing seamless and butt-welded pipe also tended to reduce labor requirements. The period 1929–39 can be summarized as one in which a marked reduction in man-hour requirements was compensated by a proportionately large cut in the length of the scheduled workweek so that the relative volume of employment was maintained.

WAR PERIOD, 1940–42

The outbreak of World War II in the fall of 1939 resulted in a rise in steel activity which carried employment upward a hundred thousand from July 1939 to a peak of 464,000 in December 1939. This expansion proved to be premature, however, when purchases in the United States by the warring nations failed to reach the anticipated levels, and employment declined to 411,000 in April 1940 (table 1).

In June 1940, with the fall of France, came the initiation of the defense program in the United States and, from this point onward,

[4] United States Steel Co., TNEC Papers, Vol. II, p. 161.
[5] U. S. Bureau of Labor Statistics, Productivity and Unit Labor Cost in Manufacturing Industries (mimeographed). Summarized in Monthly Labor Review, May 1942 (p. 1071).
[6] Hearings before the Temporary National Economic Committee, Vol. 30, p. 17341.

the rising tide of defense expenditures carried the steel industry to new high levels of production and employment. The trend of steel employment between June 1940 and October 1942 may be divided into two distinct phases. In the first period, which carried through to October 1941, employment steadily rose until a peak of 550,000 was reached in August 1941, but fell off slightly to 543,000 in October. The August figure represented a 26-percent increase over the 436,000 employment of June 1940.

During this time idle equipment was restored to use, and the industry gradually increased its operations to levels approaching its rated ingot capacity. Ingot production reached a new record of 7,236,000 net tons in October 1941 when the industry operated at almost 99 percent of capacity. A feature of the expansion of production was that it was caused mainly by an increase in civilian demand for steel products rather than direct defense requirements. Defense expenditures had stimulated a boom in civilian consumption and large quantities of steel were flowing into civilian lines, such as automobiles, refrigerators, and other durable consumption goods. As a result, military and defense construction requirements for steel were superimposed on a record civilian demand for steel.

Another notable feature of the rise in the steel industry's employment was the lack of a corresponding increase in average weekly hours per employee. The increased man-hour requirements were met by adding additional employees rather than by extending the working hours of individual workers. This policy was in sharp contrast to that of other war industries which partially supplied their demands for additional labor by raising the average hours worked as well as the volume of employment. For instance, although the machine-tool industry increased weekly hours from a 1939 average of 42.9 to 52.0 in October 1941, the steel industry stabilized its hours at about 40 hours.

A major reason for the difference lies in the fact that blast furnaces and steel mills are operated most efficiently and economically on continuous rather than intermittent operating schedules. This procedure is desirable because it is expensive and wasteful to shut down and then reheat the furnaces and also reheat the cold pig iron and steel scrap. Continuous operations had always been in effect in blast furnaces and steel furnaces. Rolling mills, however, except at times of extreme activity, had usually shut down over week ends. As the steel industry extended its operations to capacity levels under the pressure of the defense boom the increased flow of production through the mills made it necessary to operate many rolling mills on a 24-hour, 7-day schedule.

In scheduling their plants to operate on a continuous basis many of the steel companies chose to spread the necessary increase in man-hours over a larger number of workers rather than to extend the shifts of the workers already employed. This was accomplished by the scheduling of a fourth or "swing" shift. Under this system the working force for the departments operating continuously is divided into four shifts or turns of 40 hours each. Every week one of the shifts works 48 hours, thereby filling out the complete 168-hour week. One result of the use of such a system is that the average hours of individual employees are maintained at around 40 hours a week. This system also requires that large numbers of employees be added to staff the extra shift.

TABLE 1.—*Employment and Average Weekly Hours in Blast Furnaces, Steel Works, and Rolling Mills, 1929–42*

Year and month	Number of wage earners [1]	Average weekly hours [2]	Year and month	Number of wage earners [1]	Average weekly hours [2]
1929 average	379,800	51.4	1941—Continued		
1932 average	234,900	26.1	May	522,600	39.6
1939 average	388,400	35.3	June	533,700	40.1
1940:			July	544,100	37.8
January	455,400	37.1	August	549,900	39.1
February	442,200	35.4	September	548,000	38.0
March	421,400	34.6	October	543,200	39.0
April	411,000	34.3	November	541,600	39.2
May	415,100	35.5	December	543,300	39.2
June	436,300	37.0	Average	528,000	39.0
July	454,200	36.4	1942:		
August	464,800	38.0	January	542,300	38.9
September	467,800	38.2	February	543,200	39.9
October	474,100	38.5	March	543,900	40.2
November	480,800	38.7	April	546,100	39.6
December	487,800	39.9	May	547,900	40.0
Average	450,900	37.0	June	549,100	40.0
1941:			July	545,500	39.2
January	493,300	38.7	August	539,700	40.2
February	499,400	39.4	September	532,300	39.9
March	504,400	39.5	October	525,200	41.0
April	512,100	39.0	November	516,700	42.0
			December	520,000	[3]

[1] Sources: 1929 and 1939 figures from Census of Manufactures; 1932, 1940, 1941, 1942 are from Bureau of Labor Statistics data. Total for 1932 includes employment in steel castings.

[2] Figure for 1929 from Daugherty et al.: Economics of the Iron and Steel Industry, Vol. II, p. 814. Other years are from Bureau of Labor Statistics data. Average hours for 1929 and 1932 include data for steel-castings industry.

[3] Not available.

It is probable that a large part of the 114,000 increase in employment in the steel industry between June 1940 and August 1941 can be attributed to the hiring of additional workers to operate the swing shift. In January 1942, a group of plants scheduling swing shifts indicated in their reports to the Bureau of Labor Statistics that 32,000 workers, or 16.4 percent of their total number of wage earners, were working on this shift.

In contrast to the previous period of expansion, employment leveled off at the October 1941 total of 543,000 and declined to 525,000 by October 1942. Throughout this time weekly hours remained stable, so that the decline of employment represented a decline in total man-hour requirements of the industry. The decrease in the labor requirements in the steel industry was unusual because it occurred in the face of an increase in the capacity and an increase in net tons of ingots produced. Although material shortages and furnace repairs kept production below the increased capacity of the industry during most of the year, each month in 1942 showed a higher production of ingots than the comparable month of 1941. By October 1942, the rate of activity had been raised to such an extent that the industry operated above its rated capacity throughout the entire month, the first time this had been accomplished since 1916. The trend of employment moved parallel with production during the first half of 1942 but in the third quarter the two trends diverged as employment turned slightly but definitely downward. This drop in employment in a basic war industry stood out sharply against the increases in employment registered by other war industries, such as aircraft and shipbuilding.

Another development which distinguished this later period was the conversion of the industry from a civilian to a wartime basis. This

conversion was accomplished principally by changed emphasis in the type of steel products shipped by the industry, and to a smaller extent by the introduction of completely new products. In the changed pattern of steel production can be found the explanation for the relative decrease in labor requirements that occurred in the latter part of 1942.

Effect of the War on the Pattern of Finished Steel Production

In the early phases of the defense program the expansion of steel output had been stimulated largely by the increased demands of civilian consumption. The movement of steel into defense production was facilitated by the issuance of priority orders, but this system proved insufficient to regulate the flow of steel into essential channels. When the production of steel had approached capacity levels and military and indirect defense demands became more urgent, it was apparent that civilian demand for steel could not remain unchecked. The recognition of this necessity brought, in the fall of 1941, the first serious attempt at limiting the civilian consumption of steel. A series of orders was issued curtailing the production of automobiles, refrigerators, and other durable consumer goods into which had gone large quantities of steel.

The entry of the United States into the war in December 1941 and the formulation of the Victory program calling for all-out war production accelerated the change from civilian consumption to military consumption of steel. Conservation orders and limitation orders were used at first, but eventually it was necessary to resort to direct allocation of steel. This program was carried on simultaneously with the conversion of many steel-using industries to war production. By September 1942 the transition of the iron and steel industry to a war basis had reached a point where, according to the estimate of the Iron and Steel Branch of the War Production Board, 75 percent of finished steel output was going into direct war use, with most of the remainder being directed into such essential industries as railroads and machinery manufacture.

The immediate effect of this shift to war consumption was a significant change in the relative proportions of the various types of semifinished and finished steel produced for sale. This distortion of the usual pattern of steel production was caused by the demands of war industries for certain types of steel products in quantities which far exceeded their normal rate of production. The outstanding example of such a product was heavy steel plate. Large tonnages of ship plates were required by both the Maritime Commission's cargo-vessel program and naval shipbuilding. Great quantities of plate were also needed for tanks and gun mounts, for locomotives and railroad cars, and for new factories and industrial equipment. Since the demand so greatly exceeded both the existing capacity and planned additions to the industry's capacity to produce plate, many large continuous hot-strip mills were converted to turn out plates instead of the lighter products usually rolled in these mills. By May 1942, over 40 percent of the production of plates was rolled by these converted strip mills and several of them had set new production records for plates produced in a single mill.

Another product with a heavy war demand is steel bars, a raw material for shell production. These two products are extreme ex-

amples of increased demand but there are other instances. Special types of seamless tubing are required in aircraft production. Large amounts of structural steel have been needed for shipbuilding and war construction, although in recent months total demand for structural steel has tapered off, with the curtailment of less-necessary construction. At the same time that the output of some types of rolled steel has been sharply increased, production of other types of steel less essential in the war program has necessarily been curtailed because of the limited supply of ingot steel for processing in the rolling mills.

This situation has forced a drastic change from the pre-war pattern of steel production. Thus steel plate, production of which had accounted for only 9 percent of the total tonnage of steel shipped by the industry in 1940, represented almost 21 percent of the total in October 1942. Almost the reverse had happened to the production of sheet steel. During the 1930's sheets had found greater use in automobiles, refrigerators, metal furniture, and many other consumer goods and had become the steel industry's most important product both in tonnage and value. During the war, with many of its normal uses limited or prohibited and with fewer essential war uses, the production of sheets was severely curtailed. In 1940 the various types of sheets accounted for almost 23 percent of total finished steel production, but by August 1942 their proportion had been reduced to less than 11 percent.

These relative changes in the production of various steel products have measurably affected the labor requirements of the steel industry. In general, the types that declined in importance were those requiring greater labor input per ton. The products whose output was stimulated by the demands of war production were the heavy steels, such as plates, bars, structural shapes, and steel rails. Considerably more man-hours are required to produce equivalent tonnages of sheets, tin plate, wire and wire products, and pipe and tubing, which are lighter and more highly fabricated, and it was these products which failed to maintain their pre-war relative positions.

These differences in labor input arise from the nature of the products. The lighter products usually represent a further stage in fabrication and are in a more finished form when they are shipped to the consumers of the steel. For instance, tin plate passes through many rolling operations before the original slab of steel is reduced to a very thin sheet called black plate. After the black plate is put through several preparatory processes, it is finally given its coating of tin, to emerge in mirror-finished sheets which still must be carefully inspected and packaged before being shipped to the tin-can manufacturers. In contrast to the lengthy and complicated process necessary to produce tin plate, heavy steel plates are rolled directly from bulky slabs of steel and, except for a few special types, require little further processing before they are ready for shipment. Besides these differences in the nature of the operations required, it is obvious that a ton of steel yields many more units of product to be processed and handled when it is converted into thin sheets than when it leaves the plant in the form of bulky plates or structural shapes.

A study of the man-hours of labor used in steel manufacture, made by the Bureau of Labor Statistics in 1935, showed the extent of the variations in man-hour requirements per ton for different classes of

semifinished and finished steel products.[7] Including the production of the basic steel, the average number of man-hours required for the production of a gross ton of tin plate were found to be 58.4. Sheets required almost 37 man-hours; pipe and tubing, 41.3; wire nails, 42.7; and drawn wire, 33.2. With these may be compared the much smaller labor requirements of the heavier, less-fabricated products, such as structural shapes, for which the man-hours per ton were 17.5, and plates for which only 18.6 man-hours were required per ton.

That study was made while the industry was operating at a rate of between 55 and 60 percent of capacity, and since the date of the survey there have been important technological advances which have increased man-hour productivity. For these reasons the absolute figures are no longer representative, but their validity as indicators of relative man-hour requirements for different products has not been vitally affected. By relating these man-hour requirements for each product to the changed pattern of steel production, it can be shown that the shift to heavier products tended to reduce the total labor requirements of the industry.

This tendency was partially offset by the additional labor required for the fabrication of ordnance products in the steel industry. Many plants, besides continuing their steel-making activity, entered into the direct production of ordnance material, such as shells and bombs, heavy guns and mounts, and small arms and parts. In some cases ordnance represents only a small portion of a plant's productive activity, but in other plants ordnance is the major product and has required the addition of extensive forging and machining facilities. An indication of the effect of the ordnance production on labor requirements is the marked gain in employment in many of the plants with large ordnance contracts, in contrast to the employment trends of other plants. Based upon an analysis of the trends of employment in plants with substantial ordnance production, it is estimated that the number of workers employed on ordnance increased by about 22,000 from October 1941 to October 1942, helping to maintain the total volume of employment in spite of a decline in the labor required in the production of steel.

In many other mills the trend of employment very clearly revealed the effects of the reduced labor requirements. The plants whose volume of employment suffered most were the specialized mills whose production was curtailed by the allocation of semifinished steel to more-essential products. Tin-plate mills and sheet mills were the hardest hit by the diversion of their normal supplies of steel. By October 1942, the reduced allocation of steel to tin-plate mills had caused employment in mills where the major product was tin plate to decline more than 40 percent below the level of October 1941 and the decline continued in November 1942. Tin-plate departments of integrated mills were also operating on curtailed schedules.

Many sheet, pipe, and wire mills also showed losses in employment between October 1941 and October 1942, although usually not so great as in the tin-plate mills. The effects of the reduction in labor requirements were quite general; with the exception of those plants with increasing ordnance production, most of the steel mills reported at least a slight reduction in employment during this period. Despite the increasing employment on ordnance production, total employ-

[7] Monthly Labor Review, May 1935 (p. 1155): Man-Hours of Labor per Unit of Output in Steel Manufacture.

ment in the industry declined by 18,000 between October 1941 and October 1942.

Employment Outlook

The relative reduction of man-hour requirements caused by the changed composition of finished steel production had been largely completed by the fourth quarter of 1942. During 1943 this downward tendency will probably be reversed by an absolute increase in finished steel output as the increased ingot production from new facilities becomes available.

By December 1943 the total annual ingot-producing capacity of the steel industry is expected to reach 97,115,000 net tons, an increase of 8.8 percent from July 1942. If supplies of materials are sufficient to maintain production at rates approaching this capacity, the total man-hour requirements of the industry should be increased considerably by the end of 1943.

The steel industry's employment requirements through 1943 will, however, be affected by any changes which may take place in the industry's utilization of its labor force. During the past 2 years the steel industry has scheduled the hours of its employees so that they have averaged less than in any other major war industry, fluctuating in a narrow range around 40 hours a week. In proportion to its man-hour requirements the industry has maintained a relatively larger labor force than these other war industries. Its ability to carry out this policy in a period of increasing labor shortages is based upon several important characteristics of its labor-market position. The steel industry, having been an important source of employment for many years, had a large reservoir of experienced workers when its current expansion began. Because it was able to maintain an adequate supply of skilled workers by upgrading its employees, the industry has been able to utilize large numbers of unskilled workers. At the beginning of the defense program its hourly wage scale was among the highest, and the industry also offered more definite post-war employment prospects than some of the other war industries. In many areas where it is situated it is the principal source of employment. These and other factors have enabled the steel industry to recruit and hold a sufficient number of workers to continue on a 40-hour week. The additional workers required by the steel industry when working on a 40-hour week, as compared to a longer workweek, constitute in effect a labor reserve which protects the industry against the drain of men to the armed forces and the increasing tightness of the labor markets. With a steadily diminishing supply of manpower available for war production and the military services, it is probable that in the near future the steel industry will have to reduce its reserve of workers by lengthening the hours of its employees. This action may result either from the difficulty of obtaining replacements and additions to its labor force or at the request of manpower officials seeking to increase the Nation's available manpower resources.

An indication of the effects on the steel industry's current volume of employment, if the length of the scheduled workweek were increased to 48, is provided in table 2, which clearly shows the concentration of over half the employment in plants whose average hours approximated 40 a week or less. Plants employing over 90 percent of the employees averaged less than 46 hours a week. Since actual average

hours are usually somewhat below the scheduled workweek, because of lost time caused by absenteeism, labor turn-over, break-downs of equipment, or temporary shortages of materials, a plant scheduled for 48 hours a week may average about 46 hours. Thus, less than 10 percent of the employees in the industry are in plants where a 48-hour workweek is scheduled.

For the plants whose average hours were under 46, table 2 shows the number of workers that would have been required to put in the same aggregate number of man-hours in October 1942 if these plants raised their average hours to 46.

The difference between this figure for each average-hour class interval and the number actually employed represents the additional employees required by the shorter workweek. The total number of additional employees estimated on this basis amounts to 64,100. This estimate does not imply that an automatic and proportionate reduction in the number of employees would follow if scheduled hours were increased to 48, but it does indicate the maximum extent to which an increase in average weekly hours to 46 could lower the volume of employment maintained by the steel industry. The actual reduction in employment if hours were increased would be limited to some extent by possible difficulties in adjusting the hours among departments operating at different rates of capacity. Many plants and departments rolling products that have been curtailed, such as tin plate, have had low average hours because of their reduced rate of operation. If a program for adjusting hours upward is to be effective throughout the industry, plans should also be made for the concentration of the production of these products in fewer plants.

If average hours in the industry are increased, the effects of the reduction in labor requirements upon the trend of employment will depend largely on the timing of this shift. If the industry's average hours are increased gradually over a period of months, the downward tendency may be offset by an increase in the total man-hour requirements as new facilities begin operation during the year. In this case the increase in hours will tend to prevent the increase in employment that would occur if the level of weekly hours remained unchanged.

TABLE 2.—*Distribution of Steel Workers by Plant Average Weekly Hours, October 1942,*[1] *and Number Required for 46-Hour Week*

Plant average weekly hours	Wage earners, October 1942		Number of wage earners if average weekly hours in all plants were at least 46[2]	Number of additional wage earners employed on account of shorter workweek
	Number	Percent of total		
Less than 36.0	25,200	4.8	18,700	6,500
36.0 to 37.9	50,900	9.7	41,100	9,800
38.0 to 39.9	192,800	36.7	163,200	29,600
40.0 to 41.9	124,500	23.7	110,100	14,400
42.0 to 43.9	37,800	7.2	35,100	2,700
44.0 to 45.9	39,400	7.5	38,300	1,100
46.0 to 47.9	28,900	5.5	28,900	----------
48.0 to 49.9	15,200	2.9	15,200	----------
50.0 and over	10,500	2.0	10,500	----------
Total	525,200	100.0	461,100	64,100

[1] Based on reports to the Bureau of Labor Statistics.

[2] Derived by dividing by 46 the number of man-hours worked in the plants with average weekly hours of less than 46.

Although this would be true for the industry as a whole, certain areas where proportionately larger increases in capacity are planned should show some gains in employment while other districts are experiencing employment decreases.

In summary, if the steel industry lengthens the scheduled workweek to 48 hours, the increase in steel production expected by December 1943 can be attained with only a very small increase in employment over the 517,000 level of November 1942. If, however, average hours are not substantially greater, the industry will require an addition of between 5 and 10 percent to its labor force.

EMPLOYMENT CONDITIONS ON CONNECTICUT TOBACCO PLANTATIONS

EMPLOYMENT conditions on Connecticut tobacco plantations in the summer of 1942 were much better than in 1941. Although the State department of labor has no jurisdiction over agricultural employment, it has for the past 10 years made an annual inspection of tobacco plantations. In 1932 its exposé of the shocking conditions on such plantations as to child labor, housing of seasonal workers, and general employment conditions brought about an agreement by most of the large growers not to employ children under 14 years of age.

Under this agreement and with the cooperation of the State board of education in issuing certificates of age, the employment of children under 14 years of age decreased, and working and living conditions had been gradually becoming better. The report of the State department of labor on the conditions found in its inspection in August 1941 revealed, however, that instead of continued improvement in that year, employment of children as young as 8 years old, overcrowding in substandard houses, unfit supervision, and hazardous transportation were again prevalent.

In the spring of 1942, standards of employment agreed upon by a committee of "shade" growers and the State department of labor were adopted by 17 of the largest shade growers in the State, who with few exceptions have endeavored to live up to these standards. In cooperation with a public-relations adviser appointed by them, growers and managements succeeded in eliminating in large measure the most glaring abuses found in 1941. Child labor under 14 became practically nonexistent on the fields of these growers.

One of the two largest corporations with absentee ownership, which refused to sign the agreement, did cooperate with the department in maintaining most of the standards. The other corporation continued to employ children as young as 12 years, but it did maintain one of the better boarding houses for its young colored workers from the South.

Plantations Inspected in 1942

The annual inspection of tobacco plantations by the State department of labor was made between July 15 and August 31, 1942, and covered 49 fields, representing 21 growers. Approximately 6,100 workers were employed on these fields—3,900 males and 2,200 females. Of these workers, 1,045 were migrant male workers brought from the South for the season—900 being colored and mostly high-school and

college students recruited through southern colleges, and 145 being white boys between 16 and 21 years of age.

Child Labor

Over one-third (2,100) of all the workers employed on the tobacco fields inspected were children under 16 years of age. Children of 12 years were employed on 9 fields, and children of 10 years were found working on 1 field. Proof of age was required by all but 10 fields, and 1,570 age certificates were on file.

Some 800 children were transported daily from Massachusetts towns in company trucks. They were picked up at 5:45 a. m. and arrived at home at 7 p. m. Connecticut children were usually picked up between 6 and 6:30 a. m. and reached home between 5:30 and 6 p. m. These over-all hours for child workers were the same as in 1941.

Hours and Wages

Most of the fields had a 9-hour workday and a 54-hour workweek, as compared with a 9½-hour day and 57-hour week in 1941. A few fields, however, still had a 57-hour week.

Wages in 1942 were higher than in 1941, mainly because the number of children over 16 years usually available for employment was much smaller. An acute shortage in adult workers in this highly concentrated defense-industry area had resulted in a demand for the services of such children. There was, however, no lack in the supply of children 14 to 16 years of age for work in the tobacco fields.

In the sheds the daily rates for girls who distributed leaves to the sewers were $3 and $3.25, though 1 field paid as high as $3.75 and 5 fields as low as $2.50. Sewers, who were older girls and women, were paid 60 cents a bundle, as compared with 45 cents in 1941 and 33⅓ cents in previous years. The daily earnings of an average experienced sewer ranged from $4.25 to $5.00. The younger boys employed as pickers were paid from $3.25 to $3.60 a day, an increase of from $1 to $1.50 over 1941. Older boys and men hauled the picked leaves from the rows and were paid from $3.50 to $4 a day.

A guaranteed minimum of $55 a month plus board and lodging was paid by one company to its colored migrant workers. On all other fields migrants were paid by the day, and their earnings depended on the weather, as tobacco cannot be harvested in the rain or when extremely damp.

Working Conditions

Unsupervised long-distance transportation of large numbers of child workers is still a serious problem, though greater attention to safety in the use of company trucks was evident in 1942. In 1941 overcrowding had been common, Massachusetts workers having to stand on the hour's journey home. Frequently there was no tailboard on the truck, there being only a narrow chain in its place. One 13-year old girl was permanently scarred when the truck in which she was standing sideswiped a tree, resulting in a deep cut over her eye from an overhanging branch. In 1942 it was found that a notable number of growers had leased school busses for the transportation of their woman workers. Trucks owned and used by the grower for transportation of workers are not subject to State regulation.

Living Conditions

In the 25 boarding houses inspected, 18 of which were for colored and 7 for white males, living conditions in 1942, especially for colored workers, did not show material improvement since 1941, although some improvements had been made in cooking, bathing, and toilet facilities. The old frame buildings used as boarding houses for both colored and white workers still presented fire hazards.

In 1942, white workers paid $8 a week for 3 full meals and a room shared with 2 or 3 others. Colored workers slept, without charge, in so-called dormitories, which in some cases accommodated as many as 40. Their food costs were pooled, and ranged from $3.50 to $5 a week per person, depending on the quality and quantity of the food asked for by the workers. Sandwiches comprised the noonday meal. One grower charged $4 a week for board, but on days lost because of rain or sickness the rate was $1 for each day so lost.

A few of the growers were genuinely interested in the living conditions of their colored workers and cooperated with the State department of labor by asking for suggestions; they also encouraged athletics and wholesome recreation; but such growers, the report states, were far too few.

PRODUCTIVITY AND LABOR CONDITIONS IN ANTHRACITE MINES, 1937–41

OUTPUT per man per day of workers in the anthracite mines remained at virtually the same level in the 3 years, 1939 to 1941, inclusive—3.02 net tons in 1939 and 1940 and 3.04 net tons in 1941. The number of employees averaged 88,054 in 1941, a decrease of 3,259 from 1940. The 1941 level of employment was less than one-half the total of 179,679 in 1914 and was only 57 percent of the 154,174 on the rolls in 1917, the year of largest output.

The number employed is based on reports from operators, and includes workers engaged in strip-pit and dredge operations. Men and boys engaged in "bootleg" and illicit coal mining are excluded. This type of mining has increased considerably since its start in the early 30's. Before 1941, production from bootleg mines was excluded from the Bureau of Mines totals.[1] In 1941, however, legitimate operators bought run-of-mine coal from bootleggers and this coal was included in the production totals. To prevent an error in measuring productivity, the bootleg coal bought was deducted from the total production to obtain legitimate-mine production for calculating output per man per day. Although some time was spent in preparing the bootleg coal bought by operators, the time required was very small and does not affect the validity of the productivity figures.

A statistical summary showing production and reflecting the conditions of labor in the anthracite mines from 1937 through 1941 is given in the following table.

Statistical Summary of Anthracite Mining Conditions, 1937–41

Item	1937	1938	1939	1940	1941
Production—net tons	51,856,433	46,099,027	51,487,377	51,484,640	56,368,267
Average number of days worked	189	171	183	186	203
Man-days idle on account of strikes and lockouts	580,462	579,457	241,688	176,432	397,616
Number of men on strike during year	34,346	27,435	27,795	19,464	39,768
Average number of men employed	99,085	96,417	93,138	91,313	88,054
Output per man:					
Per day—net tons	2.77	2.79	3.02	3.02	3.04
Per year—do	523	478	553	562	617
Quantity cut by:					
Machines—do	1,984,512	1,588,407	1,881,884	1,816,483	1,855,422
Stripping—do	5,696,018	5,095,341	5,486,479	6,352,700	7,316,574
Quantity loaded by machine underground—net tons	10,683,837	10,151,669	11,773,833	12,326,000	13,441,987

Working time of mine employees averaged 203 days in 1941, which was far above the average of the preceding 4 years. The increase in

[1] Data are from Pennsylvania Anthracite, by J. A. Corgan and others (preprint from Minerals Yearbook 1941, U. S. Department of the Interior, Bureau of Mines, Washington, 1942).

working time helped to offset the reduction in employees, and the production of 56,368,267 tons during 1941 was over 4.5 million tons in excess of the next highest output of the 1937–41 period (i. e., 51,856,433 tons, recorded in 1937). Mechanization also contributed to the increase in production with a reduced labor force. The stripped product totaled 7,316,574 tons in 1941, or nearly 1 million tons more than in 1940. Machine-loaded anthracite has increased gradually since 1938, with 13,441,987 tons mechanically loaded underground in 1941. Machine cutting has not shown a significant change; 1,855,422 tons were cut by machine in 1941, as compared with 1,984,512 tons in 1937.

No major labor disputes occurred in 1941. There were 397,616 days of idleness owing to strikes and lockouts, as compared with 176,432 in the preceding year and over one-half million in 2 of the 4 preceding years. The number of men involved in labor disputes—39,768—was greater than in any of the 4 preceding years, however. Several thousand miners in the Schuylkill and Lehigh regions were away from work for approximately a month in 1941 because of dissatisfaction concerning union dues and assessments. The time loss from strikes averaged 1.9 days per man in 1940 and 4.5 days in 1941.

In 1941 a large part of the anthracite industry continued to operate under the voluntary production-control program which was inaugurated in January 1940 by the State of Pennsylvania, the United Mine Workers of America, and producers representing over 90 percent of the total anthracite production. The report here reviewed states that the plan has brought production into closer alinement with current demand and has aided in solving the problem of illicit coal mining.

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Social Insurance

SOCIAL-INSURANCE PROPOSALS IN GREAT BRITAIN—BEVERIDGE REPORT

A COMPREHENSIVE plan of social insurance providing benefits for all ages and various contingencies was presented for the consideration of the British Government by an interdepartmental committee, with Sir William Beveridge as chairman. That committee was appointed in June 1941 to make a comprehensive survey of existing schemes of social insurance and allied services, with a view to making recommendations to the Committee on Reconstruction Problems. Although representatives of the governmental departments concerned with the social services assisted in the survey as advisers and assessors, Sir William Beveridge had the sole responsibility for the views and recommendations presented in the report.[1]

The plan provides for uniform rates of benefit for unemployment, disability, retirement, and vocational-rehabilitation training. Certain other features—maternity benefits, medical care, funeral expenses, etc.—are also incorporated in the plan, and a single weekly contribution for benefits is provided for.

Experience With Social-Insurance and Assistance Schemes in Great Britain

Social-insurance and assistance schemes in Great Britain (aside from the Poor Law, which dates from the time of Queen Elizabeth) have developed piecemeal during the past 45 years, starting with the Workmen's Compensation Act of 1897. That act, which applied at first to a limited number of occupations, was given general application in 1906. Compulsory health insurance was put into effect in 1912. In the same year, insurance against unemployment began for a few industries, being made general in 1920. Noncontributory pensions, subject to a means test at the age of 70, date from 1908, but in 1925 a law establishing a system of contributory old-age, widows' and orphans' pensions was passed. The unemployment-insurance law was reenacted in 1934, and at the same time a new national service of unemployment assistance was created. The local machinery for relief of destitution has been altered by the new treatment of unemployment and in many other ways, including the transfer of the responsibilities of the boards of guardians to local authorities. From time to time special provision has also been made for different types of disability, such as blindness. Other measures which have developed with the growth of social insurance are provision for medical

[1] Great Britain, Ministry of Labor Gazette, December 1942.

treatment, child-welfare services, and voluntary insurance by the insured classes against various contingencies, through private agencies.

The various social services which have been developed through the years have grown up separately, with little relation to other services of the same nature, so that it was felt that the whole field of social insurance should be surveyed with a view to closer coordination of the services, more economical administration, and provision for many persons now excluded by the different systems. The survey revealed, it is said, that "provision for most of the many varieties of need through interruption of earnings and other causes that may arise in modern industrial communities has already been made in Britain on a scale not surpassed and hardly rivaled in any other country of the world. In one respect only of the first importance, namely limitation of medical service, both in the range of treatment which is provided as of right and in respect of the classes of persons for whom it is provided, does Britain's achievement fall seriously short of what has been accomplished elsewhere; it falls short also in its provision for cash benefit for maternity and funerals and through the defects of its system for workmen's compensation." The limitation of compulsory insurance to persons under contract of service and below a certain remuneration if engaged on nonmanual work is regarded as a serious fault of the existing systems, since the remuneration limit for nonmanual workers is arbitrary and takes no account of family responsibility. The differences between the benefits payable in cases of sickness and those of unemployment are cited as an example of the failure of the systems to recognize the fact that there is no real difference between the income needs of persons who are sick and those who are unemployed. An unemployed adult insured man, for example, with a wife and two children, receives 38s. a week, but if while unemployed he becomes sick and not available for work his insurance benefit falls to 18s. Other examples of the inconsistencies of the systems are given, which it is said are the natural result of the manner in which social security has grown in Britain. It is evident, therefore, the report states, that, by closer coordination, the social services could be made not only more beneficial and more intelligible to those whom they serve but also more economical in their administration.

Basis and Objectives of Beveridge Plan

Three guiding principles were followed in formulating the recommendations. The first principle was that while past experience should be used in full, any sectional interests which had been established should not be allowed to restrict proposals for the future. "A revolutionary moment in the world's history is a time for revolutions, not for patching." The second principle was that organization of social insurance is only one phase of a broad plan for social progress. By providing income security, it is an attack upon want, but there remain on the road of reconstruction four other obstacles besides want—namely, disease, ignorance, squalor, and idleness. The third principle was that there must be cooperation between the State and the individual, with the State offering security in return for service and contribution. However, it is stated, "the State in organizing

security should not stifle incentive, opportunity, responsibility; in establishing a national minimum, it should leave room for encouragement for voluntary action by each individual to provide more than that minimum for himself and his family."

The plan for social security presented in the Beveridge report points the way to freedom from want. Social surveys made in a number of principal towns in the years just preceding the present war show that from three-quarters to five-sixths of all the want shown was due to interruption or loss of earning power, while practically the whole of the remaining one-sixth to one-quarter was the result of failure to relate income during earning to the size of the family. From these facts it is concluded that the abolition of want requires a double redistribution of income, through social insurance and by family needs. To achieve this purpose provision against interruption and loss of earning can be secured through improvement of State insurance, and through adjustment of incomes (in periods of earning as well as in interruption of earning) to family needs, i. e., by allowances for children. By such a double redistribution of income as this, want, as defined in the social surveys, could have been abolished in Britain, the report states, before the present war.

Summary of Main Provisions of Plan

The plan covers all citizens without regard to income, but gives consideration to their different ways of life.

It is pointed out that in relation to social security, the population falls into six main classes, as follows:

Class I. Employees, that is, persons whose normal occupation is employment under contract of service.

Class II. Others gainfully occupied, including employers, traders, and independent workers of all kinds.

Class III. Housewives, that is, married women of working age.

Class IV. Others of working age not gainfully occupied.

Class V. Persons below working age.

Class VI. Retired persons, above working age.

Retired persons will receive retirement pensions. Those below working age will receive children's allowances, which will be paid from the National Exchequer, for all children if the responsible parent is in receipt of insurance benefit or pension and for all children except one in other cases. The four other classes will be insured for security (i. e., assured the maintenance of a certain income) appropriate to their circumstances. For all classes, comprehensive medical treatment will be provided, as well as rehabilitation and funeral expenses.

CONTRIBUTIONS

Every person of working age will contribute in his appropriate class, making a single weekly contribution payable by affixing a stamp on a single insurance document. For persons in Class I the employer also will contribute; in this case the employer will affix the insurance stamp and deduct the employee's share from his wages or salary. The amount of contribution will differ from one class to another, according to age and the benefits provided. In the case of a married woman the contributions will be paid by the husband.

Although it was impossible to determine the actual rates of benefits and contributions which would be effective after the scheme comes into operation, owing to various changes which might take place in prices, the value of money, etc., provisional rates were suggested. The most important of the suggested rates of contribution are a contribution of 4s. 3d. a week for an employed adult man and of 3s. 3d. a week for the employer.

BENEFITS

Kind of benefit.—Subject to simple contribution conditions, every person in Class I (employees) will receive benefit for unemployment and disability, a pension on retirement, medical treatment, and funeral expenses. Self-employed and independent workers (Class II) will receive all these except unemployment benefit and disability benefit during the first 13 weeks of disability. Persons in Class IV will receive pension, medical care, and funeral expenses.

As a substitute for unemployment benefit, training benefit will be available to persons in Classes II to VI, to assist them to find new livelihoods if their present ones fail.

Maternity grant, widowhood and separation benefit, and qualification for retirement pensions accrue to all housewives by virtue of their husbands' contributions. In addition to maternity grant, housewives who take paid work will receive maternity benefit for 13 weeks to enable them to give up working before and after childbirth.

Under the plan, permanent pensions will no longer be granted to widows of working age without dependent children. All widows, however, will receive a temporary benefit at a higher rate than the unemployment or disability benefit, and this is to be followed by training benefit where necessary. For widows having the care of dependent children, there will be guardian benefit, in addition to the children's allowances, adequate for subsistence without other means. The position of widows now on pension will be safeguarded.

For the limited number of cases of need not covered by social insurance, national assistance subject to a uniform means test will be available.

Medical treatment covering all requirements will be provided for all citizens by a national health service organized under the health departments, and post-medical rehabilitation treatment will be provided for all persons capable of profiting by it.

Rate and period of benefit.—Irrespective of previous earnings, the plan provides for a uniform allowance for unemployment, disability, basic retirement pension (after a transition period), and training. This rate will be large enough for subsistence in all normal cases.

There will be a joint rate for a man and a wife who is not gainfully occupied. Where there is no wife, or where she is gainfully occupied, there will be a lower single rate; where there is no wife but there is a dependent above the age for children's allowance, there will be a dependent's allowance. Maternity benefit for housewives who work also for gain will be at a higher rate than the single rate in unemployment or disability, but their unemployment and disability benefit will be at a lower rate; there are special rates also for widowhood. With these exceptions, all rates of benefit will be the same for men and for women.

Disability resulting from industrial accident or disease will be treated like all other disability for the first 13 weeks. If disability continues

thereafter, disability benefit at a flat rate will be replaced by an industrial pension related to the earnings of the individual, subject to a minimum and a maximum.

Unemployment benefit will be paid at the same rate, without a means test, as long as the person is unemployed, but the beneficiary will normally be expected to attend a work or training center after a certain period. Disability benefit will continue at the same rate, without a means test, as long as the disability lasts or until it is replaced by industrial pension; however, the injured person must accept suitable medical treatment or vocational training.

Pensions other than industrial pensions are to be paid only on retirement from work. They may be claimed at any time after the minimum age of retirement—65 years for men and 60 for women. The rate of benefit will be increased above the basic amount if retirement is postponed. Contributory pensions as of right will be raised to the full basic rate gradually, during a transition period of 20 years in which adequate pensions according to need will be paid to all persons requiring them. The rights of existing pensioners will be safeguarded.

The most important of the provisional rates of benefit suggested was that of 40s. a week for man and wife in unemployment and disability, and, after the transition period, as retirement pension, in addition to allowances for children at an average of 8s. per capita per week. This would mean a total benefit of 56s. for a man and wife (if the wife is not working), with two children, in case of unemployment and disability, without a means test, as long as the unemployment or disability lasts; the present rate is 33s. for unemployment and 15s. or 7s. 6d. for sickness. A maternity benefit of 36s. a week for 13 weeks for gainfully occupied married women would be paid, in addition to the maternity grant of £4 for all married women. Similar increases would be made in the benefits for widowhood, and there would be new benefits for funerals, marriage, and other needs, as well as comprehensive home and institutional medical treatment for all citizens and their dependents.

ADMINISTRATION OF PLAN

A Ministry of Social Security will be established, responsible for social insurance, national assistance, and encouragement and supervision of voluntary insurance, and will take over, as far as is necessary for these purposes, the present work of other Government departments and of local authorities in these fields.

The benefits will be paid from a social-insurance fund formed by contributions from the insured persons, from their employers (if any), and from the State.

The total security budget on the basis of the provisional rates, it is estimated, would amount to £697,000,000 in 1945, the first year of the system, and to £858,000,000 in 1965, or 20 years later.

Women in Industry

EMPLOYMENT OF WOMEN IN SHIPYARDS, 1942 [1]

Summary

THE manpower shortage is causing shipyards to hire and train an increasing number of women for jobs customarily held by men. In November 1942, 2.3 percent of the wage earners employed in commercial shipyards were women. Although this is a relatively small proportion as compared with some other war industries, notably aircraft, the number of women employed in shipyards more than trebled from September to November.

Less than half of the reporting commercial shipbuilding companies employed woman wage earners in November. In these yards the proportion of women varied from less than one-half of 1 percent to 12 percent of the total wage earners. The Bureau of Labor Statistics estimates that by the end of 1943 as many as 15 percent of the wage earners in shipyards will be women.

Women were most commonly employed on various types of welding. They also operated a variety of machines, and in some yards were employed as expediters, warehouse workers, and truck drivers.

Scope and Method of Study

Each month between 200 and 300 shipbuilding and ship-repair companies report to the Bureau of Labor Statistics the number of woman wage earners employed. In November 1942, at the request of the Navy Department, the Bureau of Labor Statistics made a special inquiry regarding the occupations in which women were employed in 16 of the larger shipbuilding companies, all of which employed 100 or more women in their yards. In addition to requesting information on occupations, the Bureau asked for comments on the efficiency of women and the current methods of recruiting and training them, together with suggestions for further assistance by the Federal Government in recruiting and training. Information was submitted by 13 companies.

Proportion of Women in Individual Yards

Although the tendency to employ women in production jobs in shipyards was growing, less than half of the 201 commercial shipyards covered in the accompanying statement reported woman wage earners in November 1942. However, these yards employed over three-fourths of all the wage earners. In over half of the yards where

[1] Prepared in the Division of Construction and Public Employment by Eleanor V. Kennedy.

a start had been made toward employing women they formed less than 2 percent of the total workers in November.

Women as percent of total wage earners:	*Yards reporting*	*Percent of total wage earners*
No women	108	23. 6
0.1 and under 2 percent	50	36. 0
2 and under 4 percent	28	21. 1
4 and under 6 percent	7	6. 8
6 and under 8 percent	4	1. 7
8 and under 10 percent	2	5. 7
10 and under 12 percent	1	2. 8
12 and under 14 percent	1	2. 3
Total	201	100. 0

In the 13 yards furnishing detailed information on the occupations in which they were using women, the proportions of women ranged from 1.4 to 12.0 percent of total wage earners in November.

Occupations of Women

Table 1 contains a complete list of occupations in which women were employed in the 13 yards.

TABLE 1.—*Occupations of Woman Wage Earners in 13 Selected Commercial Shipyards, November 1942*

Occupation	Number of yards reporting	Occupation	Number of yards reporting
Assemblers	4	Material clerks	4
Blacksmiths' helpers	3	Mechanics' helpers	1
Boilermakers' helpers	4	Painters	1
Burners	9	Painters' helpers	2
Burners' helpers	1	Paint cleaners	1
Chauffeurs	1	Photographers	1
Chippers	1	Pipe coverers	2
Crane operators	1	Pipefitters' helpers	3
Draftsmen	1	Rod distributors	3
Electricians	4	Sheet-metal workers	9
Electricians' helpers	7	Shipfitters	2
Expediters	4	Shipfitters' helpers	7
Helpers (trade not specified)	1	Shipwrights' helpers	1
Janitors	3	Silver brazers	1
Laborers	6	Steamfitters' helpers	3
Lay-out workers	3	Steel checkers	3
Loftsmens' helpers	1	Tank scalers	3
Machine operators:		Tapers	1
Acetylene cutting machines	1	Tool checkers	1
Bending machines	2	Tracers	1
Buffers	3	Truck drivers	5
Drill presses	10	Warehouse workers	6
Electric saws	3	Welders (by type and place):	
Engraving machines	1	Tack	9
Grinders	8	Horizontal	10
Hand binding machines	1	Vertical	10
Hand punches	1	Overhead	8
Key machines	1	Off ways	13
Lathes	5	On ways	6
Light sheet metal	3	Topside	6
Marking machines	2	Below deck	4
Milling machines	1	Not specified	1
Pipe cutters	1	Welding checkers	3
Screw machines	2		
Shapers	2		
Threaders	1		

All 13 yards employed women for various types of welding. Practically all of them specifically mentioned that women were doing tack welding, and most of them reported using women for horizontal,

vertical, and overhead welding. Women were employed mainly in welding hull sections fabricated off the ways, but in about half of the yards they also worked on the ways, welding plates to hull sections. Most of the yards using women on the ways reported that they worked both topside and below deck.

All yards but 1 reported that they had women operating a variety of machines, such as drill presses, grinders, lathes, and other machines. The majority of yards had woman shipfitters and shipfitters' helpers, but in 3 yards most of the latter were being used as steel checkers. It was common to use women in the electric and sheet-metal shops, and a number of yards reported employing women as expediters, warehouse workers, truck drivers, and laborers. One Gulf Coast company had woman apprentices in the electric shop, winding coils for repaired motors; winding fixtures, appliances, fittings, etc.; repairing portable lights; welding whips; and assembling cable hangers.

At a large shipyard on the Pacific Coast, where women held about 6 percent of the production jobs, almost two-thirds of them were welders, and over 59 percent of the yard's in-school trainees were women, as indicated in the statement below.

	Percent of total woman wage earners	*Women as percent of total wage earners*
Burners	4. 6	4. 9
Crane operators	. 1	. 2
Drillers	. 1	. 5
Electricians	. 6	1. 1
Expediters, materials	. 7	1. 7
Helpers (all crafts)	18. 5	5. 7
Warehousemen	3. 0	12. 0
Welders, productive	66. 1	18. 0
Welders (in-school trainees)	6. 3	59. 2
All occupations	100. 0	5. 8

Recruitment of Women

Woman shipyard workers were usually recruited through the United States Employment Service, company employment offices, unions, and trade schools (table 2). In addition to obtaining workers

TABLE 2.—*Methods Used in Recruiting Women in Selected Commercial Shipyards, November 1942*

Shipyard	United States Employment Service	Company employment office	Trade schools	Union	Newspaper advertisement	Other
Shipyard A	X	X				
Shipyard B	X					
Shipyard C		X				
Shipyard D	X				X	
Shipyard E		X				
Shipyard F	X					
Shipyard G	X	X	X			
Shipyard H	X	X	X	X		
Shipyard J	X	X	X	X		
Shipyard K	X	X	X	X		
Shipyard L				X		X
Shipyard M	X			X		
Shipyard N	X			X		

through the United States Employment Service, one company used newspaper advertisements. Another company depended on the union to furnish workers and also urged husbands to bring their wives to work at the yard.

Training Programs

The Federal Government was training women to be shipyard workers in national-defense training schools sponsored by various agencies of the War Manpower Commission. Shipbuilding companies also conducted their own training courses, besides training workers on the job. Most of the yards reported a combination of the two.

One Atlantic Coast shipyard which sent its employees to training schools for prejob training reported that woman machinists received 144 hours' training (85 percent practical and 15 percent classroom work) and welders received from 220 to 270 hours' training (5 percent classroom work). All other women were trained on the job, except for approximately 1 hour per week consisting of educational movies, safety talks, and trade theory.

In three shipyards, women who were taken in as students received approximately 85 hours of training, depending upon individual aptitude. Those who were able to pass a trade test after 40 hours of burning or 60 hours of welding in a national-defense training school went into the yards as burner or welder trainees. Shipfitter trainees and sheet-metal trainees were given on-the-job training by journeymen and were required to take supplementary training at the national-defense schools.

Most of the woman employees of one large Pacific Coast shipyard came from preemployment schools. Until recently the normal period of training before employment consisted of 60 hours, but because of the increased demand for additional labor the period had been reduced to 30 hours.

The training program at another yard in the same region was restricted to welding. After an average of 6 days in the welding school, trainees were put on the job where their training continued until they could qualify as journeyman welders, usually after 1 month. Another yard's program consisted of approximately 60 hours' instruction and production training in flat position welding and 36 hours' addit onal training for vertical and overhead welding.

Three shipyards on the Atlantic Coast trained women only on the job. A west coast yard reported that at least 75 percent of the training was on the job, consisting of from 50 to 200 hours of training, depending on the type of work.

Efficiency of Women

The yards were practically unanimous in reporting that on the whole the work done by women was considered equal to that of men. The only yard which reported that women were less satisfactory than men also pointed out that, after 3 or 4 weeks in the yards, the women did not work so regularly as the men.

The shipyard which employed the largest number of woman wage earners during the midweek of November reported satisfactory performance, especially where no great physical effort was entailed.

In one eastern yard the foremen were pleased with the work of women and found that often women were quicker to learn than the men available. Machine operators and tackers were equal to men with comparable experience; in the welding jobs women had not been working long enough for a comparison to be made. As burners, women were believed to be inferior to men, but they kept at their jobs and were anxious to learn. On the other hand, the company emphasized a greater susceptibility of women to industrial poisons, such as were associated with galvanizing processes, and pointed out that productivity might be affected by this.

A second yard reported that although there had not been sufficient experience to permit effective comparison of the productivity of men and women, within the comparable limits of the workers' experience the results appeared to be equal. This yard also observed that in many cases women exhibited a greater interest than did the men and were more anxious to know "why" and "how."

Three yards considered the work of woman welders comparable with that of men. Because shipbuilding is a heavy industry and a heavy type of sheet metal is used, women were not very satisfactory in the sheet-metal department. As drill-press operators and grinders, women did commendable work, but were unable to handle heavy material without assistance. As trained shipfitters' helpers they were working out very well, although the majority in this occupation were used as steel checkers.

Another yard reported that, as a whole, women compared favorably with men of equal experience and training. Women were satisfactory production workers at trades for which they were qualified; they were relatively less useful for work in difficult, unusual, or uncomfortable positions.

Woman welders of one company were good primarily in slab and tack welding, although less productive than men. In the machine shop they were satisfactory in specialized work, such as small bar turret-lathe work, small drill-press work, and filing and polishing. The electricians' helpers, when trained on the job in this capacity, were equal to, and in some cases, superior to men.

Future Need for Women in Shipyards

Five shipyards estimated that they could utilize women in production work up to about 20 to 25 percent of their total labor force.

Three yards stated that the number of women they would employ depended upon (1) the number of men now employed in nonwar work who could be released for war work, and (2) the consideration which the Selective Service System would give shipyard workers.

One company reported that its need would be filled with the women then employed or in training.

Suggestions for Further Assistance by Federal Government

Through the United States Employment Service and national defense training schools, the Federal Government assisted shipyards in recruiting and training women. Three yards expressed the opinion that the Government could also help by making available to them information as to the whereabouts of potentially employable women in the area. They added that, basic to the employment of married

women, however, there was an immediate need for a constructive child-care program.

A fourth company believed that the Government could facilitate the recruitment and training of women for the shipbuilding industry most efficiently by subsidizing trainees prior to actual employment in the yard.

EMPLOYMENT OF WOMEN IN NEW YORK STATE FACTORIES, 1942

WOMEN were holding a higher percentage of the factory jobs in the State of New York in October 1942, than before the attack on Pearl Harbor, the percentage being 31.9 as compared with 27.8 in January 1942. Approximately three times as many women as men were added to the factory pay rolls during that period. This appears from a study of factory employment in New York, by sex, made by the Division of Statistics and Information of the New York State Department of Labor (summarized in the Industrial Bulletin for November 1942), based on the regular reports on employment made by representative manufacturers each month.

In nearly all industries there has been a shift from men to women in employment of workers. The war industries, with their great demand for new workers, have had the most striking increase in the employment of women. In January 1942 women held only 8.6 percent of the factory jobs in the metals and machinery industries, while in October 1942 the percentage had increased to 15.6. An increase of 22 percent occurred in total employment, but this represented an addition of 123 percent more women and only 13 percent more men.

Similar changes occurred in the miscellaneous manufacturing industries. In the professional and scientific instruments, and the photographic- and optical-goods industries (included in this group), the number of men increased 16 percent and the number of women 76 percent between January and October, raising the percentage of women among the workers from 19.7 to 27.1. This group of industries has been given important Government contracts. Employment was being reduced in most of the other miscellaneous industries, but in nearly all of them the percentage of women was higher in October than in January.

In the food and tobacco industries, part of the gain of 18 percent in total employment—9 percent more men and 41 percent more women—was undoubtedly due to seasonal factors. However, the fact that the percentage of women increased in all the individual industries in the group except beverages indicates that the shift from men to women was not dependent on seasonal factors.

The apparel industries, which normally employ the largest number and highest percentage of women, had the smallest increase in the proportion of women. In this industry group the percentage of all jobs held by women increased only from 61.1 in January to 61.5 in October, and in most of the different branches of the industry the variation was slight.

All of the above major industry groups had increased their total employment, hiring both men and women. In all of them, also, more women than men had been hired.

In the stone, clay, and glass industry group the increase in total employment was small, only 3.2 percent. The number of men actually decreased 7.8 percent, but this was more than offset by an increase of 57.3 percent in the number of women employed.

Of the industries reporting decreases in total employment, those manufacturing textile-mill products were the only group employing fewer women in October than in January. The decrease of 1.9 percent in number of women employed was small, however, when compared with the decrease of 13.6 percent in the number of men. Fifty percent of the total employment in October was composed of women, as compared with 46.9 percent in January.

All the other main industry groups had fewer employees in October than in January, but had added more women.

The changes in employment in the various industries are shown in the accompanying table.

Employment of Wage Earners, by Sex, in Representative New York State Factories, January and October 1942 [1]

Industry	Percent of women in total employment		Percent of change in employment, January 1942 to October 1942		
	January 1942	October 1942	Total	Men	Women
Total, manufacturing industries	27.8	31.9	+9.5	+3.4	+25.3
Food and tobacco products	28.8	34.4	+17.9	+8.7	+40.8
Textile-mill products	46.9	50.0	−8.1	−13.6	−1.9
Apparel and other finished-fabric products	61.1	61.5	+7.2	+6.3	+7.8
Furniture and lumber products	12.7	18.0	−11.8	−17.2	+25.1
Paper and allied products	27.5	32.1	−13.7	−19.3	+.9
Printing, publishing, and allied industries	20.1	24.2	−2.6	−7.7	+17.5
Chemicals and petroleum products	17.6	22.1	−5.8	−11.0	+18.6
Rubber products	21.9	43.5	−7.8	−33.3	+83.5
Leather products	40.9	46.0	−.4	−8.9	+11.8
Stone, clay, and glass	16.9	25.7	+3.2	−7.8	+57.3
Metals and machinery	8.6	15.6	+22.4	+12.9	+122.7
Miscellaneous manufacturing industries	29.9	33.8	+13.0	+6.7	+27.8

[1] Weighted to represent about 50 percent of all wage earners in New York State factories.

Industrial Relations

TYPES OF UNION RECOGNITION IN EFFECT IN JANUARY 1943 [1]

Extent of Collective Bargaining

ABOUT 13 million wage and salaried workers were covered by collective-bargaining relationships at the beginning of 1943. This represents more than 40 percent of all persons engaged in occupations where it could be reasonably assumed that union agreements might be in effect.[2]

The extent of collective bargaining varies greatly among industries and occupations. About 80 percent of all transportation, public utility, and construction workers, 75 percent of all persons employed in mineral extraction, and approximately 60 percent of the wage earners in manufacturing are covered by union agreements. In contrast, about 5 percent of those in wholesale and retail trade and in the clerical, professional, and personal-service occupations are working under collective-bargaining conditions. Since the number employed in these latter professions and trades represents a third of the total who might be under agreement, the slight amount of collective bargaining among them brings the general coverage down to 40 percent.

Closed and Union Shop

Approximately 6 million workers, or over 45 percent of all those under union agreement, are covered by closed- or union-shop provisions. Almost 3 million of these are in manufacturing and over 1½ million in building construction. About half a million coal miners and over 700,000 public-utility and transportation workers are covered by either closed- or union-shop agreements; these are confined almost entirely to motor and electric transportation, as there are no such agreements in the railroad industry.

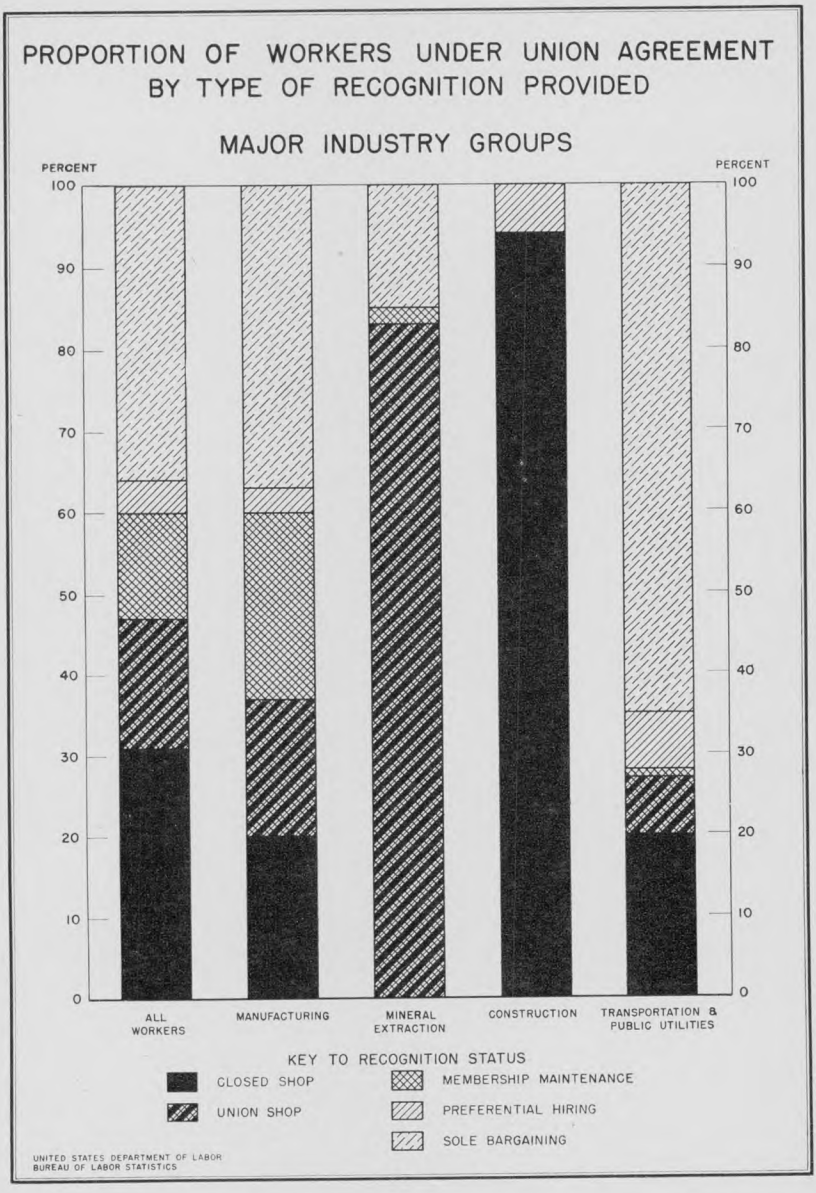
A closed or union shop is established when an agreement requires union membership by all employees, as a condition of employment in the plant or in the occupations covered by the agreement. In agreements establishing a closed shop for the first time, the provision may allow a designated number of days, during which time all nonmembers must join the union as a condition of continued employment.

The term "closed shop" has come to be rather narrowly defined as requiring not only complete union membership by all employees cov-

[1] Prepared in the Bureau's Industrial Relations Division.

[2] There are about 31 million persons employed in occupations where unions are actively engaged in efforts to obtain written agreements. This includes all the gainfully occupied except the self-employed, proprietors and supervisors, agricultural laborers on farms where fewer than 6 are employed, sharecroppers, domestic servants, military, elected officials, school teachers, and Federal civil service employees. Although teachers' and civil service employees' unions engage in what approximates collective bargaining, they usually do not negotiate the customary bilateral agreement.

ered by the agreement, but also that all new employees must be hired through the union or must be members at the time of employment.



Therefore, a frequent counterpart of closed-shop provisions is a provision to grant the union some control over hiring.

In contrast to the closed shop, the term "union shop" refers to the situation in which the employer has complete control over the hiring

of new employees, and such employees need not be union members at the time of hiring. All employees must join the union as a condition of continued employment, usually after a probationary period ranging from a few days to several months. Such a probationary period affords the employer an opportunity to test the qualifications of new workers; these new workers may be discharged or laid off without recourse to appeal through the union.

In actual practice, the distinction between a closed and a union shop is sometimes more theoretical than real. For example, if a union having a closed-shop contract does not have prohibitive initiation fees and is willing to accept as members all persons whom the employer wishes to hire, the situation is not materially different from that existing under a union-shop provision. The same is true if all the qualified workers in a particular trade in the community already belong to the union and if the employer is permitted to make free selection from among them—subject, of course, to the seniority rules in his own agreement. On the other hand, if a union-shop agreement also provides that members be given preference in hiring, the situation approximates a closed shop.

Construction workers, truck drivers and street-railway employees are commonly covered by closed-shop agreements, while the coal-mine agreements provide for the union shop. Among the manufacturing industries, the number of workers covered by closed-shop agreements is greatest in shipbuilding, manufacture of women's clothing, printing and publishing, men's clothing industry, bakeries, and breweries. Union-shop conditions also cover a large number of workers in the manufacture of men's clothing and in shipbuilding. Many workers in the industries manufacturing iron and steel products, aircraft, and paper and allied products are covered by union-shop agreements.

Maintenance-of-Membership Clauses

About 2 million workers, or more than 15 percent of all workers under agreement are now covered by clauses which provide that all employees who are members of the union at the time the agreement was signed, or who later join the union, must retain their membership for the duration of the agreement. The large majority of the workers now covered by such provisions are in the basic iron and steel, electrical equipment, shipbuilding, aircraft, rubber products, farm equipment, and paper industries.

Maintenance-of-membership agreements are spreading rapidly at the present time. While provisions of the same general character have been included in agreements in the past, they have become much more common during recent months, largely as a result of orders of the National War Labor Board. The Board has granted maintenance of membership usually as a compromise of the union's demand for a closed or union shop. It has based its actions in granting maintenance of membership on the necessity for stabilizing labor relations for the duration of the war and on the desire to encourage responsible union leadership, as well as to offset, in part, the limitations on normal union activities which have been imposed during the war emergency.

Most of the Board's maintenance-of-membership orders provide a 15-day "escape period" during which any present members may resign from the union if they desire. Many of the maintenance-of-member-

ship awards granted by the Board also provide for the check-off of union dues (see p. 288).

Preferential Union Shop

About half a million workers, or less than 5 percent of all persons covered by agreement, are employed under preferential-union-shop conditions. While a varying number of agreements throughout all industries provide that preference in hiring be given to union members, such provisions are most common in the maritime industry, including longshoring.

There are many types of preferential-shop clauses in union agreements. In most of them, the preference is limited to hiring and lay-off; in others, preference is broadened to include promotion and even seniority rights. It is possible, of course, for preference to be granted covering certain aspects of employment (such as promotion and lay-off) without granting hiring preference to union members, but this arrangement is rare. Although there is no compulsion upon employees to join the union or remain in good standing, the effect of preferential-shop agreements is to encourage continued union membership by placing a definite handicap on nonmembers.

Union as Sole Bargaining Agent

Approximately 4½ million workers—35 percent of all workers under agreement—are covered by provisions which grant the union sole bargaining rights but no other form of union security. Under such an agreement the employer is prevented from dealing with any rival union or group of employees, and the nonunion as well as the union employees work under the terms laid down in the agreement.

Unlike the maintenance-of-membership and preferential provisions, this limited form of recognition does not protect the union against membership losses among present employees, since there is no penalty imposed on those who decide to drop their membership or refuse to pay their dues. Unlike the closed- and union-shop provisions, the right of sole bargaining alone does not provide security against both resignations and losses occasioned by changes in plant personnel.

The incidence of such insecurity is most acute where there is high labor turn-over, such as exists in most war plants today. As union members quit or leave for military service, their places may be filled with nonunion workers. Likewise, additions to the pay roll at the present time are likely to be persons who have never belonged to labor unions and who know very little about them. Under such circumstances, a union must engage in continuous and vigorous organizing campaigns in order to maintain its majority representation.

Union Recognition for Members Only

Less than 1 percent of all workers under agreement are covered by provisions which recognize the union as the bargaining agency for its members only. Such limited recognition would exist only in a situation in which a minority of the employees belong to the union, or in an intrastate industry in a State having no labor relations act, or

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where, although the union has a majority, it has not exercised its rights under the National Labor Relations Act (or similar State labor relations acts) to secure exclusive bargaining rights.

A clause providing recognition for members only, of course, does not eliminate the possibility of competition within a plant between rival unions or between a labor union and an inside employee-association plan.

Check-Off of Dues

Approximately 2½ million workers—about one-fifth of all under agreement—are covered by some form of check-off arrangement. The check-off prevails in coal mining and the basic iron and steel industries, and is fairly common in the aircraft, nonferrous-metal, hosiery, silk and rayon, and cotton-textile agreements.

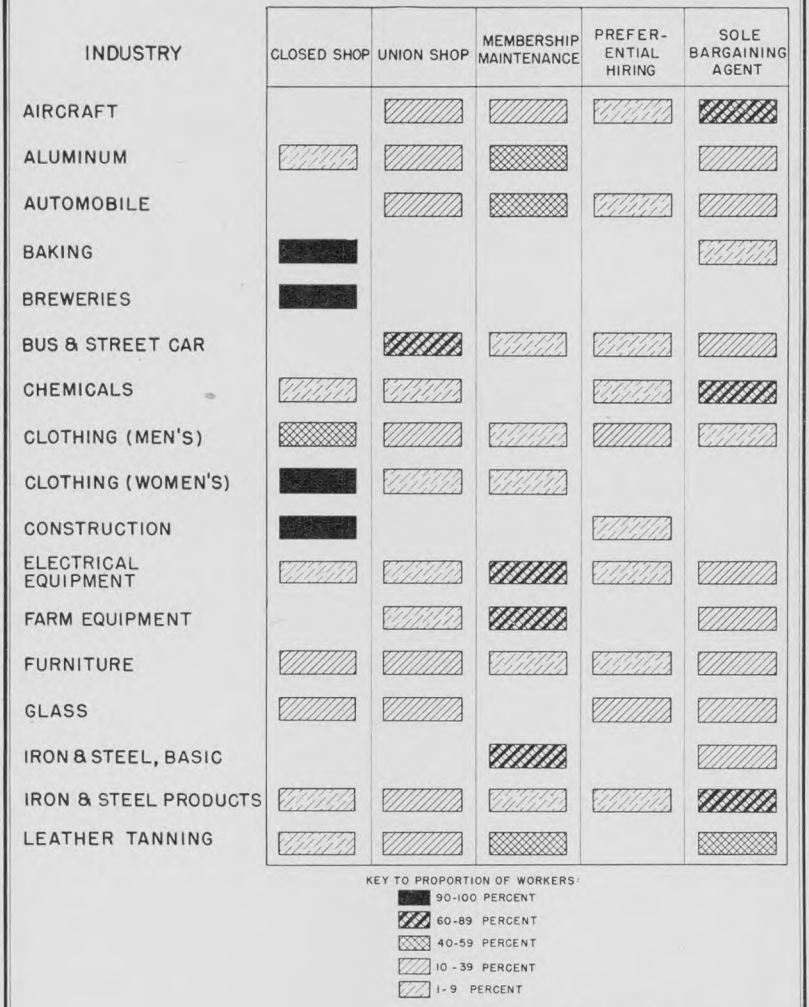
The check-off is a method of deducting from the employees' pay, at regular intervals, the amounts due the union for dues, fines, initiation fees, or assessments. The check-off provision has no inherent connection with the type of recognition accorded. As a rule, however, unions which are well-enough established to obtain a check-off system are likely to have a status beyond that of mere recognition as bargaining agent.

The check-off provision may establish a general check-off for all employees where a closed shop is in force or, otherwise, for every union member. A more limited type of check-off provision, however, establishes the deduction only for those employees who file individual written authorization with the employer. The agreement may provide that the authorization holds until withdrawn by the employee or until the expiration date of the agreement. In a number of cases the National War Labor Board has ordered the general check-off for all union employees; other awards provide for individual voluntary authorization.

At present about 1½ million workers are covered by agreements which provide for the general or automatic check-off, while approximately 1 million work under agreements which provide for check-off upon individual authorization.

CHART 2

PROPORTION OF WORKERS UNDER UNION AGREEMENT BY TYPE OF RECOGNITION IN SELECTED INDUSTRIES

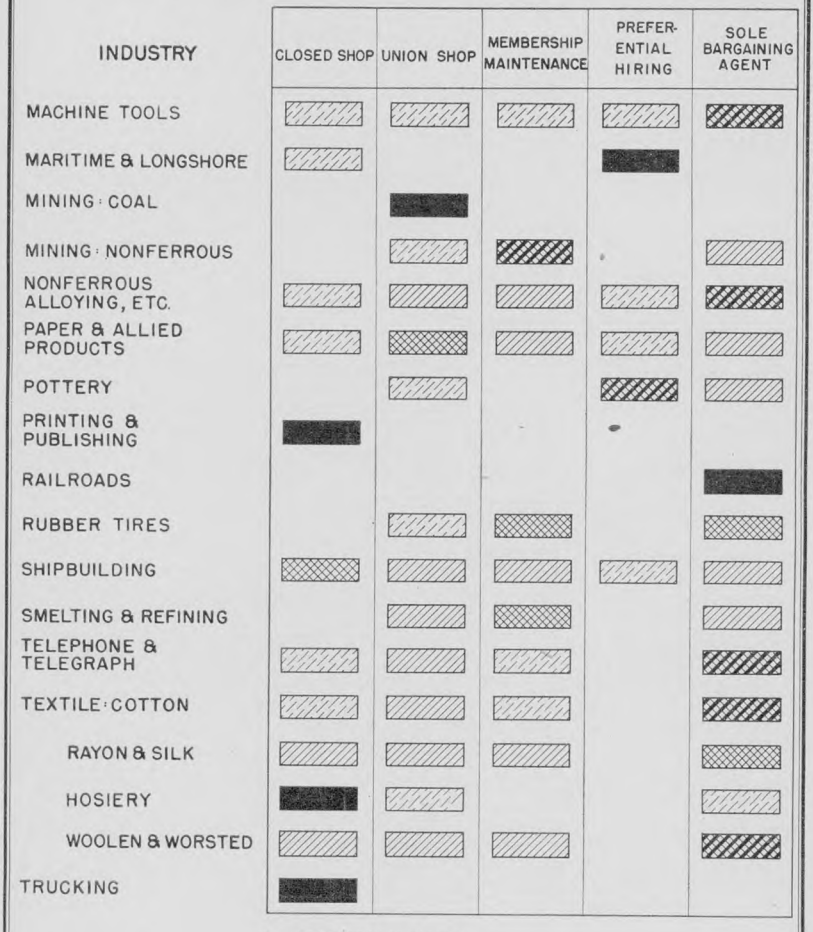


ATTENTION IS CALLED TO THE FACT THAT THIS LISTING DOES NOT REFER TO THE PROPORTION OF ALL WORKERS EMPLOYED IN THESE INDUSTRIES BUT RATHER TO THE PROPORTION WORKING UNDER COLLECTIVE BARGAINING PROCEDURES. THE EXTENT OF UNION AGREEMENT COVERAGE IN THESE INDUSTRIES VARIES BETWEEN ABOUT 15 PERCENT TO PRACTICALLY 100 PERCENT.

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

CHART 2 CON'T.

PROPORTION OF WORKERS UNDER UNION AGREEMENT BY TYPE OF RECOGNITION IN SELECTED INDUSTRIES



NATIONAL WAR LABOR BOARD CASES, TO NOVEMBER 30, 1942

NEARLY 400 cases, involving over 2,000,000 workers, were closed by the National War Labor Board between January 12, 1942, when the Board was created by Executive order, and November 30, 1942. In all, 2,119 cases, involving approximately 3,800,000 persons, were received for settlement in this period. The following statistical summary, issued by the Board, shows the cases received and cases closed during the 10½-month period.

Cases Received and Cases Closed by National War Labor Board, January 13–November 30, 1942

Item	Cases received			Cases closed		
	Total	Prior to November	During November	Total	Prior to November	During November
All types of cases	2,119	1,420	699	396	356	40
Disputes	918	693	225	330	311	19
Arbitration agreements	377	237	140	27	21	6
Voluntary wage agreements	824	490	334	39	24	15
Disposition of closed dispute cases: All methods				330	311	19
Directive order				187	170	17
Mediation				82	82	
Voluntary arbitration				26	26	
Other disposal				35	33	2

Industrial Disputes

STRIKES IN DECEMBER 1942

STRIKE activity in December 1942 was slightly greater than in November, according to preliminary estimates of the Bureau of Labor Statistics. While the estimated number of new strikes (160) and the number of workers involved (57,000) were approximately the same as in the preceding month, the amount of idleness during strikes (200,000 man-days) was about 14 percent higher than in November.

There was an increase in strike activity affecting war work during December. There were increases of 5 percent in number of new strikes, 12 percent in number of workers involved, and 30 percent in idleness during strikes.

The largest strike in December involved over 8,000 workers at the South Portland (Maine) Shipbuilding Corporation from December 1 to 3.

Idleness during strikes in December is estimated to be 0.03 percent of available working time.

Trend of Strikes, January to December 1942

Month	All strikes [1]			Strikes affecting war work [2]		
	Number of strikes beginning in month	Number of workers involved	Number of man-days idle	Number of strikes beginning in month	Number of workers involved	Number of man-days idle
1942						
January	155	32,500	390,000	27	11,605	46,197
February	190	57,000	425,000	50	24,587	118,700
March	240	65,000	450,000	66	34,957	166,680
April	310	55,000	375,000	91	26,255	173,513
May	275	58,000	325,000	125	44,891	137,330
June	350	100,000	550,000	171	78,627	254,653
July	400	87,500	450,000	198	74,812	233,614
August	350	80,000	450,000	195	70,352	266,353
September	290	80,000	450,000	156	71,912	318,892
October	235	60,000	325,000	93	38,321	167,865
November	165	55,000	175,000	91	43,422	91,925
December	160	57,000	200,000	96	48,571	119,572

[1] Figures are not final but are subject to change as later information is received.

[2] As determined by a Joint Committee of representatives from the War, Navy, and Labor Departments, Maritime Commission, War Labor Board, and War Production Board. The Bureau of Labor Statistics does not participate in the selection of these strikes, but it does furnish the statistics after the Joint Committee determines which strikes affected war work.

ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, DECEMBER 1942 [1]

THE United States Conciliation Service, during December disposed of 1,413 situations involving 863,600 workers (table 1). The services of this agency were requested by the employers, employees, and other interested parties. Of these situations 86 were strikes and lock-outs involving 31,453 workers; 837 were threatened strikes and controversies involving 518,823 workers. Altogether, 180 disputes were certified during the month to the National War Labor Board, and in 54 cases other agencies assumed jurisdiction. The remaining 256 situations included investigations, arbitrations, requests for information, consultations, etc.

TABLE 1.—*Situations Disposed of by United States Conciliation Service, December 1942, by Type of Situation*

Type of situation	Number	Workers involved
All situations handled	[1] 1,413	863,600
Disputes	923	550,276
Strikes	84	31,117
Threatened strikes	115	49,464
Lock-outs	2	336
Controversies	722	469,359
Other situations	256	43,547
Investigations	54	6,916
Technical services	9	8,051
Arbitrations	81	26,234
Requests to conduct consent elections	4	350
Requests for verification of union membership	2	42
Requests for information	8	18
Consultations	74	194
Special services of Commissioners	13	1,726
Complaints	11	16
Disputes referred to other agencies during negotiations	234	269,777
To National War Labor Board	180	242,695
To National Labor Relations Board	31	13,541
To other Federal agencies	6	9,671
To Wage Adjustment Board	3	1,560
To non-governmental agencies	10	2,202
To State agencies	4	108

[1] During the month 155 cases, involving 39,591 workers, were adjusted, subject to arbitration or approval of the wage provisions by the National War Labor Board.

The facilities of the Service were used in 28 major industrial fields, such as building trades, and the manufacture of foods, iron and steel, textiles, etc. (table 2), and were utilized by employees and employers in 46 States, the District of Columbia, and Puerto Rico (table 3).

[1] Report prepared by the United States Conciliation Service, for the Bureau of Labor Statistics.

TABLE 2.—*Situations Disposed of by United States Conciliation Service, December 1942, by Industries*

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries	1,157	820,053	256	43,547	1,413	863,600
Agriculture	10	13,040			10	13,040
Building trades	53	29,272	12	957	65	30,229
Chemicals	40	13,662	14	1,707	54	15,369
Communications	11	26,394	1	110	12	26,504
Domestic and personal	27	10,259	5	373	32	10,632
Electrical equipment	30	173,444	8	6,014	38	179,458
Food	105	26,795	18	945	123	27,740
Furniture and finished lumber	47	7,498	2	62	49	7,560
Iron and steel	187	141,697	29	3,509	216	145,206
Leather	19	7,277	10	1,192	29	8,469
Lumber	38	19,516	9	501	47	20,017
Machinery	45	30,761	14	3,180	59	33,941
Maritime	2	200			2	200
Mining	19	17,117	2	59	21	17,176
Motion pictures	3	75	1	30	4	105
Nonferrous metals	43	27,208	4	687	47	27,895
Paper	5	294	2	5	7	299
Petroleum	18	6,575	8	168	26	6,743
Printing	33	11,224	6	601	39	11,825
Professional	5	535	1	34	6	569
Rubber	15	20,048	1	3	16	20,051
Stone, clay, and glass	41	7,773	9	1,636	50	9,409
Textile	51	16,235	34	6,923	85	23,158
Tobacco	7	2,202	2	547	9	2,749
Trade	88	16,892	14	1,276	102	18,168
Transportation	69	14,356	17	1,225	86	15,581
Transportation equipment	66	154,002	12	9,972	78	163,974
Utilities	12	2,672	3	179	15	2,851
Unclassified	68	23,030	18	1,652	86	24,682

TABLE 3.—*Situations Disposed of by United States Conciliation Service, December 1942, by States*

States	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States	1,157	820,053	256	43,547	1,413	863,600
Alabama	19	4,405	6	484	25	4,889
Arizona	8	6,570	1	2	9	6,572
Arkansas	6	665	1	64	7	729
California	111	46,013	13	1,770	124	47,783
Colorado	4	1,302			4	1,302
Connecticut	7	2,380	2	5	9	2,385
Delaware	2	3,060	1	30	3	3,090
District of Columbia	4	25,339	2	268	6	25,607
Florida	18	5,327	6	544	24	5,871
Georgia	17	8,869	2	126	19	8,995
Idaho	5	148	1	1	6	149
Illinois	75	34,363	15	951	90	35,314
Indiana	39	33,699	6	4,534	45	38,233
Iowa	13	15,828	2	72	15	15,900
Kansas	14	3,675	1	1	15	3,676
Kentucky	17	3,389	2	2	19	3,391
Louisiana	20	3,761	4	106	24	3,867
Maine	1	12	6	6	7	18
Maryland	10	34,655			10	34,655
Massachusetts	36	16,488	20	4,478	56	20,966
Michigan	94	132,648	26	2,011	120	134,659
Minnesota	23	11,584	5	38	28	11,622
Mississippi	4	2,372	1	10	5	2,382
Missouri	40	8,219	3	117	43	8,336
Montana	9	1,013			9	1,013
Nebraska	4	140	1	1	5	141
Nevada	5	4,818			5	4,818
New Hampshire	2	74	3	156	5	230
New Jersey	40	19,714	10	361	50	20,075
New Mexico	3	5,316	1	626	4	5,942
New York	116	217,203	21	3,207	137	220,410
North Carolina	7	1,398	7	581	14	1,979
North Dakota	2	303	2	200	4	503
Ohio	97	53,822	14	1,779	111	55,601
Oklahoma	13	8,407	5	780	18	9,187
Oregon	24	4,489	2	157	26	4,646
Pennsylvania	87	25,322	24	13,744	111	39,066
Puerto Rico	21	17,910	10	282	31	18,192
Rhode Island	6	3,475			6	3,475
South Carolina	6	3,982	4	4,441	10	8,423
South Dakota	1	13			1	13
Tennessee	21	9,527	2	173	23	9,700
Texas	25	4,951	3	256	28	5,207
Utah	4	5,329			4	5,329
Virginia	14	4,440	2	6	16	4,446
Washington	27	12,687	9	111	36	12,798
West Virginia	8	2,375	3	315	11	2,690
Wisconsin	28	8,574	7	751	35	9,325

Labor Organizations

RESEARCH WORK OF TRADE-UNIONS

By Nelson M. Bortz, *Bureau of Labor Statistics*

UNION research—as this term applies to the activities of labor organizations in their study of and factual approach to social and economic problems of concern to workers—has expanded tremendously during the last decade. This growth has been marked by the increasing number of unions which maintain specific research departments and by the quantity and quality of their research activities. The need for and usefulness of union research has been acknowledged by officers of both large and small unions, and the thoroughness of some of the studies produced by union research directors has commanded the respect of employers and government officials.

Records of the Bureau of Labor Statistics indicate that 51 labor organizations now maintain research departments. This is in addition to the research departments maintained by the headquarters of the American Federation of Labor and the Congress of Industrial Organizations. A small but increasing number of State and local central labor bodies have also established separate offices for economic and statistical research. The growth of union interest in labor statistics and economic research has resulted in many requests from representatives of organized labor to the Bureau of Labor Statistics for comprehensive information on a wide variety of problems, such as employment and unemployment, hours of work, earnings, wage rates, prices and the cost of living, industrial injuries, and labor productivity. In order to meet more adequately the need of unions for factual data and also to discuss with the research directors the kind of problems they are facing and how the Bureau may assist them in the solution of these problems, annual conferences have been held between union research directors and the Bureau of Labor Statistics.

Development of Union Research

The quest for information which could be used by labor organizations in their activities is virtually as old as the labor movement itself. With the establishment, in 1884, of what has now become the Bureau of Labor Statistics, many unions then in existence plied the Bureau with requests for data. The Bureau in turn sought the cooperation of the unions in its attempt to collect statistics on wages, hours, and working conditions—the subjects uppermost in the minds of wage earners.

Perhaps the first formal recognition of the need for collecting and summarizing available economic and statistical data for use by organized labor came from the late Samuel Gompers, president of the

American Federation of Labor, who, in 1910, engaged a research worker to carry out economic studies for the Federation. One of the first attempts at systematic compilation of wage and related economic data by a union, for use in obtaining increased rates of pay ocurred in 1913, when the Brotherhood of Locomotive Engineers and the Brotherhood of Locomotive Firemen and Enginemen engaged economists to prepare statistical material to support their wage case before a board of arbitration.

Rising living costs, variations in wages between war and nonwar industries, and problems of long hours and hazardous working conditions during the years of the first World War forcefully brought home to workers the need for accurate information in a wide variety of economic fields. Numerous Government agencies and boards, such as the United States Railroad Administration and the National War Labor Board, based their decisions about wage increases and working conditions largely upon a thorough analysis of pertinent economic and statistical data.

TREND DURING THE TWENTIES

The stress upon factual data, as a basis for collective bargaining, did not diminish with the country's return to peace. In the railroad industry, for example, the Government established a special railroad labor board to handle controversies between employees and management. Hearings before this agency usually required advance preparation in the form of economic briefs, and decisions frequently hinged upon the statistical evidence introduced by one party or another in the dispute.

Unions in other industries, for purposes either of arbitration or of general public policy, found it necessary and highly desirable to support their position with factual evidence demonstrating the fairness of their requests.

A few unions met the demand for a statistical approach and economic analysis of their problems by the creation within their own organization of a statistical or research department. The attitude which resulted in such action was typified by the declaration in 1920 of the officers of the International Ladies' Garment Workers' Union:

"The labor movement at its early stages, in its pioneer days, did not have to rely upon or resort to statistics as a weapon of combat. With the growth of the labor movement, with the strengthening of its position and influence within the social body of our community and the complexity of its relations toward the general public, it is becoming evident that in order to accomplish its aims with greater facility, and in order to be certain of its ground and to safeguard the responsible steps which it is compelled to make from time to time, it must be armed with all concrete facts, with every bit of information concerning the justice of its demands, and the solemnity of its contentions. The labor movement is beginning to feel more and more that its cause is so irrefutably sound, that its challenge is based on facts and conditions to such an extent, that it is duty bound to be able to marshal these facts and figures at the quickest possible notice, and to be able to present these for the fortification of its contentions."[1]

[1] International Ladies' Garment Workers' Union, Report and Proceedings, 15th Convention, 1920 (pp. 62, 63).

The Amalgamated Clothing Workers, prompted in part by the urgent necessity of marshaling facts to counteract a serious court injunction against the union's activities, also established a research department in 1920. During the same year the Railway Employees' Department of the American Federation of Labor created a bureau of research. A number of other labor organizations confronted with the post-war problems of maintaining wage rates, reducing hours, and combating open-shop demands of employers, likewise established within the next few years special departments of economic research or statistics. Among these were the International Typographical Union, the Brotherhood of Maintenance of Way Employees, and the International Brotherhood of Electrical Workers. In other instances, unions relied upon the assistance of the private labor research bureaus which had been opened either during or shortly after the war. Some unions also utilized the services and reports of various consumer organizations, particularly those that conducted surveys on the cost of living and employment conditions of women and children.

The American Federation of Labor supported the need for greater research and became a charter member of the Personnel Research Foundation, a nonpartisan organization formed in 1921 to serve as a clearing house for information on the activities of various public and private institutions conducting studies "pertaining to personnel in industry, commerce, education, and Government."

During the latter part of the 1920's, statistical and research departments were established by several other labor organizations. These included the Brotherhood of Railway Clerks, Brotherhood of Locomotive Firemen and Enginemen, Brotherhood of Railroad Trainmen, and the International Printing Pressmen and Assistants' Union. Meanwhile, the A. F. of L. was expanding gradually the scope of its research work to meet the growing demands of its membership. Several studies dealing with union wage policy and hours were published and, beginning in September 1927, the Federation started its monthly reports on the trend of unemployment among skilled workers in a number of large cities. In 1929, the Federation inaugurated its monthly survey of business and economic conditions. Inquiry into economic issues and how problems facing labor could be met through use of statistical data also was encouraged by the Brookwood Labor College, which was established in 1921 to provide educational opportunities for workers in the trade-union movement.

FROM DEPRESSION, THROUGH RECOVERY, TO WAR

The economic depression and the mass unemployment following the 1929 stock-market crash by no means reduced the need for sound union research. Nevertheless, declines in membership and union finances frequently curtailed such activities, and in at least one instance forced the union to abandon its research program entirely.

Union research took on a new lease of life in 1933. Enactment of the National Industrial Recovery Act and the formulation of NRA industry codes necessitated the assembly of statistical data on wages and hours to support union representatives at code hearings. The A. F. of L. expanded its research activities; and the need for economic and statistical information, analyzed and adapted for union use, became evident to many labor organizations. The next few years

therefore witnessed a substantial growth in union research, both among A. F. of L. unions and among newly formed C. I. O. unions.

Recognition of the need for and the usefulness of research services recently has led to the establishment of research units in State and city labor groups as well as in some of the larger local unions. This trend has been particularly evident in the International Brotherhood of Teamsters, Chauffeurs, Warehousemen, and Helpers. About a year ago the international president of this organization strongly advised every district council of teamsters to employ "a first-class statistician * * * who would have vital information at his finger tips when wage contracts are under discussion."

QUALIFICATIONS, TENURE, AND COMPENSATION OF RESEARCH DIRECTORS

Some union research directors have brought to their work a long background of experience as workers in their trade and as officers of their local or national organization. Their knowledge "from the ground up" makes them thoroughly familiar with the nature of the industry and with the peculiarities of the jobs performed by members of the union. To this fund of practical knowledge they apply the statistical and economic data necessary to support the particular issue at hand.

Other union research directors have had little or no previous intimate contact with the union or with the industry. For the most part, such individuals are appointed to research positions because of their specialized training in the field of labor economics and statistics, coupled with a sincere desire to participate constructively in the labor movement.

Regardless of their background, research directors find that success in their job requires that they be able to blend practical experience with technical training. The director from the ranks must be able to analyze complicated economic data and effectively present statistical material, and the professionally trained research economist must obtain an understanding of the characteristics of the various jobs performed by members of the union and be thoroughly acquainted with the industry or group of industries covered by the union's jurisdiction. He must also become thoroughly familiar with the history of the union and absorb some of its philosophy and spirit. In the words of the executive council of the American Federation of Labor, "the research persons who can give the best service must be especially trained, know the technical field, must know people, must know labor, and be concerned for its welfare as an integral element in our democratic societies, and must know the extent of their responsibility." [2]

Tenure of research directors is relatively secure, provided, of course, their duties are competently and faithfully discharged. Some research people have served the same union for 10 to 20 years or more. In other instances, changes in international officers or shifts in union policy have resulted in turn-over of research personnel.

Compensation appears to vary substantially, although the general rule of "the larger the organization and the greater the responsibility, the higher the pay" seems to prevail among unions in much the same manner as in industry. On the average, the salary scale in union

[2] Report of Executive Council of the American Federation of Labor to the Sixty-second Annual Convention, Toronto, Canada, 1942 (p. 107).

research work may be roughly compared with the scale paid for economic research in the Government service and ranges from about $2,000 to about $7,500 a year.

Services Rendered by Research Departments

First claim on the services of the research department generally goes to the union president, secretary-treasurer, and members of the general executive board, who shape the policies and activities of the union between conventions. The union research director may thus be assigned a series of jobs dealing with, for example, progress of the industry in converting to war production, prospective sources of supply of essential raw materials, effect of Government employment or production regulations upon members of the union, the present union wage structure in the light of the national economic-stabilization program, probable effects of a longer workweek on the health of the workers in the industry, possibility of using women in place of men, etc. These broad questions are frequently accompanied by a series of requests for specific data to meet the exigencies of situations as they arise almost overnight in this or that locality and in this or that section of the country.

In some organizations the research director must submit reports of current economic trends at each meeting of the union's executive board or at least be present and be prepared to provide the officers of the organization with information on problems within the scope of activities of the research department. The union may request the department to prepare reports for conventions or special meetings, analyzing particular phases of an issue of concern to the members. Thus, the research department of the United Automobile, Aircraft, and Agricultural Implement Workers undertakes from time to time a special poll to get a cross-section opinion from the union's membership on problems of current importance on which the officers of the organization desire information and advice.

SERVICES TO LOCAL UNIONS

Work performed for local unions or joint union councils usually deals with very specific problems—wages, hours, or working rules—as they relate to the particular group of workers or groups of employees covered by the contract. If the issue is of great importance, affecting the welfare or the policy of the entire union, the research department may devote weeks or even months in preparing and handling the case. The statistical department of the teamsters' union, for example, has participated actively in several important local or regional cases involving milk drivers in New York City and Chicago and "over-the-road" motortruck drivers covered in a midwest regional union agreement. In the latter case, the president of the international union stated that the "splendid showing" of the statistical department was largely responsible for a favorable arbitration award which resulted in a wage increase aggregating approximately $21,000,000 a year for the 60,000 members covered by the terms of the contract.[3]

[3] President Daniel J. Tobin, in the International Teamster, March 1942.

NEGOTIATIONS WITH EMPLOYERS

As a general matter of policy, wage and other negotiations with employers are carried on by officers of the union with the research director serving in a technical and advisory capacity. In an increasing number of instances, however, research directors have been given additional responsibilities, and frequently they have been delegated the task of bearing the brunt of the union's case.

When negotiations with an employer pass beyond the stage of joint discussion and involve the participation of an impartial umpire, arbitration board, or other public tribunal, the role of the research director often increases in importance. In such instances, both sides have to marshal facts and figures to support their contentions and to enlighten a third party on the peculiarities of the industry and the importance of the particular issues at stake. Unions have learned by experience that in such undertakings sound statistical and economic arguments are necessary and that they cannot afford to rely entirely upon economic strength or public sympathy to win their case.

Problems of wages, hours, and working conditions consume the greater portion of the research director's time and energy. The task of accumulating statistics on wage rates and earnings of union members, of unorganized workers in the industry, or of workers in competing industries, calls for all the resources the research director can command. If the local unions have been reasonably cooperative in forwarding copies of their collective-bargaining agreements or have supplied the necessary information in periodic reports or questionnaires, the research department has available a body of facts to help meet its needs. All too frequently, however, these data are too scanty and have to be supplemented by additional information derived from a variety of sources—from friendly employers or unions, from special field surveys, and from information on file or published by various State or Federal Government agencies. The research department of the International Ladies' Garment Workers' Union has on several occasions undertaken wage studies of many of its members by means of a simple questionnaire covering earnings and hours of work during a specific week. Returns from approximately 90,000 workers were obtained, and comparisons with pay-roll data available from other sources indicated that the union's analysis gave an accurate picture of earnings in the industry.

The demand for precise and detailed wage data has been accentuated by the war and by the efforts of the Government to stabilize prices, cost of living, and wages. Under the various Executive orders of the President and the decisions of the National War Labor Board, unions must substantiate any request for an upward revision in the wage structure by accurate and thorough presentation of all facts and figures involved in the case. Preparation of wage data for such cases usually requires careful analysis of occupational differences in earnings, not only in the specific plant or industry in question but also in a comparison with wages in competing plants or industries. Where the wage problem affects an entire industry engaged in war work, such as the aircraft industry, the Government itself generally conducts an exhaustive survey of earnings, labor turn-over, manpower requirements, and other factors which may be involved in the problem of wage stabilization. In such instances, the union must rely upon its

research department to assist in the development of the survey and present data which are important from the worker's point of view. That such information is often quite useful to the Government agency conducting the survey is borne out in the report of a special representative of the National War Labor Board who, in submitting his recommendations for wage adjustments in the west coast aircraft industry, declared that "the unions have supplied a great volume of material, thoughtfully and ably prepared, which has been very helpful in analyzing the wage problem."[4]

In addition to problems of wages and hours, union research departments must deal with an almost infinite variety of other questions relating to working conditions; among these are problems dealing with work loads, with illness, fatigue, and accidents, with paid vacations, and with grievances. The development of adequate union grievance machinery, as well as the provision of direct assistance in handling specific grievances, frequently calls for a considerable portion of the time of a union research department. Often the cause or the solution of a grievance centers in a technical problem, perhaps involving calculation of pay under incentive-wage or bonus plans, time or job studies, or faulty flow of materials. The scope of research activities in the field of grievances is thus described by the research director of the Textile Workers' Union:

> In the actual administration of agreements, the research departments may play an important role. Grievances relating to technical questions which are not settled locally are referred to this department for review. They are frequently able to formulate otherwise vague complaints, identify sources of trouble, review grievance machinery and offer suggestions which facilitate adjustments. Plants with time studies, complicated wage incentive plans, merit-rating systems, hazardous and unhealthful employment conditions, wage penalty provisions, substandard wage levels, burdensome work loads, or excessive rates of change in equipment are constant sources of problems which require the department's aid.[5]

Not all of the relations of research directors with employers deal with controversial issues. Recently there have been numerous instances in which the union and employer or group of employers have jointly attacked baffling problems relating to production, employment, absenteeism, plant injuries, or grievances. Much of the cooperative relationship existing between the various organized trades and the Tennessee Valley Authority, for example, has been due to the desire of both parties to discuss the various problems frankly on an unemotional, factual basis, and in these conferences the unions have been generally assisted by the research director of the International Brotherhood of Electrical Workers. Another instance occurred when the Government placed an embargo upon the imports of raw silk from Japan in August 1941 and froze all existing silk stocks within the country for military purposes. The American Federation of Hosiery Workers immediately inaugurated a system of weekly reports from its various locals and also from a large group of employers in the industry. These reports provided current information, not only to the union but also to employers and the Government, of the extent of unemployment and the degree to which the industry was utilizing substitute fibers in the manufacture of hosiery.

[4] Report of Paul R. Porter, chief, Shipbuilding Stabilization Branch, Labor Production Division, WPB, and special representative of the National War Labor Board, dealing with Pacific Coast aircraft wages. (OWI Release B-354, December 20, 1942.)

[5] Personnel Journal, February 1941 (p. 295): Labor Union Research Departments, by Solomon Barkin.

TESTIMONY BEFORE CONGRESS

Organized labor has always used the democratic right of petition as well as the procedure of appearing before appropriate Congressional committees to present its views on public policy and especially on pending legislation affecting workers. The general practice is for the elected leaders of labor organizations personally to present the position of the membership. The technical preparation of their testimony, however, often is assigned to the research department, and in some instances the research director is authorized to testify on behalf of the organization. This is particularly true of the research departments of the American Federation of Labor and the Congress of Industrial Organizations, whose representatives have appeared before committees to present data on issues of current importance.

The services of the research department are utilized to an even greater extent if the hearings are primarily concerned with technical economic problems. Thus, during the investigations of the Temporary National Economic Committee, research directors accompanied the heads of their unions to the witness stand and collaborated in presenting the union's views on such problems as the impact of technology upon production and employment. Again, in December 1942 the economist of the American Federation of Labor appeared before the Senate Committee on Small Business to offer the suggestions of that labor organization on the greater utilization of the facilities of small businesses in the furtherance of the war effort.

RELATIONS WITH GOVERNMENT ADMINISTRATIVE AGENCIES

The labor legislation enacted during the last decade, combined with the great expansion in collective bargaining since 1932, has made it necessary for organized labor to follow very closely a wide range of administrative activities of the Federal Government. Here again the research departments of the various unions have been called upon to prepare data to support the union's position. They have dealt with such matters as formulation of NRA codes of fair competition, hearings before the National Labor Relations Board, determination of prevailing wages to be paid on Government contracts coming within the scope of the Davis-Bacon and Walsh-Healey Public Contracts Act, establishment of minimum wages under the Fair Labor Standards Act, and, most recently, preparation and presentation of wage cases before the National War Labor Board. Union research directors have also had to prepare data for issues coming before the Federal Security Agency, the Interstate Commerce Commission, and the Federal Communications Commission, as well as numerous Government departments such as Agriculture and Commerce.

The war emergency has also resulted in a greater utilization by Government agencies of the technical knowledge and union experience of research directors. One union research director is now serving full time as a technical labor adviser in an important industry branch of the War Production Board, and another is working part time on the important WPB Planning Committee. Economists of the A. F. of L. and the C. I. O. research staffs are being constantly consulted on specific problems, and they also act as labor representatives on advisory committees created by various Government agencies.

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In certain fields, notably the railroad industry, labor disputes which threaten to interrupt interstate commerce must be submitted to an impartial fact-finding board appointed by the President of the United States. Under such circumstances, union research directors are called upon to prepare exhaustive data and to testify at length before the fact-finding boards. During the 1941 negotiations relating to wage increases and vacations, at least six union research directors appeared on the witness stand and analyzed the financial condition of the railways, the living standards of railway employees, the hazards of the industry, and similar problems which were pertinent to the arguments of the employees.

RESEARCH PUBLICATIONS

The research departments of several unions prepare regularly a summary of important economic or technical data, which is either incorporated into the union's official publication or is issued as a separate bulletin. Thus, each issue of the Machinists Monthly Journal carries several pages surveying current data on production, employment, living costs, and wages. Textile Labor, published by the Textile Workers Union, devotes several columns to reporting the activities of the union's research department; and the Journal of Electrical Workers and Operators frequently carries lengthy articles dealing with problems of national and international interest to their membership, such as development of public power projects and the activities of the International Labor Organization.

Among the separate bulletins, two of the printing trades—the typographers and pressmen—issue detailed monthly and annual bulletins presenting current statistical data useful to their members and describing terms of new collective-bargaining agreements negotiated by various locals. The research departments of the aluminum, automobile, and shipbuilding workers' unions issue bulletins at irregular intervals. Analyses of economic problems of more or less general concern to workers are presented in Labor's Monthly Survey, issued by the Research and Information Department of the A. F. of L. and the Economic Outlook, published by the C. I. O. Department of Education and Research.

Cooperation With Bureau of Labor Statistics

In 1934, staff members of the Bureau of Labor Statistics met with a group of union research officials and representatives of various Government agencies for the purpose of improving the statistical data compiled by the Bureau and to "supply laboring people with information as to what is happening, in such detail that they can make their own plans and develop their own programs." The conference raised questions relating to the collection of statistics on the volume of employment and unemployment and on more extensive industry wage surveys, and recommended a revision of the 1918 study of family expenditures so that the cost-of-living index published by the Bureau would reflect more accurately the changed consumption habits of wage earners. The meeting also endorsed the establishment within the Bureau of a Labor Information Service, designed to provide trade-unions and workers with information which would enable them to

follow what is happening in the country as a whole as well as in their particular industries.

The widespread gains in collective bargaining during the following 5 or 6 years and the establishment of a number of new labor organizations led to a greatly increased demand on the part of unions for factual data on hours, wages, cost of living, and a multitude of other problems of concern to wage earners. It was during this period that a large number of unions, both A. F. of L. and C. I. O., established research departments. The Bureau took cognizance of this growth, and in June 1940 invited all union research directors and statisticians to attend a conference, with a view to obtaining from them suggestions as to how the Bureau could best serve the statistical needs of the unions.

In opening the conference, Commissioner Lubin said: "We feel that the time has come that this relationship between our customers and ourselves, you being the customers of the Bureau of Labor Statistics, should be a continuing one, and we hope some arrangement can be made whereby this conference can be in constant touch with the Bureau so that we will have direct access to the people who are using our data." The union research directors responded to this suggestion by requesting the Bureau to arrange for at least one meeting of all research directors each year. They also designated a standing committee of union research directors to meet with the Bureau of Labor Statistics periodically between annual conferences to discuss problems of current importance.

The 2-day meeting reviewed at length the specific types of work performed by the various divisions of the Bureau, and the research directors suggested several changes in the types of studies made by the Bureau as well as in the method of their publication. Some of these requests, for example, called for data on the total labor force in the United States and studies on methods of determining piece rates, cost of production, and labor productivity.

At the time of the second annual conference, in June 1941, the number of labor organizations maintaining research services had increased to 41, as compared with 32 a year earlier. A substantial portion of the 2-day meeting was devoted to the labor aspects of the national defense program. In reviewing the relations between the Bureau of Labor Statistics and the research activities of trade-unions, the standing committee said in part:

> * * * We in the committee feel a great step forward has been made through the development of a friendly and cooperative relationship between the Bureau and the members of the committee.
>
> Most important of all, there has been established the conviction on the part of the Bureau that its greatest service can be rendered only by close coordination of its work with the needs of organized labor. It has become, we think, realized that this service to organized labor is a mainspring of the Bureau. Your committee believes that as the Bureau's service to organized labor grows, so will the Bureau's vigor and activity increase.
>
> On the other hand, the labor research people are coming, due to the activities of the conference and the committee, more to realize their responsibility for the work of the Bureau. They have come to feel that the Bureau is, in part, their institution and that now labor has a stake in its operation.

The third annual conference, in June 1942, dealt with problems arising from the effect of the war on the national economy in general and on wage earners in particular. The opening session was devoted exclusively to a discussion of the activities of the major war agencies—

War Production Board, Office of Price Administration, War Manpower Commission, and the National War Labor Board. Three panel discussions followed, covering the effect of the war on the wage earner as producer and the wage earner as consumer, and post-war labor problems. Much interest was evinced in the Government's attempts at price and wage stabilization, and many union research directors stressed the need for more comprehensive wage and cost-of-living data. The work of labor-management production committees was likewise emphasized as a means not only of securing greater output but also of conserving materials and manpower. The unions reiterated their need for more data on production costs, labor productivity, and industrial accidents and fatigue. Those who spoke on post-war labor problems pointed out the necessity of preparing to meet the serious problems of the peace and emphasized that organized labor be given the opportunity to express its views and to participate fully in the consideration of these problems.

Roster of Union Research Departments

As of January 1, 1943, the Bureau of Labor Statistics had record of 53 labor organizations, including A. F. of L. and C. I. O. headquarters, which maintained a research department or formally assigned duties of economic research to an officer of that organization. The unions and the persons charged with the responsibility for research work were as follows:

	In charge of research
American Federation of Labor	Florence Thorne.
Congress of Industrial Organizations	J. Raymond Walsh.
Aluminum Workers of America	Ben Fischer.
Architects, Engineers, Chemists, and Technicians	David Briansky.
Automobile, Aircraft, and Agricultural Implement Workers.	James Wishart.
International Union United Automobile Workers	William L. Munger.
Bakery and Confectionery Workers International Union	A. W. Myrup.
United Cannery, Agricultural, Packing, and Allied Workers.	Elizabeth Sasuly.
United Brotherhood of Carpenters and Joiners	Albert E. Fischer.
Cement, Lime, and Gypsum Workers	Anne S. Woll.
Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees.	Horace Bacus.
Amalgamated Clothing Workers	Gladys A. Dickason.
United Electrical, Radio and Machine Workers	A. N. Towsen.
International Brotherhood of Electrical Workers	Marion Hedges.
International Union of Operating Engineers	Herbert Woods.
International Fur and Leather Workers	George Kleinman.
United Furniture Workers	(Vacancy.)
International Ladies' Garment Workers' Union	Lazare Teper.
Gas, By-Products, Coke and Chemical Workers, District 50.[1]	Robert Kaplan.
Glass, Ceramic and Silica Sand Workers	Leland Beard.[2]
United Hatters, Cap and Millinery Workers International Union.	Alfred Braunthal.
American Federation of Hosiery Workers[3]	Alfred Hoffmann.[2]
Hotel and Restaurant Employees' International Alliance and Bartenders' International League.	W. R. Wasson.
Brotherhood of Locomotive Firemen and Enginemen	Harry Arries.
Longshoremen's and Warehousemen's Union	Paul G. Pinsky.
International Association of Machinists	Paul Hutchings.

[1] A part of the United Mine Workers.
[2] Vice president.
[3] A part of the Textile Workers Union.

	In charge of research
Brotherhood of Maintenance of Way Employes	L. E. Keller.
Marine and Shipbuilding Workers	Michael Ross.
Maritime Committee, C. I. O.[4]	Bjorne Halling.[5]
Amalgamated Meat Cutters and Butcher Workmen	Charles E. Handy.
Mine, Mill and Smelter Workers Union	Ben Riskin.
United Mine Workers	Walter N. Polakov.
American Newspaper Guild	Urcel Daniel.
United Office and Professional Workers	Richard Lewis.
Oil Workers International Union	William Glazier.
Packinghouse Workers Organizing Committee	Virgil Case.
International Photo-Engravers' Union	J. S. Mertle.
United Association of Plumbers and Steamfitters	John McBride.
International Printing Pressmen and Assistants' Union	H. Y. Feldman.
Brotherhood of Railroad Trainmen	Robert McBirnie.
Railway Employes' Department, A. F. of L.[6]	George Cucich.
United Retail, Wholesale, and Department Store Employees.	George A. Delman.
United Rubber Workers	A. L. Lewis.
United Shoe Workers	Horace B. Davis.
State, County and Municipal Employees (A. F. of L.)	Gordon W. Chapman.[7]
State, County and Municipal Workers (C. I. O.)	Eleanor Dowling.
United Steelworkers of America	Harold Ruttenberg.
International Brotherhood of Teamsters, Chauffeurs, Warehousemen, and Helpers.	Frank Tobin.
Order of Railroad Telegraphers	W. M. Homer.
National Federation of Telephone Workers	Bert Horth.[7]
Textile Workers Union	Solomon Barkin.
International Typographical Union	T. F. Griffin.
Upholsterers' International Union	William Kohn.

[4] Represents several C. I. O. unions with membership in the maritime industry.
[5] Executive secretary.
[6] Represents several A. F. of L. unions with membership in the railroad industry.
[7] Secretary-treasurer.

CHANGES IN COST OF LIVING IN LARGE CITIES, DECEMBER 1942

LIVING costs were one-half of 1 percent higher on December 15 than on November 15, 1942, bringing the total rise for the first war year to 9 percent. Since the outbreak of war in Europe, the increase has been 22.1 percent, as compared with almost 35 percent during the same period of World War I. The cost of the goods and services that were under OPA control on December 15 rose 0.3 percent from mid-November to mid-December and that of services controlled by other Government agencies remained unchanged, whereas prices of goods and services not subject to control advanced 2.0 percent.

Food costs for city wage earners and clerical workers were about the same in December as in 1929 and were 33 percent above the 1935–39 average. They rose 1.2 percent in the month ending December 15, 1942. Higher prices for fresh fruits and vegetables not controlled by OPA were chiefly responsible for the increase. Much of this rise was seasonal. Prices of foods under OPA control advanced 0.5 percent. Thus, egg prices, which usually decline at this season, rose slightly between mid-November and mid-December. Local shortages were reported for most meats, but supplies of fresh fish and poultry were said to be adequate. The short supply of butter was reflected by small advances in 41 of the 51 cities included in the food-cost index.

The following table shows the percent of change from November to December and May to December for foods controlled by OPA and those not under direct OPA control.

	Percent of increase—	
	Nov. 17 to Dec. 15	*May 12 to Dec. 15*
All foods	1. 2	9. 1
Under control by OPA on December 15	. 5	6. 9
Under control on May 18	. 4	1. 2
Placed under control since May 18	. 8	17. 5
Not under control by OPA on December 15	7. 0	29. 8

Housefurnishings remained unchanged, on the average, from mid-November to mid-December, with increases reported from 4 of the 21 cities covered monthly. Furniture and sheet prices advanced in these cities. Decreases in 3 cities were due to declines in prices of rugs and electric-light bulbs. Some furniture prices declined in Pittsburgh.

Clothing costs, on the average, remained unchanged during the month. Men's woolen suits and overcoats, cotton shirts, work trousers, and women's rayon underwear were selling for higher prices on the average, but in some cities this rise was matched by a decrease in prices of women's wool coats, percale dresses, and shoes.

The percentages of change in the cost of the various groups of items, by city and geographical region, are given in table 1.

TABLE 1.—*Percent of Change between November 15 and December 15, 1942, in Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers by Groups of Items*

Area and city	All items	Food	Clothing	Rent [1]	Fuel, electricity, and ice	Housefurnishings	Miscellaneous
Average: Large cities	+0.5	[2] +1.2	[3] 0	[3] 0	[4] +0.1	[3] +0	[3] +0.1
New England:							
Boston	+.1	+.2	+0.1	−0.1	+.1	−0.1	0
Manchester	(5)	+1.8	(5)	(5)	+.5	(5)	(5)
Portland, Maine	(5)	+1.0	(5)	(5)	−.1	(5)	(5)
Middle Atlantic:							
Buffalo	+.5	+1.3	−.2	0	0	−.1	0
New York	+.7	+1.6	+.2	−.1	0	+.1	+.2
Philadelphia	+.8	+1.8	−.2	0	0	+.2	0
Pittsburgh	+.7	+1.5	−.1	0	+1.1	−.1	+.1
Scranton	(5)	+1.1	(5)	(5)	0	(5)	(5)
East North Central:							
Chicago	0	0	−.2	0	0	0	+.1
Cincinnati	+.3	+.7	+.1	0	0	+.2	0
Cleveland	+.7	+1.7	−.1	+.2	0	0	+.1
Detroit	+.7	+1.7	+.1	0	0	+.2	+.1
Indianapolis	(5)	+.3	(5)	(5)	0	(5)	(5)
Milwaukee	(5)	+1.4	(5)	(5)	0	(5)	(5)
West North Central:							
Kansas City	+.6	+1.8	−.4	0	0	−.1	0
Minneapolis	+.3	+.8	+.1	−.4	0	0	0
St. Louis	+1.2	+2.8	−.2	−.1	0	0	+.4
South Atlantic:							
Atlanta	(5)	+.8	(5)	(5)	0	(5)	(5)
Baltimore	+.7	+1.8	0	0	0	0	0
Jacksonville	(5)	+2.3	(5)	(5)	0	(5)	(5)
Norfolk	(5)	+.7	(5)	(5)	0	(5)	(5)
Richmond	(5)	+1.9	(5)	(5)	0	(5)	(5)
Savannah	+.6	+1.2	+.1	+.1	0	0	+.6
Washington, D. C	+.7	+1.7	0	0	+.2	0	+.3
East South Central:							
Birmingham	+.8	+2.0	0	0	0	0	−.1
Memphis	(5)	+2.0	(5)	(5)	0	(5)	(5)
Mobile	(5)	+.5	(5)	(5)	0	(5)	(5)
West South Central:							
Houston	+.6	+1.5	+.2	0	0	0	+.1
New Orleans	(5)	+1.6	(5)	(5)	0	(5)	(5)
Mountain:							
Denver	+.8	+1.9	+.1	0	+.1	0	+.3
Pacific:							
Los Angeles	+.4	+.9	−.1	0	0	0	0
Portland, Oregon	(5)	+2.0	(5)	(5)	+.1	(5)	(5)
San Francisco	+.3	+.6	+.1	0	0	0	+.2
Seattle	+.6	+1.6	−.1	0	+.1	0	−.1

[1] Rental data are now obtained from tenants in 28 of the 34 cities covered by the Bureau's quarterly surveys. The December survey on this new basis resulted in slight increases in rent indexes for a number of cities, in particular for Houston.
[2] Based on data for 51 cities.
[3] Based on data for 21 cities.
[4] Based on data for 34 cities.
[5] Monthly data not available.

The percent of change over a 1-year and a 2-year period ending on December 15, 1942, is shown for each city in table 2.

TABLE 2.—*Percent of Change in Cost of All Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, for Specified Periods*

City	Percent of change—		City	Percent of change—	
	Dec. 15, 1941, to Dec. 15, 1942	Dec. 15, 1940, to Dec. 15, 1942		Dec. 15, 1941, to Dec. 15, 1942	Dec. 15 1940, to Dec. 15, 1942
Average: Large cities	+9.0	+19.6	South Atlantic:		
New England:			Atlanta	+7.8	+19.2
Boston	+9.9	+20.0	Baltimore	+8.4	+21.2
Manchester	+10.9	+22.4	Jacksonville	+8.6	+21.9
Portland, Maine	+10.5	+22.2	Norfolk	+7.9	+23.5
Middle Atlantic:			Richmond	+8.4	+19.7
Buffalo	+9.1	+21.5	Savannah	+9.0	+22.4
New York	+9.8	+18.2	Washington, D. C	+8.5	+19.4
Philadelphia	+10.0	+20.8	East South Central:		
Pittsburgh	+8.3	+18.7	Birmingham	+6.1	+18.5
Scranton	+8.8	+18.5	Memphis	+10.1	+22.4
East North Central:			Mobile	+5.7	+22.8
Chicago	+8.0	+18.3	West South Central:		
Cincinnati	+8.8	+20.5	Houston	+7.3	+16.9
Cleveland	+8.5	+20.5	New Orleans	+9.9	+23.0
Detroit	+7.7	+20.3	Mountain:		
Indianapolis	+6.3	+18.0	Denver	+9.2	+19.3
Milwaukee	+8.0	+19.3	Pacific:		
West North Central:			Los Angeles	+10.3	+21.2
Kansas City	+8.3	+19.4	Portland, Oregon	+11.5	+24.6
Minneapolis	+7.7	+16.6	San Francisco	+11.4	+22.0
St. Louis	+8.3	+18.6	Seattle	+9.1	+22.6

Table 3 gives indexes of the cost of the various groups of items, by cities, for each month during the quarter ending December 15, 1942.

TABLE 3.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers by Groups of Items, October 15–December 15, 1942*

[Average 1935–39=100; some indexes for October and November revised]

City and date	All items	Food	Clothing	Rent [1]	Fuel, electricity and ice	Housefurnishings	Miscellaneous
Average, large cities:							
October 15	119.0	[2] 129.6	125.9	108.0	106.2	123.7	111.8
November 15	119.8	[2] 131.1	125.9	108.0	106.2	123.9	112.7
December 15	120.4	[2] 132.7	125.9	108.0	106.3	124.1	112.8
Atlanta:							
October 15	[3]	129.0	[3]	[3]	111.2	[3]	[3]
November 15	[3]	129.2	[3]	[3]	111.2	[3]	[3]
December 15	119.2	130.2	125.5	[4] 106.5	111.2	119.5	113.8
Baltimore:							
October 15	120.4	133.8	125.7	106.7	104.7	127.6	112.3
November 15	120.9	134.9	125.8	106.7	104.7	127.6	112.9
December 15	121.8	137.3	125.8	106.7	104.7	127.6	112.9
Birmingham:							
October 15	119.9	128.1	126.8	120.4	100.2	119.1	112.4
November 15	119.9	127.7	126.8	120.4	100.2	119.1	113.1
December 15	120.8	130.2	126.8	[4] 120.4	100.2	119.1	113.0
Boston:							
October 15	117.9	128.5	122.6	105.1	116.3	118.3	110.0
November 15	118.8	130.4	122.7	105.1	116.3	118.3	111.1
December 15	118.9	130.7	122.8	[4] 105.0	116.4	118.2	111.1
Buffalo:							
October 15	122.0	131.8	127.2	114.6	103.6	125.1	117.4
November 15	123.0	133.7	127.1	114.6	103.6	125.1	118.8
December 15	123.6	135.5	126.9	114.6	103.6	125.0	118.8
Chicago:							
October 15	118.9	128.9	121.4	114.4	103.6	119.4	110.9
November 15	119.5	129.9	121.5	114.4	103.7	119.6	111.6
December 15	119.5	129.9	121.3	[4] 114.4	103.7	119.6	111.7
Cincinnati:							
October 15	119.2	130.1	130.2	105.2	102.5	124.8	111.3
November 15	119.6	130.6	130.2	105.2	102.5	124.8	112.2
December 15	120.0	131.5	130.3	[4] 105.2	102.5	125.1	112.2

See footnotes at end of table.

TABLE 3.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers by Groups of Items, October 15–December 15, 1942*—Continued

City and date	All items	Food	Clothing	Rent [1]	Fuel, electricity, and ice	Housefurnishings	Miscellaneous
Cleveland:							
October 15	121.4	131.8	128.4	115.0	112.2	123.9	111.3
November 15	122.0	132.5	128.3	115.0	112.3	123.9	113.1
December 15	122.9	134.8	128.2	[4] 115.2	112.3	123.9	113.2
Denver:							
October 15	117.8	128.4	123.3	109.1	98.9	121.7	112.4
November 15	118.5	129.9	123.3	109.1	99.3	121.9	112.8
December 15	119.5	132.4	123.4	109.1	99.4	121.9	113.1
Detroit:							
October 15	119.9	128.2	127.0	114.5	107.3	120.5	113.6
November 15	120.6	129.6	127.0	114.4	107.3	120.6	114.5
December 15	121.4	131.8	127.1	[4] 114.4	107.3	120.8	114.6
Houston:							
October 15	118.8	132.9	126.7	108.9	92.9	122.2	111.1
November 15	118.8	132.4	126.5	108.9	92.9	122.2	111.8
December 15	119.5	134.4	126.7	108.9	92.9	122.2	111.9
Indianapolis:							
October 15	[3]	129.2	[3]	[3]	103.5	[3]	[3]
November 15	[3]	129.7	[3]	[3]	103.6	[3]	[3]
December 15	120.4	130.1	125.8	115.3	103.6	125.3	114.0
Jacksonville:							
October 15	[3]	137.7	[3]	[3]	109.6	[3]	[3]
November 15	[3]	137.1	[3]	[3]	109.5	[3]	[3]
December 15	124.1	140.3	125.4	112.0	109.5	121.3	114.9
Kansas City:							
October 15	116.4	124.0	123.1	108.4	106.0	117.2	113.0
November 15	117.0	125.0	123.1	108.4	106.0	117.1	114.0
December 15	117.7	127.2	122.6	108.4	106.0	117.0	114.0
Los Angeles:							
October 15	122.7	140.0	127.6	110.1	94.2	118.5	113.7
November 15	123.4	141.5	127.6	110.0	94.2	118.4	114.5
December 15	123.9	142.8	127.5	110.0	94.2	118.4	114.5
Manchester:							
October 15	[3]	128.8	[3]	[3]	119.8	[3]	[3]
November 15	[3]	130.0	[3]	[3]	120.6	[3]	[3]
December 15	122.8	132.3	127.6	107.7	121.2	120.8	112.9
Memphis:							
October 15	[3]	132.6	[3]	[3]	104.4	[3]	[3]
November 15	[3]	134.4	[3]	[3]	104.4	[3]	[3]
December 15	122.3	137.1	134.5	115.6	104.4	123.9	108.1
Milwaukee:							
October 15	[3]	125.2	[3]	[3]	103.9	[3]	[3]
November 15	[3]	126.8	[3]	[3]	103.9	[3]	[3]
December 15	118.2	128.6	122.6	108.2	103.9	124.4	112.7
Minneapolis:							
October 15	118.0	126.6	125.8	110.4	99.0	124.3	114.4
November 15	118.9	128.9	125.9	110.3	99.0	124.3	115.0
December 15	119.2	129.9	126.0	109.9	99.0	124.3	115.0
Mobile:							
October 15	[3]	136.8	[3]	[3]	103.4	[3]	[3]
November 15	[3]	137.6	[3]	[3]	103.4	[3]	[3]
December 15	123.0	138.3	127.0	[4] 114.9	103.4	121.4	113.4
New Orleans:							
October 15	[3]	141.4	[3]	[3]	96.5	[3]	[3]
November 15	[3]	140.7	[3]	[3]	96.5	[3]	[3]
December 15	124.7	142.9	129.3	107.1	96.5	126.8	110.8
New York:							
October 15	117.4	128.0	125.8	103.3	109.0	117.5	110.5
November 15	118.5	130.2	125.9	103.3	109.2	117.8	111.4
December 15	119.3	132.3	126.2	103.2	109.2	117.9	111.6
Norfolk:							
October 15	[3]	134.0	[3]	[3]	114.9	[3]	[3]
November 15	[3]	135.4	[3]	[3]	114.9	[3]	[3]
December 15	124.4	136.4	130.7	[4] 108.7	114.9	123.8	120.3
Philadelphia:							
October 15	117.7	125.8	126.2	106.7	103.7	122.1	112.7
November 15	118.8	128.2	126.2	106.7	103.7	122.2	113.6
December 15	119.7	130.5	125.9	106.7	103.7	122.4	113.6
Pittsburgh:							
October 15	118.8	129.4	127.9	107.3	108.4	122.0	111.2
November 15	119.2	129.6	128.2	107.3	108.4	121.9	112.4
December 15	120.0	131.6	128.1	[4] 107.3	109.6	121.8	112.5
Portland, Maine:							
October 15	[3]	128.5	[3]	[3]	113.9	[3]	[3]
November 15	[3]	130.0	[3]	[3]	113.8	[3]	[3]
December 15	120.1	131.3	123.7	105.9	113.7	120.9	115.2

See footnotes at end of table.

TABLE 3.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower Salaried Workers by Groups of Items, October 15—December 15, 1942*—Continued

City and date	All items	Food	Clothing	Rent [1]	Fuel, electricity, and ice	Housefurnishings	Miscellaneous
Portland, Oreg.:							
October 15	[2]	142.2	[2]	[2]	116.5	[2]	[2]
November 15	[2]	143.0	[2]	[2]	116.5	[2]	[2]
December 15	126.8	145.9	125.9	[4] 115.2	116.6	121.2	114.1
Richmond:							
October 15	[2]	128.2	[2]	[2]	104.8	[2]	[2]
November 15	[2]	128.9	[2]	[2]	104.8	[2]	[2]
December 15	119.3	131.3	131.4	104.6	104.8	127.1	111.7
St. Louis:							
October 15	117.9	129.9	127.1	106.2	106.2	116.3	109.7
November 15	118.4	130.8	127.1	106.2	106.2	116.3	110.6
December 15	119.8	134.4	126.9	106.1	106.2	116.3	111.0
San Francisco:							
October 15	121.7	134.6	125.3	105.9	94.1	119.2	118.5
November 15	123.6	139.3	125.4	105.9	94.1	119.2	119.3
December 15	124.0	140.1	125.5	[4] 105.9	94.1	119.2	119.5
Savannah:							
October 15	123.6	137.1	127.5	114.9	108.8	119.9	114.3
November 15	123.4	136.0	127.5	114.9	109.6	119.9	115.1
December 15	124.2	137.6	127.6	115.0	109.6	119.9	115.8
Scranton:							
October 15	[2]	129.0	[2]	[2]	99.5	[2]	[2]
November 15	[2]	130.3	[2]	[2]	99.5	[2]	[2]
December 15	117.8	131.7	126.7	97.8	99.5	122.9	109.4
Seattle:							
October 15	123.6	139.6	128.8	109.8	100.5	119.6	116.8
November 15	124.3	141.3	128.3	109.6	100.5	119.6	117.3
December 15	125.1	143.6	128.2	[4] 109.6	100.6	119.6	117.2
Washington, D. C.:							
October 15	117.7	129.5	131.8	100.3	103.6	129.1	114.5
November 15	118.2	130.5	131.8	100.3	103.6	129.1	115.4
December 15	119.0	132.7	131.8	[4] 100.3	103.8	129.1	115.7

[1] Rental data are now obtained from tenants in 28 of the 34 cities covered by the Bureau's quarterly surveys. The December survey on this new basis resulted in slight increases in rent indexes for a number of cities, in particular for Houston.

[2] Based on data for 51 cities. [3] Monthly data not available. [4] Includes suburban rents.

TABLE 4.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities, 1935 to December 15, 1942*

[Average 1935–39=100]

Year	All items	Food	Clothing	Rent	Fuel, electricity, and ice	Housefurnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
Jan. 15	100.8	97.8	100.7	105.0	100.8	100.1	101.9
Feb. 15	100.8	97.9	100.4	105.1	100.6	100.4	101.9
Mar. 15	101.2	98.4	102.1	105.1	100.7	101.6	101.9
Apr. 15	102.2	100.6	102.4	105.4	101.0	102.4	102.2
May 15	102.9	102.1	102.8	105.7	101.1	103.2	102.5
June 15	104.6	105.9	103.3	105.8	101.4	105.3	103.3
July 15	105.3	106.7	104.8	106.1	102.3	107.4	103.7
Aug. 15	106.2	108.0	106.9	106.3	103.2	108.9	104.0
Sept. 15	108.1	110.7	110.8	106.8	103.7	112.0	105.0
Oct. 15	109.3	111.6	112.6	107.5	104.0	114.4	106.9
Nov. 15	110.2	113.1	113.8	107.8	104.0	115.6	107.4
Dec. 15	110.5	113.1	114.8	108.2	104.1	116.8	107.7
1942:							
Jan. 15	112.0	116.2	116.1	108.4	104.3	118.2	108.5
Feb. 15	112.9	116.8	119.0	108.6	104.4	119.7	109.4
Mar. 15	114.3	118.6	123.6	108.9	104.5	121.2	110.1
Apr. 15	115.1	119.6	126.5	109.2	104.3	121.9	110.6
May 15	116.0	121.6	126.2	109.9	104.9	122.2	110.9
June 15	116.4	123.2	125.3	108.5	105.0	122.3	110.9
July 15	117.0	124.6	125.3	108.0	106.3	122.8	111.1
Aug. 15	117.5	126.1	125.2	108.0	106.2	123.0	111.1
Sept. 15	117.8	126.6	125.8	108.0	106.2	123.6	111.4
Oct. 15	119.0	129.6	125.9	108.0	106.2	123.6	111.8
Nov. 15	119.8	131.1	125.9	108.0	106.2	123.7	112.7
Dec. 15	120.4	132.7	125.9	108.0	123.7	123.1	112.8

HOURLY ENTRANCE RATES PAID TO COMMON LABORERS, 1942[1]

Summary

ADULT male common laborers in July 1942 had an average hourly rate of 58.5 cents for the country as a whole, a study of 20 industries reveals. This is a weighted average and not strictly comparable with the results of past studies. Comparable unweighted data for 13 industries, however, indicate an increase of 7 cents an hour, or about 12 percent, since July 1941. Slightly over a third of all common laborers studied received average hourly entrance rates under 42.5 cents in 1942. About a third were paid 70.0 cents an hour or over.

As in earlier years, the average rate in the North and West (72.2 cents) was considerably higher than that in the South and Southwest (41.1 cents). Among the subdivisions of regions, the Pacific Coast reported the highest average (83.2 cents).

The average entrance rate in manufacturing was 56.1 cents; that in public utilities, 53.6 cents; and that in the building construction industry, 67.4 cents an hour. Among specific industries, blast furnaces, steel works, and rolling mills showed the highest hourly entrance rate (74.5 cents); and fertilizers the lowest (43.5 cents). Rates in the larger cities tended to exceed those in the smaller. Among specific cities, Oakland, Seattle, Portland, and San Francisco paid the highest rates to manufacturing workers.

Significance of Common-Labor Rates

The entrance rates paid to male common labor occupy a position of considerable importance in American industrial wage structure. Numbering several millions, even in peacetime, common laborers constitute the largest occupational group of workers engaged in nonagricultural pursuits. Their wages, paid to a fairly homogeneous group of workers and almost entirely free from the disturbing influence of incentive-payment systems, provide the best available basis for general comparisons of wage levels by region, size of city, etc. Common-labor entrance rates are of great significance in collective bargaining and their level frequently determines the nature of the entire lower portion of an industry's wage scale.

Information regarding entrance rates of common labor has been secured in annual surveys by the Bureau of Labor Statistics since 1926, by means of mail questionnaires. The Bureau's studies have

[1] Prepared in the Bureau's Division of Wage Analysis by Robert L. Davis and John L. Dana, under the supervision of Edward K. Frazier.

covered most of the manufacturing industries employing large numbers of common laborers and have also included representation of public utilities and building construction. In recent years, 16 manufacturing industries and 3 public utilities have been included.[2] Among the more important fields of employment not represented are the railroads and the construction of roads, highways, and other public works.

As defined in the Bureau's questionnaires, common laborers include those workers "who perform physical or manual labor of a general character and simple nature, requiring no special training, judgment, or skill." The instructions accompanying the questionnaires direct that apprentices and learners be excluded, as well as machine operators or other workers who can be designated by distinct occupational titles. There is evidence that some unskilled male workers other than common laborers are actually included in the returns received by the Bureau, but it is believed that these are not numerous enough or sufficiently different with respect to wage level to influence the results appreciably.

Common laborers employed at rates other than the established entrance rates are also excluded from the Bureau's study. Undoubtedly the average rates paid to all common laborers are slightly higher than the average entrance rates alone. Substantial proportions of all laborers receive the entrance rates, however, and it is in terms of these rates that the closest comparability is attained.

Changes in Bureau's Method of Analysis

In most respects the scope and method of the Bureau's 1942 study of entrance rates are similar to those described in connection with the reports on earlier studies.[3] In two important respects, however, the data presented for 1942 are different from those previously reported: (1) The 1942 rates relate exclusively to first-shift workers; and (2) a system of weighting has been introduced in order to reflect more faithfully the true importance of the various States and industries.

The limitation of the 1942 data to first-shift workers was adopted in order to adhere to the current policy of reporting basic rates and to eliminate the influence of changes in the organization of production unaccompanied by wage changes. Rates of pay of evening and night shift workers are often higher than those of first (day) shift workers, as a result of the payment of a "late shift bonus" which is common in many industries and localities. Employment on late shifts has not been an important factor in earlier years and the influence of such differentials could safely be ignored. The rise of war production, however, has brought about a substantial increase in late-shift work. Establishments cooperating in the Bureau's survey reported that approximately 17 percent of the common laborers on all shifts worked on shifts other than the first. The inclusion of these late-shift workers would have increased slightly the average rates for some sections of the country.

[2] The specific industries covered are indicated in table 4. Data for electric light and power and for manufactured and natural gas have been combined. Definitions used in distinguishing the various manufacturing industries are those of the Census of Manufactures.

[3] See, for example, Monthly Labor Review, January 1942 (pp. 149–173): Hourly Entrance Rates Paid to Common Laborers, 1941.

Previous reports on entrance rates of common labor have combined without special weighting the returns received by the Bureau from the thousands of cooperating firms throughout the United States. Analysis has revealed, however, that certain industries and regions have received more than proportionate representation, while others have been under-represented. In general, for various reasons, the high-wage industries and localities have received proportionately more weight than the low-wage ones. For example, the steel industry, in which wages are relatively high, has reported on a much more complete basis than the southern lumber industry, in which much lower wages prevail. The result of this has been to overstate somewhat the average rates for various combinations of establishments.

The weighting system introduced for the first time in the analysis of the 1942 data makes partial correction for such differences in proportionate representation. First, the number of common laborers in each covered industry, by State, was estimated; then, the number of common laborers reported from each State industry segment was weighted upward to the estimated total. In combining the data for manufacturing, public utilities, and building construction (tables 1, 2, 3, and 6), the data for manufacturing have been given the weight of all manufacturing and not merely that of the specific industries covered; and the data for the selected utilities have been given the additional weight of a broad utilities grouping.[4]

This simple system of weighting is recognized as falling far short of the ideal. It fails, for example, to take full account of the over-representation of large establishments in the questionnaire returns, another factor which tends to exaggerate the wage levels. In certain comparisons of wage rates by size of city (table 6) it has been necessary to assume that the weightings used for entire States have been appropriate for cities as well. In spite of these and other shortcomings, however, there is little doubt that the weights employed have increased considerably the accuracy and consistency of the material presented.

The effect of weighting, as revealed by comparisons with unweighted figures, is to increase the over-all average rate for the North and West by 1.6 cents and to reduce that for the South and Southwest by 2.6 cents. At the same time the influence of the South and Southwest is considerably enhanced, and the over-all average for the Nation as a whole is reduced by fully 4.5 cents. The data presented in this report are not strictly comparable, therefore, with those for earlier years. For purposes of comparison, however, the unweighted figures for 13 industries combined, in the United States as a whole, are presented in table 8.

Variations in Entrance Rates in the Country as a Whole

The average hourly entrance rate paid to common laborers in the country as a whole in July 1942 was 58.5 cents. This figure is based on the weighted returns of 7,245 establishments employing 248,000 laborers at entrance rates on first shifts. The unweighted average for 13 industries, presented in table 8, exceeds by 7 cents per hour the

[4] The following public-utility classifications of the 1940 Census of Occupations were included: Electric light and power; gas works and steam plants; street railways and bus lines; telephone and telegraph; trucking service; and warehousing and storage.

comparable figure for 1941, revealing an increase of approximately 12 percent during the year.

The rates paid to individual workers ranged from less than 30 cents an hour to more than $1.05. This broad range was due in part to the influence of geographic factors, race, industry, size of city, and similar factors. Some of these are discussed in the following pages. As is indicated by the distribution in table 1, slightly more than a third of all common laborers at entrance rates received less than 42.5 cents an hour. A little less than a third received rates between 42.5 and 70.0 cents an hour. The remainder were paid 70.0 cents an hour or over.

TABLE 1.—*Percentage Distribution of Adult Male Common Laborers by Hourly Entrance Rates, in Manufacturing, Public Utilities, and Building Construction, July 1942*

Hourly entrance rate	Simple percentage	Cumulative percentage	Hourly entrance rate	Simple percentage	Cumulative percentage
Under 30.0 cents	0.5	0.5	65.0 and under 67.5 cents	3.6	63.0
Exactly 30.0 cents	2.8	3.3	67.5 and under 70.0 cents	2.7	65.7
Over 30.0 and under 32.5 cents	.1	3.4	70.0 and under 72.5 cents	5.7	71.4
32.5 and under 35.0 cents	.8	4.2	72.5 and under 75.0 cents	2.4	73.8
35.0 and under 37.5 cents	15.4	19.6	75.0 and under 77.5 cents	3.9	77.7
37.5 and under 40.0 cents	2.5	22.1	77.5 and under 80.0 cents	4.9	82.6
40.0 and under 42.5 cents	13.5	35.6	80.0 and under 82.5 cents	2.4	85.0
42.5 and under 45.0 cents	.5	36.1	82.5 and under 85.0 cents	3.8	88.8
45.0 and under 47.5 cents	2.5	38.6	85.0 and under 87.5 cents	1.6	90.4
47.5 and under 50.0 cents	.7	39.3	87.5 and under 90.0 cents	1.6	92.0
50.0 and under 52.5 cents	6.5	45.8	90.0 and under 95.0 cents	2.1	94.1
52.5 and under 55.0 cents	.8	46.6	95.0 and under 100.0 cents	1.8	95.9
55.0 and under 57.5 cents	4.8	51.4	100.0 and under 105.0 cents	3.2	99.1
57.5 and under 60.0 cents	1.4	52.8	105.0 cents and over	.9	100.0
60.0 and under 62.5 cents	4.7	57.5			
62.5 and under 65.0 cents	1.9	59.4	Total	100.0	

The largest concentration in any 2.5-cent interval, comprising 15.4 percent of the workers, fell within the rate-class interval of 35.0 and under 37.5 cents. This class apparently reflects the preponderance of common laborers in the lumber (sawmills) industry in the South and Southwest at the 35.0-cent minimum set for the lumber industry under the Fair Labor Standards Act. The interval of 40.0 and under 42.5 cents showed the second largest concentration in the entire distribution. The prevalence of the 78.0-cent common-labor rate in the steel industry in the North is reflected by a modest concentration of workers in the interval of 77.5 and under 80.0 cents.

Geographical Variations

Table 2 and the accompanying map clearly demonstrate that the geographical factor has an important bearing upon entrance rates paid for common labor. The average rate in the North and West was 72.2 cents and exceeded by 31.1 cents the average for the South and Southwest (41.1 cents). Within these broad regions, however, entrance rates were by no means uniform. Entrance rates were considerably higher on the Pacific Coast (83.2 cents) than in New England (62.3 cents). Several Northern States paid lower entrance rates than Kentucky in the South. It is to be noted that wage levels in the various regions reflect in part differences in other factors, such as the number of large cities and the type of industry. It is significant that all cities of 500,000 population or more are in the North and West.

TABLE 2.—*Average Hourly Entrance Rates of Adult Male Common Laborers in Manufacturing, Public Utilities, and Building Construction, by Region and State, July 1942*

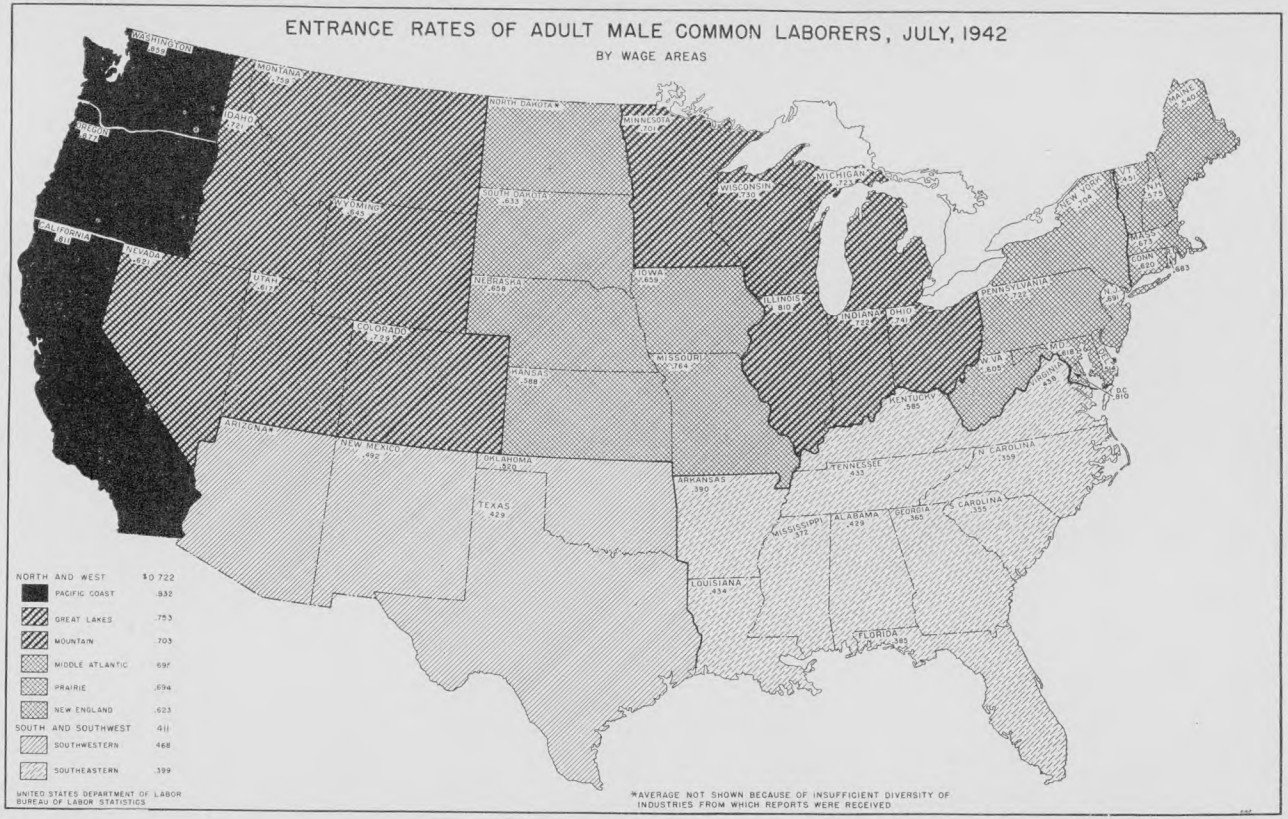
Region and State	Average hourly entrance rate	Region and State	Average hourly entrance rate
United States	$0.585	North and West—Continued.	
		New England—Continued.	
North and West	.722	New Hampshire	$0.575
Pacific Coast	.832	Rhode Island	.683
California	.811	Vermont	.451
Oregon	.877	Middle Atlantic	.695
Washington	.859	Delaware	.514
Mountain	.703	District of Columbia	.810
Colorado	.729	Maryland	.618
Idaho	.721	New Jersey	.691
Montana	.759	New York	.704
Nevada	.621	Pennsylvania	.722
Utah	.617	West Virginia	.605
Wyoming	.645		
Prairie	.694	South and Southwest	.411
Iowa	.659	Southeastern	.399
Kansas	.588	Alabama	.429
Missouri	.764	Arkansas	.390
Nebraska	.658	Florida	.385
North Dakota	(1)	Georgia	.365
South Dakota	.633	Kentucky	.585
Great Lakes	.753	Louisiana	.434
Illinois	.810	Mississippi	.372
Indiana	.722	North Carolina	.359
Michigan	.723	South Carolina	.355
Minnesota	.701	Tennessee	.433
Ohio	.741	Virginia	.438
Wisconsin	.730	Southwestern	.468
New England	.623	Arizona	(1)
Connecticut	.620	New Mexico	.492
Maine	.540	Oklahoma	.520
Massachusetts	.673	Texas	.429

[1] Average not shown because of insufficient diversity of industries from which reports were received.

In the North and West as a whole (including 33 States and the District of Columbia) rates varied over a range of 42.6 cents, from the Vermont average of 45.1 cents to the Oregon average of 87.7 cents. The Pacific Coast area, with the highest sectional average, exhibited a spread of only 6.6 cents between the California low of 81.1 cents and the Oregon high of 87.7 cents. This was the narrowest spread within any area in the broad region.

The 6 Mountain States as a group averaged 70.3 cents. Rates for these States ranged from 61.7 cents in Utah to 75.9 cents in Montana, a spread of 14.2 cents. Farther in the interior, the 6 Prairie States averaged 69.4 cents and showed a spread of 17.6 cents between the lowest and the highest State averages. The influence of the larger cities in Missouri, and particularly of the building-construction industry in those cities, obscures the influence of the geographical factor to some extent.

The average of 75.3 cents for the Great Lakes area was the second highest in the North and West region. Rates in the 6 States included in the area were relatively uniform—a spread of only 10.9 cents—ranging from the Minnesota rate of 70.1 cents to the Illinois rate of 81.0 cents. The New England area, on the other hand, showed a wide diversity of rates, ranging from a low of 45.1 cents in Vermont to 68.3 cents in Rhode Island. It may be observed that the southern New England averages in every case exceeded those for the more northern States of Maine, New Hampshire, and Vermont.



The widest variation among rates in the North and West was found for the Middle Atlantic area including 6 States and the District of Columbia, and having a combined average of 69.5 cents. Individual average rates ranged from 51.4 cents in Delaware to 81.0 cents in the District of Columbia, a spread of 29.6 cents. In this general area, the influence of such factors as size of city and type of industry on the State averages was particularly pronounced.

In the broad region constituting the South and Southwest, and including 15 States, two general sectional patterns were discernible. The 11 Southeastern States averaged 39.9 cents, as compared with 46.8 cents for the 4 States in the Southwest. The first group of States varied 23.0 cents, from the South Carolina rate of 35.5 cents, to the Kentucky rate of 58.5 cents. When the Kentucky high was excluded, however, the range for the 10 remaining States was only 8.3 cents. The spread in the western group of States was approximately the same, 9.1 cents, being the difference between the Texas and the Oklahoma averages.

Differences in Rates by Race

Almost two-thirds of the common laborers in the three industrial groups combined, based on weighted data, were whites other than Mexican. Approximately a third were Negroes and about 2 percent were Mexicans. These proportions, of course, would not be the same if wage earners in all occupations combined were considered. Average rates paid to whites other than Mexican in the country as a whole exceeded those paid to either of the other two racial groups. Negroes as a group had the lowest average. The comparative figures for the United States as a whole are as follows:

Whites other than Mexican	$0.653
Mexicans	.575
Negroes	.474

Examination of the racial averages by broad geographic region, however, reveals that the concentration of Negroes in the South and Southwest is associated with their low average rate in the United States as a whole. In the North and West, the average rate for Negro common laborers was somewhat higher than the common-labor averages for the other racial groups—73.6 cents, as compared with 70.5 cents for Mexicans and 72.0 cents for other whites.

A higher entrance rate for Negroes than for other common laborers in the North and West has been reported in earlier studies by the Bureau of Labor Statistics. This fact apparently results from concentrations of Negro workers in certain heavy industries in which high wages prevail, as for example, in the steel and building-construction industries. The distributions in table 3 illustrate the racial variations further; thus, 49.7 percent of the Negroes in the North and West received rates above 77.5 cents an hour, compared with 37.3 percent of the whites other than Mexican and 28.4 percent of the Mexicans. On the other hand, the proportion of Negro workers receiving less than 42.5 cents was also higher than for the other groups.

In the South and Southwest, the average paid to Negroes as a group (39.6 cents an hour) fell below the regional average. Whites other than Mexican averaged 43.6 cents an hour, and Mexicans 46.3 cents. As is indicated by table 3, 81.5 percent of the Negroes, 66.7 percent of the whites other than Mexican, and 61.6 percent of the

Mexicans received less than 42.5 cents per hour. In the South and Southwest large numbers of Negroes are found in the lowest paid industries, especially lumber, brick, tile and terra cotta, and fertilizer.

TABLE 3.—*Percentages of Adult Male Common Laborers by Entrance Rates in Manufacturing, Public Utilities, and Building Construction, by Region and Race, July 1942*

Hourly entrance rate	North and West				South and Southwest			
	All laborers	White other than Mexican	Negro	Mexican	All laborers	White other than Mexican	Negro	Mexican
Under 30.0 cents	(1)	(1)	------	------	1.0	0.8	1.2	0.2
Exactly 30.0 cents	0.1	0.1	0.3	0.3	6.3	3.8	7.6	5.3
Over 30.0 and under 32.5 cents	(1)	(1)	(1)	------	.2	.1	.2	------
32.5 and under 35.0 cents	(1)	(1)	(1)	------	1.8	1.7	2.0	.3
35.0 and under 37.5 cents	1.2	1.3	1.1	(1)	34.0	24.1	40.1	3.2
37.5 and under 40.0 cents	.3	.3	.2	------	5.5	5.9	5.4	1.1
40.0 and under 42.5 cents	2.6	2.3	4.6	.3	27.4	30.3	25.0	51.5
42.5 and under 45.0 cents	.3	.3	.1	------	.8	.5	1.0	.5
45.0 and under 47.5 cents	2.2	2.4	1.1	2.8	2.8	3.1	2.6	3.1
47.5 and under 50.0 cents	.7	.7	.8	.1	.7	1.0	.5	.2
50.0 and under 52.5 cents	6.9	7.5	4.1	5.1	5.9	8.1	4.2	20.4
52.5 and under 55.0 cents	.9	.9	.9	2.8	.6	.7	.4	2.0
55.0 and under 57.5 cents	4.1	4.4	2.9	3.6	5.6	7.1	5.1	.1
57.5 and under 60.0 cents	1.2	1.3	.9	1.3	1.6	2.8	1.0	1.7
60.0 and under 62.5 cents	7.3	7.8	3.5	8.3	1.4	1.5	1.4	.2
62.5 and under 65.0 cents	2.6	2.7	2.1	4.4	1.0	2.4	.4	.8
65.0 and under 67.5 cents	5.8	6.1	4.6	4.6	.7	1.0	.5	.2
67.5 and under 70.0 cents	3.5	3.4	4.4	.3	1.7	3.0	1.1	------
70.0 and under 72.5 cents	9.8	10.1	8.0	15.0	.3	.7	.2	.1
72.5 and under 75.0 cents	4.3	3.8	7.0	4.5	(1)	(1)	------	(1)
75.0 and under 77.5 cents	7.0	7.3	3.7	18.2	(1)	.1	(1)	.2
77.5 and under 80.0 cents	8.8	8.3	11.2	6.1	(1)	.1	(1)	------
80.0 and under 82.5 cents	4.3	4.3	4.0	8.0	(1)	(1)	------	------
82.5 and under 85.0 cents	6.2	4.9	13.5	2.0	.7	1.2	.1	8.9
85.0 and under 87.5 cents	2.9	3.1	1.5	3.6	(1)	(1)	------	------
87.5 and under 90.0 cents	2.8	2.2	5.5	6.0	(1)	(1)	------	------
90.0 and under 95.0 cents	3.7	3.3	6.4	2.2	------	------	------	------
95.0 and under 100.0 cents	3.2	3.1	4.1	.2	------	------	------	------
100.0 and under 105.0 cents	5.7	6.4	2.5	.2	------	------	------	------
105.0 cents and over	1.6	1.7	1.0	.1	------	------	------	------
All rates	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage distribution of laborers at entrance rates	100.0	83.0	15.1	1.9	100.0	32.5	64.7	2.8
Average hourly entrance rate	$0.722	$0.720	$0.736	$0.705	$0.411	$0.436	$0.396	$0.463

[1] Less than a tenth of 1 percent.

Variations by Industry

Common-labor entrance rates showed considerable variation from industry to industry. Industry variation occurred also within racial groups and within the two regions. The general averages presented in table 4 are indicative of rates in each of the three major industrial groups.

The average rate paid in manufacturing in July 1942 for the country as a whole was 56.1 cents and the rate in public utilities was 53.6 cents; both were exceeded by the building-construction rate of 67.4 cents. Within the manufacturing group, a range of 31.0 cents was indicated between the 43.5-cent average for fertilizers and the 74.5-cent average for blast furnaces, steel works, and rolling mills. Despite the large spread, only three of the selected industries—fertilizers,

lumber (sawmills), and brick, tile, and terra cotta—fell below the manufacturing average itself. Within public utilities, the spread was considerably less, 5.6 cents between the 51.7-cent average in electric light and power and the 57.3-cent average in electric street-railway and city motorbus operation and maintenance. Among all industries and industry groups considered, three manufacturing industries—blast furnaces, steel works, and rolling mills; petroleum refining; and chemicals—paid the highest average hourly entrance rates in the country.

TABLE 4.—*Average Hourly Entrance Rates of Adult Male Common Laborers, by Industry, Region, and Race, July 1942*

Industry	United States	North and West				South and Southwest			
		Total	White other than Mexican	Negro	Mexican	Total	White other than Mexican	Negro	Mexican
16 manufacturing industries	$0.561	$0.672	$0.669	$0.684	$0.698	$0.398	$0.427	$0.384	$0.458
Automobile parts	.640	(1)	(1)	(1)	(1)	(1)	(1)	------	------
Blast furnaces, steel works, and rolling mills	.745	.766	.766	.766	.775	.562	.538	.575	(2)
Brick, tile, and terra cotta	.529	.600	.599	.607	.588	.383	.450	.355	.421
Cement	.640	.676	.675	.670	.692	.543	.552	.539	.521
Chemicals	.693	.750	.745	.801	(2)	.485	.521	.453	(2)
Fertilizers	.435	.565	.585	.539	.730	.368	.361	.368	(2)
Foundry and machine-shop products	.594	.628	.624	.647	.689	.430	.437	.424	.436
Glass	.592	.601	.603	.567	(2)	.496	.487	.516	------
Leather	.616	.625	.625	.630	(2)	.538	.553	.467	(2)
Lumber (sawmills)	.440	.643	.647	.423	.671	.363	.366	.361	.460
Meat packing	.669	.691	.684	.721	.705	.535	.553	.492	.516
Paints and varnishes	.620	.636	.634	.619	.814	.419	.430	.403	(2)
Paper and pulp	.622	.642	.642	.608	(2)	.576	.568	.583	------
Petroleum refining	.737	.838	.844	.795	(2)	.607	.654	.546	(2)
Rubber tires and inner tubes	.647	(1)	(1)	(1)	------	(1)	------	(1)	------
Soap	.666	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Public utilities	.536	.605	.608	.604	.528	.390	.411	.372	.362
Electric light and power and manufactured and natural gas	.517	.595	.592	.645	.630	.384	.407	.363	.361
Electric street-railway and city motorbus operation and maintenance	.573	.621	.638	.585	.508	.408	.424	.394	(2)
Building construction	.674	.833	.841	.806	.775	.454	.476	.439	.476

[1] Regional average omitted to avoid disclosure of individual operations.
[2] Data insufficient to justify presentation of an average.

In the North and West, rates in building construction averaged 83.3 cents, as compared with 67.2 cents in manufacturing and 60.5 cents in public utilities. Although Negroes averaged slightly more than either of the other racial groups when all industry groups were combined, this was not the case when the industry group averages were taken separately. In manufacturing, the Mexican average was highest, 69.8 cents; Negroes averaged 68.4 cents, and whites other than Mexican, 66.9 cents. In public utilities, whites other than Mexican averaged 60.8 cents; Negroes, 60.4 cents; Mexicans, 52.8 cents. In building construction, the corresponding averages for these races in order were 84.1 cents, 80.6 cents, and 77.5 cents an hour. The largest spread was in public utilities which showed a range of 8.0 cents from the rate for Mexicans to that for other whites.

Among the 13 manufacturing industries in the North and West for which averages are presented, the highest rates were in petroleum (83.8 cents), blast furnaces, steel works, and rolling mills (76.6 cents), and chemicals (75.0 cents). Fertilizers paid the lowest rate, 56.5

cents, showing a variation of 27.3 cents from the highest rate (petroleum).

No racial group in the region maintained a consistent advantage from industry to industry. Among the more important industries shown for manufacturing, Negroes had the highest average rates in chemicals and meat packing, and whites other than Mexican ranked first in petroleum and paper and pulp. Mexicans' rates topped those of other workers in several industries but Mexicans were not found in significant proportions. The largest variation evidenced within any one industry was a difference of 24.8 cents between the Negro average (42.3 cents) and the Mexican average (67.1 cents) in the lumber industry.

Common-labor entrance rates for the three major industry groups varied relatively little in the South and Southwest although there was considerable variation among specific industries. The range was only 6.4 cents, from the average paid in the public utilities group (39.0 cents) to the average for building construction (45.4 cents). The manufacturing average was 39.8 cents. Mexicans, who showed the highest combined average for the region, had also the highest average in manufacturing—45.8 cents an hour as against 42.7 cents for whites other than Mexican and 38.4 cents for Negroes. Negroes in building construction averaged 43.9 cents as compared with 47.6 cents for the other racial groups. The average for whites other than Mexican in public utilities (41.1 cents) exceeded the averages for Negroes (37.2 cents) and Mexicans (36.2 cents). Manufacturing exhibited the widest range from one racial group to another.

Manufacturing industries in the South and Southwest also showed an extreme variation of 24.4 cents between the 36.3-cent low in lumber and the 60.7-cent high in petroleum. Ranking immediately below petroleum were paper and pulp, and blast furnaces, steel works, and rolling mills, with average rates of 57.6 and 56.2 cents. The second lowest rate (36.8 cents) was paid in fertilizers.

Whites other than Mexican, numerically fewer than the two other racial groups combined, were at the highest rate levels in 8 of the 13 manufacturing industries for which data are shown for the South and Southwest region. Negroes were highest in four. Mexicans, for whom averages are published for five industries only, were highest in one. Whites other than Mexican received higher rates than either Negroes or Mexicans in individual public utilities.

VARIATIONS IN ENTRANCE RATES IN INDIVIDUAL INDUSTRIES

Cumulative percentages of common laborers at specified entrance rate intervals for each of the industries studied are presented in table 5. The majority of the laborers in all industries, with the exception of lumber and fertilizers, were paid rates between 45.0 and 90.0 cents an hour.

TABLE 5.—*Cumulative Percentage Distribution of Adult Male Common Laborers, by Hourly Entrance Rates, Industry, and Region, July 1942*

Hourly entrance rate (in cents)	Automobile parts [1]	Blast furnaces, steel works, and rolling mills			Brick, tile, and terra cotta			Cement		
		Total	North and West	South and Southwest	Total	North and West	South and Southwest	Total	North and West	South and Southwest
Under 30.0					1.1	[2]	3.3			
30.0 and under					5.7	[2]	17.4			
Under 32.5					5.7	[2]	17.4			
Under 35.0	0.1	[2]		0.3	15.3	0.5	45.8	0.5		1.9
Under 37.5	1.1	[2]		.3	21.6	1.1	63.8	.5		1.9
Under 40.0	1.1	[2]		.3	24.2	1.8	70.6	.5		1.9
Under 42.5	2.3	0.1	0.1	.3	29.5	5.2	79.8	1.3	1.0	1.9
Under 45.0	2.3	.3	.1	2.3	30.2	6.2	80.1	1.8	1.0	3.9
Under 47.5	3.1	3.2	.1	30.7	36.2	11.4	87.8	2.0	1.3	3.9
Under 50.0	3.3	3.8	.1	36.2	39.5	15.4	89.8	2.0	1.3	3.9
Under 52.5	24.4	3.9	.2	36.2	46.0	24.1	91.6	13.4	1.4	45.4
Under 55.0	26.0	4.1	.4	36.2	46.7	25.1	91.6	14.0	1.4	47.5
Under 57.5	34.4	4.6	.9	36.2	52.4	33.3	92.1	23.6	2.2	80.6
Under 60.0	35.8	5.7	1.2	44.1	54.1	35.8	92.1	27.5	4.8	87.8
Under 62.5	50.4	11.5	2.7	87.0	68.1	56.5	92.1	37.9	15.0	98.8
Under 65.0	50.5	12.4	3.3	90.1	75.3	64.4	97.9	44.4	23.4	100.0
Under 67.5	57.2	13.5	4.6	90.1	77.3	67.2	98.4	55.1	38.1	
Under 70.0	58.1	15.9	7.3	90.1	92.1	88.2	100.0	56.3	39.7	
Under 72.5	67.3	20.1	11.0	99.2	95.8	93.7		93.4	90.8	
Under 75.0	69.4	21.9	13.0	99.2	96.8	95.2		96.6	95.2	
Under 77.5	82.5	24.8	16.3	99.2	97.9	96.9		96.9	95.6	
Under 80.0	92.0	98.3	98.1	100.0	98.2	97.4		98.0	97.2	
Under 82.5	93.6	99.0	98.9		98.2	97.4		99.3	99.0	
Under 85.0	94.0	[3] 100.0	[3] 100.0		99.3	99.0		99.5	99.3	
Under 87.5	98.4				99.7	99.5		100.0	100.0	
Under 90.0	99.0				99.7	99.5				
Under 95.0	100.0				99.9	99.9				
Under 100.0					100.0	100.0				
Under 105.0										

Hourly entrance rate (in cents)	Chemicals			Fertilizers			Foundry and machine-shop products			Glass		
	Total	North and West	South and Southwest	Total	North and West	South and Southwest	Total	North and West	South and Southwest	Total	North and West	South and Southwest
Under 30.0				1.7		2.5	[2]		0.1			
30.0 and under	0.6	[2]	2.5	22.5	4.6	31.6	2.3	[2]	13.4	1.3	0.1	13.8
Under 32.5	.6	[2]	2.5	22.6	4.6	31.8	2.3	[2]	13.4	1.3	.1	13.8
Under 35.0	.6	[2]	2.5	23.8	4.6	33.6	2.3	[2]	13.4	2.2	.1	23.8
Under 37.5	1.3	0.4	4.3	37.4	9.0	52.0	3.6	0.2	20.4	2.6	.1	28.2
Under 40.0	1.9	.5	6.6	42.2	9.7	59.0	4.0	.2	22.7	2.8	.2	28.8
Under 42.5	5.6	1.1	21.5	60.3	15.6	83.4	14.2	2.8	69.9	3.3	.7	29.4
Under 45.0	6.3	1.1	24.9	61.0	16.4	84.0	14.7	3.1	71.6	3.6	1.1	29.4
Under 47.5	13.8	1.1	59.6	66.7	19.8	90.9	19.1	6.3	81.7	8.7	4.2	55.3
Under 50.0	14.3	1.3	61.4	67.2	20.6	91.3	20.6	7.0	87.1	12.7	8.6	55.3
Under 52.5	19.2	3.9	74.8	78.8	38.6	99.7	32.3	20.0	92.4	25.3	21.8	60.7
Under 55.0	19.3	3.9	75.3	79.4	40.2	99.7	34.6	22.0	95.9	36.5	34.0	60.7
Under 57.5	21.5	6.5	76.3	81.9	46.9	100.0	43.3	32.3	96.8	49.3	48.0	60.7
Under 60.0	25.6	8.0	89.8	82.2	47.9		45.3	34.6	97.7	52.5	51.5	60.7
Under 62.5	28.6	11.8	90.0	89.8	70.3		57.6	49.0	100.0	64.9	62.7	85.8
Under 65.0	30.9	12.0	99.9	91.9	76.5		61.1	53.2		68.7	66.9	85.8
Under 67.5	34.7	16.9	99.9	94.8	85.0		71.7	66.0		83.5	83.2	85.8
Under 70.0	35.7	18.2	99.9	96.0	88.6		76.2	71.4		83.9	83.7	85.8
Under 72.5	44.6	29.5	99.9	97.2	92.2		81.8	78.1		84.7	83.8	93.2
Under 75.0	54.9	42.6	99.9	97.3	92.4		88.0	85.6		84.8	83.9	93.2
Under 77.5	71.1	63.3	99.9	98.5	95.8		92.4	90.9		98.7	98.6	100.0
Under 80.0	74.1	67.1	99.9	98.5	95.8		94.4	93.3		98.7	98.6	
Under 82.5	80.8	75.6	100.0	98.5	95.8		96.4	95.7		98.8	98.7	
Under 85.0	84.9	80.8		98.5	95.8		96.7	96.0		100.0	100.0	
Under 87.5	88.2	85.0		98.6	96.0		99.6	99.5				
Under 90.0	89.2	86.3		98.6	96.0		99.6	99.5				
Under 95.0	99.7	99.7		99.9	99.8		99.9	99.9				
Under 100.0	100.0	100.0		100.0	100.0		100.0	100.0				
Under 105.0												

See footnotes at end of table.

TABLE 5.—*Cumulative Percentage Distribution of Adult Male Common Laborers, by Hourly Entrance Rates, Industry, and Region, July 1942*—Continued

Hourly entrance rates (in cents)	Leather			Lumber (sawmills)			Meat packing		
	Total	North and West	South and Southwest	Total	North and West	South and Southwest	Total	North and West	South and Southwest
Under 30.0				0.8		1.1	0.1		0.8
30.0 and under	0.1		1.2	3.2	0.5	4.2	1.9	0.1	13.1
Under 32.5	.1		1.2	3.4	.5	4.4	1.9	.1	13.1
Under 35.0	.1		1.2	3.9	.5	5.1	1.9	.1	13.1
Under 37.5	.3	(2)	1.4	52.0	8.9	68.4	2.8	.2	18.6
Under 40.0	.3	(2)	1.4	61.5	10.7	80.8	3.0	.2	19.9
Under 42.5	2.9	1.9	10.9	75.7	17.8	97.7	4.4	1.0	25.1
Under 45.0	4.5	2.5	21.4	76.3	19.0	98.1	4.5	1.0	25.2
Under 47.5	6.8	5.0	22.1	78.1	25.1	98.4	4.8	1.2	26.4
Under 50.0	7.5	5.8	22.1	79.2	28.7	98.6	5.6	1.2	32.3
Under 52.5	19.5	18.7	26.6	82.1	39.3	98.6	6.8	2.3	34.0
Under 55.0	20.1	19.1	29.0	82.9	41.2	98.9	7.4	2.6	36.6
Under 57.5	35.0	30.7	72.4	83.0	41.4	98.9	12.7	7.0	47.2
Under 60.0	40.1	34.9	85.4	84.2	43.1	[5] 100.0	14.4	7.6	55.3
Under 62.5	49.4	45.3	85.4	84.7	44.8		17.1	10.7	55.3
Under 65.0	64.4	61.9	85.4	85.3	46.8		25.7	13.6	98.5
Under 67.5	71.5	68.2	100.0	85.6	48.0		30.4	18.8	100.0
Under 70.0	77.3	74.7		86.0	49.3		32.3	21.0	
Under 72.5	88.9	87.6		87.5	54.7		77.4	73.6	
Under 75.0	93.4	92.6		87.9	56.2		98.1	97.9	
Under 77.5	93.4	92.6		90.5	65.6		98.8	98.7	
Under 80.0	96.0	95.5		91.1	67.6		99.0	98.9	
Under 82.5	96.5	96.1		93.4	76.1		99.1	99.0	
Under 85.0	99.8	99.8		99.1	96.9		[3] 100.0	[3] 100.0	
Under 87.5	99.8	99.8		99.7	99.1				
Under 90.0	100.0	100.0		99.9	99.7				
Under 95.0				[4] 100.0	99.9				
Under 100.0					100.0				
Under 105.0									

Hourly entrance rate (in cents)	Paints and varnishes			Paper and pulp			Petroleum refining			Rubber tires and inner tubes [1]
	Total	North and West	South and Southwest	Total	North and West	South and Southwest	Total	North and West	South and Southwest	
Under 30.0	(2)		0.5							
30.0 and under	1.0	0.1	13.2	(2)		(2)				
Under 32.5	1.0	.1	13.2	(2)		(2)				
Under 35.0	2.1	.3	25.6	(2)		(2)				
Under 37.5	3.1	.7	34.2	(2)	(2)	(2)				
Under 40.0	3.4	1.0	34.2	(2)	(2)	(2)				
Under 42.5	9.7	6.8	46.5	1.2	0.8	2.0	0.1	(2)	0.2	1.4
Under 45.0	9.9	6.9	48.4	3.5	1.0	9.1	.1	(2)	.2	1.4
Under 47.5	16.5	12.4	68.7	6.3	2.8	14.1	2.4	(2)	5.5	5.0
Under 50.0	16.6	12.4	69.4	8.7	4.3	18.6	2.4	(2)	5.5	5.3
Under 52.5	33.7	28.9	92.6	19.6	13.2	34.3	5.7	0.4	12.5	13.3
Under 55.0	36.4	31.4	97.2	23.7	14.3	45.7	9.6	.8	21.0	13.3
Under 57.5	41.5	36.7	100.0	31.6	22.5	52.8	21.0	1.4	46.3	28.1
Under 60.0	41.5	36.7		43.0	27.6	79.3	21.9	1.7	47.9	28.1
Under 62.5	49.6	45.5		59.3	47.4	87.8	32.8	3.9	70.1	37.5
Under 65.0	51.5	47.5		65.2	54.4	91.3	33.5	4.1	71.4	37.5
Under 67.5	60.7	57.5		79.9	71.6	100.0	34.9	5.2	73.2	40.4
Under 70.0	66.5	63.8		85.1	78.9		35.7	6.5	73.4	40.4
Under 72.5	70.2	67.8		88.7	84.0		48.6	15.6	91.1	89.8
Under 75.0	75.9	73.9		89.3	84.9		49.4	16.8	91.4	89.8
Under 77.5	89.7	88.8		92.0	88.7		51.3	19.9	91.9	91.3
Under 80.0	90.1	89.3		92.4	89.3		58.6	30.1	95.4	96.3
Under 82.5	91.2	90.5		92.7	89.8		78.0	64.4	95.4	96.3
Under 85.0	91.5	90.8		99.0	98.4		83.4	71.2	99.1	96.3
Under 87.5	91.5	90.8		[6] 100.0	[6] 100.0		96.6	93.9	100.0	100.0
Under 90.0	94.3	93.8					96.8	94.3		
Under 95.0	99.6	99.5					98.3	96.9		
Under 100.0	100.0	100.0					100.0	100.0		
Under 105.0										

See footnotes at end of table.

TABLE 5.—*Comulative Percentage Distribution of Adult Male Common Laborers by Hourly Entrance Rates, Industry, and Region, July 1942*—Continued

Hourly entrance rate (in cents)	Soap [1]	Electric light and power and manufactured and natural gas			Electric street-railway and city motorbus operation and maintenance			Building construction		
		Total	North and West	South and Southwest	Total	North and West	South and Southwest	Total	North and West	South and Southwest
Under 30.0	-------	1.2	(2)	3.2	-------	-------	-------	0.3	-------	0.8
30.0 and under	0.3	8.7	0.1	23.2	(2)	-------	0.1	2.8	(2)	6.7
Under 32.5	.3	9.3	.1	24.8	0.1	-------	.5	2.8	(2)	6.7
Under 35.0	.3	10.0	.2	26.4	.6	0.1	2.5	2.8	(2)	6.7
Under 37.5	.4	18.6	.9	48.5	4.3	.2	18.6	4.7	0.1	11.0
Under 40.0	3.7	19.0	1.1	49.3	5.4	.4	22.6	4.7	.1	11.0
Under 42.5	8.9	31.8	7.3	73.5	19.0	2.3	76.1	27.3	2.5	61.6
Under 45.0	9.0	32.7	8.1	74.7	22.9	3.9	87.8	27.4	2.5	61.7
Under 47.5	12.9	40.6	16.2	82.2	27.3	8.8	90.4	29.0	3.5	64.1
Under 50.0	13.4	41.3	16.5	83.6	29.4	10.6	93.2	29.0	3.5	64.1
Under 52.5	20.9	58.5	34.8	99.1	35.4	17.2	97.0	36.5	7.3	76.6
Under 55.0	25.9	58.9	35.5	99.1	40.8	24.2	97.0	36.5	7.3	76.6
Under 57.5	30.8	63.1	41.7	99.7	48.6	33.6	99.4	42.4	7.7	90.0
Under 60.0	35.1	63.5	42.3	99.8	49.1	34.3	99.4	42.6	7.8	90.3
Under 62.5	45.9	71.6	55.1	99.9	53.3	39.5	99.9	45.4	11.9	91.3
Under 65.0	46.7	76.4	62.6	100.0	57.7	45.2	100.0	46.1	12.8	91.8
Under 67.5	48.8	83.5	73.9	-------	70.9	62.4	-------	48.5	16.3	92.7
Under 70.0	49.5	85.9	77.7	-------	90.0	87.1	-------	50.7	16.6	97.6
Under 72.5	51.7	91.4	86.4	-------	91.2	88.6	-------	54.0	22.1	97.9
Under 75.0	70.1	96.3	94.2	-------	98.5	98.1	-------	54.0	22.1	97.9
Under 77.5	71.2	97.4	95.9	-------	98.7	98.3	-------	60.2	32.8	98.0
Under 80.0	77.9	98.4	97.5	-------	99.1	98.8	-------	60.7	33.7	98.0
Under 82.5	82.2	98.7	98.0	-------	99.4	99.2	-------	64.5	40.3	98.0
Under 85.0	83.6	98.7	98.0	-------	99.4	99.2	-------	71.5	50.8	[3] 100.0
Under 87.5	83.6	98.8	98.1	-------	99.4	99.2	-------	74.4	55.8	-------
Under 90.0	85.0	99.2	98.8	-------	99.4	99.2	-------	78.5	62.9	-------
Under 95.0	99.1	99.4	99.1	-------	99.4	99.2	-------	83.7	71.8	-------
Under 100.0	99.7	99.4	99.1	-------	99.9	99.9	-------	88.6	80.2	-------
Under 105.0	[7] 99.9	100.0	100.0	-------	100.0	100.0	-------	[8] 97.5	[9] 95.7	-------

[1] Regional figures omitted to avoid disclosure of individual operations.
[2] Less than a tenth of 1 percent.
[3] Includes less than a tenth of 1 percent receiving 85.0 cents and over.
[4] Includes less than a tenth of 1 percent receiving 95.0 cents and over.
[5] Includes less than a tenth of 1 percent receiving 60.0 cents and over.
[6] Includes less than a tenth of 1 percent receiving 87.5 cents and over.
[7] The remaining tenth of 1 percent received $1.05 and over.
[8] The remaining 2.5 percent received $1.05 and over.
[9] The remaining 4.3 percent received $1.05 and over.

Among the higher-wage industries, more than half of the laborers in petroleum, and over three-fourths in blast furnaces, steel works, and rolling mills, had rates that averaged 75.0 cents an hour or better; and nearly half of those employed in building construction and chemicals were paid at equivalent levels. In blast furnaces, steel works, and rolling mills, a significant proportion—almost 75 percent of all the common laborers at entrance rates in the industry—received from 77.5 to 80.0 cents an hour. These workers were almost entirely in the North.

Almost two-thirds of the laborers in fertilizers and over three-fourths in lumber—industries with the lowest rates among all industrial groups—averaged under 45.0 cents an hour. For both of these industries there were important concentrations within the 35.0–37.5 and 40.0–42.5 cents intervals. Fertilizers showed the only important concentration at exactly 30.0 cents an hour, the Fair Labor Standards Act minimum; the concentration at 35.0 to 37.5 cents in the lumber industry reflects the legal minimum of 35.0 cents, to which attention has already been directed. Only six industries, four of which were in the manufacturing group, had laborers below 30.0 cents an hour.

In none of these did workers at rates of less than 30.0 cents account for more than 2 percent of the common laborers employed.

Variations by Size of City

Rates tended on the whole to be higher in the larger city groups than in the smaller ones. In cities with populations over a million the average was 79.9 cents an hour, as compared with 45.8 cents in cities with populations under 2,500. The indicated difference of 34.1 cents in the country as a whole was greater than that in either of the two major geographic regions.

Rates, however, did not vary consistently with size of city, as may be seen from table 6. In the country as a whole, cities of 250,000 to 500,000 population averaged 2.1 cents less than the next succeeding group; and cities of 50,000 to 100,000 averaged 4.5 cents less than the group immediately below. In the North and West the relationship between size of city and level of entrance rate was pronounced and relatively consistent, but in the South and Southwest this relationship was not close. It appears that other factors, such as location of specific industries, tend to counteract to some extent the influence of city size.

TABLE 6.—*Average Hourly Entrance Rates of Adult Male Common Laborers in Manufacturing, Public Utilities, and Building Construction, by Size of City, July 1942*

Size of city	United States	North and West	South and Southwest
All cities	$0.585	$0.722	$0.411
1,000,000 and over	.799	.799	
500,000 and under 1,000,000	.778	.778	
250,000 and under 500,000	.594	.780	.473
100,000 and under 250,000	.615	.745	.460
50,000 and under 100,000	.565	.698	.407
25,000 and under 50,000	.610	.697	.438
10,000 and under 25,000	.577	.689	.370
5,000 and under 10,000	.499	.643	.391
2,500 and under 5,000	.474	.644	.360
Less than 2,500	.458	.604	.374
City not reported	.462	.680	.384

ENTRANCE RATES IN INDIVIDUAL CITIES

Rates for common labor varied widely from city to city. Data for selected industries are presented in table 7 for each of the 37 cities of 250,000 population or more.

The four cities paying the highest entrance rates in manufacturing were all on the Pacific Coast—Oakland, Seattle, Portland, and San Francisco. Detroit, Toledo, and Pittsburgh ranked next. All of these cities also paid relatively high rates in building construction and public utilities. Cities showing the lowest averages for manufacturing were all in the South and Southwest—Atlanta, New Orleans, San Antonio, Memphis, Dallas, Louisville, and Birmingham. Among the largest cities, New York paid the lowest average rate.

Examination of the figures presented in table 7 reveals that entrance rates varied appreciably from industry to industry even within the same city.

TABLE 7.—*Average Hourly Entrance Rates of Adult Male Common Laborers for Selected Cities, by Industry, July 1942*

Population group and city	16 manufacturing industries	Blast furnaces, steel works and rolling mills [1]	Foundry and machine-shop products [1]	Meat packing [1]	Public utilities	Building construction
United States	$0.561	$0.745	$0.594	$0.669	$0.536	$0.674
1,000,000 and over:						
Chicago, Ill	.723	.787	.638	.735	.694	1.031
Detroit, Mich	.767	(2)	.783	(2)	(2)	.887
Los Angeles, Calif	.692	(2)	.649	.704	.535	.798
New York, N. Y	.660		.575	.729	.679	.959
Philadelphia, Pa	.689	.731	.702	.564	.551	.817
500,000 and under 1,000,000:						
Baltimore, Md	.653	(2)	.519	.647	.613	(2)
Boston, Mass	.553		.585	(2)	.745	1.000
Buffalo, N. Y	.658	(2)	.680	.559	.648	.820
Cleveland, Ohio	.728	.778	.652	.702	(2)	.985
Milwaukee, Wis	.659	.716	.603	.717	(2)	.932
Pittsburgh, Pa	.736	.779	.721	(2)	.684	.806
St. Louis, Mo	.641	.690	.581	.690	.547	.924
San Francisco, Calif	.779		.874	(2)	.655	.886
Washington, D. C	(2)				.610	.830
250,000 and under 500,000:						
Atlanta, Ga	.387	(2)	(2)	(2)	.423	.389
Birmingham, Ala	.479	.579	.403	(2)	(2)	.487
Cincinnati, Ohio	.591		.513	(2)	(2)	.719
Columbus, Ohio	.605		.562	.691	(2)	.657
Dallas, Tex	.464		.413	.465	(2)	.493
Denver, Colo	.636		.564	.694	(2)	.797
Houston, Tex	.528		.505	(2)	(2)	.426
Indianapolis, Ind	.556		.555	(2)	.604	.826
Jersey City, N. J	.682		(2)	(2)	(2)	.919
Kansas City, Mo	.635	.674	.565		.556	.843
Louisville, Ky	.477	(2)	.494	.589	.400	.659
Memphis, Tenn	.462		(2)	(2)	(2)	.382
Minneapolis, Minn	(2)		.578		(2)	.891
Newark, N. J	.572	(2)	.577	.650	.633	(2)
New Orleans, La	.434		.477	(2)	.371	.545
Oakland, Calif	.852	(2)	.862	(2)	.673	.915
Portland, Oreg	.800		.809	(2)	.762	.943
Providence, R. I	.667		(2)		(2)	.740
Rochester, N. Y	.607		(2)		(2)	(2)
St. Paul, Minn	.685		.646	.700	(2)	.903
San Antonio, Tex	.444		.392	.499	(2)	.408
Seattle, Wash	.815	(2)	.785	.825	.688	1.010
Toledo, Ohio	.763	(2)	.724		.665	.925

[1] Included among 16 manufacturing industries.
[2] Data insufficient to justify presentation of an average.

Trends of Entrance Rates From 1926 to 1942

In order to permit comparison with the data for earlier years, the 1942 averages shown in table 8 have been devised directly from the questionnaire returns, without weighting. The 1942 data, it is true, differ from those for earlier years in that they refer to first-shift workers alone. For a limited number of localities and industries, shift payments were of some importance; for the United States as a whole, however, these differentials were not found to be significant and may be disregarded.

Included in the manufacturing group in table 8 are brick, tile, and terra cotta; blast furnaces, steel works, and rolling mills; cement; foundry and machine-shop products; leather; lumber (sawmills); meat packing; paper and pulp; and petroleum refining. Data for seven other manufacturing industries surveyed in the years since 1936 are excluded so as to retain comparability throughout the 17-year period.

TABLE 8.—*Average Hourly Entrance Rates of Adult Male Common Laborers in 13 Industries, by Industry Group, 1926–42*

July—	All industries covered	9 manufacturing industries	Public utilities	Building construction [1]
1926	$0.426	$0.401	$0.420	$0.471
1927	.424	.399	.398	.482
1928	.428	.402	.429	.474
1929	.432	.407	.428	.483
1930	.429	.405	.446	.470
1931	.403	.383	.446	.426
1932	.355	.318	.415	.399
1933	.333	.305	.387	.383
1934	.420	.407	.418	.455
1935	.430	.415	.420	.481
1936	.434	.425	.437	.509
1937 [2]	.493	.488	.463	.551
1938 [3]	.495	.486	.479	.578
1939	.500	.487	.485	.601
1940	.507	.498	.477	.601
1941	.565	.559	.502	.648
1942 [4]	.635	.616	.563	.724

[1] For the years 1926 to 1935, inclusive, the figures cover a small amount of construction outside of the building industry.
[2] Averages for the year were computed on the basis of identical establishments for both 1937 and 1938.
[3] Averages for the year were computed on the basis of identical establishments for both 1938 and 1939.
[4] These averages, unlike the averages appearing in the preceding tables of this report, are not weighted. The figures for 1942 alone are based on payments to first-shift workers.

The average for all 13 industries combined in 1942 was 63.5 cents, indicating an increase of exactly 7.0 cents over the preceding year. The manufacturing group advanced least (5.7 cents) and building construction had the greatest advance (7.6 cents). In each instance the 1942 averages were higher than those shown for any year since 1926, when the Bureau's studies of entrance rates began.

EARNINGS IN MANUFACTURE OF CARBON PRODUCTS FOR ELECTRICAL INDUSTRY, 1942 [1]

Summary

THIS report of earnings in plants manufacturing various types of carbon products for the electrical industry is one of a series undertaken by the Bureau of Labor Statistics for the purpose of providing information on the effects of the war on the several branches of the machinery-manufacturing and electrical-products industries.[2]

Seven of the eight plants included in this survey had been assigned high priority ratings by the summer of 1942; of these, six were devoting between 90 and 100 percent of their output to products with high priority ratings. No important technological changes appear to have been necessary. All of the larger plants were operating two or three shifts.

Average hourly earnings increased from 70.8 cents in August 1939 to 93.0 cents by the summer of 1942. However, the earnings were affected by a 5-percent increase in the average workweek since August 1939, and the actual increase in rates was about 20 cents an hour. Employment in the summer of 1942 was 2½ times the figure for August 1939.

A fourth of the male workers for whom detailed earnings data are available were in occupations with hourly earnings (exclusive of extra payments for overtime and night work) averaging $1.00 or more in the summer of 1942; less than 3 percent were in groups averaging under 75 cents per hour. Plants of the larger size group paid substantially higher wages.

Scope and Method of Survey

In order to provide basic information on the effects of the transition to a war economy on technological processes, occupational patterns, and wage structures, the Bureau of Labor Statistics has undertaken a series of studies in establishments manufacturing various types of machinery and similar products. Each of the industrial branches covered in this series is defined in terms of the principal products of the various plants during the year 1939 as reported by the Census of Manufactures. Important changes in type of product are to be expected, especially because the war emergency has accentuated the shifts in production that would ordinarily occur over a 3-year period. The data on these changes are in themselves significant, however, and it is thus useful to take the 1939 classification as a starting point.

Reports of the latest Census of Manufactures (1939) show that in the United States as a whole 31 plants were "engaged primarily in the manufacture of carbons; carbon, graphite, and metal-graphite brushes; plates, rods, and powder for making brushes; electrodes, and miscellaneous carbon; graphite, and metal-graphite specialties, including rings for steam seal." [3] Of this total, 6 establishments

[1] Prepared in the Bureau's Division of Wage Analysis, by Oscar F. Brown. The study was directed and the preparation of the report supervised by Harold R. Hosea.

[2] Previous articles in this series have appeared in each issue of the Monthly Labor Review, May 1942–January 1943; individual reports are available on request.

[3] This definition corresponds to that of Census industry No. 1612.

reported fewer than 6 wage earners and were excluded from the scope of this survey. The remaining 25 plants employed an average of 3,176 workers during 1939, and over a fourth were working in the 8 establishments included in this survey. Somewhat less than half of the plants and slightly more than half of the employees in this small industry in 1939 were found in New York and Pennsylvania alone. Most of the remainder of the plants manufacturing carbon products were in the East North Central States, where Ohio, with 29 percent of the industry's employees, was the most important single State. Three plants were in the South.

The data for the present survey were collected by trained field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent records. The detailed wage data on individual employees are limited to day-shift workers in certain occupational groups selected for their numerical importance or because they are key jobs. In general, however, earnings by occupation were compiled for 80 to 90 percent of the wage earners on day shifts. The current earnings data shown in this report are based, in most instances, on a representative pay-roll period during July or September 1942.

Characteristics of the Industry

TYPE OF PRODUCT

The carbon-products industry is one of the small divisions of the electrical-products group, and supplies essential specialties made of carbon, graphite, and metal-graphite. Of the total output of products of this type, slightly over 50 percent consists of carbon or graphite electrodes. Brushes, plates, rods, powder, and miscellaneous carbon, graphite, and metal-graphite specialties for electrical uses make up the remainder. Slightly over 90 percent of the 1939 national output of products of this nature was made by plants primarily engaged in the manufacture of carbon products; nearly 10 percent represented secondary production of other industries. On the other hand, of the total output by value of the companies classified by the Census as primarily engaged in the production of carbon products for the electrical industry, 8 percent consists of products commonly made by plants classified in other industries.

PRODUCTION OF WAR MATERIAL

No important technological changes appear to have been necessary in this industry as a part of its war effort. Its standard peacetime products are demanded on a greatly increased scale by other industries which produce war materials directly. The war has thus resulted in a greatly expanded industry, using its regular techniques and equipment on a larger scale. In 1940, the use of the industry's facilities in defense production was not a factor of any importance. At the end of 1941, however, half of the eight plants studied were producing materials with high priority ratings. By the summer of 1942, seven of the establishments surveyed were reported performing work essential to the defense effort, and of this group, six plants were applying between 90 and 100 percent of their capacity to defense production.

THE LABOR FORCE

Detailed earnings data were compiled for about 70 percent of all workers employed in the plants surveyed; this group amounted to between 80 and 90 percent of those on day shifts. Of the males for whom wage and occupational data were collected, slightly more than an eighth (13.2 percent) were on skilled jobs; nearly two-fifths (39.2 percent) were doing semiskilled work; and the remainder, nearly half (47.6 percent) of the workers studied, were working at unskilled jobs.

Women constituted nearly 10 percent of the factory workers studied. In one medium-sized plant, over three-fifths of the employees were women. The most common occupations for women were those of class C bench assemblers, class C inspectors, and packers. Other occupations in which women were found were dip painters, riveting-machine operators, tamper operators, and learners. This industry shows a substantial percentage of female workers above the unskilled level; nearly half (47.2 percent) were classified in semiskilled occupations. In all the plants surveyed, however, only 1 woman of a total of 199 studied was doing skilled work. Six Negroes were employed in the plants surveyed, and all but 1 were working in a single southern plant.

Three of the eight plants studied had agreements with nationally affiliated unions, but these three plants employed 80 percent of all the workers studied. Both of the establishments in the survey having over 500 employees were organized. The other unionized plant employed fewer than 50 workers. Of these agreements, one was with an American Federation of Labor union, and two were with unions affiliated to the Congress of Industrial Organizations. In addition, an independent union was recognized in one medium-sized plant. The remaining four plants were unorganized.

METHOD OF WAGE PAYMENT

The typical products of the carbon-products industry tend to be small or medium in size and are used as standard parts by other branches of the electrical industry. Even in a small industry these product characteristics permit plant organization to some extent on the basis of mass-production techniques. The present survey shows that nearly a fourth (22.7 percent) of the workers in the industry were working under some form of incentive system. Of the three plants in which workers were paid piece or bonus rates, two were in the largest size group, i. e., those having more than 500 workers; the third reported over 250 employees. In these three plants 25.5 percent of the employees were working under some form of incentive system. The other five plants paid straight hourly rates to all factory workers.

The two smallest plants studied paid no extra overtime rates beyond minimum statutory requirements, i. e., time and a half for all work over 40 hours a week. The other six plants paid this same rate for work in excess of 8 hours a day; in addition, two plants applied this premium rate to Saturday work, and, in three plants, this rate was also paid for work on Sunday and holidays. One of the larger plants paid double time on Sundays and holidays.

The increased demand for carbon products as a result of war activity has resulted in a high degree of utilization of the industry's facilities, especially by means of extra shifts. The three plants oper-

ating only one shift were the smallest included in the survey, while all three of the largest plants studied were operating three shifts. The only plant operating two shifts paid a differential of 5 cents per hour to workers on the second shift (table 1). In the group of four plants reported as operating three shifts, one paid no premium to workers on either late shift; one establishment allowed the same bonus (10 percent) to workers on both late shifts, while two gave an additional differential to the third shift. The extra compensation paid by each of these two firms was a premium of 5 percent to workers on the second shift and 7 percent to those on the night shift.

TABLE 1.—*Wage Differentials for Second and Third Shifts in Eight Carbon-Products Plants, July–September 1942*

Number of shifts worked	Number of plants	Second shift	Third shift
Plants with 1 shift only	3		
Plants with 2 shifts	1	5 cents per hour	
Plants with 3 shifts	1	No differential	No differential.
	2	5 percent over base rate	7 percent over base rate.
	1	10 percent over base rate	10 percent over base rate.

Employment, Hours, and Earnings

TREND FROM 1939 TO 1942

Comparable data on employment for selected periods in 1939–42 are available for seven of the eight plants included in the survey. In these seven establishments as a group, employment in the summer of 1942 was 2½ times the figure for August 1939; the increase was from 920 to 2,302 workers (table 2). Average hourly earnings, which amounted to 70.8 cents in August 1939 (including extra payments for overtime and night work), had increased to 93.0 cents by the time the survey was made; this rise of 22.2 cents represents a gain of nearly a third (31.4 percent).

During the same period, the average workweek in these plants had lengthened 2.2 hours, a change which resulted in some inflation of

TABLE 2.—*Employment, Average Hourly Earnings, and Average Weekly Hours in 7 Carbon-Products Plants [1] for Specified Periods, 1939–42*

Period	Total number of wage earners	Average hourly earnings [2]	Estimated average hourly earnings, exclusive of extra overtime payments	Average weekly hours
August 1939	920	$0.708	$0.688	40.2
April 1940	1,322	.739	.720	39.6
August 1940	1,441	.726	.706	40.1
January 1941	1,583	.757	.734	40.6
August 1941	2,103	.798	.766	41.9
January 1942	2,196	.862	.816	43.4
July–September 1942	2,302	.930	.889	42.4

[1] Data for 1 plant excluded because comparable figures for this plant were not available for earlier periods. Inclusion of data for the period covered in 1942 would show gross average hourly earnings of 93.2 cents and an average of about 88.0 cents, exclusive of extra overtime payments.

[2] Averages include earnings resulting from extra payments for overtime and night work.

average hourly rates as a result of increased premiums for overtime. The elimination of such premium payments is estimated to reduce the average hourly earnings for the latest period by 4.1 cents, or to about 88.9 cents. During the 3-year period hourly earnings, exclusive of premium overtime payments, rose about 20 cents, an increase of nearly 30 percent. The one plant for which comparable data covering the earlier periods were not available employed slightly more than 250 workers; the inclusion of wage data for this plant has a negligible effect on average hourly earnings for the latest period.

PLANT AVERAGES

Plant average hourly earnings, including premium overtime payments, varied from 44.2 cents paid in one of the medium-sized plants to $1.047 in the case of the largest of the establishments studied. At one extreme, two of the plants studied showed averages below 65 cents per hour; in two others the figure was 90 cents or more.

The earnings of employees in the plants with fewer than 51 workers amounted to 59.8 cents per hour, as compared with 67.4 cents for workers in the two plants with 51 to 250 employees. The establishments which had 250 employees or more showed an average of 96.5 cents per hour. The apparent wage advantage of workers in the large plants was due in part to the greater relative importance of incentive methods of wage payment. No comparison of plant averages was made on a regional basis; the relatively small number of establishments studied made the computation of such averages inadvisable.

OCCUPATIONAL DIFFERENCES IN EARNINGS

Average hourly earnings, exclusive of extra payments for overtime and night work, are available for 1,693 workers, who constituted the majority of the day-shift workers in the plants surveyed. For male employees, average earnings (excluding those of learners) ranged from 50.0 cents for class C bench assemblers to $1.128 for class A machine operators (table 3). The general hourly average for all workers in the occupations studied in detail was 87.0 cents; the figure for male workers alone was 90.6 cents.

Eleven occupational groups showed averages of $1.00 or more per hour; these groups constituted about a fourth (24.1 percent) of all male employees. Of the male workers in the survey who were classified as skilled and semiskilled, more than two-fifths were in this relatively high-wage group. The largest group which averaged $1.00 or more was made up of 73 furnace and oven operators who, aside from laborers and loaders and unloaders, constituted the largest single occupational class in the group of plants studied. The two lowest-paid groups among male workers, class C bench assemblers and class C winders, showed averages of 50.0 cents and 50.4 cents per hour, respectively.

As is indicated above, somewhat less than a tenth (9.5 percent) of the employees in the industry are females; those studied in detail received average hourly earnings of 57.5 cents. The largest single occupational group of female employees studied were working as packers, and received average hourly rates of 69.9 cents. Other classifications in which substantial numbers of females were found were

class C bench assemblers and class C inspectors; the lowest average for women, 45.3 cents per hour, was paid to class C bench assemblers.

TABLE 3.—*Average Hourly Earnings* [1] *of Day-Shift Workers in Selected Occupations in 8 Carbon-Products Plants, July–September 1942*

Occupation and class	Number of workers	Average hourly earnings	Occupation and class	Number of workers	Average hourly earnings
Total workers	1,693	$0.870	Male workers—Continued.		
			Machine operators, all-round:		
Male workers	1,510	.906	Class A	16	$1.128
Assemblers, bench, class B	5	(2)	Class B	36	.999
Assemblers, bench, class C	16	.500	Millwrights, class A	21	1.052
Buffers	9	(2)	Millwrights, class B	24	.949
Burrers	5	(2)	Packers	19	1.034
Carpenters, class B	6	.906	Painters, dip	7	(2)
Compound mixers	54	1.042	Platers	24	(2)
Crane operators	11	1.095	Riveting-machine operators	5	(2)
Craters, class B	20	.872	Solderers, class C	10	(2)
Craters, class C	5	(2)	Stock clerks	20	.781
Cutters, brush	46	.990	Testers, class A	10	(2)
Drill-press operators, class B	11	.815	Testers, class B	5	.825
Electricians, class A	9	1.093	Testers, class C	6	(2)
Electricians, class B	19	1.007	Time clerks	24	.817
Electricians, class C	16	.863	Truck drivers	16	.766
Extrusion-press operators	54	1.025	Truckers, hand	26	.802
Firemen, stationary boiler	5	.949	Truckers, power, inside	10	.889
Foremen, working, class A	51	1.112	Watchmen	30	.794
Foremen, working, class B	13	.858	Welders, hand, class B	6	.942
Furnace and oven operators	73	1.024	Winders, class A	5	(2)
Grinders, brush	37	1.124	Winders, class C	24	.504
Grinding-machine operators, class B	20	(2)	Female workers	183	.575
Helpers	86	.898	Assemblers, bench, class B	5	(2)
Inspectors, class A	11	(2)	Assemblers, bench, class C	36	.453
Inspectors, class B	20	.902	Inspectors, class C	23	.656
Inspectors, class C	58	.764	Learners, machine operators	5	(2)
Janitors	36	.773	Loaders and unloaders, racks and conveyors	5	(2)
Job setters	6	(2)	Packers	53	.699
Laborers	275	.767	Punch-press operators	11	(2)
Laborers, foundry	26	(2)	Riveting-machine operators	12	.505
Lathe operators, engine:			Tamper operators	9	(2)
Class A	8	(2)	Testers, class C	16	(2)
Class B	11	.787	Wirers, assembly, class C	8	(2)
Learners, journeymen and others	23	.788			
Loaders and unloaders, racks and conveyors	121	.912			

[1] Averages are based on actual earnings exclusive of extra payments for overtime.
[2] Number of plants and/or workers too small to justify computation of an average.

A significant variation was found in the relationship between occupational earnings and the average number of workers employed per plant. For the 201 employees in plants with fewer than 250 workers, average hourly earnings were 55.9 cents, while the corresponding figure for the 1,492 wage earners in larger plants as a group was 89.4 cents (table 4). In many classifications the numbers of workers are insufficient to permit any reliable comparison of averages between plants of different size groups, and the occupational distributions in the large and small establishments are so dissimilar in some cases that comparable rates are difficult to compile. There are 13 occupational groups, however, in which the number of employees is believed to be adequate for this purpose. Without exception, the average hourly earnings in the large plants were higher than the corresponding figures for the small establishments. In only one case—class B working

foremen—was the difference less than 15 cents; in six cases the averages were more than 25 cents higher in plants of the larger size group. These differences in average earnings are to some extent reflections of the greater extent of unionization and the larger use of incentive methods in the larger companies; there is, however, little doubt as to the substantial wage advantage of the workers in the larger plants.

TABLE 4.—*Average Hourly Earnings* [1] *of Day-Shift Workers in 8 Carbon-Products Plants, by Occupation and Size of Plant, July–September 1942*

Occupation and class	Average hourly earnings in plants employing—	
	250 workers or less	Over 250 workers
Number of workers [2]	201	1,492
Average hourly earnings [2]	$0.559	$0.894
Assemblers, bench, class C, female	$0.368	$0.621
Cutters, brush	.703	1.042
Foremen, working, class B	.822	.869
Furnace and oven operators	.775	1.038
Helpers, journeymen's	.650	.822
Inspectors, class B	.780	.932
Janitors	.513	.806
Laborers	.596	.770
Learners, journeymen	.418	.600
Millwrights, class A	.750	1.084
Stock clerks	.686	.832
Truck drivers	.570	.794
Watchmen	.583	.847

[1] Averages are based on actual earnings exclusive of extra payments for overtime.
[2] Includes workers in occupations not shown separately below.

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EARNINGS IN MACHINE-TOOL-ACCESSORIES INDUSTRY, 1942[1]

Summary

THIS report on earnings in plants manufacturing machine-tool accessories is the thirteenth in the series undertaken by the Bureau of Labor Statistics for the purpose of providing information on the effects of the war on the several branches of the machinery industry.[2]

The importance of machine tools in the production of war materials has naturally resulted in a marked expansion of the plants manufacturing machine-tool accessories; man-hours in the industry have almost quadrupled, and the number of employees has tripled. Average hourly earnings which were 82.9 cents in August 1939 had risen to $1.074 by the spring of 1942. Earnings in the industry have been affected by the longer workweek, which increased nearly 12 hours during the same interval. If extra payments for overtime were eliminated, average hourly earnings for the spring of 1942 would be reduced nearly 14 cents, to 93.8 cents. It is not possible to calculate accurately the effect on earnings of premiums paid for night work. That they are important, however, is evident from the fact that 69 of the 141 plants studied were operating 2 shifts and 20 were working on a 3-shift basis.

This industry is largely concentrated in midwestern and northeastern States. Midwestern plants appear to pay substantially higher wages than do northeastern plants. This difference, however, is due in part to variations in size of community and in unionization; size of plant and method of wage payment may also have some effect.

Hourly earnings, exclusive of overtime and shift-differential payments, averaged over $1.00 for each of 26 occupational groups; these employed approximately three-eighths of the male workers for whom detailed earnings data were secured. On the other hand, average hourly earnings were below 60 cents for only 8 occupations.

Scope and Method of Survey

In order to provide basic information on the effects of the transition to a war economy on technological processes, occupational patterns, and wage structures, the Bureau of Labor Statistics has undertaken a series of studies in establishments manufacturing various types of machinery and similar products. Each of the industrial branches covered in this series is defined in terms of principal products of the various plants during the year 1939 as reported by the Census of Manufactures. Important changes in type of product are to be expected, especially because the war emergency has accentuated the shifts in production that would ordinarily occur over a 3-year period. The data on these changes are in themselves significant, however, and it is thus useful to take the 1939 classification as a starting point.

According to the Census of Manufactures there were, in 1939, 954 plants engaged primarily in the manufacture of accessories for machine tools and other metalworking machinery. These establishments in-

[1] Prepared in the Bureau's Division of Wage Analysis by Odis C. Clark. The study was directed and the preparation of the report supervised by Harold R. Hosea.

[2] Previous articles in this series have appeared in each issue of the Monthly Labor Review, May 1942–January 1943; individual reports are available on request.

clude plants manufacturing such accessories as jigs and dies, metal cutting and shaping tools, and machinists' precision tools.[3] The 141 plants from which data were obtained by means of this survey constitute approximately 20 percent of the 687 establishments which employed an average of 6 or more workers during 1939; 267 plants employing 5 workers or less were excluded from the scope of the present survey. The sample plants were selected, as far as possible, to be representative of the industry with respect to geographic region, size (in terms of number of employees), and certain other characteristics.

The data for the present survey were collected by trained field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent records. The detailed wage statistics for individual employees were limited to day-shift workers in certain occupational groups selected for their numerical importance or because they are key jobs. In general, occupational earnings were compiled for 80 to 90 percent of the wage earners on first (day) shifts. Most of the earnings data reported in this study are based on a representative pay-roll period during April, May, or June 1942.[4]

Characteristics of the Industry

GEOGRAPHIC DISTRIBUTION

Almost three-fifths of the plants classified by the Bureau of the Census in this industry are in the North Central States, and nearly two-thirds of the industry's workers were employed in this area in 1939. Slightly more than one-third of the plants and workers in the industry were in the Northeastern States; about twice as many plants but only two-thirds as many workers were in the three States of New Jersey, New York, and Pennsylvania as in the New England States. Few such plants are found elsewhere in the country; the Pacific Coast States, next in importance, had only about 5 percent of the plants and less than 1 percent of the workers in the industry.

There is no great similarity in the geographic distribution of plants manufacturing machine-tool accessories and those in the machine-tool industry itself; over one-third of the workers in the machine-tool industry are employed in the New England States, but only about one-fifth of the workers in plants producing accessories are in this area. On the other hand, only a little more than half of the workers in the machine-tool industry are in the North Central States, as compared with nearly two-thirds of those in accessory plants. It is evident that the manufacture of machine-tool accessories is more concentrated in the areas where these accessories are utilized. This is well illustrated by the fact that nearly 30 percent of all workers in the machine-tool-accessories industry are employed in Michigan, center of the automotive industry.

PRODUCTION OF WAR MATERIALS

The urgent demand for machine tools in the production of war materials has necessitated a rapid expansion in the output of accessories. Very few of the plants manufacturing machine-tool accessories have changed to production of munitions or other direct war materials. The war program has resulted principally in an increase

[3] This definition corresponds to that of Census industry No. 1742.
[4] March pay-roll periods were used for 4 plants and July or August pay rolls for the 5 other plants.

in the number of plants and personnel, with no significant changes in product or technology. This expansion has not been restricted to plants already within the industry at the outbreak of the war; many plants formerly classified in other industries, especially those manufacturing various types of industrial machines, have in the past year produced a substantial volume of machine-tool parts and accessories.

THE LABOR FORCE

Distributions by skill class are available for the 11,368 workers for whom detailed earnings data were compiled in the Bureau's study. Approximately 38 percent of the male workers may be regarded as skilled, about 48 percent as semiskilled, and 14 percent as unskilled. It might be expected that this industry, which is characterized by large amounts of high-precision work, would require proportionately larger numbers of skilled workers. The contrast, however, between this and many other machinery industries is not in the numbers of skilled employees, but rather in the proportions of semiskilled and unskilled workers. The plants manufacturing machine-tool accessories show about the same proportion of skilled workers as that found in machinery manufacture generally, but relatively more semiskilled and fewer unskilled workers are employed. The use of large numbers of semiskilled workers is possible in part because of the specialization of individual plants. Many plants in this industry concentrate on only one or two types of accessories, such as chucks, dies, drills, or reamers, even though they may produce many designs of the same type of accessories according to customers' specifications. This specialization permits considerable division and dilution of skill of labor, even in relatively small shops, and much of the high-precision work is thus performed by semiskilled workers operating complex automatic and semiautomatic machinery.

At the time of the present survey, women constituted less than 3 percent of the factory workers in the plants studied; they were employed in only 23 of the 141 plants. In 5 of the plants, however, women constituted over 20 percent of the factory workers, and in 1 of these plants over 50 percent. A somewhat larger proportion of semiskilled than unskilled female workers was employed; few skilled woman workers were reported in the industry. The trend toward the employment of women as machine operators is reflected by the fact that a substantial number of the female workers in this industry are operating grinding machines, milling machines, engine lathes, and drill and punch presses, although not as skilled operators. Other occupations in which women are employed in this industry are inspectors, bench assemblers, burrers, and stock and time clerks. There is little doubt that increasing numbers of women will be employed for these types of work in the future.

In the 26 plants which reported the employment of Negroes, colored persons formed slightly more than 2 percent of the workers; the remaining 115 plants employed no workers of this race. In only 3 plants did Negroes comprise as much as 10 percent of all employees; of the total employment in all the plants studied, they formed less than half of 1 percent. About 40 percent of the colored workers in this industry were employed in unskilled jobs, typically as laborers, helpers, material handlers, and janitors. On the other hand, among the Negroes employed were a working foreman, a toolmaker, 35

grinding-machine operators, and 4 engine-lathe operators. Negroes were found in union and nonunion shops, in large and small plants, in small as well as large cities, and in the East, Midwest, and Far West.

Only about a fourth of the plants studied were operating under agreements with nationally affiliated unions, but the 36 organized plants employed slightly more than one-third of the workers studied. Twenty-two of the agreements involved unions affiliated with the Congress of Industrial Organizations, 8 with the American Federation of Labor, 5 with the Mechanics' Educational Society of America, and 1 with the International Die Sinkers' Union. Two plants had agreements with an independent union. Union shops were more common in the North Central States; 31 of the 82 plants in that area were operating under agreements. In fact, among the plants studied, only unions affiliated with the Congress of Industrial Organizations had working agreements in any other area. Approximately 47 percent of the workers in the North Central area were covered by agreements, as compared with about 14 percent of the workers in the Northeastern States; none of the 3 plants studied in the Pacific Coast States had a union agreement.

The typical organized shop in this industry is a large plant situated in a large city. Over 36 percent of the plants with 50 or more workers were union shops; less than 15 percent of the smaller plants reported agreements. In cities of 1,000,000 or more population, 21 of the 45 plants studied were operating under union agreements; only 15 of the 96 plants in the smaller cities were organized.

METHOD OF WAGE PAYMENT

Only 12 of the 141 plants employed an incentive method of wage payment for their workers; and only about 40 percent of the workers in these 12 plants were paid piece or bonus rates. The fact that only 10 percent of the workers work under incentive-wage plans reflects the lack of standardization in the accessories for machine tools. Although such parts are relatively small, the designs vary with the specific needs of the purchaser. Thus frequent set-ups are necessary and processes are not often repetitive or routine; consequently, piece rates cannot easily be established. In small plants (with fewer than 250 employees) less than 1 percent of the workers were paid piece or bonus rates, but in larger plants about 20 percent were paid on an incentive basis.

In 56 plants payment for overtime work was made on the basis of minimum statutory requirements, i. e., time and a half for work over 40 hours per week. In 87 plants this rate also applied to all work over 8 hours in 1 day. In general, the larger plants were more liberal in their provisions for overtime rates; approximately half the plants employing fewer than 100 workers paid overtime rates only as required by Federal statute. On the other hand, all but 7 of the 44 plants employing 100 or more workers reported somewhat more liberal provisions.

Time and a half was paid for overtime work on Saturday in 39 plants and for work on the sixth consecutive day in 2 more, on Sunday in 16 plants, and on holidays in 12 plants. At the time of the survey, double time was paid for work on Sunday in 45 plants and in 1 plant for work on the seventh consecutive day; in 33 plants the double rate was paid for work on holidays. Seven plants paid this rate after 10 hours of work in 1 day, 2 plants after 11 hours, 3 plants

after 12 hours, and 1 plant after 16 hours. Six plants paid double time for Saturday work in excess of 8 hours, 1 plant for Saturday work above 10 hours, and another for that in excess of 12 hours.

Of the 141 plants studied, 52 operated on a 1-shift basis, 69 operated 2 shifts, and 20 reported 3 shifts.[5] Of the 89 plants reported as operating more than 1 shift, 27 paid no differential for either evening or night shift; 1 other paid a differential for the night shift but not for the evening shift. Two plants paid premium rates to only a part of the workers on the second shift; 1 plant paid 5 percent extra in the tool and pattern departments, but not in the foundry, and another 10 percent extra to machine-tool operators only. In 5 plants, workers on the second shift were given a half-hour lunch period with pay but no other premium (table 1).

TABLE 1.—*Wage Differentials for Second and Third Shifts in Machine-Tool-Accessories Plants, April–June 1942*

Number of shifts worked	Number of plants	Second shift	Third shift
Plants with 1 shift only	52		
Plants with 2 shifts	22	No differential	
	5	A half-hour paid lunch period	
	18	5 cents per hour over base rate	
	1	5 cents per hour over base rate, plus paid lunch period.	
	1	8 cents per hour over base rate	
	7	10 cents per hour over base rate	
	1	20 cents per hour over base rate	
	1	5 percent over base rate for tool and pattern departments only.	
	1	10 percent over base rate for machine-tool operators only.	
	10	10 percent over base rate	
	1	10 percent over base rate, plus paid lunch period.	
	1	1-hour bonus, plus regular daily earnings.	
Plants with 3 shifts	5	No differential	No differential.
	1	do	Work 5 days, paid for 6.
	6	5 cents per hour over base rate	5 cents per hour over base rate.
	1	do	10 cents per hour over base rate.
	1	5 percent over base rate	5 percent over base rate.
	2	do	10 percent over base rate.
	4	10 percent over base rate	Do.

Of those plants operating more than 1 shift, 26 paid a 5-cent differential for work on the second shift; one of these paid for the lunch period in addition to the 5-cent bonus. Another plant paid an 8-cent bonus to workers on the evening shift, 7 paid a 10-cent bonus, and 1 paid 20 cents. Some plants paid a bonus based on earnings at the regular rates; 3 paid a differential of 5 percent and 15 a differential of 10 percent, and one of the latter gave a half-hour paid lunch period in addition to the 10-percent bonus. In 1 plant workers on the second shift were paid a bonus of 1 hour's pay. Of the 20 plants which operated 3 shifts, 6 paid a bonus of 5 cents per hour to workers on the night shift, and another paid a bonus of 10 cents. One plant paid a differential of 5 percent to workers on the night shift and 6 plants paid a 10-percent differential. Another plant gave 6 days' pay for 5 days' work on the night shift. Only 5 plants which operated 3 shifts paid no differential for the third shift.

[5] 1 plant operates continuously by the use of 2 long shifts and a swing shift, the latter ordinarily for week ends.

Hours and Earnings

TREND FROM 1939 TO 1942

Comparable data on employment and earnings for selected periods since the outbreak of the war are available for 120 of the 141 plants studied. Employment more than tripled in these plants from August 1939 to April–June 1942. The average workweek increased from slightly less than 43 hours in August 1939 to over 54 hours in April–June 1942 (table 2). This parallel expansion in employment and lengthening of the workweek resulted in an increase in man-hours in these identical firms to nearly 4 times the corresponding figure for August 1939. The increase in activity varied somewhat for different types of plants.

TABLE 2.—*Average Hourly Earnings and Average Weekly Hours in 120 Machine-Tool-Accessories Plants, Specified Periods, 1939–42*

Period	Average hourly earnings	Estimated average hourly earnings, exclusive of extra overtime payments	Average weekly hours
August 1939	$0.829	$0.791	42.6
April 1940	.845	.794	44.3
August 1940	.861	.787	47.5
February 1941	.875	.789	49.4
August 1941	.937	.843	49.7
April–June 1942	1.074	.938	54.3

In plants which employed fewer than 50 workers in August 1939, the average workweek increased from slightly less than 44 hours to approximately 55 hours—a rise of over 25 percent (table 3). On the other hand, the workweek in the larger plants increased nearly 29 percent, from approximately 42 to 54 hours. Since the rate of increase in the numbers of employees was also somewhat higher in the larger plants, the increase in man-hours was over 12 percent greater in these plants than in the smaller establishments.

TABLE 3.—*Average Hourly Earnings and Average Weekly Hours in 118* [1] *North Central and Northeastern Machine-Tool-Accessories Plants, August 1939 and April–June 1942*

Item	Average hourly earnings			Estimated average hourly earnings, exclusive of extra overtime payments			Average weekly hours		
	August 1939	April–June 1942	Percent of increase	August 1939	April–June 1942	Percent of increase	August 1939	April–June 1942	Percent of increase
North Central plants [2]	$0.895	$1.180	31.8	$0.847	$1.032	21.8	43.5	54.2	24.6
Northeastern plants [3]	.683	.831	21.7	.661	.725	9.7	40.7	54.6	34.2
Plants with—									
Fewer than 50 workers	.810	1.057	30.5	.764	.919	20.3	43.9	55.1	25.5
50 or more workers	.841	1.083	28.7	.807	.948	17.4	41.9	54.0	28.8

[1] Plants in Pacific Coast States are not included in this table.
[2] Includes plants in Illinois, Indiana, Iowa, Michigan, Missouri, Ohio, and Wisconsin.
[3] Includes plants in Connecticut, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

The workweek in plants in the Northeast increased approximately 34 percent on the average, from slightly more than 40 to nearly 55 hours. By contrast, the workweek in the North Central plants increased only about 25 percent, from nearly 44 hours to slightly more than 54 hours. The rate of increase in man-hours of work was about 5 percent higher for plants in the Northeast than for those in the North Central States.

After eliminating the effect of increased overtime, average hourly earnings in these 120 plants rose from 79.1 cents in August 1939 to 93.8 cents in April-June 1942, an increase of approximately 19 percent for the 33-month period. The rate of increase was somewhat higher for plants which employed fewer than 50 workers in 1939 than for larger plants. In a regional comparison, the average hourly earnings in North Central plants show a rate of increase over twice as great as for plants in the Northeast, 21.8 as compared with 9.7 percent.

PLANT AVERAGES

Although plant averages are often distorted by extra overtime payments and shift differentials, they do serve, within certain limits, to show variations among plants in the earnings of the workers. Data for general average earnings of all workers were secured for 139 plants.

A comparison of plant averages shows very little difference between large and small plants, a difference rather common among other industries. The explanation is due, in part, to certain differences in the composition of the labor force. Small plants are unable to effect as much division of labor as large plants. Consequently, with less dilution of skill, they must employ a larger proportion of skilled labor.

TABLE 4.—*Distribution of Machine-Tool-Accessories Plants by Plant Average Hourly Earnings and by Size of Plant, April–June 1942*

Plant average hourly earnings	All plants	Plants employing—	
		100 workers or less	Over 100 workers
$0.40 and under $0.50	2	2	
$0.50 and under $0.60	6	3	3
$0.60 and under $0.70	7	4	3
$0.70 and under $0.80	18	14	4
$0.80 and under $0.90	20	14	6
$0.90 and under $1.00	17	11	6
$1.00 and under $1.10	18	15	3
$1.10 and under $1.20	15	11	4
$1.20 and under $1.30	14	8	6
$1.30 and under $1.40	4	2	2
$1.40 and under $1.50	8	5	3
$1.50 and under $1.60	2	1	1
$1.60 and under $1.80	5	3	2
$1.80 and under $2.00	2	1	1
$2.00 or over	1	1	

AVERAGE EARNINGS BY OCCUPATION

Straight-time average earnings in 5 occupational groups of male workers—class A boring-mill operators, class A grinding-machine operators, class A lay-out men, wood-pattern makers, and class A tool and die makers—were substantially above $1.30 per hour. In 12 other occupations, average earnings were more than $1.10 per hour, and in 9 more the average hourly earnings were above $1.00. Thus,

average hourly earnings were more than $1.00 in 26 occupational groups, in which were employed nearly 38 percent of the male workers for whom detailed earnings data were secured.

On the other hand, in 6 occupational groups other than apprentices and learners, the average hourly earnings were below 60 cents. The occupations at this lower wage level were class C burrers, elevator operators, machine operators' helpers, class C punch-press operators, class C testers, and hand truckers. Average hourly earnings were less than 70 cents for 19 other occupational groups. In 27 occupations (including apprentices and learners), in which were employed slightly less than 25 percent of the male workers for whom detailed earnings data are available, average earnings were below 70 cents per hour. The range of average earnings for male workers was from 53.7 cents per hour for hand truckers to $1.44 for wood-pattern makers.

It is evident that comparative wage levels of different classes of workers in some occupations are influenced by variations in wage structure. Classes B and C inspectors have the same average wage in the industry as a whole (table 5). This is the result of the disproportionate number of class C inspectors who are employed in the North Central plants, which generally paid higher wages. This factor also explains why there is so little difference between earnings for classes B and C grinding-machine operators and classes B and C punch-press operators.

TABLE 5.—*Average Hourly Earnings* [1] *of Day-Shift Workers in Selected Occupations in Machine-Tool-Accessories Plants, April–June 1942*

Occupation and class	United States		New England and Middle Atlantic		North Central	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
Total workers	100.0	$0.914	100.0	$0.768	100.0	$1.008
Male workers	97.6	.923	97.0	.778	98.0	1.016
Acetylene-burner operators	(2)	.790			.1	.790
Apprentices, first year	1.0	.545	.7	.526	1.1	.539
Apprentices, second year	.9	.692	.9	.626	.8	.733
Apprentices, third year	.4	.785	.3	.659	.4	.844
Apprentices, fourth year	.1	.919	(2)	(3)	.1	.980
Assemblers, bench, class A	1.0	1.132	.7	.917	1.1	1.218
Assemblers, bench, class B	1.6	.814	2.1	.745	1.3	.887
Assemblers, bench, class C	1.0	.717	.4	.701	1.3	.720
Assemblers, floor, class A	.4	1.041	.2	.849	.5	1.096
Assemblers, floor, class B	.4	.785	.1	.720	.6	.791
Assemblers, floor, class C	.2	.778	(2)	(3)	.3	.787
Boring-mill operators, class A	.8	1.380	.2	1.003	1.2	1.417
Boring-mill operators, class B	.2	.978	.1	(3)	.3	1.037
Broaching-machine operators	.1	.864	.1	(3)	.1	.837
Buffers	1.3	.874	1.5	.738	1.2	.982
Burrers, class B	.4	.776	.7	.731	.2	.864
Burrers, class C	.3	.579	.5	.551	.2	.623
Carpenters, class A	(2)	1.004	(2)	(3)	(2)	(3)
Carpenters, class B	.1	.664	.2	.630	(2)	(3)
Carpenters, class C	.2	.631	.2	.533	.1	.766
Casting cleaners	.7	.654	.4	(3)	.9	.689
Coremakers, class A	.4	1.092	.1	(3)	.6	(3)
Crane operators	.1	.996			.1	.996
Craters	.1	.642	.1	(3)	.1	.679
Die setters	.1	.900			.1	.900
Drill-press operators, class A	.5	.935	.5	.904	.5	.953
Drill-press operators, class B	.7	.719	1.0	.628	.5	.839
Drill-press operators, class C	.7	.648	.7	.552	.8	.704
Drop-hammer operators, class A	.1	.968	(2)	.840	.1	(3)
Electricians	.3	1.026	.2	.708	.4	1.124
Elevator operators	.1	.587	(2)	(3)	.1	(3)
Firemen, stationary boiler	.1	.626	.2	.584	(2)	(3)
Foremen, working, class A	1.2	1.220	1.6	1.079	1.0	1.372
Foremen, working, class B	.5	.836	.6	.782	.4	.887
Foremen, working, class C	.1	.806	.1	.590	.1	.888

See footnotes at end of table.

TABLE 5.—*Average Hourly Earnings* [1] *of Day-Shift Workers in Selected Occupations in Machine-Tool-Accessories Plants, April–June 1942*—Continued

Occupation and class	United States		New England and Middle Atlantic		North Central	
	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings	Percent of workers	Average hourly earnings
Male workers—Continued.						
Gear cutters, class A	0.1	$1.103	(2)	(3)	0.2	$1.157
Gear cutters, class B	.2	.840	0.2	$0.597	.3	.925
Gear finishers	.3	.746	.6	.647	.2	.989
Grinding-machine operators, class A	6.8	1.343	6.4	1.193	7.4	1.427
Grinding-machine operators, class B	7.5	.785	8.9	.699	6.9	.858
Grinding-machine operators, class C	.8	.733	.1	.507	1.3	.749
Heat treaters, class A	.6	1.038	.6	.792	.7	1.186
Heat treaters, class B	.8	.750	1.0	.586	.7	.906
Helpers, journeymen's	.8	.731	.6	.575	1.0	.789
Helpers, machine operators'	.6	.599	.8	.494	.5	.710
Inspectors, class A	1.0	1.166	.8	.824	1.1	1.332
Inspectors, class B	1.7	.748	1.5	.550	1.7	.863
Inspectors, class C	.7	.748	.3	.518	1.0	.789
Janitors	1.8	.657	1.7	.512	1.8	.747
Job setters	.5	1.010	.4	.890	.5	1.084
Laborers	1.3	.650	1.0	.573	1.4	.685
Laborers, foundry	.3	.682	.2	(3)	.4	.723
Lathe operators, engine, class A	3.7	1.170	3.3	1.035	4.0	1.243
Lathe operators, engine, class B	3.4	.774	4.1	.671	2.9	.869
Lathe operators, engine, class C	.8	.653	1.1	.494	.6	.830
Lathe operators, turret, class A	1.1	1.132	1.2	.954	1.0	1.275
Lathe operators, turret, class B	1.0	.819	1.2	.661	1.0	.943
Lay-out men, class A	.1	1.418	(2)	(3)	.1	1.579
Learners, journeymen	1.7	.623	2.6	.535	1.1	.757
Learners, machine operators	7.2	.628	6.3	.501	8.0	.693
Learners, others	1.0	.571	1.7	.524	.5	.677
Machinists, class A	1.7	1.150	1.7	1.069	1.6	1.206
Machinists, class B	1.2	.860	1.3	.736	1.1	.952
Metal-saw operators	.8	.725	.8	.675	.8	.760
Milling-machine operators, class A	2.9	1.152	3.1	.949	2.7	1.306
Milling-machine operators, class B	3.6	.821	4.4	.718	3.2	.913
Milling-machine operators, class C	.4	.738	1.0	.723	.1	.880
Millwrights	.7	.843	.6	.683	.7	.933
Packers	1.0	.621	1.3	.506	.9	.733
Painters, brush	.3	.747	.2	.602	.3	.816
Painters, spray	.1	.881	(2)	(3)	.1	.895
Patternmakers, wood	.2	1.440	.1	(3)	.4	1.517
Planer operators	.6	1.034	.4	.829	.8	1.113
Punch-press operators, class A	.1	1.074	.4	1.086	(2)	(3)
Punch-press operators, class B	.3	.666	.6	.648	.2	.711
Punch-press operators, class C	.6	.589	.7	.518	.5	.644
Repairmen, machine, class A	1.1	1.020	1.0	.752	1.2	1.167
Sandblasters	.1	.929	.1	(3)	.2	1.018
Screw-machine operators, class A	.5	1.170	.2	.826	.6	1.240
Screw-machine operators, class B	.7	.786	.6	.651	.9	.849
Screw-machine operators, class C	.3	.691	.2	.487	.3	.808
Shaper operators	.9	1.123	.6	.967	1.2	1.176
Stock clerks	2.4	.720	2.1	.593	2.6	.790
Straighteners	.8	.964	1.3	.954	.4	.986
Testers, class B	.1	.625	.1	(3)	(2)	(3)
Testers, class C	.1	.581	.2	(3)	(2)	(3)
Thread-milling-machine operators	.4	.823	.7	.826	.2	.819
Time clerks	.4	.642	.2	.584	.4	.654
Tool and die makers, class A	9.4	1.382	8.7	1.227	9.6	1.476
Tool and die makers, class B	.1	.855	.3	.855	----	----
Tool grinders	1.2	1.168	.8	.700	1.4	1.330
Truck drivers	.3	.818	.2	.607	.4	.866
Truckers, hand	.5	.537	.6	.459	.4	.628
Watchmen	1.3	.621	1.1	.521	1.5	.669
Welders, hand, class A	.2	1.147	(2)	(3)	.2	1.156
Welders, hand, class B	.1	.770	(2)	(3)	.1	.784
Welders, machine	.3	.811	.4	.636	.1	1.143
Female workers	2.4	.559	3.0	.459	2.0	.656
Assemblers, bench	.1	.460	.3	.450	(2)	(3)
Burrers	.1	.471	.2	.436	(2)	(3)
Drill-press operators	.1	.444	.2	.444	----	----
Grinding-machine operators	.4	.502	.8	.520	.2	.468
Inspectors	.4	.704	.3	.409	.5	.838
Lathe operators, engine	.1	.563	(2)	(3)	.1	.583
Learners	.4	.537	.1	.427	.5	.558
Milling-machine operators	.4	.624	.6	.467	.3	.848
Packers	.1	.533	.3	.445	.1	(3)
Punch-press operators	.1	.527	----	----	.1	.527
Stock clerks	.1	.479	.2	.394	.1	(3)
Time clerks	.1	.441	(2)	(3)	.1	(3)

[1] Averages are based on actual earnings exclusive of extra payments for overtime. [2] Less than 0.05 percent. [3] Number of plants and/or workers too small to justify computation of an average.

Among female workers in the industry, average earnings ranged from 44.1 cents per hour for time clerks to 70.4 cents for inspectors. Only 1 other occupational group, milling-machine operators, received an average of more than 60 cents per hour. Average earnings in 5 of the 12 occupations in which any substantial number of women were employed were less than 50 cents per hour.

The low earnings of female workers in an industry which otherwise has a relatively high wage level are due to several factors. First, the employment of women in any substantial numbers in the industry is comparatively recent, and many of the female workers are still employed at starting rates. Second, because of their recent hiring, these women are often employed at the more routine and repetitive tasks, whereas men are performing the more complicated jobs. With some few exceptions, moreover, the plants employing the larger numbers of women were plants with average hourly rates below the level for the industry.

DIFFERENCES IN REGIONS AND METROPOLITAN AREAS

The combined weighted totals shown in table 5 indicate a wage advantage of about 24 cents per hour for workers in the North Central States over those in the Northeast. When the comparison is made for individual occupations of male workers, a substantial difference in the same direction is also generally found, an outstanding exception being the job of thread-milling-machine operators. Workers in this occupation in the Northeast received on an average less than 1 cent more than those doing similar work in the North Central plants. In all other occupations for which reliable comparisons are possible the workers in the North Central plants received higher earnings than those in the Northeastern plants. For 61 of the 71 occupations for male workers the differences were greater than 10 cents per hour; for 25 occupations the differences were as great as 25 cents; and in 8 the differences were greater than 40 cents per hour.

These regional differences are, in part, a reflection of the wage levels of two large metropolitan areas, Cleveland and Detroit; 31 of the 82 North Central plants were in these areas.

It is evident from table 6 that male workers in plants situated in large cities receive higher wages than those employed in smaller communities. Workers employed by plants in metropolitan areas of 500,000 or more population received an average of 15 cents more than those in less heavily populated areas. In 40 of the 45 occupational groups for which reliable comparisons could be made, the workers in the large metropolitan areas received the higher earnings. Workers in large metropolitan areas had a wage advantage of 20 cents or more in 17 occupations. In the plants in large metropolitan areas, 16 of the 45 occupational groups had average earnings of $1.00 or more per hour, but only 9 occupational groups in plants in smaller communities had average hourly earnings as high as $1.00. On the other hand, in the smaller communities 22 of the 45 occupations showed average earnings of less than 70 cents per hour, as compared with only 5 occupations in the large metropolitan areas.

TABLE 6.—*Average Hourly Earnings of Male Day-Shift Workers in Selected Occupations in Machine-Tool-Accessories Plants, by Size of Metropolitan Area, April–June 1942*

Occupation and class	Average hourly earnings [1] in metropolitan areas of—	
	Less than 500,000 population	500,000 or more population
All occupations	$0.857	$1.003
Apprentices, first year	.500	.601
Apprentices, second year	.651	.743
Assemblers, class A	.884	1.240
Assemblers, class B	.679	.905
Assemblers, class C	.520	.761
Boring-mill operators, class A	1.304	1.423
Buffers	.811	.990
Drill-press operators:		
Class B	.645	.827
Class C	.579	.714
Foremen, working, class A	1.173	1.321
Grinding-machine operators:		
Class A	1.187	1.467
Class B	.719	.836
Class C	.631	.812
Heat treaters, class A	.856	1.242
Heat treaters, class B	.631	.928
Helpers, journeymen's	.724	.740
Inspectors, class A	1.016	1.295
Inspectors, class B	.640	1.048
Inspectors, class C	.598	.806
Janitors	.553	.753
Laborers	.609	.682
Lathe operators, engine:		
Class A	1.079	1.259
Class B	.688	.844
Class C	.494	.729
Lathe operators, turret:		
Class A	.994	1.205
Class B	.650	.890
Learners, journeymen	.644	.608
Learners, machine operators	.520	.700
Learners, others	.542	.613
Machinists, class A	1.172	1.130
Machinists, class B	.921	.801
Metal-saw operators	.703	.743
Milling-machine operators:		
Class A	.971	1.288
Class B	.721	.886
Millwrights	.791	.948
Packers	.547	.723
Planer operators	.872	1.150
Repairmen, machine, class A	.804	1.223
Screw-machine operators, class B	.658	.960
Shaper operators	1.014	1.197
Stock clerks	.624	.807
Straighteners	.967	.954
Tool and die makers	1.402	1.362
Tool-grinder operators	1.066	1.224
Watchmen	.591	.662

[1] Averages are based on actual earnings exclusive of extra payments for overtime.

UNION WAGES AND HOURS IN THE BAKING INDUSTRY, JUNE 1, 1942[1]

Summary

THE average hourly rate for union members in the baking industry on June 1, 1942, was 81.9 cents. Two-thirds of the union members had rates between 40 and 90 cents; almost one-third had rates between 70 and 90 cents; and over one-fifth had scales of $1.00 or more. Organized workers in Hebrew bakeries received the highest hourly rate on the average ($1.340), while those in the pie and pastry branch had the lowest average rate ($0.602).

Based on comparable quotations for both June 1, 1941, and June 1, 1942, the general level of wages advanced 9.6 percent. Bread and cake machine shops, with an increase of 10.6 percent, reported the greatest change in the industry. Exactly 93.0 percent of the union members received increases in rates during this period.

The 40-hour week was predominant in the industry, 72.7 percent of the union members being covered by such a provision. The remaining workers were covered by 16 other workweek schedules ranging from 28 to 54 hours. Overtime was practically always paid for at time and a half, with over 87 percent of the members subject to this premium scale.

Scope and Method of Study

This study is one of a series of annual surveys begun in 1907, covering union scales in various trades in selected cities of the United States. The number of cities included has been gradually increased from 39 to 75. These cities are in 40 States and the District of Columbia. Effective union agreements providing wage and hour scales for bakery workers were reported in 62 of the 75 cities in 1942. The current survey included 3,450 quotations of scales covering 62,098 union members. All the data were effective as of June 1, 1942.

Averages.—The averages and percentages of change given in this report are weighted according to the number of union members covered by each scale. The resulting aggregates (rates multiplied by membership) were added and their sum was divided by the total number of members used in the weighting. The average thus reflects not only the actual scales of wages and hours provided in union agreements, but also the number of members benefiting from these scales. A weighted average of this kind is obviously more realistic than a simple average of specific rates. In the latter case, a wage rate covering one or two members would be given the same importance as a rate covering several dozen members.

The percent of change from the previous year is the ratio between similar aggregates computed from the scales quoted for identical unions and occupational classifications in both years. The weights in both of the aggregates used in each year-to-year comparison were the membership figures reported in the second year.

[1] Prepared in the Bureau's Industrial Relations Division.

Changes in coverage.—Prior to 1939 only union members engaged principally in bread baking were included. In the 1939 and 1940 surveys, all types of baking covered by union agreements have been included, and all occupations except deliverymen. In the current report, plant-maintenance workers, as well as deliverymen, are excluded from the tabulations.

As in the 1941 survey, the data are classified according to the various types of baking. Separate figures are shown for hand shops, machine shops, Hebrew baking, other specialized baking, pie and pastry shops, and cracker and cookie shops. Other specialized shops include those baking French, Polish, Bohemian, Scandinavian, Spanish, and Italian products.

Average Hourly Rates

The average hourly rate for union members in the baking industry was $0.819 on June 1, 1942 (table 1). Actual rates ranged between $0.266 for helpers in Latin hand shops in Tampa to $1.714 for machine-shop first hands in Hebrew bakeries in New York City. Nine percent of all union bakery workers had wage rates of less than 50 cents; almost 28 percent had rates between 50 and 70 cents; about 30 percent had rates between 70 and 90 cents; and 12 percent between 90 cents and $1.00. Over one-fifth were covered by scales of $1.00 or more.

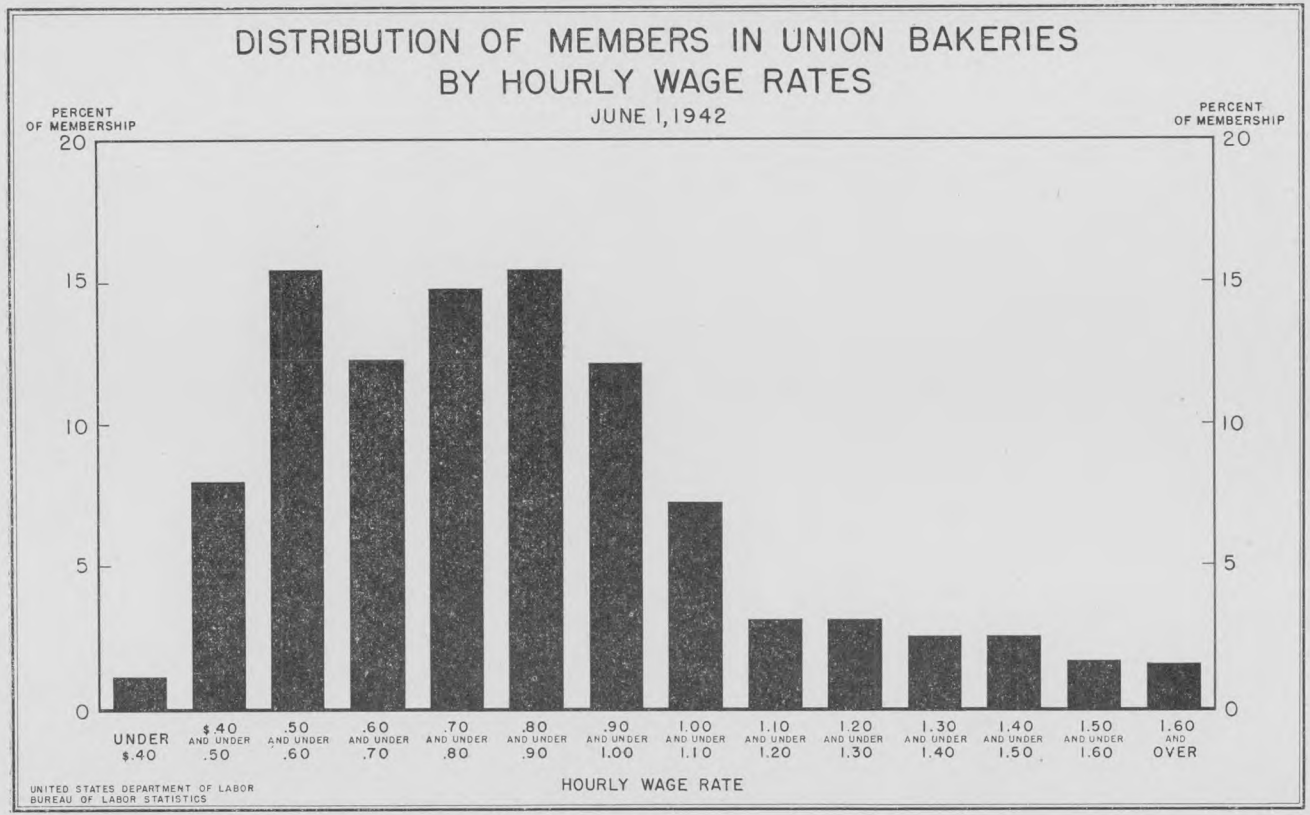
Wages in hand shops making ordinary bread and cake averaged $0.952 per hour, while in machine shops the average was $0.772 per hour. About 60 percent of the union members working in hand shops had rates between $0.80 and $1.10 per hour compared to 36 percent in machine baking; 56.5 percent of the latter had rates under 80 cents as compared to only 23 percent in hand baking.

Union members in Hebrew shops had the highest wage rates, on the average, in the baking industry. Members in this specialized branch averaged $1.34 per hour, with over three-fourths of them having rates of $1.20 or more and only 9 percent rates of less than $1.00 per hour. The greater proportion of the organized bakery workers in this branch were in such metropolitan centers as New York City, Newark, and Los Angeles.

Union rates in other specialized bakeries, such as Italian, Polish, French, Scandinavian, Bohemian, and Spanish, averaged $0.925 per hour, with almost half of the members having hourly scales of $1.00 or over. These specialized types of bakeries were found, usually, in the largest cities only.

The cracker and cookie and the pie and pastry branches of the industry included the lowest-paid workers, on the average, having average hourly rates of $0.616 and $0.602, respectively. Over two-thirds of the union members in the cracker and cookie and the pie and pastry shops had wage rates between 40 and 70 cents per hour. The large differences in wage rates between these branches and the rest of the industry are attributable, in the main, to the factors of sex and skill. Women are employed extensively in cracker, cookie, pie, and pastry shops where the need for skill is not nearly so great, as the shops, especially those making crackers and cookies, are highly mechanized.

Because of the dissimilarities in occupational designations and duties, no distribution based on particular occupations is possible. However, mixers and ovenmen generally had the highest rates specified



in each agreement, while the lower scales applied to members in the auxiliary and less skilled occupations, such as pan greasers, checkers, wrappers, slicers, and general helpers.

TABLE 1.—*Distribution of Union Members in the Bakery Trades by Hourly Wage Rates, June 1, 1942*

Type of baking	Average rate per hour	Percent of union members whose rates (in cents) per hour were—													
		Under 40	40 and under 50	50 and under 60	60 and under 70	70 and under 80	80 and under 90	90 and under 100	100 and under 110	110 and under 120	120 and under 130	130 and under 140	140 and under 150	150 and under 160	160 and over
All baking	$0.819	1.1	7.9	15.4	12.2	14.7	15.4	12.0	7.2	3.0	3.0	2.5	2.5	1.6	1.5
Ordinary bread and cake, hand	.952	.1	1.2	5.2	6.4	10.0	17.8	25.9	15.5	7.2	.7	1.9	2.5	1.9	3.7
Ordinary bread and cake, machine	.772	.3	7.5	14.9	14.0	19.8	18.9	12.1	4.9	2.2	3.1	2.0	.2	.1	----
Pie and pastry	.602	2.3	32.9	27.4	9.6	8.3	10.5	2.6	4.7	1.4	.3	----	----	----	----
Cracker and cookie	.616	5.6	15.4	34.4	18.8	8.8	9.7	5.7	1.4	.2	----	----	----	----	----
Hebrew baking	1.340	.3	.1	.3	.8	1.2	3.6	2.7	11.1	2.7	10.3	12.4	25.9	16.5	12.1
Other specialized baking[1]	.925	.7	1.8	8.4	7.4	12.7	5.6	13.6	27.5	13.2	7.2	1.9	----	----	----

[1] French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

Changes in Hourly Wage Rates, 1941 to 1942

Most of the union members in the bakery trades received hourly wage increases during the year ending June 1, 1942 (table 2). About 89 percent of the quotations, including 93 percent of the total union members, showed increases. These increases raised the general level of union wages in the baking industry by 9.6 percent during the period June 1, 1941, to June 1, 1942, as compared with a 3.3-percent rise for the previous year.

Union members in the ordinary bread and cake machine shops were most successful in obtaining increases, over 97 percent benefiting by advances in rates. Hebrew bakeries ranked second, with 92.2 percent of their members receiving increases, which is in marked contrast to the 15.8 percent who received raises the previous year. Almost 90 percent of the members in hand shops, 83 percent in the pie and pastry shops, 80 percent in the cracker and cookie shops, and 77 percent in specialized bakeries other than Hebrew were recipients of higher rates.

TABLE 2.—*Number of Changes in Union Wage-Rate Quotations and Percent of Members Affected, June 1, 1942, Compared with June 1, 1941*

Type of baking	Number of comparable quotations	Number of quotations showing—			Percent of union members affected by—		
		Increase	Decrease	No change	Increase	Decrease	No change
All baking	2,671	2,384	----	287	93.0	----	7.0
Ordinary bread and cake, hand	268	242	----	26	89.6	----	10.4
Ordinary bread and cake, machine	1,665	1,547	----	118	97.4	----	2.6
Pie and pastry	91	68	----	23	83.3	----	16.7
Cracker and cookie	445	380	----	65	80.0	----	20.0
Hebrew baking	106	86	----	20	92.2	----	7.8
Other specialized baking[1]	96	61	----	35	77.4	----	22.6

[1] French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

Table 3 shows that over two-thirds of the union members received increases of between 5 and 15 percent; 17.1 percent of the total union membership received increases over 15 percent; while only 8.5 percent received increases of less than 5 percent.

TABLE 3.—*Number of Increases in Union Wage-Rate Quotations, and Percent of Members Affected, by Percent of Increase, June 1, 1942, Compared with June 1, 1941*

Type of baking	Number of quotations showing increases of—							Percent of total members affected by increases of—						
	Less than 5 percent	5 and under 10 percent	10 and under 15 percent	15 and under 20 percent	20 and under 25 percent	25 and under 30 percent	30 percent and over	Less than 5 percent	5 and under 10 percent	10 and under 15 percent	15 and under 20 percent	20 and under 25 percent	25 and under 30 percent	30 percent and over
All baking	149	908	849	255	104	51	68	8.5	32.2	35.2	13.2	2.1	0.9	0.9
Ordinary bread and cake, hand	24	88	88	20	8	4	10	17.5	16.9	40.9	10.8	1.4	.3	1.8
Ordinary bread and cake, machine	80	614	568	142	61	36	46	5.3	35.4	37.8	14.6	2.3	1.1	.9
Pie and pastry	7	34	12	6	3	2	4	4.1	40.1	19.5	11.0	6.1	1.4	1.1
Cracker and cookie	17	130	123	67	29	6	8	2.3	30.0	27.8	16.3	2.7	.7	.2
Hebrew baking	16	28	28	11	3	-----	-----	27.1	44.7	17.2	2.9	.3	-----	-----
Other specialized baking [1]	5	14	30	9	-----	3	-----	1.1	11.8	44.3	17.4	-----	2.8	-----

[1] French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

Weekly Hours

The 40-hour week was most prevalent in union agreements in the baking industry as a whole, although a longer week than 40 hours prevailed in the hand shops and the specialized bakeries. Nearly 73 percent of the organized workers were reported as covered by a regular workweek of 40 hours. The remaining 27 percent of the union members were scattered among 16 other straight-time weekly work periods. About 10 percent of the total had a week of 48 hours and over (table 4). The number of the agreements providing workweeks of less than 40 hours was occasioned, primarily, by share-the-work plans; these plans were most prevalent in Hebrew bakeries. The 36-hour week was fairly common in the machine bake shops on the Pacific Coast.

The 40-hour week was almost universal in unionized cracker and cookie bakeries, less than 1 percent of the members having a longer workweek. Machine shops making ordinary bread and cake operated on the 40-hour week in a majority of the cases, with 90 percent of the union members employed on this basis. In the hand shops almost 78 percent of the union members were covered by workweeks of more than 40 hours; over 46 percent had a normal workweek of 48 hours. Almost three-fifths of the union members in specialized bakeries, other than Hebrew shops, were covered by a workweek of 48 hours or more. In contrast, almost 42 percent of the members working in Hebrew bakeries had workweeks of less than 40 hours, mainly as a result of share-the-work plans.

Weighting the various weekly working schedules by the union membership covered by each resulted in an average maximum workweek in the baking industry of 40.9 hours. Only the average for Hebrew bakeries was lower (39.2), while the average for hand shops making ordinary bread and cake was the highest (44.9).

TABLE 4.—*Distribution of Union Members in the Bakery Trades by Hours per Week, June 1, 1942*

Weekly hours	All baking	Ordinary bread and cake, hand shops	Ordinary bread and cake, machine shops	Pie and pastry	Cracker and cookie	Hebrew baking	Other specialized baking [1]
Average weekly hours	40.9	44.9	40.1	41.3	40.0	39.2	44.8
	Percent of members with specified hours per week						
28 hours	0.8					10.6	
30 hours	1.8					22.9	
32 hours	.2						4.1
35 hours	.5		0.1				11.9
36 hours	1.3		2.3				
37½ hours	.8					8.2	3.9
38 hours	.9		1.6				
39 hours	.3						6.3
40 hours	72.7	22.2	90.0	81.4	99.5	9.9	8.2
42 hours	3.2	12.5	2.3	2.4			4.9
42½ hours	[2]			.3			
44 hours	1.5	3.8	1.6	.6	.5	.1	
45 hours	4.5	15.3				30.7	.9
47 hours	1.1		1.9			.7	
48 hours	9.8	46.2	.2	15.3		16.9	44.5
50 hours	[2]		[2]				
54 hours	.6						15.3

[1] French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.
[2] Less than a tenth of 1 percent.

The average workweek decreased by 0.1 percent during the period June 1, 1941, to June 1, 1942. Of the 2,671 comparable quotations, 58 indicated a reduced working schedule affecting 1.6 percent of the union members (table 5). Slightly more than 0.2 percent of the quotations, including 1.2 percent of the total union members, indicated a lengthened workweek.

TABLE 5.—*Number of Changes in Union Hour Quotations and Percent of Members Affected, June 1, 1942, Compared with June 1, 1941*

Type of baking	Number of comparable quotations	Number of quotations showing—			Percent of union members affected by—		
		Increase	Decrease	No change	Increase	Decrease	No change
All baking	2,671	6	58	2,607	1.2	1.6	97.2
Ordinary bread and cake, hand	268		20	248		2.4	97.6
Ordinary bread and cake, machine	1,665	5	33	1,627	1.8	1.6	96.6
Pie and pastry	91	1		90	3.5		96.5
Cracker and cookie	445			445			100.0
Hebrew baking	106		5	101		2.4	97.6
Other specialized baking [1]	96			96			100.0

[1] French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

Overtime

Practically all (96 percent) of the bakery agreements indicated a penalty rate of time and a half for overtime (table 6). More than 87 percent of the union members were covered by this provision. Other penalty rates covered 4.9 percent of the members, while for 7.5 percent of the members no penalty rate was specified.

Most of the members receiving straight time for overtime worked in Hebrew bakeries where share-the-work plans were in operation. In these cases overtime on a penalty basis was not generally allowed until the hours stipulated in the agreement were worked, rather than those hours called "normal" under the share-the-work adjustment.

Generally any overtime work was discouraged and frequently a limit was set upon the amount of overtime permitted. Many of the agreements, however, in recognition of the fact that the demand for bakery products is not uniform throughout the week, specified that the overtime rate should apply only on the basis of weekly hours and not on the basis of any one shift. Others achieved the same result by specifying longer regular shifts on certain days than on others. Not infrequently a tolerance was provided whereby a limited amount of overtime could be worked without payment of any penalty rate. This tolerance generally was not over 2 hours in any week.

TABLE 6.—*Overtime Rates Provided in Union Bakery Agreements, June 1, 1942*

Type of baking	Number of quotations showing initial overtime rates of—			Percent of union members having initial overtime rates of—		
	Time and one-half	No penalty rates specified	Other penalty rates	Time and one-half	No penalty rates specified	Other penalty rates
All baking	3,313	88	49	87.6	7.5	4.9
Ordinary bread and cake, hand	268	25	6	84.3	12.6	3.1
Ordinary bread and cake, machine	1,977	18	18	94.9	1.6	3.5
Pie and pastry	121	8	----------	98.4	1.6	----------
Cracker and cookie	776	----------	----------	100.0	----------	----------
Hebrew baking	72	27	14	20.7	54.6	24.7
Other specialized baking [1]	99	10	11	77.4	11.6	11.0

[1] French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.

Average Rates by City

Table 7 shows the average hourly rate for organized bakery workers in each city, grouped according to the type of baking. These averages were computed by weighting each rate by the number of union members covered by it and then dividing the total aggregates so obtained by the total number of union members in the city. In using this table one should bear in mind the fact that it is possible for average rates to vary inversely with the degree of organization. If the union has organized all of the occupations and workers in a city its average rate will probably be lower than that of a union that has organized only the more skilled groups. However, the latter condition is rapidly disappearing, as the unions are organizing more of the unskilled workers each year. In several cities it was impossible to separate the members in hand and machine shops for the purpose of computing an average. In these cases, all were tabulated under that type of baking which included the greater number of members.

Portland, Oreg., had the highest average rate in hand shops making ordinary bread and cake—$1.135—followed closely by New York with a rate of $1.130, while San Francisco ($1.063) was third in line. Rochester ($0.980) and Cincinnati ($0.979) also had rates above the average ($0.952) for all cities in this group. Washington,

D. C., had the highest rate in the machine branch ($1.070), followed by Portland, Oreg. ($1.054). San Francisco, Seattle, and Spokane also had average rates of over $1.00. The cities on the Pacific coast tended to have higher scales as well as shorter workweeks.

In the Hebrew-bakery classification, the highest average hourly rate prevailed in New York ($1.420), followed by Los Angeles ($1.410) and Newark ($1.374). Among other specialized bakeries, San Francisco headed the list with $1.084; Buffalo was second with $1.041. Chicago and Detroit also had rates over $1.00.

Duluth had the highest average in cracker and cookie bakeries ($0.751). New York and Detroit followed with averages of $0.728 and $0.694. Rock Island district topped all other cities in the pie and pastry field, with the high average of $0.900; and New York was second, with $0.839.

TABLE 7.—*Average Hourly Rates for Union Bakery Workers in Each City, by Type of Baking, June 1, 1942*

City and type of baking	Average hourly rate
Ordinary bread and cake, hand shops:	
Portland, Oreg	$1.135
New York, N. Y	1.130
San Francisco, Calif	1.063
Rochester, N. Y	.980
Cincinnati, Ohio	.979
Average for all cities	*.952*
Chicago, Ill	.945
Newark, N. J	.897
St. Louis, Mo	.873
Springfield, Mass	.872
New Haven, Conn	.864
Cleveland, Ohio	.852
Duluth, Minn	.846
Denver, Colo	.837
Buffalo, N. Y	1.804
Toledo, Ohio	.794
Houston, Tex	.786
South Bend, Ind	.781
St. Paul, Minn	.777
Youngstown, Ohio	.774
Phoenix, Ariz	.747
Peoria, Ill	.745
Manchester, N. H	.729
New Orleans, La	.724
Des Moines, Iowa	.720
Providence, R. I	.719
Minneapolis, Minn	.706
Salt Lake City, Utah	.699
Rock Island (Ill.) district [2]	.697
Milwaukee, Wis	.690
Dallas, Tex	.667
Boston, Mass	.627
Scranton, Pa	.623
Tampa, Fla	.614
Pittsburgh, Pa	.605
Indianapolis, Ind	.517
Birmingham, Ala	.508
Ordinary bread and cake, machine shops:	
Washington, D. C	1.070
Portland, Oreg	1.054
San Francisco, Calif	1.038
Seattle, Wash	[3] 1.009
Spokane, Wash	[3] 1.006
Denver, Colo	.983
Butte, Mont	.973
Los Angeles, Calif	.952
Oklahoma City, Okla	.904
Madison, Wis	.854
Duluth, Minn	.833
Houston, Tex	.831
New York, N. Y	.809
Newark, N. J	.804
Rochester, N. Y	.792
Phoenix, Ariz	.788
St. Louis, Mo	.782
Ordinary bread and cake, machine shops—Continued.	
Kansas City, Mo	$0.778
Peoria, Ill	.778
Detroit, Mich	.772
Average for all cities	*.772*
Wichita, Kans	.770
Des Moines, Iowa	.768
Pittsburgh, Pa	.768
Rock Island (Ill.) district [2]	.768
Cincinnati, Ohio	.764
Youngstown, Ohio	.763
Salt Lake City, Utah	.762
Milwaukee, Wis	.757
Memphis, Tenn	.756
Reading, Pa	.750
Worcester, Mass	.749
Providence, R. I	.735
St. Paul, Minn	.733
Springfield, Mass	.720
Cleveland, Ohio	.719
Minneapolis, Minn	.710
Dayton, Ohio	.709
Columbus, Ohio	.706
Chicago, Ill	.705
Philadelphia, Pa	.704
New Orleans, La	.696
Toledo, Ohio	.694
Louisville, Ky	.693
Indianapolis, Ind	.679
Buffalo, N. Y	.678
South Bend, Ind	.671
Boston, Mass	.658
Omaha, Nebr	.652
Little Rock, Ark	.650
Dallas, Tex	.641
Baltimore, Md	.638
Scranton, Pa	.620
New Haven, Conn	.619
Binghamton, Ala	.610
Atlanta, Ga	.609
Tampa, Fla	.606
Charlotte, N. C	.586
Jacksonville, Fla	.582
Binghamton, N. Y	.548
Richmond, Va	.537
Nashville, Tenn	.474
Pie and pastry:	
Rock Island (Ill.) district [2]	.900
New York, N. Y	.839
St. Louis, Mo	.807
Boston, Mass	.727
Average for all cities	*.602*
Toledo, Ohio	.574
Duluth, Minn	.568
Chicago, Ill	.556

See footnotes at end of table.

TABLE 7.—*Average Hourly Rates for Union Bakery Workers in Each City, by Type of Baking, June 1, 1942*—Continued

City and type of baking	Average hourly rate
Pie and pastry—Continued.	
Detroit, Mich	$0.556
Cleveland, Ohio	.538
Philadelphia, Pa	.509
Wichita, Kans	.499
Providence, R. I	.469
Baltimore, Md	.447
Buffalo, N. Y	.435
Pittsburgh, Pa	.390
Cracker and cookie:	
Duluth, Minn	.751
New York, N. Y	.728
Detroit, Mich	.694
Dayton, Ohio	.687
Des Moines, Iowa	.683
San Francisco, Calif	.683
Toledo, Ohio	.642
Boston, Mass	.638
Kansas City, Mo	.635
Memphis, Tenn	.634
Philadelphia, Pa	.630
Seattle, Wash	.627
Buffalo, N. Y	.620
Average for all cities	*.616*
Spokane, Wash	.613
Los Angeles, Calif	.607
Chicago, Ill	.589
Minneapolis, Minn	.578
Portland, Oreg	.553
Denver, Colo	.481
St. Paul, Minn	.463
Wichita, Kans	.453
Birmingham, Ala	.433
Nashville, Tenn	.391
Scranton, Pa	.389
Hebrew baking:	
New York, N. Y	$1.420
Los Angeles, Calif	1.410
Newark, N. J	1.374
Average for all cities	*1.340*
Boston, Mass	1.332
Detroit, Mich	1.290
Chicago, Ill	1.233
Cleveland, Ohio	1.198
Rochester, N. Y	1.189
Philadelphia, Pa	1.172
Baltimore, Md	1.143
Pittsburgh, Pa	1.132
Providence, R. I	1.094
Springfield, Mass	1.075
Worcester, Mass	1.073
Denver, Colo	1.066
New Haven, Conn	1.053
Milwaukee, Wis	.901
Kansas City, Mo	.898
Minneapolis, Minn	.867
St. Louis, Mo	.856
Youngstown, Ohio	.836
Other specialized baking: [4]	
San Francisco, Calif	1.084
Buffalo, N. Y	[5] 1.041
Chicago, Ill	1.039
Detroit, Mich	1.020
Average for all cities	*.925*
Cleveland, Ohio	.919
New York, N. Y	.912
Pittsburgh, Pa	.906
Providence, R. I	.693
Los Angeles, Calif	.689
Philadelphia, Pa	.582
Tampa, Fla	.398

[1] Includes a few small machine shops—not separable.
[2] Includes Rock Island, Ill., Moline, Ill., and Davenport, Iowa.
[3] Includes hand shops—not separable.
[4] French, Polish, Bohemian, Scandinavian, Spanish, Italian, etc.
[5] Includes Hebrew bakeries—not separable.

EARNINGS, HOURS, AND LABOR TURN-OVER IN CORDAGE AND TWINE PLANTS, OCTOBER 1942 [1]

WORKERS in the cordage and twine manufacturing industry had an average workweek of 42.3 hours in October 1942; hourly earnings averaged 63.8 cents. These data are based upon reports to the Bureau of Labor Statistics from 64 plants, with 13,473 wage earners working any part of the pay period ending nearest the 15th of the month. For October 1941 the 15,053 workers in the 57 reporting plants averaged 42.1 hours per week and 56.0 cents per hour.

Although the increase during the year period in the average number of hours worked per week was small (0.5 percent), it should be noted that increased separations and accessions in the month of October 1942, as indicated by a special survey, tended to depress the average weekly hours actually worked. That survey, which was made at the request of the War Production Board, covered 25 plants with 8,727 workers (of whom 6,189, or 71 percent, were men and 2,538, or 29 percent, women) in the earlier month and 7,988 (of whom 5,063, or 63 percent, were men and 2,925, or 37 percent, women) in

[1] Prepared in the Bureau's Division of Employment Statistics by Nathan Buchalter.

the later month. These plants reported average separation rates in October 1941 of 3.73 per 100 for men, 5.52 for women, and 4.25 for both sexes combined, in contrast to October 1942 rates of 7.01 for men, 9.30 for women, and 7.85 for both sexes. The higher rates in the later period were due, no doubt, to the absorption of workers into the military services or to the migration of workers to war industries where higher rates of pay prevail. This conclusion is borne out by the fact that the general accession rate was likewise much higher in October 1942 (8.09) than in the same month of the previous year (5.72).

It is notable also that, while in October 1941 the accession rate was about the same for men as for women (5.67 and 5.83, respectively), in October 1942 it was more than three times as great for women (14.09) as for men (4.62), reflecting the tendency to replace male employees with women. This tendency was further evidenced by the fact that the number of male workers in the 25 plants covered by the special survey decreased by 18.2 percent over the year interval while the number of female workers actually increased by 15.2 percent. The general employment change for these 25 plants was a decline of 8.5 percent, while for the industry as a whole the decline was 7.3 percent.

In considering these labor turn-over figures, it should be noted that the 25 plants, the reports for which were used in the calculation of separation and accession rates, were the larger and better-paying plants where separation rates would tend to be lower than in the remainder of the industry. Workers in these plants, which are concentrated chiefly in the North, averaged 64.9 cents an hour in October 1941 and 72.7 cents in October 1942, a gain of 11.2 percent—resulting largely from increases in basic wage rates.

The Bureau's regularly reporting sample of northern plants reported much lower average hourly earnings than the special sample—63.1 cents in October 1941 and 69.9 in October 1942—while the southern sample showed average hourly earnings of 44.9 and 52.3 cents, respectively. The average workweek in the Northern States was 43.5 hours in the earlier period and 43.8 in the latter, as against 40.1 and 39.6 hours, respectively, in the Southern States.

The geographic distribution of the reporting plants is given in the following table.

Distribution of Reporting Cordage and Twine Plants by Geographic Division

Geographic division	Plants reporting in special survey				Bureau's regularly reporting sample			
	October 1941		October 1942		October 1941		October 1942	
	Number of plants	Number of wage earners	Number of plants	Number of wage earners	Number of plants	Number of wage earners	Number of plants	Number of wage earners
All divisions	25	8,727	25	7,988	57	15,053	64	13,473
New England	3	2,408	3	2,502	15	1,891	17	1,913
Middle Atlantic	13	4,417	13	3,462	15	5,096	16	4,887
East North Central	5	1,000	5	1,065	7	1,273	6	1,153
West North Central					1	(1)	1	(1)
Pacific	1	(1)	1	(1)	2	(1)	4	289
South Atlantic	3	(2)	3	(2)	8	3,423	11	2,544
East South Central					7	2,389	8	2,323
West South Central					2	(1)	1	(1)

[1] Data are confidential.
[2] Less than 1,000.

WAGE-RATE CHANGES IN UNITED STATES INDUSTRIES

THE following table gives information concerning wage-rate adjustments occurring during the month ending November 15, 1942, as shown by reports received from manufacturing and nonmanufacturing establishments which supply employment data to the Bureau of Labor Statistics.

As the Bureau's survey does not cover all establishments in an industry and some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending November 15, 1942 [1]

Group and industry	Establishments		Employees		Average percent of change in wage rates of employees having increases
	Total number covered [2]	Number reporting increases	Total number covered [2]	Number receiving increases	
All manufacturing	34,630	236	9,330,700	50,988	9.3
Durable goods	13,525	131	5,689,800	35,521	9.9
Nondurable goods	21,105	105	3,640,900	15,467	8.0
Iron and steel and their products, not including machinery	3,535	32	1,322,200	10,588	6.3
Blast furnaces, steel works, and rolling mills	225	4	442,600	6,960	6.5
Plumbers' supplies	110	3	17,900	88	8.2
Stamped and enameled ware and galvanizing	285	4	49,400	785	5.1
Fabricated structural and ornamental metalwork	290	4	34,100	77	11.0
Electrical machinery	735	9	490,600	1,279	7.6
Electrical equipment	580	7	[3]	1,168	7.4
Machinery, except electrical	2,660	37	847,800	4,519	8.8
Machinery and machine-shop products	1,500	18	360,100	855	6.1
Machine-tool accessories	200	4	[3]	493	23.6
Textile machinery	120	4	24,300	129	5.9
Pumps and pumping equipment	125	4	40,100	277	11.0
Automobiles	385	7	419,200	767	10.0
Transportation equipment, except automobiles	625	6	1,704,300	9,877	13.3
Nonferrous metals and their products	1,175	19	331,700	4,509	13.3
Primary smelting and refining	60	7	39,200	3,784	14.5
Jewelry and jewelers' findings	165	4	10,700	198	7.1
Lumber and timber basic products	1,275	3	174,800	107	13.9
Furniture and finished lumber products	1,555	11	171,100	552	7.3
Caskets and other morticians goods	110	3	6,000	45	6.7
Stone, clay, and glass products	1,580	7	228,100	3,323	9.7
Glass	150	5	68,300	3,256	9.6
All textiles and finished textile products	6,970	20	1,404,100	1,631	9.1
Textile-mill products and other fiber manufactures	3,160	9	987,200	866	10.0
Silk and rayon goods	445	3	74,400	291	8.2
Apparel and other finished textile products	3,810	11	416,900	765	8.0
Men's clothing, not elsewhere classified	1,095	3	150,300	375	9.9
Women's clothing, not elsewhere classified	1,295	5	95,200	299	6.5
Food and kindred products	5,180	16	613,400	722	8.4
Butter	295	3	6,400	82	8.4
Baking	985	6	89,200	481	8.7

See footnotes at end of table.

Wage-rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending November 15, 1942 [1]—Continued

Group and industry	Establishments		Employees		Average percent of change in wage rates of employees having increases
	Total number covered [2]	Number reporting increases	Total number covered [2]	Number receiving increases	
Tobacco manufactures	205	7	74,400	2,280	7.5
Cigars	150	7	40,000	2,280	7.5
Paper and allied products	1,365	5	222,500	609	14.4
Printing, publishing, and allied products	2,535	11	166,800	456	4.6
Newspapers and periodicals	705	4	59,700	224	5.6
Book and job printing	1,430	5	74,900	70	5.9
Chemicals, petroleum, and coal products	2,465	20	550,600	7,233	5.4
Chemicals and allied products	2,180	20	453,800	7,233	5.4
Paints, varnishes, and colors	480	5	21,900	121	10.3
Drugs, medicines, and insecticides	205	3	22,400	331	6.9
Chemicals	290	4	92,800	459	5.3
Miscellaneous industries	1,035	22	221,200	1,224	19.1
Buttons	55	12	6,500	818	23.7
Nonmanufacturing (except building construction)	87,000	71	3,116,200	4,800	9.3
Metalliferous mining	470	6	82,300	1,834	10.3
Quarrying and nonmetallic mining	1,350	3	50,200	17	26.9
Crude-petroleum production	570	3	37,900	60	10.9
Wholesale trade	14,120	18	332,500	453	15.6
Retail trade	47,460	15	1,085,700	82	11.9
Hotels	1,720	11	140,500	392	8.6
Dyeing and cleaning	790	3	19,400	34	19.6
Brokerage	920	3	13,400	74	11.2
Insurance	3,470	6	154,500	173	8.6

[1] Figures are not given for some industries to avoid disclosure of information concerning individual establishments. They are, however, included where practicable in "all manufacturing," and in the various industry groups. No decreases reported.

[2] Approximate—based on previous month's sample.

[3] Included in group totals but not available for publication separately.

Wage and Hour Regulation

40-CENT RATE FOR GLOVE AND MITTEN INDUSTRY [1]

THE minimum prevailing rate of pay was fixed at 40 cents per hour for glove and mitten workers engaged on Government contracts, under the terms of a wage determination by the Administrator of the Public Contracts Act which became effective on January 16, 1943. An earlier determination issued in 1937 had established the hourly rate at 35 cents.[2] By fixing hourly wages at 40 cents an hour or $16 a week for 40 hours, under the Walsh-Healey law (Public Contracts Act), the minimum was raised to the same level as exists under the Fair Labor Standards Act.[3] The definition of the industry was extended to include the manufacture of gloves and mittens (except athletic gloves and mittens) from any material other than rubber or from any combination of materials other than rubber.

OVERTIME PAY FOR GOVERNMENT EMPLOYEES

CONGRESS, on December 15, 1942, enacted a joint resolution which grants overtime pay to about 2,000,000 Federal Government employees. A 10-percent increase was granted to those employees who do not earn overtime. This measure was enacted following an urgent request of the President that action be taken before Congress adjourned. It was signed by him on December 24, 1942. At the same time, the President sent to all departments and agencies a memorandum calling for a general minimum workweek of 48 hours for both the departmental and the field services, and asking the executive departments to reduce personnel whenever possible. On December 26, the President issued regulations governing the payment of overtime. The measure recognizes the 40-hour week as the official basic work period in Government service, and suspends the Saturday half-holiday. For any work exceeding 40 hours, employees are paid time and a half. For the purpose of paying overtime, a day is considered to be 1/360 of a year. Overtime thus amounts to 10.8 percent for a 44-hour week and 21.6 percent for a 48-hour week. However, practically all Government departments are now on a 48-hour week. The measure was made retroactive to December 1, 1942, at which time a number of departments and agencies were working 44 hours a week.

Under this legislation, overtime is paid only on the first $2,900 of the employee's salary, and overtime earnings are not paid beyond the point where salary plus overtime equals $5,000.

[1] Federal Register, December 18, 1942.
[2] Monthly Labor Review, October 1940 (p. 810).
[3] Monthly Labor Review, October 1942 (p. 844).

The resolution is a temporary measure, effective only until April 30, 1943. By that time it is expected that Congress will have enacted permanent legislation.

Statement of the President

In his letter urging on Congress the necessity for action to increase Federal employees' wages, or to delegate to him the authority to correct the situation, the President pointed out that the Government "has permitted a condition to develop regarding rates of pay, hours of work, and overtime compensation for its civilian employees which is grossly unfair, is one of the major causes of needlessly high personnel turn-over, and is impeding the successful prosecution of the war effort."

The President stated that mechanics and laborers have pay fixed by wage boards, on the basis of pay in private industry, but that employees on a salary basis had had no pay adjustments for many years, and that numerous inequities existed even in the same departments and agencies. Thus, in some departments and agencies certain employees, as a result of special legislation, were given overtime pay for all work over 40 hours, while other employees working over 40 hours a week were given no overtime pay. This, the President said, was a complete violation of the principle of equal pay for equal work, which had been the guiding policy in Federal pay matters since the enactment of the Classification Act of 1923.

Summary of Legislation

The joint resolution provides that all civilian employees of the United States Government (except employees in the legislative and judicial branches) shall receive overtime pay after 40 hours, at the rate of time and a half on that part of an employee's basic compensation not in excess of $2,900 per year. However, the aggregate salary and overtime may not in any case exceed $5,000 per year. Formerly some employees receiving salaries of more than $5,000 were entitled to overtime. The legislation does not apply to (*a*) employees whose wages are fixed on a daily or hourly basis and adjusted from time to time in accordance with prevailing rates of wages by wage boards, (*b*) elected officials, (*c*) heads of departments and agencies, and (*d*) employees outside the United States who are paid in accordance with local prevailing wage rates.

Legislative, judicial, and per diem employees, rural carriers, railway mail clerks, special delivery messengers, and others, who, because of the nature of their work, cannot work overtime, are to receive an increase in pay of 10 percent. The $2,900 and $5,000 wage ceilings apply in this case also.

Within 30 days after the enactment of the resolution, the heads of departments and agencies were required to furnish to the Director of the Bureau of the Budget information justifying the number of employees in their respective departments or agencies. The Director is authorized to reduce the number of employees if he finds the personnel excessive. If any agency fails to comply with an order of the Director, 30 days after the order is issued the provisions of the resolution shall no longer apply to the employees affected by the order. The resolution also authorized the Civil Service Commission to transfer to

other departments and agencies any employees released in accordance with an order of the Director.

The provisions of the Saturday half-holiday law were suspended during the period for which the resolution is in effect. The resolution was made retroactive to December 1, 1942, and terminates on April 30, 1943.

Regulations of the President

The regulations issued by the President [1] provide that heads of departments and agencies, or designated officers or employees, shall establish official hours of duty and a regular workweek for each employee or group of employees. No employee may be required to work in excess of the officially established hours of duty except upon the order of the head of the department or agency or other officer or employee having specific authority to require such additional work.

Overtime compensation for employment in excess of 40 hours during an officially established workweek, and for work ordered or approved in addition to the regular workweek, is to be paid at the rate of one and one-half times the employee's regular rate of compensation. However, no overtime compensation is paid on any part of an employee's basic compensation in excess of $2,900 per year, and an employee is paid only such overtime compensation as will not cause his aggregate compensation, composed of his salary and overtime, to exceed a rate of $5,000.

For the purpose of computing overtime compensation, the pay of 1 hour is considered to be one-eighth of the employee's pay for 1 day, and the pay for 1 day is considered to be 1/360 of the employee's annual salary. Overtime compensation of per annum employees for employment during an officially established regular workweek in excess of 40 hours may be calculated on an annual basis and paid in equal amounts on the regular monthly or semimonthly pay days.

In the case of an employee entitled to annual or sick leave, approved leave, except leave without pay, during any part of the officially established regular workweek, shall be charged as annual or sick leave, as the case may be, and an absence is not construed to reduce the amount of overtime compensation to which the employee is entitled.

Overtime compensation for employment in excess of 40 hours per week during the period between December 1, 1942, and the date of these regulations (December 26) is to be paid on the basis of the official hours of duty during such period and on the basis of any additional overtime officially ordered or approved and currently recorded.

The regulations provide that Federal civilian employees on vessels operated by the United States, whose wages and allowances are computed on the basis of special hours and working conditions, may be compensated in accordance with the wage practices of the maritime industry. Employees whose work requires them to remain at or within the confines of their posts of duty for more than 40 hours per week but does not require them to devote all their time to actual work are considered to have intermittent or irregular hours of duty, and thus are not entitled to overtime, but instead are entitled to the 10-percent pay increase.

[1] Executive Order No. 9289, December 26, 1942.

LABOR TURN-OVER IN MANUFACTURING, NOVEMBER 1942

FOR the second consecutive month, there was a drop in the total separation rate for all manufacturing industries combined—from the September high of 8.10 to the November rate of 7.09. The separation rate, however, was twice as high as in November 1941. It may also be noted that declines in the separation rates occurred in October and November 1941. All of the components (quits, discharges, layoffs, and miscellaneous separations) contributed to this decrease. The most significant change occurred in the quit rate, which was lower than in any month since July. The quit rate declined in nearly all the 42 manufacturing industries for which the Bureau publishes complete turn-over data. The average quit rate in 11 selected war industries was 3.86; only explosives and shipbuilding showed small increases for the month, the other 9 industries losing men through quits at a lower rate than in October.

The decline in accessions, however, offset to some extent this reduction in separations. The rate of accession was 8.14 in November as compared with 8.69 per 100 employees in October. The peak month was September, with a rate of 9.15 accessions.

The labor turn-over data are based on reports from approximately 8,000 plants employing 4,900,000 workers in November 1942. Table 1 shows the monthly turn-over rates for 135 combined industries. Table 2 shows the rates in 42 selected manufacturing industries for October and November 1942 and November 1941. Table 3 shows the quit rates for each of the 11 selected war industries for which the publication of other turn-over data has been restricted for military reasons.

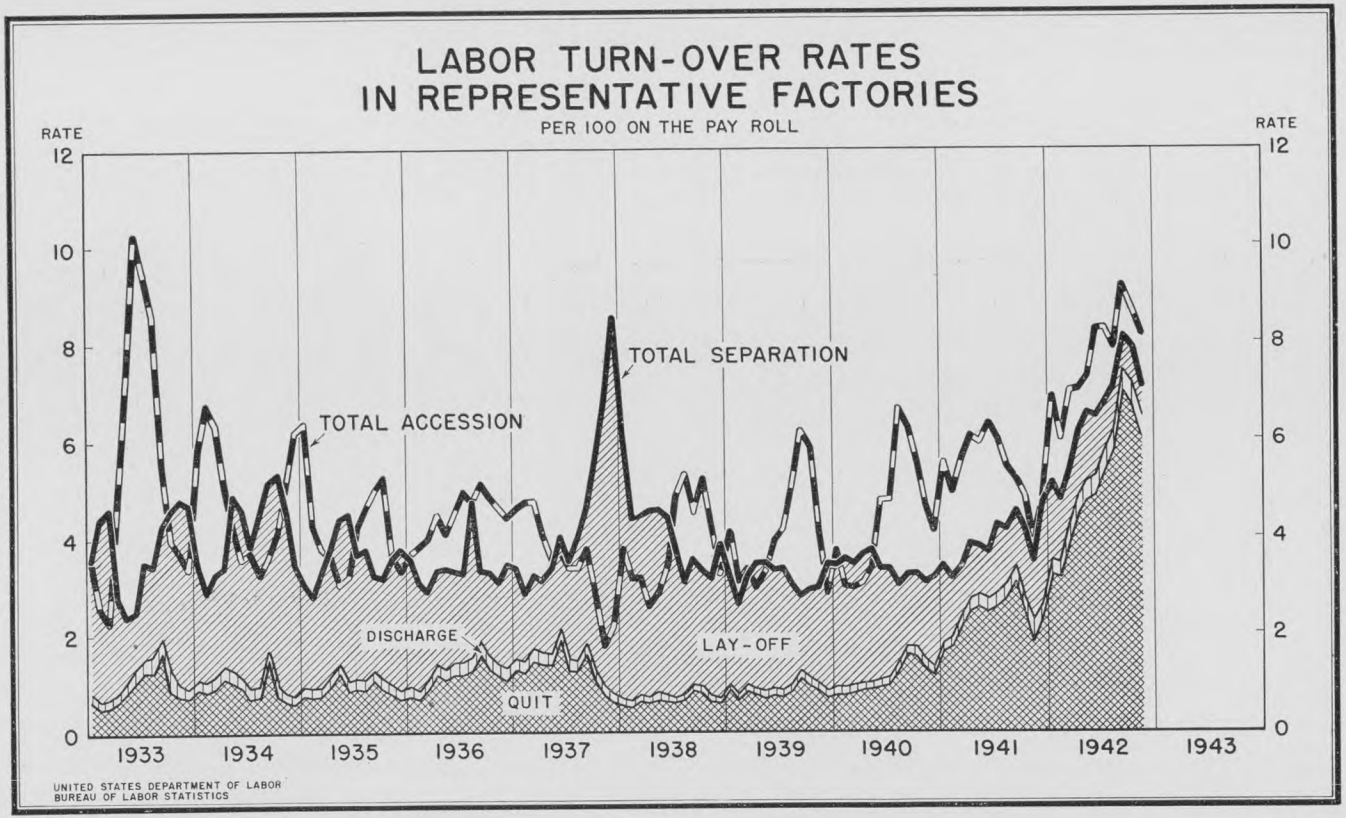


TABLE 1.—*Monthly Labor Turn-over Rates of Factory Workers in Representative Establishments in 135 Industries* [1]

Class of turn-over and year	January	February	March	April	May	June	July	August	September	October	November	December
Separations:												
Quits—												
1942	2.36	2.41	3.02	3.59	3.77	3.85	4.02	4.31	5.19	4.65	4.21	----
1941	1.31	1.33	1.70	2.08	2.20	2.06	2.25	2.46	2.81	2.11	1.57	1.75
Discharges—												
1942	.30	.29	.33	.35	.38	.38	.43	.42	.44	.45	.43	----
1941	.18	.19	.21	.25	.24	.26	.29	.30	.31	.28	.24	.29
Lay-offs [2]—												
1942	1.61	1.39	1.19	1.31	1.43	1.21	1.05	.87	.68	.78	.65	----
1941	1.61	1.20	1.06	1.19	1.08	1.03	1.40	1.13	1.16	1.41	1.44	2.15
Miscellaneous separations [3]—												
1942	.83	.73	.82	.87	.96	1.02	1.23	1.46	1.79	2.03	1.80	----
1941	.31	.43	.43	.37	.34	.36	.30	.25	.25	.33	.26	.52
Total—												
1942	5.10	4.82	5.36	6.12	6.54	6.46	6.73	7.06	8.10	7.91	7.09	----
1941	3.41	3.15	3.40	3.89	3.86	3.71	4.24	4.14	4.53	4.13	3.51	4.71
Accessions:												
Rehirings—												
1942	1.41	1.03	1.18	1.11	1.07	1.12	1.09	1.12	1.08	.85	.91	----
1941	1.45	1.08	1.24	1.04	.92	.90	1.04	1.11	.87	.86	.79	.94
New hirings—												
1942	5.46	4.99	5.81	6.01	6.22	7.13	7.19	6.78	8.07	7.84	7.23	----
1941	4.09	3.84	4.38	5.00	5.03	5.41	4.96	4.32	4.29	4.01	3.12	3.82
Total—												
1942	6.87	6.02	6.99	7.12	7.29	8.25	8.28	7.90	9.15	8.69	8.14	----
1941	5.54	4.92	5.62	6.04	5.95	6.31	6.00	5.43	5.16	4.87	3.91	4.76

[1] Turn-over rates are not comparable to the employment and pay-roll reports issued monthly by the Bureau of Labor Statistics as the former are based on data for the entire month, while the latter refer only to the pay period ending nearest the middle of the month. In addition, certain seasonal industries, such as canning and preserving, are not covered by the labor turn-over survey and the sample is not as extensive as that of the employment survey, which includes a larger number of small plants.
[2] Including temporary, indeterminate, and permanent lay-offs.
[3] Military separations included.

TABLE 2.—*Monthly Turn-over Rates (per 100 Employees) of Factory Workers in 42 Manufacturing Industries* [1]

Industry	Month	Separation rates					Accession rates		
		Quit	Discharge	Lay-off	Miscellaneous separation [2]	Total separation [2]	Rehiring	New hiring	Total accession
Agricultural implements	Nov. 1942	2.39	0.30	1.29	1.54	5.52	0.48	5.69	6.17
	Oct. 1942	2.92	.38	1.05	2.11	6.46	.65	6.92	7.57
	Nov. 1941	0.87	.15	1.39	.25	2.66	.45	1.73	2.18
Automobiles and bodies	Nov. 1942	2.49	.25	.80	1.57	5.11	1.73	8.18	9.91
	Oct. 1942	2.92	.32	1.11	1.72	6.07	1.94	7.15	9.09
	Nov. 1941	1.29	.17	1.51	.54	3.51	1.31	2.50	3.81
Automobile parts and equipment	Nov. 1942	3.91	.73	1.46	1.78	7.88	1.40	6.58	7.98
	Oct. 1942	4.82	.81	1.18	1.76	8.57	1.18	8.12	9.30
	Nov. 1941	1.69	.28	2.85	.33	5.15	1.05	4.01	5.06
Blast furnaces, steel works, and rolling mills	Nov. 1942	2.87	.18	.21	1.91	5.17	.73	4.68	5.41
	Oct. 1942	3.33	.19	.60	2.06	6.18	.63	4.73	5.36
	Nov. 1941	1.09	.10	.41	.34	1.94	.36	1.38	1.74
Boots and shoes	Nov. 1942	4.71	.22	.41	1.16	6.50	1.14	5.97	7.11
	Oct. 1942	5.68	.24	.50	1.33	7.75	1.56	6.44	8.00
	Nov. 1941	1.33	.16	2.04	.26	3.79	1.04	2.04	3.08
Boxes, paper	Nov. 1942	6.01	.49	.60	1.51	8.61	.80	10.79	11.59
	Oct. 1942	6.78	.47	.61	1.51	9.37	.88	9.96	10.84
	Nov. 1941	2.11	.41	1.41	.20	4.13	.57	3.42	3.99
Brick, tile, and terra cotta	Nov. 1942	5.14	.43	1.62	1.47	8.66	.69	6.95	7.64
	Oct. 1942	5.80	.54	1.38	1.52	9.24	.60	6.74	7.34
	Nov. 1941	1.59	.15	2.35	.23	4.32	.67	1.69	2.36
Cast-iron pipe	Nov. 1942	2.42	.32	.24	1.71	4.69	.49	6.46	6.95
	Oct. 1942	1.47	.34	.61	1.43	3.85	.12	5.14	5.26
	Nov. 1941	1.45	.34	.21	.16	2.16	.53	1.51	2.04

See footnotes at end of table.

TABLE 2.—*Monthly Turn-over Rates (per 100 Employees) of Factory Workers in 42 Manufacturing Industries* [1]—Continued

Industry	Month	Separation rates					Accession rates		
		Quit	Discharge	Lay-off	Miscellaneous separation [2]	Total separation [2]	Rehiring	New hiring	Total accession
Cement	Nov. 1942	2.88	0.22	0.15	1.51	4.76	0.58	2.85	3.43
	Oct. 1942	4.21	.31	.19	1.65	6.36	.32	4.88	5.20
	Nov. 1941	.78	.13	2.05	.41	3.37	.54	1.32	1.86
Chemicals	Nov. 1942	3.49	.50	.38	1.81	6.18	.61	6.30	6.91
	Oct. 1942	4.02	.44	.55	1.90	6.91	.40	7.06	7.46
	Nov. 1941	1.11	.24	.76	.30	2.41	.35	2.70	3.05
Cigars and cigarettes	Nov. 1942	5.49	.24	.12	.74	6.59	1.20	4.66	5.86
	Oct. 1942	6.08	.29	.40	.65	7.42	.92	7.61	8.53
	Nov. 1941	2.50	.31	2.19	.18	5.18	.76	2.97	3.73
Cotton manufacturing	Nov. 1942	5.49	.38	.51	1.18	7.56	1.46	6.20	7.66
	Oct. 1942	6.58	.38	.45	1.63	9.04	1.70	6.88	8.58
	Nov. 1941	2.43	.28	.96	.22	3.89	.95	3.01	3.96
Dyeing and finishing textiles	Nov. 1942	5.20	.47	.26	1.75	7.68	.94	7.15	8.09
	Oct. 1942	6.58	1.06	.69	2.08	10.41	1.37	9.56	10.93
	Nov. 1941	2.18	.34	.77	.18	3.47	.86	2.89	3.75
Flour	Nov. 1942	6.34	.57	.59	1.38	8.88	1.29	7.71	9.00
	Oct. 1942	7.15	.81	.57	2.12	10.65	.45	12.01	12.46
	Nov. 1941	1.41	.24	1.98	.10	3.73	.63	1.57	2.20
Foundries and machine shops	Nov. 1942	4.26	.58	.48	1.81	7.13	.38	8.08	8.46
	Oct. 1942	5.15	.60	.46	2.08	8.29	.44	9.30	9.74
	Nov. 1941	1.64	.37	.96	.27	3.24	.44	3.25	3.69
Furniture	Nov. 1942	6.73	.74	2.38	1.70	11.55	1.52	8.87	10.39
	Oct. 1942	7.22	.73	3.08	2.14	13.17	1.44	10.36	11.80
	Nov. 1941	2.64	.43	1.93	.33	5.33	.83	4.09	4.92
Glass	Nov. 1942	4.56	.33	.61	1.93	7.43	1.69	7.80	9.49
	Oct. 1942	4.66	.34	2.06	1.76	8.82	1.43	7.82	9.25
	Nov. 1941	1.37	.19	2.16	.31	4.03	.77	2.35	3.12
Hardware	Nov. 1942	5.14	.24	.97	1.24	7.59	.53	7.44	7.97
	Oct. 1942	5.69	.47	.24	1.49	7.89	.86	7.91	8.77
	Nov. 1941	2.57	.29	.92	.26	4.04	.80	3.67	4.47
Knit goods	Nov. 1942	4.20	.22	.30	.62	5.34	.55	5.68	6.23
	Oct. 1942	5.25	.32	.30	.78	6.65	.77	6.55	7.32
	Nov. 1941	1.69	.21	1.38	.12	3.40	.79	2.31	3.10
Leather goods	Nov. 1942	3.46	.19	.25	1.14	5.04	.36	4.73	5.09
	Oct. 1942	4.29	.18	.54	1.45	6.46	.55	6.03	6.58
	Nov. 1941	.82	.11	1.46	.20	2.59	.68	2.05	2.73
Lighting equipment	Nov. 1942	5.34	.28	.28	1.42	7.32	.83	7.45	8.28
	Oct. 1942	5.68	.27	.61	2.44	9.00	2.44	9.71	12.15
	Nov. 1941	1.69	.15	1.33	.29	3.46	.69	2.63	3.32
Men's clothing	Nov. 1942	4.52	.22	2.09	.63	7.46	1.08	5.01	6.09
	Oct. 1942	4.87	.26	2.73	.51	8.37	.99	5.17	6.16
	Nov. 1941	1.40	.09	2.47	.10	4.06	1.31	1.64	2.95
Paints and varnishes	Nov. 1942	4.54	.64	.35	1.82	7.35	.15	5.87	6.02
	Oct. 1942	6.45	.50	.40	2.14	9.49	.76	7.31	8.07
	Nov. 1941	1.23	.18	.90	.28	2.59	.21	1.85	2.06
Paper and pulp	Nov. 1942	5.79	.51	.74	1.83	8.87	.67	8.15	8.82
	Oct. 1942	5.88	.39	.72	2.07	9.06	.86	7.45	8.31
	Nov. 1941	1.52	.26	.79	.22	2.79	.71	2.21	2.92
Petroleum refining	Nov. 1942	1.65	.16	.29	1.27	3.37	.23	3.08	3.31
	Oct. 1942	2.04	.20	.37	2.14	4.75	.20	3.26	3.46
	Nov. 1941	.35	.07	.90	.27	1.59	.47	1.49	1.96
Planing mills	Nov. 1942	6.37	.96	2.21	2.18	11.72	1.08	9.15	10.23
	Oct. 1942	7.50	.70	2.64	2.10	12.94	.79	11.44	12.23
	Nov. 1941	2.27	.46	2.10	.24	5.07	.43	2.82	3.25
Printing:									
Book and job	Nov. 1942	3.62	.17	1.21	1.23	6.23	.98	7.61	8.59
	Oct. 1942	3.80	.27	1.23	1.34	6.64	1.11	7.43	8.54
	Nov. 1941	1.50	.20	2.21	.11	4.02	1.46	3.52	4.98
Newspapers and periodicals	Nov. 1942	1.55	.08	.54	.96	3.13	.43	2.58	3.01
	Oct. 1942	1.56	.15	.62	.92	3.25	.87	3.28	4.15
	Nov. 1941	.66	.21	1.31	.21	2.39	.71	1.02	1.73
Radios and phonographs	Nov. 1942	4.42	.52	.16	1.45	6.55	.51	8.38	8.89
	Oct. 1942	5.56	.55	.19	1.67	7.97	.63	11.81	12.44
	Nov. 1941	2.81	.43	2.25	.28	5.77	.69	2.86	3.55

See footnotes at end of table.

TABLE 2.—*Monthly Turn-over Rates (per 100 Employees) of Factory Workers in 42 Manufacturing Industries* [1]—Continued

Industry	Month	Separation rates					Accession rates		
		Quit	Discharge	Layoff	Miscellaneous separation [2]	Total separation [2]	Rehiring	New hiring	Total accession
Rayon and allied products	Nov. 1942	2.03	0.28	0.40	1.57	4.28	0.35	3.59	3.94
	Oct. 1942	2.03	.24	.27	1.65	4.19	.30	4.26	4.56
	Nov. 1941	.56	.18	1.39	.26	2.39	.10	1.26	1.36
Rubber boots and shoes	Nov. 1942	7.89	.21	.48	1.44	10.02	.84	11.14	11.98
	Oct. 1942	8.56	.34	.03	1.47	10.40	1.71	10.81	12.52
	Nov. 1941	2.22	.17	.67	.56	3.62	.90	2.83	3.73
Rubber tires	Nov. 1942	3.99	.25	.11	1.96	6.31	.24	8.58	8.82
	Oct. 1942	4.36	.19	.12	1.86	6.53	.36	10.73	11.09
	Nov. 1941	1.04	.06	.39	.46	1.95	.48	1.80	2.28
Sawmills	Nov. 1942	4.96	.44	2.40	1.77	9.57	1.06	5.81	6.87
	Oct. 1942	6.33	.47	1.32	2.08	10.20	1.14	6.99	8.13
	Nov. 1941	2.39	.50	3.69	.28	6.86	1.10	2.63	3.73
Silk and rayon goods	Nov. 1942	5.12	.34	1.55	.90	7.91	1.21	4.82	6.03
	Oct. 1942	6.14	.26	.77	1.06	8.23	1.49	5.91	7.40
	Nov. 1941	1.96	.23	2.09	.20	4.48	1.21	2.79	4.00
Slaughtering and meat packing	Nov. 1942	7.26	.65	1.85	2.91	12.67	3.59	13.46	17.05
	Oct. 1942	8.65	.68	3.18	2.93	15.44	3.18	10.20	13.38
	Nov. 1941	1.60	.28	4.54	.49	6.91	4.93	7.18	12.11
Stamped and enameled ware	Nov. 1942	5.35	.73	.71	1.87	8.66	.85	9.01	9.86
	Oct. 1942	7.18	.56	1.58	2.17	11.49	.39	9.96	10.35
	Nov. 1941	2.99	.43	3.24	.42	7.08	.61	3.27	3.88
Steam and hot water heating apparatus	Nov. 1942	3.17	.27	.08	2.20	5.72	.13	6.24	6.37
	Oct. 1942	4.07	.27	.42	2.19	6.95	.58	8.18	8.76
	Nov. 1941	1.60	.25	.99	.30	3.14	.48	1.79	2.27
Stoves	Nov. 1942	5.61	.67	.95	1.56	8.79	.99	11.02	12.01
	Oct. 1942	6.07	.68	2.27	1.68	10.70	2.83	13.98	16.82
	Nov. 1941	2.55	.31	4.67	.39	7.92	1.08	1.75	2.83
Structural and ornamental metalwork	Nov. 1942	4.49	.77	3.20	2.07	10.53	.64	7.02	7.66
	Oct. 1942	6.24	.65	2.03	2.29	11.21	.52	10.04	10.56
	Nov. 1941	1.29	.18	1.03	.21	2.71	.53	2.19	2.72
Textile machinery	Nov. 1942	2.17	.16	.29	2.80	5.42	.45	5.03	5.48
	Oct. 1942	2.81	.19	.18	2.04	5.22	.37	5.36	5.73
	Nov. 1941	2.17	.36	.27	.18	2.98	.51	2.59	3.10
Tools (not including edge tools, machine tools, files, and saws)	Nov. 1942	4.10	.40	.41	1.43	6.34	.35	6.82	7.17
	Oct. 1942	4.64	.51	.13	1.78	7.06	.28	7.81	8.09
	Nov. 1941	1.88	.31	.94	.22	3.35	.18	3.21	3.39
Woolen and worsted goods	Nov. 1942	3.58	.20	.94	1.61	6.33	1.34	4.19	5.53
	Oct. 1942	4.35	.22	1.41	1.77	7.75	1.27	4.72	5.99
	Nov. 1941	2.06	.24	.83	.13	3.26	.70	2.96	3.66

[1] No individual industry data shown unless reports cover at least 25 percent of industrial employment.
[2] Military separations included.

In table 3 are given the quit rates for strategic war industries for which the publication of other turn-over data has been restricted.

TABLE 3.—*Monthly Quit Rates (per 100 Employees) in Selected War Industries*

Industry	Quit rates		
	November 1942	October 1942	November 1941
Average for 11 selected war industries [1]	3.86	4.29	1.57
Aircraft	3.93	4.41	2.20
Aluminum and magnesium products [2]	4.77	5.27	1.14
Brass, bronze, and copper products	4.46	5.17	1.71
Electrical machinery	2.64	3.17	1.20
Engines and turbines	1.91	2.01	1.04
Explosives	2.39	2.12	.75
Firearms	3.55	4.50	1.57
Metalworking machinery	3.02	3.64	1.59
Shipbuilding	5.41	5.39	2.39

[1] Includes blast furnaces, steel works, and rolling mills, and foundries and machine shops, as shown in table 2.
[2] Beginning in October 1942, the sample was expanded and now includes magnesium products.

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, DECEMBER 1942[1]

BUILDING permit valuations for 1942 were 43 percent below the 1941 total. Los Angeles reported the highest permit valuations in 1942, and Washington, D. C., was second. New York City, which had held first place each year since the Department of Labor began collecting building permit statistics in 1921, dropped to third place with the lowest valuations on record. Chicago and Philadelphia ranked fourth and fifth, respectively.

Although total permit valuations reported to the Bureau of Labor Statistics were lower in 1942 than in 1941, substantial increases occurred in cities with expanding war activities. This was the case in Washington, Chicago, and Philadelphia, and even larger increases were reported in Norfolk (Va.), Portland (Oreg.), Camden (N. J.), Syracuse (N. Y.), Tacoma (Wash.), and Saginaw (Mich.).

December permit valuations were 12 percent below those for November 1942, chiefly as a result of a 27-percent decrease in new residential building. Permit valuations for new nonresidential construction rose 21 percent during the month. The total for December 1942 was 72 percent below that for the same month of last year, owing partly to the tapering off of the Federal construction program.

Comparison of December 1942 with December 1941 and November 1942

The volume of building construction in 2,345 identical cities with populations of 500 and over, which reported to the Bureau of Labor Statistics in November and December 1942 and December 1941, is summarized in table 1.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,345 Identical Cities, December 1942*

Class of construction	Number of buildings			Permit valuation		
	December 1942	Percent of change from—		December 1942 (in thousands of dollars)	Percent of change from—	
		November 1942	December 1941		November 1942	December 1941
All construction	27,349	−23.9	−39.3	61,259	−11.8	−71.5
New residential	7,749	−10.4	−46.4	28,801	−26.9	−58.2
New nonresidential	2,923	−39.6	−61.2	20,258	+21.0	−83.4
Additions, alterations, and repairs	16,677	−25.7	−27.6	12,200	−8.4	−47.9

[1] More detailed information by geographic divisions and population groups is contained in a separate mimeographed release entitled "Building Construction, December 1942," copies of which will be furnished upon request.

The number of new dwelling units for which permits were issued and the permit valuation of such new housekeeping residential construction in the 2,345 cities reporting in December 1942 are presented in table 2. Percentage changes between December 1942 and November 1942 and December 1941 are also shown.

TABLE 2.—*Number and Permit Valuation of New Dwelling Units in 2,345 Identical Cities, December 1942, by Source of Funds and Type of Dwelling*

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	December 1942	Percent of change from—		December 1942 (in thousands of dollars)	Percent of change from—	
		November 1942	December 1941		November 1942	December 1941
All dwellings	9,923	−16.0	−42.4	28,044	−23.8	−56.4
Privately financed	6,927	−16.0	−53.5	21,257	−21.5	−62.0
1-family	4,576	−23.9	−63.2	15,950	−26.2	−67.8
2-family [1]	1,048	+24.5	−6.0	2,699	+19.1	−6.9
Multifamily [2]	1,303	−6.7	−3.1	2,608	−18.6	−23.6
Publicly financed	2,996	−15.9	+28.3	6,787	−30.1	−18.8

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Comparison of 1941 and 1942

Permit valuations reported in 1941 and 1942 are compared in table 3.

TABLE 3.—*Permit Valuation of Building Construction, by Class of Construction, 1941 and 1942* [1]

Class of construction	Permit valuation		
	1942 (in thousands of dollars)	1941 (in thousands of dollars)	Percent of change
All construction	1,720,166	3,034,877	−43.3
New residential	785,779	1,454,861	−46.0
New nonresidential	682,111	1,208,003	−43.5
Additions, alterations, and repairs	252,276	372,013	−32.2

[1] Based on reports from a varying number of cities with a population of 500 and over, the cities being identical for any given month of both years.

The number and permit valuation of new dwelling units for which permits were issued in 1941 and 1942 are compared in table 4.

Construction from Public Funds, December 1942

The value of contracts awarded and force-account work started during November and December 1942 and December 1941 on all construction projects financed wholly or partially from Federal funds is shown in table 5. This table includes other types of construction as well as building construction, both inside and outside the 2,345 reporting cities.

TABLE 4.—*Number and Permit Valuation of New Dwelling Units, by Source of Funds and Type of Dwelling, 1941 and 1942* [1]

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	1942	1941	Percent of change	1942 (in thousands of dollars)	1941 (in thousands of dollars)	Percent of change
All dwellings	233,728	381,535	−38.7	768,683	1,434,682	−46.4
Privately financed	170,218	321,308	−47.0	561,807	1,230,331	−54.3
1-family	120,337	251,050	−52.1	428,296	1,033,646	−58.6
2-family [2]	15,936	21,120	−24.5	43,973	55,292	−20.5
Multifamily [3]	33,945	49,138	−30.9	89,538	141,393	−36.7
Publicly financed	63,510	60,227	+5.5	206,876	204,351	+1.2

[1] Based on reports from a varying number of cities with a population of 500 and over, the cities being identical for any given month of both years.
[2] Includes 1- and 2-family dwellings with stores.
[3] Includes multifamily dwellings with stores.

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed from Federal Funds in Specified Months*

[In thousands of dollars]

Source of funds	Contracts awarded and force account work started		
	December 1942 [1]	November 1942 [2]	December 1941 [2]
Total	162,064	493,363	772,803
War public works	882	1,421	3,639
Regular Federal appropriations [3]	124,490	455,956	758,899
Federal Public Housing Authority [4]	36,692	35,986	[5] 10,265

[1] Preliminary; subject to revision.
[2] Revised.
[3] Exclusive of contracts awarded for public housing.
[4] Includes contracts awarded for all public housing.
[5] Includes $7,960,209 for contracts awarded on USHA projects and $2,304,917 for contracts awarded from regular Federal appropriations.

The value of all contracts awarded for public buildings and highway construction to be financed wholly from State funds, as reported by the State governments for November and December 1942 and December 1941, was as follows:

	Public buildings	*Highway construction*
December 1941	$1,274,839	$10,513,287
November 1942	208,826	2,960,060
December 1942	300,647	4,580,475

Coverage of Building Permit Statistics

Building-permit data are collected by the Bureau of Labor Statistics each month from more than 2,500 places having a population of 500 or more in 1940, from which are selected those for cities which also reported in the preceding month and in the corresponding month of the previous year. In addition, the Bureau receives notifications of the value of construction contracts awarded by Federal and State Governments. Federal and State building construction in the 2,345

reporting cities totaled $15,955,000 in December 1942, as contrasted with $21,744,000 in the previous month and $101,045,000 in December 1941.

The permit-valuation figures represent estimates of construction costs made by prospective private builders when applying for permits to build and the value of contracts awarded by Federal or State Governments. No land costs are included. Unless otherwise indicated, only building construction within the corporate limits of the reporting cities is included in the tabulations.

FOOD PRICES IN DECEMBER 1942

RETAIL costs of food continued the same rate of increase between November 17 and December 15 that was shown for the period from mid-October to mid-November. The index rose over the 4-week period from 131.1 to 132.7 percent of the 1935–39 average, representing an increase of 1.2 percent over November 17, of 9.1 percent over mid-May, and of 17.3 percent over December 1941. The December 1942 level was the highest since December 1929, when the index was 133.8.

Prices of foods not under direct control by the Office of Price Administration were again chiefly responsible for the increase, but certain controlled foods also edged up during the month. The following statement shows the percent of change from November to December and May to December for foods controlled by OPA and those not so controlled.

	Percent of increase from—	
	Nov. 17 to Dec. 15	*May 12 to Dec. 15*
All foods	1.2	9.1
Under control by OPA on December 15	.5	6.9
Under control on May 18	.4	1.2
Placed under control since May 18	.8	17.5
Not under control by OPA on December 15	7.0	29.8

Eight of the nine uncontrolled foods included in the Bureau's food-cost index showed price increases over the month. Higher prices of fresh fruits and vegetables included the usual seasonal increases for apples, cabbage, carrots, spinach, and sweetpotatoes, and a contra-seasonal increase for lettuce. Fresh green beans, usually increasing in price at this season, declined moderately. Other uncontrolled foods increasing in price were fresh fish and peanut butter. The group of uncontrolled foods represents approximately 10 percent of the family food bill, but short supplies for several important foods have caused an increase in the relative importance of some of the uncontrolled foods available.

Increases between November 17 and December 15 were reported for 33 foods, prices of which are under direct control by the OPA. In some cases, these increases reflect adjustments in ceilings at the various levels of distribution. Lard prices, under a fixed percentage mark-up at wholesale and retail, rose, following adjustments for the processors. Canned and dried fruits and vegetables, under the same type of ceiling, increased slightly. Local shortages were reported for most meats and dairy products, and those prices increased moderately. Potatoes, onions, bananas, eggs, and certain cereal products edged up. Tea prices increased, but coffee prices declined after the introduction of rationing at the end of November. Prices of oranges and grapefruit were somewhat lower than in November.

Percentage changes in retail costs of food on December 15, compared with costs for May and November 1942, December 1941, and August 1939, are shown in table 1.

TABLE 1.—*Changes in Retail Costs of Food in 51 Large Cities Combined, by Commodity Groups*

Commodity group	Percent of change, Dec. 15, 1942, compared with—				Commodity group	Percent of change, Dec. 15, 1942, compared with—			
	1942		1941	1939		1942		1941	1939
	Nov. 17	May 12	Dec. 16	Aug. 15		Nov. 17	May 12	Dec. 16	Aug. 15
All foods	+1.2	+9.1	+17.3	+41.9	Dairy products	+0.4	+7.3	+9.8	+42.1
					Eggs	+.5	+44.9	+21.1	+84.3
Cereals and bakery products	0	+.5	+3.1	+13.2	Fruits and vegetables	+3.6	+13.9	+32.7	+58.7
Meats	+1.0	+7.2	+19.9	+39.2	Fresh	+4.4	+16.2	+36.0	+62.7
Beef and veal	+.7	+2.7	+11.5	+28.0	Canned	+.7	+4.2	+20.2	+39.5
Pork	+.3	+1.6	+21.3	+42.3	Dried	+.5	+14.7	+27.2	+66.7
Lamb	+1.3	+14.8	+25.5	+37.3	Beverages	−.1	−.1	+9.1	+31.2
Chickens	+1.0	+19.0	+34.2	+42.6	Fats and oils	+.8	+2.4	+15.5	+48.3
Fish, fresh and canned	+3.1	+21.5	+32.0	+84.1	Sugar	+.6	+.5	+11.6	+33.6

Details by Commodity Groups

Indexes of retail food costs by commodity groups are presented in table 2 for May, October, November, and December 1942, December 1941, and August 1939. The accompanying charts show the trend in costs of all foods, January 1913 to December 1942, inclusive, and for each major commodity group for the period January 1929 to December 1942, inclusive.

TABLE 2.—*Indexes of Retail Costs of Food in 51 Large Cities Combined,*[1] *by Commodity Groups, in Specified Months*

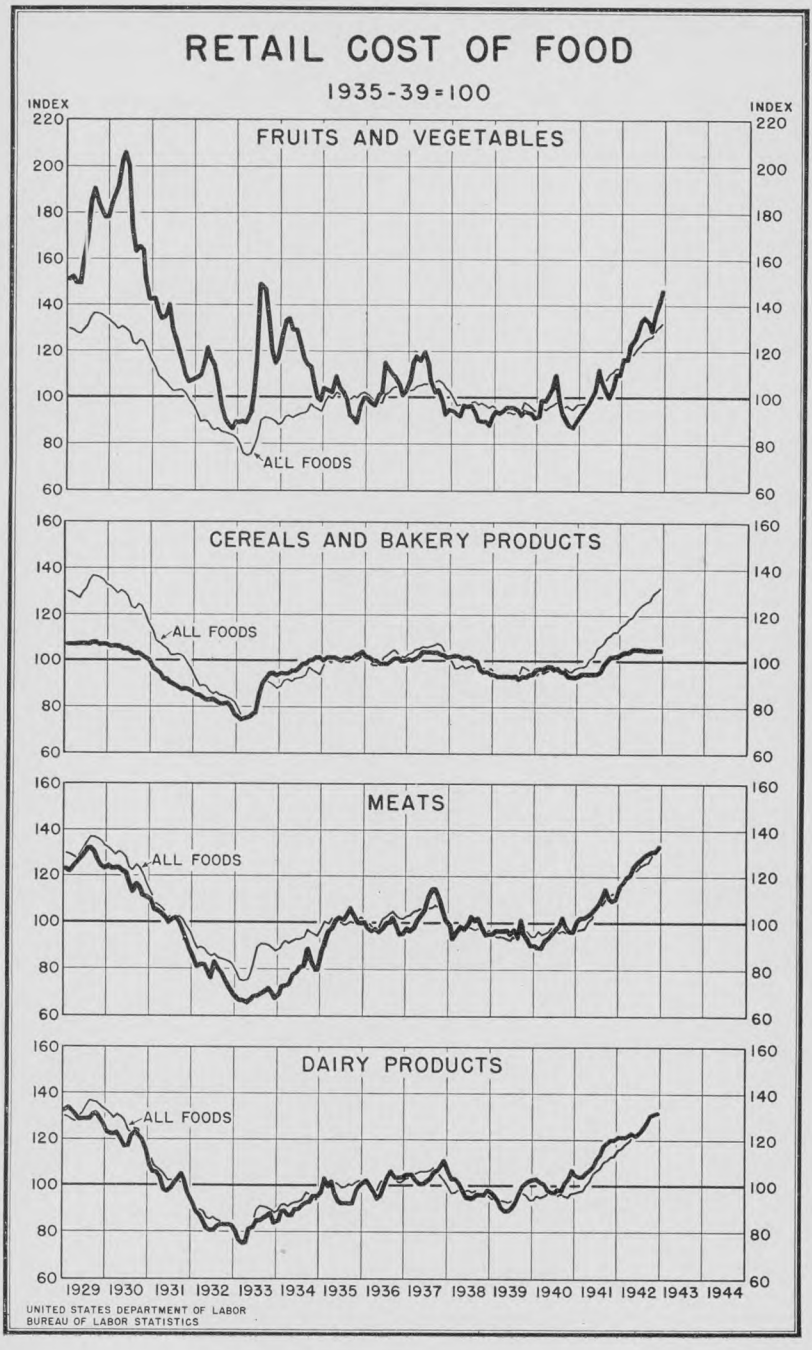
[1935–39=100]

Commodity group	1942				1941	1939
	Dec. 15[2]	Nov. 17	Oct. 13	May 12	Dec. 16	Aug. 15
All foods	132.7	131.1	129.6	121.6	113.1	93.5
Cereals and bakery products	105.7	105.7	105.7	105.2	102.5	93.4
Meats	133.2	131.9	131.2	124.3	111.1	95.7
Beef and veal	127.5	126.6	126.5	124.1	114.4	99.6
Pork	125.2	124.8	124.4	123.2	103.2	88.0
Lamb	135.7	134.0	133.0	118.2	108.1	98.8
Chickens	134.9	133.5	133.0	113.4	100.5	94.6
Fish, fresh and canned	183.4	177.9	172.8	150.9	138.9	99.6
Dairy products	132.3	131.8	131.2	123.3	120.5	93.1
Eggs	167.2	166.3	164.7	115.4	138.1	90.7
Fruits and vegetables	146.6	141.5	137.1	128.7	110.5	92.4
Fresh	151.0	144.6	139.3	130.0	111.0	92.8
Canned	127.8	[3] 126.8	125.0	122.7	106.3	91.6
Dried	150.5	149.7	149.9	131.2	118.3	90.3
Beverages	124.5	124.6	124.1	124.6	114.1	94.9
Fats and oils	125.3	[3] 124.2	121.2	122.4	108.5	84.5
Sugar	127.7	127.0	126.9	127.1	114.4	95.6

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.

[2] Preliminary.

[3] Revised.



Cereals and bakery products.—Prices of corn meal advanced 2 percent, while flour, macaroni, and soda crackers showed smaller increases. Prices of vanilla cookies declined moderately, and the average for other foods in the group remained unchanged. The index for the group was unchanged from November 17, and was only 3.1 percent above December 1941.

Meats.—Average prices for meats continued the advance begun last December, increasing 1 percent between November 17 and December 15. The rise during the year was 19.9 percent. During the past month, increases were reported for all meats priced, except whole ham, salt pork, and canned red salmon. Most increases were small, with only sliced bacon, lamb, fresh fish (uncontrolled), and pink salmon increasing 1 percent or more. Local shortages were reported for all meats except roasting chickens and fresh fish.

Dairy products.—The index for the dairy-products group advanced 0.4 percent over the month, with small increases reported for butter and cheese in most cities. The average price for milk delivered to homes increased in 4 cities but the average for 51 cities combined remained at the level of November 17. The price of milk sold through stores increased slightly. The level of the group is 9.8 percent higher than in December 1941.

Eggs.—Egg prices increased in 32 cities, declined in 13, and remained unchanged in 6 cities. The average price in December, 59.3 cents per dozen, was 21 percent above December 1941 and 1.5 percent above October 13, the first date on which the Bureau collected data after egg prices were frozen on October 5.

Fruits and vegetables.—The index of the group rose 3.6 percent over November 17, with fresh fruits and vegetables moving up 4.4 percent; canned, 0.7 percent; and dried, 0.5 percent. The total group was 32.7 percent above December 1941, with increases of 36 percent, 20 percent, and 27 percent, respectively, for fresh, canned, and dried fruits and vegetables. The greatest increases for the month occurred in prices of those fruits and vegetables not under direct OPA control, the advances ranging from 6 percent for apples to 27.8 percent for cabbage. A decrease was reported for green beans (uncontrolled). Among those fruits and vegetables the prices of which are controlled, citrus fruits decreased, but bananas, onions, and potatoes increased by 2.8 percent, 6.4 percent, and 0.6 percent, respectively.

Beverages.—Tea prices advanced slightly, and several reports of inadequate local supplies were received. Coffee prices moved downward after the introduction of rationing. Decreases were reported in 28 cities, with increases shown in 8. The December average for the group was 9 percent above December 1941.

Fats and oils.—Following adjustments in processors' price ceilings, the retail price of lard, with ceilings established by a fixed percentage mark-up, advanced in 38 cities, the average increase being 2.2 percent. Other shortenings remained fairly stable. Salad dressing declined moderately in price, while peanut butter, not under control, increased by 2.8 percent. The index for the group was 0.8 percent above November 1942 and 15.5 percent above December 1941.

Sugar.—Prices of sugar remained fairly stable, increasing 0.6 percent over the month. The December level was 0.6 percent below March 1942 and 11.6 percent above December of the previous year.

Average prices of 65 foods in 51 cities combined are given in table 3 for May, November, and December 1942, and December 1941.

TABLE 3.—*Average Retail Prices of 65 Foods in 51 Large Cities Combined, May, November, and December 1942 and December 1941*

Article	1942			1941
	Dec. 15 [1]	Nov. 17	May 12	Dec. 16
Cereals and bakery products:				
Cereals:	*Cents*	*Cents*	*Cents*	*Cents*
Flour, wheat—10 pounds	55.6	55.4	51.6	49.2
Macaroni—pound	14.2	14.1	14.2	14.0
Wheat cereal [2]—28-oz. pkg.	24.1	24.1	24.1	23.9
Corn flakes—8 ounces	7.0	7.0	7.2	7.1
Corn meal—pound	5.2	5.1	4.7	4.4
Rice [2]—do	12.5	12.6	12.3	9.4
Rolled oats [2]—do	8.8	8.8	8.6	7.6
Bakery products:				
Bread, white—do	8.7	8.7	8.7	8.6
Bread, whole-wheat—do	9.6	9.6	9.5	9.5
Bread, rye—do	9.7	9.7	9.7	9.6
Vanilla cookies—do	26.2	26.5	27.7	25.8
Soda crackers—do	16.8	16.6	16.4	15.3
Meats:				
Beef:				
Round steak—pound	44.7	44.5	44.2	40.1
Rib roast—do	35.0	34.7	34.0	31.8
Chuck roast—do	30.4	30.2	28.9	27.0
Veal: Cutlets—do	55.3	55.1	53.6	48.9
Pork:				
Chops—do	43.1	43.0	43.2	34.5
Bacon, sliced—do	41.9	40.8	39.3	36.0
Ham, sliced [2]—do	59.7	59.7	58.8	52.4
Ham, whole—do	38.5	38.5	37.8	31.9
Salt pork—do	23.5	23.5	24.0	20.2
Lamb:				
Leg—do	38.8	38.4	33.8	30.5
Rib chops—do	47.2	46.5	41.3	38.2
Poultry: Roasting chickens—do	43.1	42.7	36.1	32.1
Fish:				
Fresh, frozen—do	[4]	[4]	[4]	[4]
Salmon, pink—16-oz. can	22.3	22.2	21.8	20.0
Salmon, red [2]—do	40.2	40.6	40.0	36.9
Dairy products:				
Butter—pound	54.8	54.6	45.7	42.3
Cheese—do	36.1	36.1	34.0	34.5
Milk, fresh (delivered)—quart	15.1	15.1	14.9	14.8
Milk, fresh (store)—do	13.6	13.5	13.5	13.7
Milk, fresh (delivered and store) [2]—do	14.6	14.5	14.4	14.4
Milk, evaporated—14½-oz. can	9.2	9.2	8.7	8.8
Eggs—dozen	59.3	59.0	40.9	49.0
Fruits and vegetables:				
Fresh:				
Apples—pound	7.1	6.7	7.5	5.6
Bananas—do	11.0	10.7	12.0	7.5
Oranges—dozen	44.0	45.0	31.4	30.0
Grapefruit [2]—each	6.1	6.8	6.3	5.0
Beans, green—pound	17.0	17.6	13.4	11.3
Cabbage—do	4.6	3.6	4.5	4.0
Carrots—bunch	10.6	9.8	6.6	7.2
Lettuce—head	16.0	14.9	9.2	12.3
Onions—pound	5.0	4.7	6.8	5.1
Potatoes—15 pounds	51.9	51.6	53.0	40.0
Spinach—pound	12.5	10.5	7.4	7.8
Sweetpotatoes—do	5.8	5.2	5.4	4.4
Canned:				
Peaches—No. 2½ can	25.3	25.0	23.3	21.6
Pineapple—do	29.1	29.1	27.1	22.5
Grapefruit juice [2]—No. 2 can	13.3	13.1	9.8	9.6
Beans, green [2]—do	14.1	13.9	14.0	12.3
Corn—do	13.8	13.6	13.0	12.2
Peas—do	14.8	14.7	15.8	14.3
Tomatoes—do	12.0	11.9	12.1	10.0
Dried:				
Prunes—pound	16.0	15.8	12.3	10.7
Navy beans—do	9.2	9.2	9.0	8.5
Beverages:				
Coffee—pound	28.6	28.1	28.9	26.9
Tea—¼ pound	21.6	21.9	22.4	19.7
Cocoa [2]—½ pound	10.1	[3] 10.2	10.2	9.2
Fats and oils:				
Lard—pound	18.8	18.4	17.9	15.2
Shortening, other than lard:				
In cartons—do	19.7	19.6	19.8	17.9
In other containers—do	24.4	24.4	25.8	23.7

See footnotes at end of table.

TABLE 3.—*Average Retail Prices of 65 Foods in 51 Large Cities Combined, May, November, and December 1942 and December 1941*—Continued

Article	1942			1941
	Dec. 15 [1]	Nov. 17	May 12	Dec. 16
Fats and oils—Continued.	*Cents*	*Cents*	*Cents*	*Cents*
Salad dressing, pint	25.0	25.1	25.4	23.8
Oleomargarine, pound	22.5	22.5	22.4	19.7
Peanut butter, do	29.8	29.0	26.9	20.0
Sugar and sweets:				
Sugar, do	6.9	6.9	6.9	6.1
Corn sirup [2], 24 ounces	15.3	15.3	14.8	14.1
Molasses [2], 18 ounces	17.2	[3] 15.1	14.5	13.6

[1] Preliminary.
[2] Not included in index.
[3] Revised.
[4] Composite prices not computed.

Details by Cities

The advance in food costs between November 17 and December 15 was general throughout the country, with 50 cities reporting increases in the index for all foods. The largest advances were in St. Louis (2.8 percent), Jacksonville (2.3 percent), Rochester (2.2 percent), and New Haven (2.1 percent) where there were greater-than-average increases for fruits and vegetables, and in Rochester, an advance of 1 cent per quart was authorized for milk, effective December 15. In Chicago, prices of fruits and vegetables declined 1.6 percent and the all-foods index showed no change. When compared with the 17.3-percent increase over December 1941 for 51 cities combined, 26 cities showed increases greater than the average, with all cities in the New England, Mountain, and Pacific regions included, and all the Middle Atlantic area except Pittsburgh. The remaining 6 cities were scattered throughout 4 other regions. The increases during the year ranged from 12.3 percent in Charleston, S. C., to 21.4 percent in San Francisco.

Indexes of food costs by cities are shown in table 4 for May, November, and December 1942 and for December 1941.

TABLE 4.—*Indexes of Average Retail Cost of All Foods, by Cities,*[1] *May, November, and December 1942 and December 1941*

[1935–39=100]

City	1942			1941	City	1942			1941
	Dec. 15 [2]	Nov. 17	May 12	Dec. 16		Dec. 15 [2]	Nov. 17	May 12	Dec. 16
United States	132.7	131.1	121.6	113.1	Middle Atlantic—Continued.				
New England:					Pittsburgh	131.6	129.6	121.4	113.7
Boston	130.7	130.4	118.3	110.1	Rochester	132.0	129.2	122.3	112.2
Bridgeport	131.6	130.1	121.3	111.9	Scranton	131.7	130.3	121.0	111.8
Fall River	130.9	130.6	120.8	110.5	East North Central:				
Manchester	132.3	130.0	124.0	111.8	Chicago	129.9	129.9	121.7	113.2
New Haven	133.0	130.3	120.6	111.1	Cincinnati	131.5	130.6	122.4	112.7
Portland, Maine	131.3	130.0	121.7	110.7	Cleveland	134.8	132.5	124.1	115.0
Providence	131.0	129.7	122.1	110.2	Columbus, Ohio	126.0	124.4	118.6	111.1
Middle Atlantic:					Detroit	131.8	129.6	122.4	111.4
Buffalo	135.5	133.7	125.2	115.4	Indianapolis	130.1	129.7	125.0	115.2
Newark	134.5	133.6	120.9	112.1	Milwaukee	128.6	126.8	119.8	110.5
New York	132.3	130.2	118.0	112.5	Peoria	135.2	134.6	129.0	116.7
Philadelphia	130.5	128.2	119.4	109.8	Springfield, Ill.	136.0	134.3	128.0	115.8

See footnotes at end of table.

TABLE 4.—*Indexes of Average Retail Cost of All Foods, by Cities,*[1] *May, November, ana December 1942 and December 1941*—Continued

[1935–39=100]

City	1942		1941		City	1942		1941	
	Dec. 15[2]	Nov. 17	May 12	Dec. 16		Dec. 15[2]	Nov. 17	May 12	Dec. 16
West North Central:					East South Central—Continued.				
Kansas City	127.2	125.0	118.8	109.7	Memphis	137.1	134.4	123.5	113.1
Minneapolis	129.9	128.9	120.9	111.9	Mobile	138.3	137.6	126.8	120.7
Omaha	129.0	127.0	119.9	110.5	West South Central:				
St. Louis	134.4	130.8	123.8	117.5	Dallas	126.9	125.1	116.8	111.0
St. Paul	128.1	127.1	118.7	111.5	Houston	134.4	132.4	125.9	117.9
South Atlantic:					Little Rock	131.1	130.3	123.2	115.5
Atlanta	130.2	129.2	120.4	111.1	New Orleans	142.9	140.7	129.0	119.9
Baltimore	137.3	134.9	125.8	116.1	Mountain:				
Charleston, S. C.	129.2	127.6	123.2	115.1	Butte	132.7	131.3	121.5	110.4
Jacksonville	140.3	137.1	127.4	117.3	Denver	132.4	129.9	122.9	111.9
Norfolk[3]	136.4	135.4	126.1	117.6	Salt Lake City	137.8	136.1	124.2	115.4
Richmond	131.3	128.9	120.9	112.6	Pacific:				
Savannah	137.6	136.0	130.3	118.1	Los Angeles	142.8	141.5	128.1	118.6
Washington, D. C.	132.7	130.5	120.7	113.4	Portland, Oreg.	145.9	[4]143.0	134.5	121.3
East South Central:					San Francisco	140.1	139.3	125.5	115.4
Birmingham	130.2	127.7	120.5	112.0	Seattle	143.6	[4]141.3	129.9	120.6
Louisville	128.0	126.5	122.6	113.7					

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons rather than place-to-place comparisons.
[2] Preliminary.
[3] Includes Portsmouth and Newport News.
[4] Revised.

Annual Average Indexes of Retail Food Costs, 1913–December 1942

Annual average indexes of food costs for the years 1913–41, and monthly indexes for 1942, are presented in table 5.

TABLE 5.—*Indexes of Retail Food Costs in 51 Large Cities Combined, 1913 to December 1942*

[1935–39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913	79.9	1928	130.8	1941		1942	
1914	81.8	1929	132.5				
1915	80.9	1930	126.0	January	97.8	January	116.2
1916	90.8	1931	103.9	February	97.9	February	116.8
1917	116.9	1932	86.5	March	98.4	March	118.6
1918	134.4	1933	84.1	April	100.6	April	119.6
1919	149.8	1934	93.7	May	102.1	May	121.6
1920	168.8	1935	100.4	June	105.9	June	123.2
1921	128.3	1936	101.3	July	106.7	July	124.6
1922	119.9	1937	105.3	August	108.0	August	126.1
1923	124.0	1938	97.8	September	110.7	September	126.6
1924	122.8	1939	95.2	October	111.6	October	129.6
1925	132.9	1940	96.6	November	113.1	November	131.1
1926	137.4	1941	105.5	December	113.1	December	132.7
1927	132.3						

ELECTRICITY PRICES, DECEMBER 1942

RESIDENTIAL rates for electricity are obtained quarterly, by the Bureau of Labor Statistics, in March, June, September, and December, from 51 cities. These rates are used for computing net monthly

bills in each city for quantities of electricity which have been selected as representative of average use throughout the country for each of three combinations of services.

Reports published for March, June, and September discuss only the changes which occurred during the preceding 3 months. The December report discusses changes for the year.[1]

Prices on December 15, 1942

Prices of electricity for household use, which had declined steadily for many years, remained at the level of December 1941 during the first part of 1942 and advanced slightly in September. Fewer rate changes were reported in 1942 than in any of the 30 years during which the Bureau has collected these records. Rate reductions in 2 of the 51 cities, both reported in June, were too small to affect the weighted average of prices for cities combined. The slight advance for September and December was due to the application of fuel clauses, under which higher prices for electricity were automatically allowed, to cover increased costs of fuels used in generating the current. In December 1942 the cost of electricity for household use was about 0.1 percent higher than in December 1941.

Indexes of the cost of 25 kilowatt-hours and 100 kilowatt-hours for the 51 cities combined are shown in table 6 for December of specified years from 1923 through 1938 and for quarterly periods from 1939 through 1942.

TABLE 6.—*Indexes of Retail Prices of Electricity for 51 Cities Combined, in Specified Months*

[1923–25=100]

Date	Lighting and small appliances 25 kwh	Lighting, appliances, and refrigerator 100 kwh	Date	Lighting and small appliances 25 kwh	Lighting appliances, and refrigerator 100 kwh
1923: December	101.1	101.2	1940: March	73.6	65.7
1925: December	97.3	97.1	June	73.2	65.3
1927: December	94.0	91.5	September	73.0	65.0
1929: December	89.7	84.4	December	72.9	64.8
1931: December	88.3	77.0	1941: March	72.9	64.7
1933: December	84.9	75.1	June	72.9	64.7
1935: December	80.7	70.2	September	72.4	64.2
1937: December	76.0	67.4	December	72.2	64.1
1938: December	74.8	66.6	1942: March	72.2	64.1
1939: March	74.6	66.3	June	72.2	64.1
June	74.4	66.1	September	72.3	64.2
September	74.1	65.9	December [1]	72.3	64.2
December	73.7	65.6			

[1] Indexes are preliminary.

Details by Cities

Indexes of price changes for each of 51 cities for the use of 25 kilowatt-hours and 100 kilowatt-hours for March, June, September, and December 1942 and for December 1941; and monthly bills and average prices per kilowatt-hour for amounts of electricity representative of the requirements of 3 residential services on December 15, 1942, will be published in a bulletin now under preparation.

[1] Average prices for electricity for 25, 40, and 100 kilowatt-hours for 1923 through 1938 are shown in Bulletin No. 664.

Price Changes Between December 1941 and December 1942

Electricity-rate reductions occurred in 2 of the 51 cities in 1942—New York City and Houston. In New York City the slight decreases ranging from 2.0 percent for 25 kilowatt-hours to 1.1 percent for 250 kilowatt-hours, which affected only those customers residing in Richmond Borough, was offset later by increases in the other four boroughs as a result of higher costs of fuels used for generating the electricity. The rate reduction in Houston was applicable to electricity in excess of the first 75 kilowatt-hours used per month. Decreases amounted to 3.0 percent for 100 kilowatt-hours and 7.7 percent for 250 kilowatt-hours.

GAS PRICES, DECEMBER 1942

RESIDENTIAL rates for gas are secured quarterly in March, June, September, and December from 50 cities. These rates have been used for computing net monthly bills for each city for quantities of gas which approximate the average residential consumption requirements per month for each of four combinations of services. In order to put the prices on a comparable basis it was necessary to convert the consumption requirements used for computing monthly bills into an equivalent heating value expressed in therms (1 therm=100,000 B. t. u.).

Reports published quarterly for March, June, and September show only the changes by cities for the preceding 3 months. The December report discusses changes for the year.[2]

Prices, by Kinds of Gas, on December 15, 1942

Composite indexes covering costs of the kind of gas in each of 50 cities in December 1942 were about 0.5 percent above the level of December 1941. The increase was due principally to higher costs of manufactured gas in the New England and Middle Atlantic areas, where rate increases or adjustments in rates to cover higher costs of coal or fuel oil, reported from 7 cities, increased the indexes of manufactured gas for 10 6 therms by 0.9 percent and for 30.6 therms by 0.6 percent. Indexes for natural gas and for mixed manufactured and natural gas showed relatively little change during the year.

Table 7 presents composite indexes for each of 2 services for all kinds of gas, 50 cities combined, and separate indexes for manufactured, natural, and mixed manufactured and natural gas for December of specified years from 1923 through 1938, and for quarterly periods from 1939 through 1942.

Details by Cities

Indexes of price changes for each of the 50 cities for the use of 10.6 therms and 30.6 therms for March, June, September, and December 1942, and December 1941, and net monthly bills and average prices per thousand cubic feet and per therm for each of four services, based on rates effective December 15, 1942, will appear in a bulletin now under preparation.

[2] Average prices of gas for 10.6 therms and 30.6 therms for 1923 through June 1936 are shown in Bulletin No. 628.

TABLE 7.—*Indexes of Retail Prices of Gas in Specified Months*

[1923–25=100]

Date	10.6 therms, range				30.6 therms, range and automatic water heater			
	All gas, 50 cities	Manufactured 1923, 40 cities; 1941, 24 cities	Natural 1923, 7 cities; 1941, 19 cities	Mixed 1923, 3 cities; 1941, 7 cities	All gas, 50 cities	Manufactured 1923, 40 cities; 1941, 24 cities	Natural 1923, 7 cities; 1941, 19 cities	Mixed 1923, 3 cities; 1941, 7 cities
1923: December	99.5	99.5	99.3	99.4	99.5	99.6	98.5	99.4
1925: December	100.2	99.7	107.1	98.9	100.2	99.6	108.1	98.9
1927: December	100.1	99.6	109.3	101.0	99.3	99.0	108.0	101.0
1929: December	99.7	100.1	119.2	98.2	95.4	97.0	108.3	98.1
1931: December	98.3	100.0	119.2	99.3	91.1	94.2	108.2	98.8
1933: December	97.2	99.2	118.8	97.7	88.4	92.1	107.9	92.2
1935: December	97.2	100.0	114.1	98.3	86.8	90.4	104.0	92.4
1937: December	96.8	100.0	112.7	98.4	85.1	89.4	101.2	92.4
1938: December	98.8	100.7	112.3	107.6	86.0	90.0	100.5	95.8
1939: March	99.3	100.5	116.5	107.5	86.3	89.8	103.9	95.7
June	99.4	100.5	116.5	107.7	83.8	85.6	103.9	95.9
September	99.3	100.5	116.0	107.7	83.4	85.6	102.9	94.4
December	99.8	101.4	116.0	107.4	85.9	89.7	102.9	94.0
1940: March	99.9	101.6	116.0	107.4	85.7	89.4	103.3	94.0
June	98.2	101.6	115.6	98.6	82.3	84.8	103.1	90.9
September	98.3	101.6	116.1	98.4	82.3	84.8	103.6	90.6
December	98.0	101.6	114.9	98.2	84.5	88.7	102.3	90.3
1941: March	97.8	101.6	113.4	98.1	84.1	88.7	99.2	90.2
June	97.8	101.6	113.4	98.3	81.5	84.5	99.2	90.4
September	97.5	101.1	113.2	98.3	81.2	84.1	98.5	90.4
December	97.2	100.7	113.2	98.1	83.6	87.9	99.2	90.2
1942: March	97.2	100.7	113.1	98.2	83.6	87.9	99.1	90.3
June	97.4	100.9	113.4	98.0	81.1	83.9	99.3	90.1
September	97.8	101.6	113.4	98.0	81.3	84.3	99.2	90.2
December [1]	97.8	101.6	113.4	98.0	83.9	88.4	99.2	90.3

[1] Preliminary.

Price Changes Between December 1941 and December 1942

Changes in costs of gas for household use in 1942 occurred in 17 of the 50 reporting cities, and one additional city reported a change early in 1942 which was retroactive to September 1941. The factors contributing to changes in costs of gas, one or more of which affected costs in each city, were changes in rates, adjustments in basic rates under "fuel clauses" designed to cover costs of fuel used in manufacturing the gas, and changes in the heating value of the gas served. The accompanying list shows the 18 cities, classified by kinds of gas served and nature of the change.

	Manufactured gas	*Natural gas*	*Mixed manufactured and natural gas*
Rate changes	Fall River. Portland, Maine. Philadelphia. New York (seasonal).	Pittsburgh. Mobile. New Orleans (1941). Dallas. Houston. San Francisco.	Minneapolis. Washington, D. C.
Adjustments for fuel costs.	Boston. Manchester. Portland, Maine. Providence. Scranton.		
Changes in heating value of gas.		Mobile. Houston. New Orleans (1941). Salt Lake City. San Francisco.	Cincinnati.

Manufactured gas.—Changes in costs of manufactured gas in 1942 were confined to the New England and Middle Atlantic areas. Seven cities reported increases resulting from higher rates, from higher costs of fuels used in manufacturing the gas, or from a combination of these two factors. New York City reported the usual seasonal change which provided lower rates during 6 months of the year. The greatest rate increase was in Fall River, where advances to domestic customers ranged from 4.8 percent for 40.6 therms to 14.6 percent for 10.6 therms. Adjustments for fuel costs in 5 cities resulted in advances ranging from 1 to 6 percent. In most of the New England cities increases in the first 9 months of 1942 were followed by adjustments at slightly lower levels in the last 3 months.

Natural gas.—Two cities reported increases in costs of natural gas in 1942. In Pittsburgh an advance in rates for one company serving about 10 percent of the residential customers in the city increased costs by approximately 40 percent for 10.6 therms to 80 percent for 19.6 therms. In San Francisco an advance of less than 1 percent was due to a decrease in the heating value of the gas, together with the accompanying decrease in rates as provided in the schedule of rates (the schedule specifies that rates shall be changed to compensate for variations in the heating value of the gas above or below a specified standard). Of the 4 cities reporting lower prices of gas, the smallest decrease—about 1 percent—occurred in Salt Lake City as a result of an increase in the heating value of the gas served. The greatest decrease was in Mobile, where the "objective rate schedule" was superseded by a single rate. The decrease amounted to 10.5 percent for 10.6 therms up to 16.8 percent for 40.6 therms for about 45 percent of the customers, i. e., those which had been billed under the "present" rate, and a 2 percent decrease for other customers billed under the "objective" rate.

Lower rates in New Orleans, retroactive to September 1941, provided decreases ranging from 5.8 percent for 10.6 therms to 18.5 percent for 40.6 therms.

Mixed manufactured and natural gas.—Rates for mixed manufactured and natural gas in Minneapolis advanced twice during 1942, with a total increase of about 3 percent in December 1942 compared with December 1941. In Washington, D. C., higher rates for gas used in excess of the first 2,500 cubic feet per month increased the costs by 0.4 percent for 19.6 therms up to 1.6 percent for 40.6 therms. An increase in the heating value of the gas served in Cincinnati increased the cost about 8 percent as compared with the average cost for the preceding year in 8 months of which the gas served was of a greater heat content than in the 4 summer months.

Wholesale Prices

WHOLESALE PRICES, DECEMBER AND YEAR 1942[1]

THE upward movement in commodity prices in primary markets[2] continued unabated through the third year of World War II. Although the General Maximum Price Regulation issued late in April brought under control most of the processed commodities which were not already under price ceilings, a large part of the raw agricultural commodities were not controlled and the Bureau of Labor Statistics index of prices for nearly 900 series rose 13 percent during 1942 as compared to a gain of 11 percent in 1941.

Except for a slight reaction in June, the index advanced steadily throughout the year, from a low of 96.0 percent of the 1926 average in January to a high of 101.0 percent in December. From January to April, immediately preceding the General Maximum Price Regulation, the all-commodity index rose 2.8 percent, while during the last 8 months—May to December—it rose 2.2 percent. This slowing down was the result of price control over industrial commodities. During the first 4 months of 1942 the index of "all commodities other than farm products and foods" advanced a little more than 1 percent, while the increase amounted to only 0.2 percent from May to December. Farm product prices, on the contrary, advanced 3.7 percent from January to April and 9 percent from May to December.

Since the outbreak of the war in August 1939 average prices for industrial commodities have risen slightly more than 19 percent, while agricultural commodities have increased over 73 percent.

During the year 1942 the farm products group index advanced 28.5 percent, led by increases of 28 percent for livestock and poultry and nearly 21 percent for grains, together with substantially higher prices for cotton and fresh fruits and vegetables. Average wholesale prices for foods were 20 percent higher than in the preceding year, largely because of increases of 41 percent for fruits and vegetables, about 24 percent for meats, 14 percent for dairy products, 10 percent for cereal products, and higher prices for other important foodstuffs, including eggs and lard.

Of the industrial commodity groups, textile products and chemicals and allied products show the sharpest increases in 1942—over 14 percent each. Higher prices for cotton goods, woolen and worsted goods, and for clothing largely accounted for the rise in the textile products group index. Marked advances in prices for fats and oils, together with higher quotations for certain imported drugs, and

[1] During the period of rapid changes caused by price controls, materials allocation, and rationing, the Bureau of Labor Statistics will attempt promptly to report changing prices. Indexes, however, must be considered as preliminary and subject to such adjustment and revision as required by later and more complete reports.

[2] The Bureau of Labor Statistics' wholesale price data for the most part represent prices prevailing in the "first commercial transaction." They are prices quoted in primary markets, at principal distribution points.

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increased taxes on alcohol were mainly responsible for the advance in the chemicals and allied products group index.

The increases for the remaining 6 groups during the year period were under 10 percent. They ranged from 3 percent for fuel and lighting materials to a little more than 9 percent for miscellaneous commodities.

Average prices for raw materials increased more than 20 percent last year, mainly because of the marked rise in agricultural commodity prices. Manufactured commodities advanced about 11 percent while prices for semimanufactured articles increased over 6 percent.

By the end of 1942 the upward price spiral which began shortly after the outbreak of war brought prices of nearly all types of commodities up substantially over their relatively low levels of the summer of 1939. Aside from the increase of over 73 percent for farm products since August 1939, foods have advanced 48 percent in this period of a little more than 3½ years. Textile products were nearly 43 percent higher, largely because of broad price advances in cotton goods; and chemicals and allied products increased 31 percent, led by a rise of nearly 159 percent for industrial fats and oils. Other group increases from August 1939 to the average for the year 1942 were 27 percent for hides and leather products, 23 percent for building materials, 22 percent for miscellaneous commodities, 19 percent for housefurnishing goods, 11 percent for metals and metal products, and 8 percent for fuel and lighting materials.

Table 1 presents index numbers of wholesale prices by groups and subgroups of commodities for 1941 and 1942 and the percentage changes between the 2 years.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities for 1941 and 1942 and the Percentage Changes from 1941 to 1942*

[1926=100]

Group and subgroup	Year 1942	Year 1941	Percent of change
All commodities	*98.8	87.3	+13.2
Farm products	105.9	82.4	+28.5
Grains	92.9	76.9	+20.8
Livestock and poultry	117.8	91.6	+28.6
Other farm products	101.6	77.8	+30.6
Foods	99.6	82.7	+20.4
Dairy products	100.0	87.3	+14.5
Cereal products	89.2	80.7	+10.5
Fruits and vegetables	95.5	67.5	+41.5
Meats	111.8	90.4	+23.7
Other foods	92.3	78.9	+17.0
Hides and leather products	117.7	108.3	+8.7
Shoes	125.7	113.5	+10.7
Hides and skins	117.6	108.4	+8.5
Leather	101.3	97.9	+3.5
Other leather products	114.9	104.7	+9.7
Textile products	96.9	84.8	+14.3
Clothing	106.9	92.6	+15.4
Cotton goods	112.4	94.2	+19.3
Hosiery and underwear	70.5	63.1	+11.7
Rayon	30.3	29.7	+2.0
Silk	(1)	(1)	----------
Woolen and worsted goods	110.4	96.6	+14.3
Other textile products	97.9	90.7	+7.9
Fuel and lighting materials	*78.5	76.2	+3.0
Anthracite	85.5	82.7	+3.4
Bituminous coal	109.7	104.3	+5.2
Coke	122.1	119.3	+2.3
Electricity	(1)	68.3	----------
Gas	(1)	78.6	----------
Petroleum and products	59.8	57.0	+4.9
Metals and metal products	*103.8	99.4	+4.4
Agricultural implements	96.9	93.5	+3.6
Farm machinery	98.0	94.5	+3.7
Iron and steel	97.2	96.4	+.8
Motor vehicles	*112.7	103.3	+9.1
Nonferrous metals	85.7	84.4	+1.5
Plumbing and heating	95.4	84.8	+12.5
Building materials	110.2	103.2	+6.8
Brick and tile	98.0	93.7	+4.6
Cement	94.0	92.0	+2.2
Lumber	132.8	122.5	+8.4
Paint and paint materials	100.3	91.4	+9.7
Plumbing and heating	95.4	84.8	+12.5
Structural steel	107.3	107.3	0
Other building material	103.5	98.3	+5.3

See footnotes at end of table.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities for 1941 and 1942 and the Percentage Changes from 1941 to 1942*—Con.

[1926=100]

Group and subgroup	Year 1942	Year 1941	Percent of change	Group and subgroup	Year 1942	Year 1941	Percent of change
Chemicals and allied products	97.1	84.6	+14.8	Miscellaneous—Con.			
Chemicals	96.2	87.2	+10.3	Cattle feed	134.4	101.2	+32.8
Drugs and pharmaceuticals	133.8	105.1	+27.3	Paper and pulp	100.8	98.2	+2.6
Fertilizer materials	78.7	73.5	+7.1	Rubber, crude	46.3	46.1	+.4
Mixed fertilizers	82.7	76.0	+8.8	Other miscellaneous	93.4	87.8	+6.4
Oils and fats	105.1	77.6	+35.4	Raw materials	100.6	83.5	+20.5
Housefurnishing goods	102.4	94.3	+8.6	Semimanufactured articles	92.6	86.9	+6.6
Furnishings	107.3	99.9	+7.4	Manufactured products	*98.6	89.1	+10.7
Furniture	97.4	88.4	+10.2	All commodities other than farm products	*97.0	88.3	+9.9
Miscellaneous	89.7	82.0	+9.4	All commodities other than farm products and foods	*95.5	89.0	+7.3
Automobile tires and tubes	72.5	61.0	+18.9				

*Preliminary. [1] Data not available.

Index numbers for the groups and subgroups of commodities for selected years are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities*

[1926=100]

Group and subgroup	1942	1941	1940	1939	1938	1937	1933	1929
All commodities	*98.8	87.3	78.6	77.1	78.6	86.3	65.9	95.3
Farm products	105.9	82.4	67.7	65.3	68.5	86.4	51.4	104.9
Grains	92.9	76.9	68.0	58.6	60.6	98.3	53.1	97.4
Livestock and poultry	117.8	91.6	69.2	72.2	79.0	95.5	43.4	103.1
Other farm products	101.6	77.8	66.1	62.6	63.9	77.2	55.8	106.6
Foods	99.6	82.7	71.3	70.4	73.6	85.5	60.5	99.9
Dairy products	100.0	87.3	77.6	69.5	72.8	83.1	60.7	105.6
Cereal products	89.2	80.7	78.3	74.8	78.4	87.6	75.0	88.0
Fruits and vegetables	95.5	67.5	63.1	62.0	58.2	74.2	61.7	97.8
Meats	111.8	90.4	73.3	77.2	83.3	99.1	50.0	109.1
Other foods	92.3	78.9	63.5	64.1	67.5	75.6	61.1	93.9
Hides and leather products	117.7	108.3	100.8	95.6	92.8	104.6	80.9	109.1
Shoes	125.7	113.5	107.6	102.6	102.2	105.0	90.2	105.3
Hides and skins	117.6	108.4	91.9	84.6	73.6	113.5	67.1	112.7
Leather	101.3	97.9	92.5	87.5	83.7	96.8	71.4	113.2
Other leather products	114.9	104.7	99.9	97.1	98.5	102.6	81.1	105.4
Textile products	96.9	84.8	73.8	69.7	66.7	76.3	64.8	90.4
Clothing	106.9	92.6	85.2	82.0	82.9	87.9	72.2	90.0
Cotton goods	112.4	94.2	71.4	67.2	65.4	84.3	71.2	98.8
Hosiery and underwear	70.5	63.1	62.3	61.4	60.3	65.1	58.9	88.5
Rayon	30.3	29.5	29.5	28.8	28.9	33.3	33.0	68.4
Silk	(1)	(1)	46.8	46.1	29.6	32.7	29.8	82.7
Woolen and worsted goods	110.4	96.6	85.7	79.8	77.4	91.1	69.3	88.3
Other textile products	97.9	90.7	74.5	69.2	65.5	68.4	72.5	93.1
Fuel and lighting materials	*78.5	76.2	71.7	73.1	76.5	77.6	66.3	83.0
Anthracite	85.5	82.7	78.9	75.8	78.0	77.8	82.2	90.1
Bituminous coal	109.7	104.3	97.6	97.5	99.0	98.6	82.8	91.3
Coke	122.1	119.3	110.2	105.6	104.8	103.1	77.9	84.6
Electricity	(1)	68.3	74.5	78.6	84.9	80.4	94.3	94.5
Gas	(1)	78.6	82.0	84.1	86.1	82.4	97.5	93.1
Petroleum and products	59.8	57.0	50.0	52.2	55.9	60.5	41.0	71.3
Metals and metal products	*103.8	99.4	95.8	94.4	95.7	95.7	79.8	100.5
Agricultural implements	96.9	93.5	92.5	93.4	95.5	94.0	83.5	98.7
Farm machinery	98.0	94.5	93.7	94.6	96.9	95.6	87.7	98.0
Iron and steel	97.2	96.4	95.1	95.8	98.6	98.2	78.6	94.9
Motor vehicles	*112.7	103.3	96.7	93.4	95.4	89.3	83.2	100.0

See footnotes at end of table.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities*—Continued

[1926=100]

Group and subgroup	1942	1941	1940	1939	1938	1937	1933	1929
Metals and metals products—Continued.								
Nonferrous metals	85.7	84.4	81.3	78.0	72.8	89.6	59.6	106.1
Plumbing and heating	95.4	84.8	80.4	79.2	78.5	78.8	67.1	95.0
Building materials	110.2	103.2	94.8	90.5	90.3	95.2	77.0	95.4
Brick and tile	98.0	93.7	90.5	91.4	91.0	93.5	79.2	94.3
Cement	94.0	92.0	90.8	91.3	90.3	89.0	88.1	89.0
Lumber	132.8	122.5	102.9	93.2	87.4	99.7	70.7	93.8
Paint and paint materials	100.3	91.4	85.7	82.8	81.3	83.4	73.3	94.9
Plumbing and heating	95.4	84.8	80.4	79.2	78.5	78.8	67.1	95.0
Structural steel	107.3	107.3	107.3	107.3	111.0	113.2	83.1	98.1
Other building materials	103.5	98.3	93.3	90.3	92.7	99.1	82.7	97.7
Chemicals and allied products	97.1	84.6	77.0	76.0	77.0	82.6	72.1	94.0
Chemicals	96.2	87.2	85.1	84.7	86.4	88.2	86.8	99.7
Drugs and pharmaceuticals	133.8	105.1	88.9	78.2	79.0	86.6	54.6	66.8
Fertilizer materials	78.7	73.5	69.4	67.9	67.0	69.0	62.9	95.6
Mixed fertilizers	82.7	76.0	73.8	73.0	72.6	73.8	64.0	95.2
Oils and fats	105.1	77.6	44.3	48.4	49.6	76.8	39.4	89.0
Housefurnishing goods	102.4	94.3	88.5	86.3	86.8	89.7	75.8	94.3
Furnishings	107.3	99.9	94.7	91.1	90.8	93.4	76.6	93.6
Furniture	97.4	88.4	81.8	81.3	82.8	85.9	75.1	95.0
Miscellaneous	89.7	82.0	77.3	74.8	73.3	77.8	62.5	82.6
Automobile tires and tubes	72.5	61.0	57.8	59.5	57.7	55.8	42.1	54.5
Cattle feed	134.4	101.2	87.8	83.3	76.9	110.5	57.9	121.6
Paper and pulp	100.8	98.2	91.7	82.4	85.0	91.7	76.6	88.9
Rubber, crude	46.3	46.1	41.5	37.2	30.5	40.5	12.2	42.3
Other miscellaneous	93.4	87.8	84.1	82.6	81.5	84.7	76.2	98.4
Raw materials	100.6	83.5	71.9	70.2	72.0	84.8	56.5	97.5
Semimanufactured articles	92.6	86.9	79.1	77.0	75.4	85.3	65.4	93.9
Manufactured products	*98.6	89.1	81.6	80.4	82.2	87.2	70.5	94.5
All commodities other than farm products	*97.0	88.3	80.8	79.5	80.6	86.2	69.0	93.3
All commodities other than farm products and foods	*95.5	89.0	83.0	81.3	81.7	85.3	71.2	91.6

*Preliminary. [1] Data not available.

Following the general price picture of 1942 further broad gains in prices for domestic agricultural products dominated the commodity markets in December. Pronounced increases in grains contributed in a large measure to an advance of 0.7 percent in the Bureau of Labor Statistics general index of commodity prices in primary markets during the month. The all-commodity index rose to 101.0 percent of the 1926 average, the highest level reached in nearly 17 years. In the past 12 months average prices for these commodities advanced nearly 8 percent and in December 1942 they were approximately 35 percent higher than in August 1939.

During the month, prices for farm products in primary markets rose 3 percent and foods advanced 0.8 percent. Continued advances in grains were reflected in higher prices for cattle feed, with the result that the miscellaneous commodities group index rose 0.4 percent. Textile products and fuel and lighting materials were up 0.1 percent, while building materials declined slightly. Few changes occurred in prices for hides and leather products, metals and metal products, chemicals and allied products, and housefurnishing goods, and the indexes for these groups remained unchanged at the November level. Higher prices for agricultural commodities were largely responsible for an increase of 2.1 percent in the index for raw materials, which in December was 15 percent above the corresponding month of 1941. Average prices for manufactured commodities increased fractionally during the month while semimanufactured commodities declined slightly.

Prices for most industrial commodities fluctuated within a very narrow range since December 1941 under the influence of Government regulation. Agricultural commodities, on the other hand, advanced sharply. Farm products in December were 20 percent higher than in December 1941, with livestock and poultry up 27 percent. "Other farm products," including cotton and certain fresh fruits and vegetables, were up 18 percent; and grains, nearly 11 percent. Average wholesale prices for foods were 15 percent higher than in December 1941, mostly because of increases of 41 percent for fresh fruits and vegetables, 19 percent for meats, and 17 percent for dairy products.

Aside from an increase of 9 percent in the chemicals and allied products group, caused mainly by increased taxes on alcohol, there were no outstanding changes in prices for industrial commodities during 1942.

The increase in farm products prices in December was led by an advance of 8.5 percent for grains. Quotations for rye were up 19 percent; corn, nearly 12 percent; wheat, over 7 percent; oats, 6 percent; and barley, almost 2 percent. In addition, livestock and poultry increased 2.1 percent, with sharp advances reported in prices for sheep and live poultry. Hogs and cows also advanced while steers averaged lower than in November. Other important farm commodities which increased during the month were cotton, eggs, milk, hops, peanuts, tobacco, hay, seeds, oranges, apples, onions, and sweetpotatoes.

A 2.3-percent increase in prices for fruits and vegetables, together with an advance of 1.4 percent in prices for meats, largely accounted for the rise of 0.8 percent in average prices for foods during December. Important food items which averaged higher were butter, flour, corn meal, oatmeal, most meats, and peanut butter. Increased scaling weight for bread forced the average price of bread down in some markets although no changes were reported in prices on the baked loaf.

Increased prices were quoted for raw jute, natural gasoline in the Oklahoma fields, and for destination prices on coal largely because of the transportation tax of 4 cents a ton.

The transportation tax also raised prices for some metals where ceilings were not imposed on a delivered basis. Lower prices were reported for heating equipment.

Sales realization prices on lumber varied during December, with certain types of Ponderosa pine, redwood, red gum, and maple flooring up. Oak declined slightly. Higher prices were reported for linseed oil while turpentine and rosin declined.

In the chemicals and allied products group fertilizer materials rose 0.5 percent and quotations were also higher for oleic acid. Butyl alcohol and ergot, on the other hand, declined sharply.

Substantial advances in prices for bran, middlings, and cottonseed and linseed meal resulted in an increase of 7.6 percent in the cattle feed index during December. Boxboard and certain soap products also advanced.

Percentage comparisons of the December 1942 level of wholesale prices with December 1941, November 1942, and the low point of 1939, with corresponding index numbers, are given in table 3.

TABLE 3.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, December 1942, With Comparisons for November 1942, December 1941 and August 1939*

[1926=100]

Group and subgroup	December 1942	November 1942	Percent of change	December 1941	Percent of change	August 1939	Percent of change
All commodities	*101.0	*100.3	+0.7	93.6	+7.9	75.0	+34.7
Farm products	113.8	110.5	+3.0	94.7	+20.2	61.0	+86.6
Grains	100.7	92.8	+8.5	91.0	+10.7	51.5	+95.5
Livestock and poultry	123.9	121.3	+2.1	97.4	+27.2	66.0	+87.7
Other farm products	110.4	108.0	+2.2	93.4	+18.2	60.1	+83.7
Foods	104.3	103.5	+.8	90.5	+15.2	67.2	+55.2
Dairy products	111.8	111.2	+.5	95.5	+17.1	67.9	+64.7
Cereal products	89.3	89.5	−.2	89.3	0	71.9	+24.2
Fruits and vegetables	104.3	102.0	+2.3	73.8	+41.3	58.5	+78.3
Meats	113.6	112.0	+1.4	95.3	+19.2	73.7	+54.1
Other foods	95.9	95.9	0	89.2	+7.5	60.3	+59.0
Hides and leather products	117.8	117.8	0	114.8	+2.6	92.7	+27.1
Shoes	126.4	126.4	0	120.7	+4.7	100.8	+25.4
Hides and skins	116.0	116.0	0	115.9	+.1	77.2	+50.3
Leather	101.3	101.3	0	101.3	0	84.0	+20.6
Other leather products	115.2	115.2	0	112.8	+2.1	97.1	+18.6
Textile products	97.2	97.1	+.1	91.8	+5 9	67.8	+43.4
Clothing	107.0	107.0	0	98.4	+8.7	81.5	+31.3
Cotton goods	112.4	112.4	0	107.5	+4.6	65.5	+71.6
Hosiery and underwear	70.5	70.5	0	67.0	+5.2	61.5	+14.6
Rayon	30.3	30.3	0	30.3	0	28.5	+6.3
Silk	(1)	(1)	.....	(1)	.....	44.3	.....
Woolen and worsted goods	112.1	111.7	+.4	102.7	+9.2	75.5	+48.5
Other textile products	97.7	97.6	+.1	96.2	+1.6	63.7	+53.4
Fuel and lighting materials	79.2	79.1	+.1	78.4	+1.0	72.6	+9.1
Anthracite	86.2	85.7	+.6	85.3	+1.1	72.1	+19.6
Bituminous coal	112.4	111.4	+.9	108.0	+4.1	96.0	+17.1
Coke	122.1	122.1	0	122.2	−.1	104.2	+17.2
Electricity	(1)	62.3	.....	67.4	.....	75.8	.....
Gas	(1)	78.4	.....	77.4	.....	86.7	.....
Petroleum and products	60.7	60.7	0	59.8	+1.5	51.7	+17.4
Metals and metal products	*103.8	*103.8	0	103.3	+.5	93.2	+11.4
Agricultural implements	96.9	96.9	0	96.4	+.5	93.5	+3.6
Farm machinery	98.0	98.0	0	97.5	+.5	94.7	+3.5
Iron and steel	97.2	97.2	0	97.0	+.2	95.1	+2.2
Motor vehicles	*112.8	*112.8	0	112.4	+.4	92.5	+21.9
Nonferrous metals	86.0	86.0	0	84.8	+1.4	74.6	+15.3
Plumbing and heating	90.4	93.2	−3.0	89.1	+1.5	79.3	+14.0
Building materials	110.0	110.1	−.1	107.8	+2.0	89.6	+22.8
Brick and tile	98.7	98.6	+.1	96.7	+2.1	90.5	+9.1
Cement	94.2	94.2	0	93.4	+.9	91.3	+3.2
Lumber	133.3	133.1	+.2	129.4	+3.0	90.1	+47.9
Paint and paint materials	100.3	100.7	−.4	96.5	+3.9	82.1	+22.2
Plumbing and heating	90.4	93.2	−3.0	89.1	+1 5	79.3	+14.0
Structural steel	107.3	107.3	0	107.3	0	107.3	0
Other building materials	103.0	102.9	+.1	102.5	+.5	89.5	+15.1
Chemicals and allied products	99.5	99.5	0	91.3	+9.0	74.2	+34.1
Chemicals	96.1	96.2	−.1	88.6	+8.5	83.8	+14.7
Drugs and pharmaceuticals	165.4	165.4	0	123.0	+34.5	77.1	+114.5
Fertilizer materials	79.0	78.6	+.5	77.8	+1.5	65.5	+20.6
Mixed fertilizers	82.8	82.8	0	81.2	+2.0	73.1	+13.3
Oils and fats	101.5	101.5	0	101.9	−.4	40.6	+150.0
Housefurnishing goods	102.5	102.5	0	101.1	+1.4	85.6	+19.7
Furnishings	107.3	107.3	0	105.6	+1.6	90.0	+19.2
Furniture	97.4	97.4	0	96.6	+.8	81.1	+20.1
Miscellaneous	90.5	90.1	+.4	87.6	+3.3	73.3	+23.5
Automobile tires and tubes	73.0	73.0	0	67.4	+8.3	60.5	+20.7
Cattle feed	142.1	132.1	+7.6	124.4	+14.2	68.4	+107.7
Paper and pulp	99.0	98.8	+.2	102.5	−3.4	80.0	+23.8
Rubber, crude	46.3	46.3	0	46.3	0	34.9	+32.7
Other miscellaneous	94.9	95.1	−.2	92.4	+2.7	81.3	+16.7
Raw materials	106.1	103.9	+2.1	92.3	+15.0	66.5	+59.5
Semimanufactured articles	92.5	92.6	−.1	90.1	+2.7	74.5	+24.2
Manufactured products	*99.6	*99.4	+.2	94.6	+5.3	79.1	+25.9
All commodities other than farm products	*98.1	*97.9	+.2	93.3	+5.1	77.9	+25.9
All commodities other than farm products and foods	*95.9	*95.8	+.1	93.7	+2.3	80.1	+19.7

*Preliminary.

[1] Data not available.

Index Numbers by Commodity Groups, 1926 to December 1942

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1941, inclusive, and by months from December 1941 to December 1942, inclusive, are shown in table 4.

TABLE 4.—*Index Numbers of Wholesale Prices by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.6	94.3	82.0	87.3
1942	105.9	99.6	117.7	96.9	78.5	103.8	110.2	97.1	102.4	89.7	98.8
1941: December	94.7	90.5	114.8	91.8	78.4	103.3	107.8	91.3	101.1	87.6	93.6
1942:											
January	100.8	93.7	114.9	93.6	78.2	103.5	109.3	96.0	102.4	89.3	96.0
February	101.3	94.6	115.3	95.2	78.0	103.6	110.1	97.0	102.5	89.3	96.7
March	102.8	96.1	116.7	96.6	77.7	103.8	110.5	97.1	102.6	89.7	97.6
April	104.5	98.7	119.2	97.7	77.7	103.8	110.2	97.1	102.8	90.3	98.7
May	104.4	98.9	118.8	98.0	78.0	103.9	110.1	97.3	102.9	90.5	98.8
June	104.4	99.3	118.2	97.6	78.4	103.9	110.1	97.2	102.9	90.2	98.6
July	105.3	99.2	118.2	97.1	79.0	103.8	110.3	96.7	102.8	89.8	98.7
August	106.1	100.8	118.2	97.3	79.0	103.8	110.3	96.2	102.7	88.9	99.2
September	107.8	102.4	118.1	97.1	79.0	103.8	110.4	96.2	102.5	88.8	99.6
October	109.0	103.4	117.8	97.1	79.0	103.8	110.4	96.2	102.5	88.6	100.0
November	110.5	103.5	117.8	97.1	79.1	*103.8	110.1	99.5	102.5	90.1	*100.3
December	113.8	104.3	117.8	97.2	79.2	*103.8	110.0	99.5	102.5	90.5	*101.0

*Preliminary.

The price trend for specified years and months since 1926 is shown in table 5 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 to 12 of Wholesale Prices, December and Year 1941 (Serial No. R. 1434).

TABLE 5.—*Index Numbers of Wholesale Prices by Special Groups of Commodities*

[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0
1929	97.5	93.9	94.5	93.3	91.6
1932	55.1	59.3	70.3	68.3	70.2
1933	56.5	65.4	70.5	69.0	71.2
1936	79.9	75.9	82.0	80.7	79.6
1937	84.8	85.3	87.2	86.2	85.3
1938	72.0	75.4	82.2	80.6	81.7
1939	70.2	77.0	80.4	79.5	81.3
1940	71.6	79.1	81.6	80.8	83.0
1941	83.5	86.9	89.1	88.3	89.0
1942	100.6	92.6	98.6	97.0	95.5
1941: December	92.3	90.1	94.6	93.3	93.7
1942:					
January	96.1	91.7	96.4	94.8	94.6
February	97.0	92.0	97.0	95.5	94.9
March	98.2	92.3	97.8	96.2	95.2
April	100.0	92.8	98.7	97.2	95.6
May	99.7	92.9	99.0	97.4	95.7
June	99.8	92.8	98.6	97.1	95.6
July	100.1	92.8	98.6	97.0	95.7
August	101.2	92.7	98.9	97.5	95.6
September	102.2	92.9	99.2	97.7	95.5
October	103.0	92.7	99.4	97.9	95.5
November	103.9	92.6	*99.4	*97.9	*95.8
December	106.1	92.5	*99.6	*98.1	*95.9

*Preliminary.

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during November and December 1942 are shown by the index numbers in table 6. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 6.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, November and December 1942*

[1926=100]

Commodity group	Dec. 26	Dec. 19	Dec. 12	Dec. 5	Nov. 28	Nov. 21	Nov. 14	Nov. 7
All commodities	*101.2	*100.7	*100.5	*100.1	*100.1	*100.1	*100.1	*99.7
Farm products	115.2	113.3	112.0	110.6	110.8	110.9	110.7	109.8
Foods	104.6	104.2	104.0	103.3	103.6	103.3	103.0	102.9
Hides and leather products	118.4	118.4	118.4	118.4	118.4	118.4	118.4	118.4
Textile products	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
Fuel and lighting materials	79.9	79.9	80.0	79.8	79.7	79.7	79.7	79.6
Metals and metal products	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9	*103.9
Building materials	110.0	110.0	110.0	110.0	110.2	110.2	110.2	110.2
Chemicals and allied products	99.5	99.5	99.5	99.6	99.5	99.5	99.5	96.2
Housefurnishing goods	104.1	104.1	104.1	104.1	104.1	104.1	104.1	104.1
Miscellaneous	90.4	90.4	90.3	90.0	89.9	89.9	90.0	88.7
Raw materials	106.6	105.4	104.7	103.7	103.8	103.8	103.7	103.2
Semimanufactured articles	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5
Manufactured products	*100.1	*99.8	*99.8	*99.7	*99.7	*99.7	*99.7	*99.3
All commodities other than farm products	*98.2	*98.0	*98.0	*97.8	*97.8	*97.8	*97.8	*97.5
All commodities other than farm products and foods	*96.2	*96.2	*96.2	*96.1	*96.1	*96.1	*96.1	*95.7

*Preliminary.

Trend of Employment and Unemployment

SUMMARY OF REPORTS FOR DECEMBER 1942

TOTAL employment in nonagricultural establishments stood at 38,956,000 in mid-December 1942, a new all-time peak. The gain was 423,000 from mid-November and 2,868,000 from December 1941. These figures do not include proprietors of unincorporated businesses, self-employed persons, unpaid family workers, domestics employed in private homes, personnel of the NYA, WPA, and CCC, and the uniformed personnel of the Army, Navy, Marine Corps, and Coast Guard. They are based on preliminary December and revised November reports.

The outstanding gains over the month among the major industry divisions were a seasonal increase of 341,000 in trade employment (due primarily to the hiring of additional personnel to handle the pre-Christmas buying) and a gain of 235,000 in manufacturing employment (chiefly in war plants). Contract and Federal force-account construction showed a decline of about 9 percent or 170,000 workers.

Over the year interval, the outstanding gains were in manufacturing (2,103,000) and Federal, State, and local government (1,200,000), the gain in the latter division being due primarily to expansion in the War and Navy departments. The chief declines over the year were in trade (399,000) and contract and Federal force-account construction (154,000).

Industrial and Business Employment

Between mid-November and mid-December employment increases were reported by 109 of the 152 manufacturing and 4 of the 16 nonmanufacturing industries surveyed monthly by the Bureau of Labor Statistics. Pay-roll gains were even more general, having been reported by 124 manufacturing and 10 nonmanufacturing industries.

War industries continued to show increases in wage-earner employment and pay rolls in the effort to maintain an increasing flow of war goods, among them being such durable-goods industries as aircraft, shipbuilding, automobiles, electrical equipment, machine-shop products, and engines. The automobile industry had reduced the number of its workers from 142.5 percent of the 1939 average in November 1941 to 92.8 percent in April 1942, but had shown substantial gains each month since then. By December 1942 the industry had converted its facilities almost entirely to war work and had brought its working forces up to 27.1 percent above the 1939 average.

Among nondurable-goods industries showing substantial employment gains over the month interval—partly on account of war demands and partly because of seasonal influences—were slaughtering and meat packing, ammunition, fireworks, cotton goods, tires and tubes, chemicals, paper boxes, men's clothing, and fertilizers.

Employment decreases, largely seasonal, were noted in canning (24,600); beet sugar (4,700); brick, tile, and terra cotta (1,300); cottonseed—oil, cake, and meal (1,300), and butter (1,100). Sawmills and logging camps reported an employment decline of 6,200 wage earners, caused partly by seasonal factors and partly by the difficulty of replacing men who had been called into the service or had left for other jobs.

The durable-goods group, as a whole, in which most of the war industries are concentrated, showed employment gains over the month and year intervals of 2.4 percent and 25.5 percent, respectively, in contrast to increases of only 0.4 percent and 3.4 percent, respectively, for the nondurable-goods industries, which produce chiefly for civilian consumption. The corresponding gains in weekly pay rolls were 3.0 percent and 60.0 percent, respectively, for durable goods and 3.3 and 24.1 percent, respectively, for nondurable goods. For all manufacturing industries combined the number of wage earners had expanded by 1.5 percent between mid-November and mid-December and by 15.0 percent between December 1941 and December 1942, while pay rolls had increased by 3.1 and 46.0 percent, respectively. The aggregate figures from which these percentages were derived and the corresponding indexes are given in table 1.

TABLE 1.—*Aggregate Wage-Earner Employment and Weekly Pay Rolls for Manufacturing, Durable and Nondurable, and Indexes Thereof*

Item	Wage-earner employment			Wage-earner weekly pay roll		
	December 1942	November 1942	December 1941	December 1942	November 1942	December 1941
Absolute numbers (in thousands):						
Total manufacturing	13,023	12,827	11,327	$503,688	$488,619	$344,984
Durable	7,455	7,281	5,940	$337,112	$327,340	$210,719
Nondurable	5,568	5,546	5,387	$166,576	$161,279	$134,265
Indexes (1939=100):						
Total manufacturing	159.0	156.6	138.3	278.9	270.6	191.0
Durable	206.5	201.6	164.5	377.6	366.6	236.0
Nondurable	121.5	121.1	117.6	182.4	176.6	147.1

In anthracite and bituminous-coal mining employment declined slightly between mid-November and mid-December 1942 (1.0 and 0.8 percent, respectively) and quite sharply between December 1941 and December 1942 (6.9 and 7.2 percent), reflecting the difficulty of replacing miners who have been called into the service or who have moved to other jobs. Anthracite pay rolls, however, showed a gain of nearly 40 percent and bituminous-coal mining 8 percent over the year interval, primarily because of increased working hours. Metal-mining employment as a whole showed little change over the month interval because of offsetting influences in the various branches of the industry. For example, gold and silver mines reduced their forces by 10.1 percent as a result of the Government closure order, while copper, lead, and zinc mines added nearly 2 percent to the number on their pay rolls.

Employment declines over the month were reported in all but 2 of the public utility and service industries. These declines were less than 1 percent for all of these industries except dyeing and cleaning (3.6 percent) and electric light and power (1.1 percent). The latter industry has been showing employment reductions each month since

August 1941. Brokerage firms reported an employment gain of 1.0 percent over the month, but a comparison over the year interval showed a decline of 23.0 percent. Street railway and bus companies continued to take on more workers (2.2 percent) to meet increased demands for local transportation resulting in part from more general gas rationing and the restrictions on pleasure driving. The gain over the year interval of 27.8 percent in pay rolls in this industry reflected corresponding gains of 9.9 percent in employment, 6.0 percent in average weekly hours (the average number of hours worked in December 1942 was nearly 50), and 10 percent in average hourly earnings.

Retail-trade establishments took on 9.7 percent more employees to handle the large crowds of Christmas shoppers. Despite Government restrictions on the manufacture and sale of certain items, the net employment decline in retail trade since December 1941 was only 6.0 percent. Declines over the year interval of 39 percent in automotive establishments, 26 percent in stores selling furniture and housefurnishings, and 17 percent in establishments selling lumber and building materials have been partially offset by a 3-percent increase in the large group of stores selling general merchandise. The latter group, including variety, general merchandise, and department stores as well as mail-order houses, reported an employment increase over the month of 26.3 percent. The apparel group reported an employment increase over the month of 10.5 percent, the furniture and housefurnishings group a gain of 2.9 percent, and the automotive group an increase of 1.8 percent. The gain in the last-named group was due in part, no doubt, to the sale by many stores of such nonautomotive items as toys and work clothing. The lumber group reported 1.9 percent fewer employees.

Wholesale-trade employment showed virtually no change over the month (a decrease of 0.2 percent), all of the major groups having reported employment reductions except the automotive group (an increase of 1.6 percent) and the machinery, equipment, and supplies group (an increase of 1.2 percent). Over the year interval declines were quite large for all of the major wholesale groups, the largest being in the automotive group (18.6 percent) and the dry goods and apparel group (10.4 percent) and the smallest in machinery, equipment, and supplies (2.2 percent). Wholesale trade as a whole reported an employment decline of 7.6 percent over the year interval.

A preliminary report of the Interstate Commerce Commission for class 1 steam railroads showed that employment increased by 0.2 percent between November and December to reach a total of 1,320,910 in December. Corresponding pay rolls for December were not available when this report was prepared. For November they were $252,241,938, a decrease of $13,979,593 since October. This decrease resulted partly from the fact that the November pay roll covered only 30 days as against 31 for October.

Employment and pay-roll indexes and average weekly earnings for November and December 1942 and December 1941 are given in table 2 for all manufacturing industries combined, for selected nonmanufacturing industries, for water transportation, and for class I steam railroads.

TABLE 2.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries*

[Preliminary figures]

Industry	Employment index			Pay-roll index			Average weekly earnings		
	Dec. 1942	Nov. 1942	Dec. 1941	Dec. 1942	Nov. 1942	Dec. 1941	Dec. 1942	Nov. 1942	Dec. 1941
	(1939=100)			(1939=100)					
All manufacturing industries combined [1]	159.0	156.6	138.3	278.9	270.6	191.0	$40.38	$39.78	$31.79
	(1935–39=100)								
Class I steam railroads [2]	129.4	129.1	116.2	[3]	[3]	[3]	[3]	[3]	[3]
	(1929=100)			(1929=100)					
Coal mining:									
Anthracite	45.7	46.2	49.1	50.1	49.2	35.9	36.11	35.05	24.05
Bituminous	88.6	89.3	95.5	129.5	123.9	119.9	38.70	36.71	33.38
Metalliferous mining	79.6	79.1	80.2	104.8	104.1	93.7	41.17	41.16	36.76
Quarrying and nonmetallic mining	46.4	48.5	50.9	60.4	66.4	55.8	32.31	33.98	27.74
Crude-petroleum production	54.7	55.0	61.1	63.8	62.6	64.6	42.82	41.74	38.92
Public utilities:									
Telephone and telegraph	92.6	93.1	90.0	128.0	129.0	122.9	33.82	33.90	33.39
Electric light and power	80.3	81.3	93.1	108.6	109.4	115.2	40.79	41.14	37.73
Street railways and busses	77.6	75.9	70.6	102.2	97.8	80.0	43.02	42.05	36.94
Trade:									
Wholesale	89.1	89.3	96.3	95.8	96.3	92.8	37.28	37.41	33.69
Retail	106.2	96.8	113.0	107.5	99.2	107.8	22.88	23.20	21.59
Hotels (year-round) [4]	95.1	95.3	95.3	105.9	103.9	93.3	18.98	18.56	16.79
Laundries	113.3	114.2	108.4	120.2	118.5	102.6	22.36	21.86	19.59
Dyeing and cleaning	115.5	119.7	113.3	104.2	107.9	88.6	25.51	25.48	21.69
Brokerage [5]	+1.0	−1.1	−23.0	+3.0	+.3	−17.3	43.86	43.03	41.09
Insurance [5]	−.5	−1.3	−5.5	+1.2	+.4	+1.4	39.31	38.91	38.33
Building construction [5]	−7.3	−4.5	−32.2	−6.3	−3.6	−15.5	46.25	45.90	37.73
Water transportation [6]	80.9	80.8	77.5	0	+10.7	+70.3	[3]	[3]	[3]

[1] Employment and pay-roll indexes for manufacturing are now based on 1939 average as 100 and are adjusted to 1940 and 1941 data supplied by Bureau of Employment Security. Not comparable with indexes published in issues of Monthly Labor Review dated earlier than January 1943.

[2] Preliminary; source—Interstate Commerce Commission.

[3] Not available.

[4] Cash payments only; the additional value of board, room, and tips cannot be computed.

[5] Indexes of employment and pay rolls not available. Percentage changes from November 1942 to December 1942, October to November 1942 and December 1941 to December 1942 substituted.

[6] Based on estimates prepared by the U. S. Maritime Commission covering steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trades only. Pay-roll indexes on 1929 base not available. Percentage changes from November to December 1942, October to November 1942, and December 1941 to December 1942 substituted.

Public Employment

Civilian employment in the executive branch of the Federal Government aggregated 2,924,000 in December. This represented an addition since November of 162,000 workers. Approximately 111,000 were added in the War and Navy Departments and other war agencies,[1] and 69,000 were temporarily employed by the Post Office Department to handle the heavy holiday mails.

[1] Other war agencies include OEM, OPA, Office of Censorship, Board of Economic Warfare, Office of Strategic Services, War Manpower Commission, Maritime Commission, National Advisory Committee for Aeronautics, and the Panama Canal.

Over the past year, Federal executive-service employment showed an increase of 1,252,000 which was distributed as follows: War Department, 825,000; Navy Department, 257,000; other war agencies (including Federal Security Agency employees who were transferred to the War Manpower Commission in December 1942) 145,000, and nonwar agencies 25,000.

Reductions in December 1942 in personnel of the NYA, WPA, and CCC programs were 7,300, 26,100, and 700, respectively, leaving aggregate personnel on the NYA of 158,000 and on the other two programs of 338,000. In December 1941, workers on the NYA program totaled 623,000 and on the work-relief programs 1,206,000.

The decline during December 1942 of 24,200 workers on construction and shipbuilding projects financed by the Federal Government resulted partially from the completion of several airport and nonresidential building projects, and partially from seasonal declines on road and reclamation projects. Gains reported during the month on new ship construction and air-corps station construction projects were not great enough to completely offset these declines.

During the past year of war, employment on construction and shipbuilding projects increased 1,056,000. From the level of 1,068,000

TABLE 3.—*Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially from Federal Funds*

[Subject to revision]

Service or program	Employment			Pay rolls		
	December 1942	November 1942	December 1941	December 1942	November 1942	December 1941
Federal services:						
Executive [1]	2,923,874	2,761,621	1,671,689	$475,021,102	$463,187,737	$270,430,735
Judicial	2,636	2,617	2,593	710,948	675,370	656,938
Legislative	6,406	6,320	6,290	1,434,978	1,379,556	1,373,715
Construction projects:						
Financed from regular Federal appropriations [2]	1,956,193	1,966,738	980,355	400,798,555	403,817,576	164,398,318
War	1,871,886	1,876,626	862,754	385,655,781	387,460,650	147,524,464
Other	84,307	90,112	117,601	15,142,774	16,356,926	16,873,854
Public housing [3]	65,337	71,062	68,943	10,174,792	11,441,663	9,642,439
War public works	9,383	9,746	666	1,291,058	1,269,986	51,149
Financed by RFC [4]	93,585	101,164	15,809	19,902,524	18,932,123	2,877,769
War	92,498	99,343	14,175	19,721,207	18,619,994	2,629,608
Other	1,087	1,821	1,634	181,317	312,129	248,161
Other programs:						
National Youth Administration [5]	158,349	165,569	623,262	2,919,017	3,062,370	9,230,384
Student work program	77,096	80,295	335,119	626,910	699,633	2,301,493
War production training program [6]	81,253	85,274	288,143	2,292,107	2,362,737	6,928,891
Work Projects Administration projects	336,934	363,005	1,053,095	22,971,789	23,144,330	69,769,684
War	106,562	115,272	322,406	(7)	(7)	20,763,347
Other	230,372	247,733	730,689	(7)	(7)	49,006,337
Civilian Conservation Corps	1,028	1,650	152,748	165,851	296,680	7,484,630

[1] Includes force-account employees also included under construction projects, and supervisory and technical employees included under NYA, WPA, and CCC.

[2] Includes new Federal ship construction.

[3] Includes all Federal housing projects, including those formerly under the United States Housing Authority.

[4] Includes employees and pay roll of the RFC Mortgage Co.

[5] Beginning July 1942 the National Youth Administration was considered a training program for war work, rather than a work-relief program. Value of maintenance is included in the pay-roll data for December 1941 but excluded from November and December 1942.

[6] Called the out-of-school work program prior to July 1942.

[7] Break-down not available.

in December 1941, employment rose rapidly during the spring and summer of 1942 until in August a peak of 2,229,000 workers was reached. From that point employment tapered off only gradually to a level of 2,124,000 in December. Most of the declines were the result of the completion of projects rather than of seasonal influences. War project employment constituted 89 percent of the total in December 1941 and 96 percent in December 1942.

For the regular Federal services, data for the legislative, judicial, and force-account employees are reported to the Bureau of Labor Statistics by the respective offices; for the executive-service employees, data are reported through the Civil Service Commission. The Bureau of Labor Statistics receives monthly reports on employment and pay rolls for the various construction projects financed wholly or partially by Federal funds directly from the contractors and subcontractors, and for the NYA, WPA, and CCC programs from the respective agencies.

DETAILED REPORTS FOR INDUSTRIAL AND BUSINESS EMPLOYMENT, NOVEMBER 1942

Estimates of Nonagricultural Employment

ESTIMATES of civil employees in nonagricultural establishments by major groups are given in table 1. With the exception of the trade and finance-service-miscellaneous groups, they are not comparable with estimates published in the September 1942 or prior issues of the Monthly Labor Review. Revisions, however, for the years 1929 to 1939 are contemplated, and comparable figures for the months from January 1939 to July 1942 were given in the October 1942 issue of the Monthly Labor Review.

The estimates are based on reports of employers to the United States Bureau of Labor Statistics, on data made available by the Bureau of Employment Security of the Social Security Board and the Bureau of Old Age and Survivor's Insurance, and on information supplied by

TABLE 1.—*Estimates of Employment in Nonagricultural Establishments, by Industry Divisions* [1]

[In thousands]

Industry division	November 1942 (preliminary)	October 1942	Change, October to November 1942	November 1941	Change, November 1941 to November 1942
Total [2]	38,437	38,478	−41	35,926	+2,511
Manufacturing	15,436	15,313	+123	13,563	+1,873
Mining	893	902	−9	980	−87
Contract construction and Federal force-account construction	1,810	2,028	−218	2,091	−281
Transportation and public utilities	3,517	3,539	−22	3,382	+135
Trade	6,773	6,697	+76	7,146	−373
Finance, service, and miscellaneous	4,295	4,327	−32	4,229	+66
Federal, State, and local government (civil employees)	5,713	5,672	+41	4,535	+1,178

[1] Comparable series January 1939 to July 1942 in October 1942 Monthly Labor Review.
[2] Estimates exclude proprietors of unincorporated businesses, self-employed persons, domestics employed in private homes, public emergency employees (WPA, NYA, and CCC), and personnel in the armed forces.

other Government agencies, such as the Interstate Commerce Commission, Civil Service Commission, and the Bureau of the Census. They do not include military personnel, emergency employment (such as WPA, NYA, and CCC), proprietors, self-employed persons, unpaid family workers, and domestics.

Estimates of employees in nonagricultural establishments, by States, are given each month in the Bureau of Labor Statistics' mimeographed release on employment and pay rolls.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 152 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission.

The employment, pay roll, hours, and earnings figures for manufacturing, mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, brokerage, insurance, and hotels relate to all employees except corporation officers and executives, while for trade they relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance, to approximately 80 percent for public utilities and 90 percent for mining.

The general manufacturing indexes are computed from reports supplied by representative establishments in 152 manufacturing industries surveyed. These reports cover more than 65 percent of the total wage earners in all manufacturing industries of the country and about 80 percent of the wage earners in the 152 industries covered.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the pay period ending nearest the 15th of the month.

The average weekly earnings for individual industries shown in table 3 are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply information on man-hours, the average hours worked per week and average hourly earnings shown in that table are necessarily based on data furnished by a slightly smaller number of reporting firms. Because of variation in the size and composition of the reporting sample, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and

hours over the period shown. The average weekly hours and hourly earnings for the manufacturing groups are weighted arithmetic means of the averages for the individual industries, estimated employment being used to weight weekly hours and estimated aggregate hours to weight hourly earnings. The average weekly earnings for these groups are now computed by multiplying the average weekly hours by the corresponding average hourly earnings and are not comparable with figures published in the November 1942 or earlier issues of the Monthly Labor Review, which were computed by dividing total weekly pay roll by total employment without any formal weighting of figures for the component industries.

EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND EARNINGS

Employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for September, October, and November 1942, where available, are presented in tables 2 and 3.

In table 4 indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for each of 13 nonmanufacturing industries, by months, from November 1941 to November 1942. The chart on page 399 indicates the trend of factory employment and pay rolls from January 1919 to November 1942.

The revised manufacturing indexes and aggregates in tables 2 and 4 are not comparable with the indexes published in the November 1942 or earlier issues of the Monthly Labor Review, because of changes in definitions, a change in the index base period, and adjustments in levels. Revised figures for the major manufacturing groups are available in mimeographed form by months from January 1939 through October 1942 and for individual manufacturing industries from January 1939 through August 1942.

The figures relating to all manufacturing industries combined, to the durable- and nondurable-goods divisions, and to the major industry groups, have been adjusted to conform to levels indicated by final 1940 and preliminary 1941 data released by the Bureau of Employment Security of the Federal Security Agency. The Bureau of Employment Security data referred to are (a) employment totals reported by employers under State unemployment-compensation programs, and (b) estimates of the number of employees not reported under the programs of some of these States, which do not cover small establishments. The latter estimates were obtained from tabulations prepared by the Bureau of Old Age and Survivors' Insurance, which obtains reports from all employers regardless of size of establishment.

Data relating to individual manufacturing industries have been adjusted from 1937 to date to conform to levels of the 1939 Census of Manufactures. Not all industries in each census group are represented in the tables, since minor industries are not canvassed by the Bureau, and others cannot be shown because of their close relationship to the war program. Furthermore, no attempt has been made to allocate among the separate industries the adjustment to unemployment-compensation data. Hence, the estimates for individual industries within a group will not in general add to the total estimate for that group.

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TABLE 2.—*Employment and Pay Rolls in Specified Months*[1]

[Manufacturing indexes are based on 1939 average as 100. For the individual industries they have been adjusted to the 1939 Census of Manufactures and for the groups to final 1940 and preliminary 1941 Bureau of Employment Security figures. Comparable series for earlier months available on request]

MANUFACTURING

Industry	Estimated number of employees, November 1942[2]	Indexes[2] of—					
		Employment			Pay rolls		
		Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942
	Thousands						
All manufacturing	12,827	156.6	155.5	154.6	270.6	261.3	252.6
Durable goods	7,281	201.6	198.2	194.2	366.6	350.6	337.2
Nondurable goods	5,546	121.1	121.8	123.3	176.6	174.0	169.8
Durable goods							
Iron and steel and their products	1,644	165.8	165.1	163.8	270.2	264.5	255.8
Blast furnaces, steel works, and rolling mills[3]	517	133.0	135.2	137.0	203.7	200.7	199.7
Steel castings[3]	81	268.3	265.1	260.5	443.2	434.7	419.8
Cast-iron pipe and fittings	20	121.9	121.7	121.7	205.7	204.0	191.5
Tin cans and other tinware	29	90.5	98.8	110.6	127.9	139.4	148.9
Wire drawn from purchased rods	34	156.0	154.0	150.4	227.3	221.3	212.7
Wirework	31	103.7	103.5	101.7	178.4	172.5	165.2
Cutlery and edge tools	21	133.9	131.3	130.6	252.4	242.3	224.2
Tools (except edge tools, machine tools, files, and saws)	27	173.6	173.4	173.3	307.2	303.4	289.8
Hardware	42	117.0	118.5	118.8	210.8	209.9	194.6
Plumbers' supplies	21	85.8	82.2	79.5	132.7	126.1	113.7
Stoves, oil burners, and heating equipment, n. e. c.	51	110.1	106.9	98.8	170.1	167.2	143.6
Steam and hot-water heating apparatus and steam fittings	56	183.4	178.6	171.4	319.3	307.5	298.3
Stamped and enameled ware and galvanizing	75	135.7	134.9	134.5	231.4	227.2	208.9
Fabricated structural and ornamental metalwork	68	190.4	189.6	182.9	313.9	317.5	296.7
Metal doors, sash, frames, molding, and trim	11	140.1	138.2	132.1	227.1	215.9	212.8
Bolts, nuts, washers, and rivets	26	184.7	181.4	177.7	295.0	305.4	291.6
Forgings, iron and steel	38	246.6	243.6	236.4	442.3	431.2	390.1
Wrought pipes, welded and heavy riveted	21	255.4	239.5	222.9	460.7	431.1	420.6
Screw-machine products and wood screws	48	285.7	283.1	277.3	506.6	489.7	462.2
Steel barrels, kegs, and drums	7	110.6	114.1	114.2	183.9	180.7	169.1
Electrical machinery	613	236.4	229.0	220.3	392.5	372.4	358.9
Machinery, except electrical	1,137	215.1	211.6	207.4	371.5	361.7	343.0
Machinery and machine-shop products	457	226.0	222.0	217.5	381.9	371.5	354.8
Tractors[4]	47	150.8	148.9	144.6	211.9	212.6	198.4
Agricultural machinery, excluding tractors[4]	30	106.2	115.2	114.1	171.6	186.9	163.5
Textile machinery	29	133.7	131.2	133.3	219.0	222.6	218.7
Pumps and pumping equipment	69	284.7	281.2	280.3	556.3	531.3	510.8
Typewriters	11	68.3	73.3	75.3	120.4	130.9	124.9
Cash registers, adding and calculating machines	31	159.9	151.8	145.8	279.5	260.1	255.9
Washing machines, wringers, and driers, domestic	11	141.6	137.8	127.0	217.4	213.3	190.3
Sewing machines, domestic and industrial	11	140.6	135.5	132.0	264.3	259.8	236.4
Refrigerators and refrigeration equipment	43	123.4	115.4	107.3	190.8	176.1	157.1
Transportation equipment, except automobiles	1,839	1158.3	1113.7	1062.9	2207.9	2037.5	1976.8
Motorcycles, bicycles, and parts	9	129.8	131.7	135.5	219.9	216.2	213.4
Automobiles	492	122.2	118.8	114.8	212.2	192.4	183.3
Nonferrous metals and their products	376	163.8	162.0	161.5	275.8	267.4	259.1
Primary smelting and refining	37	133.6	131.8	130.7	218.6	197.1	189.7
Clocks and watches	26	127.5	127.4	128.1	231.2	228.3	222.8
Jewelry (precious metals) and jewelers' findings	17	115.4	113.2	115.0	170.0	160.4	155.2
Silverware and plated ware	12	94.8	94.6	96.0	148.1	145.2	138.5
Lighting equipment	21	104.1	103.8	102.8	180.6	164.6	158.5
Sheet-metal work	29	154.3	149.5	149.7	251.2	238.9	217.2
Lumber and timber basic products	476	113.2	115.1	117.5	170.6	179.4	173.9
Sawmills	290	100.6	102.5	105.0	152.8	163.0	158.4
Planing and plywood mills	87	120.3	121.4	122.8	173.4	174.8	168.1
Furniture and finished lumber products	350	106.6	108.3	108.0	159.1	162.1	152.4
Mattresses and bedsprings	16	86.7	85.4	84.7	118.8	116.6	104.6
Furniture	168	105.8	108.3	107.2	158.2	164.5	154.1

See footnotes at end of table.

TABLE 2.—*Employment and Pay Rolls in Specified Months*[1]—Continued

MANUFACTURING—Continued

Industry	Estimated number of employees, November 1942 [2]	Indexes [2] of— Employment			Pay rolls		
		Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942
Durable goods—Continued							
Furniture and finished products—Continued.	*Thousands*						
Wooden boxes, other than cigar	32	125.2	126.5	128.3	199.3	197.4	190.4
Caskets and other morticians' goods	12	95.7	95.2	93.4	140.6	130.4	113.8
Wood preserving	12	104.1	107.1	111.6	169.8	171.5	177.9
Wood, turned and shaped	23	105.9	105.0	107.1	160.6	157.1	150.4
Stone, clay, and glass products	354	120.7	120.7	121.2	172.7	172.3	162.3
Glass	82	117.3	117.0	118.9	161.1	163.8	147.1
Glass products made from purchased glass	12	117.9	116.6	113.8	163.4	157.3	141.7
Cement	29	123.4	124.0	127.3	169.3	167.3	168.7
Brick, tile, and terra cotta	60	105.9	108.7	111.4	152.0	154.7	152.0
Pottery and related products	46	138.1	137.3	134.0	187.8	183.8	172.5
Gypsum	54	94.2	93.3	92.7	144.9	144.8	131.5
Wallboard and plaster (except gypsum) and mineral wool	11	139.6	134.3	134.3	208.2	201.7	184.4
Lime	10	104.2	107.1	109.3	165.6	164.0	163.1
Marble, granite, slate, and other products*	14	73.0	73.7	73.7	88.3	90.8	85.2
Abrasive wheels	20	254.8	238.0	228.3	382.6	365.3	338.6
Asbestos products	22	135.9	135.8	134.5	228.1	226.1	218.1
Nondurable goods							
Textiles and finished textile products	2,083	107.8	108.4	108.5	160.0	160.2	153.0
Textile-mill products and other fiber manufactures	1,257	109.9	109.7	109.5	172.7	170.3	164.2
Cotton manufactures, except small wares	506	127.7	127.7	127.7	212.8	210.6	208.2
Cotton small wares	18	133.7	134.7	133.9	219.3	227.5	216.1
Silk and rayon goods	99	82.7	83.2	81.9	131.3	130.8	126.5
Woolen and worsted manufactures, except dyeing and finishing	176	118.1	118.7	120.3	201.0	198.2	196.3
Hosiery	124	78.1	77.9	77.6	104.6	103.2	93.2
Knitted cloth	12	107.0	107.3	107.8	157.6	152.9	145.7
Knitted outerwear and knitted gloves	31	109.8	107.5	105.9	164.4	158.6	139.1
Knitted underwear	45	115.8	116.1	115.4	179.2	177.0	158.8
Dyeing and finishing textiles, including woolen and worsted	71	106.5	104.7	102.8	157.9	153.1	142.6
Carpets and rugs, wool	23	91.2	90.8	89.8	138.5	137.7	130.7
Hats, fur-felt	10	65.6	61.3	61.3	97.9	83.0	70.2
Jute goods (except felts)	4	112.4	109.3	104.3	193.0	182.2	167.5
Cordage and twine	16	133.9	131.7	132.3	206.9	202.2	194.6
Apparel and other finished textile products	826	104.6	106.6	107.0	142.1	146.1	137.2
Men's clothing	235	107.6	111.0	112.5	144.7	148.4	142.5
Shirts, collars, and nightwear	66	93.3	93.8	94.4	142.8	141.9	130.4
Underwear and neckwear	13	83.2	85.8	84.5	123.2	125.4	115.2
Work shirts	19	137.6	139.6	140.0	222.0	222.2	214.2
Women's clothing*	248	91.4	92.5	92.1	123.1	127.1	115.8
Corsets and allied garments	18	94.5	93.2	91.9	134.4	128.6	116.5
Millinery	17	71.6	85.5	91.6	75.7	103.3	120.7
Handkerchiefs	4	87.9	87.0	89.6	135.3	131.2	121.9
Curtains, draperies, and bedspreads	18	104.8	99.5	97.4	156.0	149.5	135.4
Housefurnishings, other than curtains, etc	16	152.0	151.3	146.6	232.8	229.0	214.1
Textile bags	16	134.5	129.2	127.1	188.1	181.7	164.7
Leather and leather products	357	103.0	101.2	101.1	150.8	146.7	143.2
Leather	49	103.8	102.4	102.2	152.7	145.8	137.7
Boot and shoe cut stock and findings	19	99.1	96.4	95.1	138.0	133.7	126.5
Boots and shoes	204	93.4	91.3	91.7	137.4	134.5	134.9
Leather gloves and mittens	14	140.8	144.6	144.2	196.5	199.4	177.0
Trunks and suitcases	17	199.6	201.8	193.1	275.5	260.6	227.9
Food and kindred products	1,063	124.4	131.7	145.1	164.3	168.4	177.4
Slaughtering and meat packing	176	145.8	144.6	147.3	181.3	176.8	173.0
Butter	22	120.2	120.0	124.5	161.7	159.0	158.7
Condensed and evaporated milk	12	126.0	134.7	140.1	167.7	180.3	186.3
Ice cream	15	95.5	102.1	110.2	118.1	123.6	131.6
Flour	26	104.9	104.5	103.7	148.4	149.6	137.8
Feeds, prepared	21	136.0	133.6	127.5	204.2	195.3	182.5
Cereal preparations	10	130.4	131.7	118.9	186.0	183.0	149.2
Baking	263	114.1	114.7	113.6	144.0	143.5	140.7
Sugar refining, cane	12	87.6	81.4	85.6	109.7	95.1	119.8

See footnotes at end of table.

TABLE 2.—*Employment and Pay Rolls in Specified Months*[1]—Continued

MANUFACTURING—Continued

Industry	Estimated number of employees, November 1942[2]	Indexes[3] of— Employment			Pay rolls		
		Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942
Nondurable goods—Continued							
Food and kindred products—Continued.	*Thousands*						
Sugar, beet	26	253.4	239.2	94.6	380.7	293.8	118.9
Confectionery	65	130.3	129.5	121.5	182.4	178.0	155.4
Beverages, nonalcoholic[5]	24	113.9	116.6	121.2	127.8	133.3	137.6
Malt liquors[5*]	42	115.5	120.1	123.3	137.4	143.5	152.9
Canning and preserving	140	103.9	146.4	239.7	163.9	228.7	373.4
Tobacco manufactures	100	106.7	106.4	105.2	157.6	153.7	144.1
Cigarettes[6]	35	128.9	126.0	123.3	179.1	171.8	167.3
Cigars[6]	49	96.7	98.0	98.5	146.2	145.2	131.9
Chewing and smoking tobacco and snuff	9	94.4	93.5	87.4	135.3	129.8	120.4
Paper and allied products	299	112.6	111.1	109.9	160.5	156.0	144.3
Paper and pulp	150	109.3	109.5	109.7	161.1	158.9	148.5
Paper goods	47	124.2	119.9	117.5	164.7	156.0	142.7
Envelopes	10	113.3	109.6	109.1	146.5	138.1	131.9
Paper bags	12	106.8	105.9	107.5	156.1	151.4	146.5
Paper boxes	77	110.7	107.4	103.5	154.2	146.9	131.8
Printing, publishing, and allied industries	331	100.8	98.9	96.6	119.7	114.0	109.0
Newspapers and periodicals	117	98.5	98.1	97.4	111.3	109.4	107.8
Book and job	133	104.9	101.8	97.5	126.9	119.2	110.3
Lithographing	24	94.0	92.0	88.7	114.1	103.4	98.3
Bookbinding	27	106.2	103.2	104.0	154.1	139.9	134.8
Chemicals and allied products	684	237.4	230.5	222.4	360.8	347.0	334.5
Paints, varnishes, and colors	29	103.6	102.6	102.5	135.0	130.9	128.8
Drugs, medicines, and insecticides	41	148.9	141.5	139.1	189.9	183.7	172.9
Perfumes and cosmetics	11	101.4	101.0	101.7	128.9	125.6	120.7
Soaps	14	101.7	103.1	102.5	133.9	134.3	133.2
Rayon and allied products	51	105.1	106.9	106.6	141.2	144.7	146.2
Chemicals	111	159.5	158.9	159.2	235.9	230.6	222.1
Compressed and liquefied gases	6	158.4	160.7	161.9	229.8	231.2	229.3
Cottonseed oil	23	148.7	151.3	126.5	234.6	237.2	179.3
Fertilizers	20	103.9	102.6	103.0	163.8	164.1	164.6
Products of petroleum and coal	123	116.4	117.9	119.4	163.3	158.9	158.6
Petroleum refining	78	107.0	108.4	110.3	150.6	145.7	144.3
Coke and byproducts	26	120.1	122.8	124.7	162.9	160.4	170.7
Paving materials	2	77.3	82.3	74.1	123.2	131.6	113.0
Roofing materials	11	132.1	128.8	127.9	204.8	201.9	186.5
Rubber products	168	138.9	135.2	130.7	206.3	195.1	183.5
Rubber tires and inner tubes	77	141.5	136.7	130.5	203.2	190.0	178.6
Rubber boots and shoes	21	141.3	136.1	138.0	226.4	208.8	206.4
Rubber goods, other	68	130.9	129.0	124.6	196.9	191.3	177.1
Miscellaneous industries	338	138.1	137.2	134.4	225.4	215.1	207.0
Photographic apparatus	26	147.8	144.5	141.0	222.5	209.4	199.9
Pianos, organs, and parts	8	100.0	91.4	82.0	166.8	151.5	128.7
Games, toys, and dolls	15	80.0	75.5	80.0	128.9	119.8	113.8
Buttons	12	109.9	111.9	115.0	174.3	172.9	175.4

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Coal mining:							
Anthracite[7 8]	(9)	46.2	46.2	46.6	49.2	48.3	50.1
Bituminous[7]	(9)	89.3	90.6	91.6	123.9	124.8	122.2
Metalliferous mining[10]	(9)	79.1	77.7	78.6	104.1	99.8	99.1
Quarrying and nonmetallic mining	(9)	48.5	50.0	50.7	66.4	68.9	67.5
Crude-petroleum production[11]	(9)	55.0	55.5	55.9	62.6	64.1	64.9
Public utilities:							
Telephone and telegraph[12]	(9)	93.1	93.3	93.6	129.0	128.4	130.5
Electric light and power[12]	(9)	81.3	82.6	84.2	109.4	111.1	112.5
Street railways and busses[12 13]	(9)	75.9	75.9	75.7	97.8	95.3	93.6
Trade:							
Wholesale[14]	(9)	89.3	90.0	89.4	96.3	94.6	92.3
Food products[15]	(9)	−.5	−.9	−1.8	+.8	+.8	−.4

See footnotes at end of table.

TABLE 2.—*Employment and Pay Rolls in Specified Months*[1]—Continued

MANUFACTURING—Continued

Industry	Estimated number of employees, November 1942[2]	Indexes[2] of— Employment			Pay rolls		
		Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942
Trade—Continued.							
Wholesale—Continued.							
Groceries and food specialties[15]	(9)	−1.1	+0.3	+0.3	+0.8	+3.6	+1.9
Dry goods and apparel[15]	(9)	−.1	−.1	−1.1	+1.1	+2.2	+.4
Machinery, equipment and supplies[15]	(9)	−.6	−.7	−1.3	+2.7	+1.4	−.7
Farm products[15]	(9)	−12.0	+21.2	+5.0	−11.3	+14.9	+7.8
Petroleum and petroleum products (includes bulk tank stations)[15]	(9)	−.8	−.5	−1.8	+3.6	−.8	+2.7
Automotive[15]	(9)	−1.0	−.3	−3.0	+.4	+2.3	−1.4
Retail[12]	(9)	96.8	94.6	91.7	99.2	96.4	93.1
Food[12]	(9)	113.9	114.5	112.1	119.9	119.5	117.9
General merchandising[12]	(9)	131.8	121.1	112.0	130.8	121.6	112.4
Apparel[12]	(9)	97.9	96.5	91.6	101.8	98.7	93.0
Furniture and housefurnishings[12]	(9)	58.9	58.9	59.4	64.3	63.6	62.5
Automotive[12]	(9)	51.1	51.3	51.9	59.3	57.8	56.6
Lumber and building materials[12]	(9)	67.5	69.3	69.0	80.8	82.2	80.4
Hotels (year-round)[7 16]	(9)	95.3	95.6	93.9	103.9	103.2	98.5
Laundries[7]	(9)	114.2	115.9	116.4	118.5	118.9	117.3
Dyeing and cleaning[7]	(9)	119.7	124.8	123.0	107.9	112.5	107.9
Brokerage[15]	(9)	−1.1	−1.3	−3.8	+.3	+2.4	−1.1
Insurance[15]	(9)	−1.3	−1.2	−1.4	+.4	+.4	−1.8
Building construction[13]	(9)	−4.5	−1.4	−3.9	−3.6	−.9	−.1
Water transportation[17]	(9)	80.8	74.6	71.4	+10.7	+7.3	+10.2
Class I steam railroads[18]	(9)	129.1	129.5	129.6	(9)	(9)	(9)

[1] Data for manufacturing, mining, laundries, and dyeing and cleaning, cover wage earners only; for crude-petroleum production they cover wage earners and clerical field force; for public utilities, brokerage, insurance, and hotels, they relate to all employees except corporation officers and executives; and for trade, to all employees except corporation officers, executives, and strictly supervisory personnel.

[2] The indexes for the manufacturing industries are computed from aggregates of at least 3 significant figures. Information concerning the following war industries is not published but may be obtained by authorized agencies upon request: Aircraft engines; Aircraft and parts, excluding engines; Alloying, rolling, and drawing of nonferrous metals except aluminum; Aluminum manufacturers; Ammunition; Cars, electric- and steam-railroad; Communication equipment; Electrical equipment, other; Radios; Engines and turbines; Explosives and safety fuses; Fire extinguishers; Firearms; Fireworks; Locomotives; Machine tool accessories; Machine tools; Optical instruments and ophthalmic goods; Professional and scientific instruments; and Shipbuilding.

[3] New subdivisions: "Blast furnaces, steel works, and rolling mills" and "steel castings" were formerly shown as one industry under the heading, "blast furnaces, steel works, and rolling mills."

[4] New subdivisions: "Agricultural machinery" and "tractors" were formerly shown as one industry under the heading, "agricultural implements including tractors."

[5] New subdivisions: "Beverages, nonalcoholic" and "malt liquors" were formerly shown as one industry under the heading, "beverages."

[6] New subdivisions: "Cigarettes" and "cigars" were formerly shown as one industry under the heading, "cigars and cigarettes."

[7] Indexes adjusted to 1935 Census. Comparable series back to January 1929 presented in January 1938 issue of "Employment and Pay Rolls" pamphlet.

[8] See table 7 of October 1940 "Employment and Pay Rolls" for revised figures for anthracite mining, February 1940 to September 1940, inclusive.

[9] Not available.

[10] See table 7 of February 1941 pamphlet for revised figures for metalliferous and bituminous coal mining from January 1938 to January 1941, inclusive.

[11] Does not include well drilling or rig building.

[12] Retail-trade indexes adjusted to 1935 Census and public-utility indexes to 1937 Census. Not comparable to indexes published in pamphlets prior to January 1940 or in the Monthly Labor Review prior to April 1940, with but one exception, retail furniture, which has been revised since publication of July 1940 pamphlet, back to January 1936. Comparable series for earlier months available upon request.

[13] Covers street-railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

[14] Indexes adjusted to 1933 Census. Comparable series in November 1934 and subsequent issues of "Employment and Pay Rolls."

[15] Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

[16] Cash payments only; additional value of board, room, and tips cannot be computed.

[17] Based on estimates prepared by the United States Maritime Commission covering employment on steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trades only. Pay-roll indexes on 1929 basis not available. Percentage changes from preceding month substituted.

[18] Preliminary. Source—Interstate Commerce Commission.

*Revisions in the following industries have been made as indicated:

Marble—August pay-roll index to 85.9.

Women's clothing—August employment index and pay-roll index to 92.9 and 119.6.

Malt liquors—August pay-roll index to 150.4.

TABLE 3.—*Hours and Earnings in Specified Months*

MANUFACTURING

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942
							Cents	*Cents*	*Cents*
All manufacturing	$39.78	$38.89	$37.80	44.0	43.6	42.4	89.9	88.7	88.6
Durable goods	46.27	45.31	44.45	46.0	45.7	44.6	100.3	98.8	99.5
Nondurable goods	31.25	30.66	29.53	41.1	40.6	39.5	76.3	75.7	75.0
Durable goods									
Iron and steel and their products	44.16	43.43	42.30	43.9	43.4	42.1	100.0	99.4	99.7
Blast furnaces, steel works, and rolling mills [2]	45.63	43.87	43.21	42.0	41.0	39.9	107.8	107.1	107.9
Steel castings [2 3]	46.08	45.45	44.64	46.2	45.7	45.5	99.2	99.4	98.1
Cast-iron pipe and fittings	36.48	36.24	34.02	44.8	44.2	42.8	81.2	81.7	78.9
Tin cans and other tinware	33.12	33.09	31.50	41.6	41.9	40.8	79.7	79.3	77.6
Wirework	42.45	41.25	40.12	47.0	46.1	45.0	90.5	89.6	89.2
Cutlery and edge tools	40.33	39.44	36.69	47.5	46.6	44.8	85.6	85.3	82.5
Tools (except edge tools, machine tools, files, and saws)	42.74	42.33	40.47	48.0	48.1	46.5	89.0	88.1	87.0
Hardware [4]	39.18	38.40	35.43	47.2	46.5	43.6	83.0	82.6	81.0
Plumbers' supplies	40.00	39.57	36.73	45.5	45.2	42.5	87.9	87.5	86.4
Stoves, oil burners, and heating equipment	38.43	38.88	36.35	44.4	44.7	42.5	87.1	87.1	85.6
Steam and hot-water heating apparatus and steam fittings	45.19	44.70	45.11	47.8	47.6	46.3	94.7	94.0	97.5
Stamped and enameled ware and galvanizing	40.57	40.04	36.95	45.3	45.1	42.3	89.6	88.8	87.4
Fabricated structural and ornamental metalwork	45.44	46.43	44.92	46.8	47.6	46.5	97.6	97.6	96.6
Bolts, nuts, washers, and rivets	40.76	42.97	41.96	44.0	46.0	44.9	92.5	93.5	93.5
Forgings, iron and steel	54.09	53.09	49.56	47.9	48.1	45.6	112.4	110.5	108.8
Firearms	56.70	55.81	58.02	49.2	49.0	48.8	115.3	113.9	119.0
Electrical machinery	44.30	43.71	43.77	46.8	46.4	45.7	95.2	94.7	96.3
Electrical equipment [5]	46.41	45.23	45.30	47.4	47.0	46.4	97.9	97.0	98.3
Radios, and phonographs	38.53	38.25	37.28	46.2	46.1	44.9	83.0	83.0	83.0
Communication equipment [5]	39.98	40.29	41.25	46.1	45.9	45.2	86.8	87.9	91.5
Machinery, except electrical	49.64	49.34	47.68	48.7	48.6	47.2	102.4	101.7	101.3
Machinery and machine-shop products [4]	48.65	48.30	46.95	49.0	49.0	47.8	98.6	98.3	97.9
Engines and turbines, excluding aircraft engines [4]	56.25	55.36	53.33	49.5	49.6	47.7	113.1	111.9	112.3
Agricultural machinery, excluding tractors [6 7]	42.66	42.85	37.82	43.1	43.7	39.0	99.0	98.0	97.0
Tractors [7]	47.46	48.16	46.30	44.6	45.0	42.9	105.4	106.1	106.9
Machine tools	53.18	52.32	50.72	52.8	52.5	51.2	100.7	99.8	99.0
Textile machinery	42.39	43.90	42.41	48.3	50.3	49.4	87.4	87.4	85.9
Typewriters	42.31	42.88	39.87	48.1	49.1	45.1	88.0	87.4	88.5
Cash registers, adding and calculating machines	52.99	51.96	53.21	48.2	47.7	47.0	110.8	109.8	114.3
Automobiles	54.38	52.72	51.85	45.3	44.9	43.7	120.3	117.2	118.8
Transportation equipment, except automobiles	55.29	53.33	54.18	47.6	47.1	46.6	114.2	111.3	114.2
Locomotives [7]	59.17	56.49	53.57	48.6	48.4	47.7	119.6	116.6	112.3
Cars, electric- and steam-railroad	42.35	47.75	44.54	40.7	43.9	41.9	104.2	108.7	106.3
Aircraft and parts, excluding aircraft engines	46.44	45.77	46.55	46.6	46.3	46.3	99.4	99.1	101.1
Aircraft engines [4]	64.86	59.24	60.36	51.2	48.2	48.0	123.7	122.9	124.8
Shipbuilding and boatbuilding	60.75	57.53	58.60	48.0	47.6	47.0	126.3	120.8	124.7
Nonferrous metals and their products	43.99	43.31	42.15	46.2	45.6	44.3	98.0	97.9	97.9
Primary smelting and refining [8]	43.18	39.20	38.09	45.6	42.2	41.5	94.7	93.0	91.6
Alloying; and rolling and drawing (of nonferrous metals, except aluminum) [4]	48.03	48.82	49.03	45.7	46.5	45.7	105.2	105.1	107.7
Clocks and watches [8]	$37.37	$36.85	$35.82	45.9	45.6	44.5	81.2	80.9	80.5
Jewelry (precious metals) and jewelers' findings [4]	38.20	36.69	34.95	45.9	45.3	44.4	81.2	79.6	78.6
Silverware and plated ware	40.96	40.25	37.83	46.1	46.4	43.7	88.8	86.8	86.6
Lighting equipment	44.55	40.74	39.51	44.8	44.2	42.9	93.5	92.2	92.1
Aluminum manufactures	46.56	46.16	44.72	47.1	45.8	44.8	98.6	100.9	99.7
Lumber and timber basic products	28.56	29.52	28.01	41.7	42.5	41.0	68.5	69.4	68.2
Sawmills	27.43	28.69	27.22	40.9	42.0	40.6	67.0	68.4	67.1
Planing and plywood mills [8]	32.08	32.23	30.68	44.3	44.3	42.6	73.0	72.9	72.0
Furniture and finished lumber products	29.34	29.33	27.66	42.8	42.8	41.0	70.5	70.5	69.5
Furniture	30.05	30.50	28.90	43.1	43.3	41.5	70.3	70.7	70.0
Stone, clay, and glass products	33.57	33.52	31.44	40.0	39.8	37.9	82.1	82.3	81.0
Glass	34.73	35.40	31.28	39.7	39.9	36.7	87.8	88.9	85.4
Cement	36.51	35.91	35.29	42.4	41.7	40.6	86.0	86.1	87.0
Brick, tile, and terra cotta [8]	29.19	28.99	27.72	39.8	39.8	38.7	73.3	72.5	71.2
Pottery and related products	30.77	30.29	29.11	39.9	39.4	38.3	77.0	77.4	76.4
Marble, granite, slate, and other [3]	32.67	32.98	31.00	39.7	40.3	38.9	80.0	80.0	79.5
Asbestos products	39.44	39.33	39.08	46.3	46.0	44.2	87.3	87.2	88.4

See footnotes at end of table.

TABLE 3.—*Hours and Earnings in Specified Months*—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942
							Cents	*Cents*	*Cents*
Textiles and apparel and other finished products	$25.29	$25.21	$23.99	39.5	39.3	37.8	64.7	64.7	64.1
Textile-mill products and other fiber manufactures	26.16	25.84	24.96	40.8	40.4	39.4	64.4	64.2	63.6
Cotton manufactures, except small wares	23.62	23.39	23.12	41.0	40.6	40.2	57.7	57.6	57.5
Cotton small wares	30.56	31.46	29.97	43.6	44.4	42.7	70.4	71.1	70.4
Silk and rayon goods	25.46	25.31	24.69	41.1	40.9	40.4	61.9	61.5	61.1
Woolen and worsted manufactures, except dyeing and finishing	31.53	31.13	30.40	40.2	39.7	39.1	78.9	78.3	77.9
Hosiery	24.57	24.15	22.05	38.1	38.2	35.2	64.5	64.3	62.8
Knitted cloth [7]	29.04	28.30	26.80	42.9	41.6	39.6	68.5	68.2	68.0
Knitted outerwear and knitted gloves	24.52	24.16	21.60	40.0	39.3	36.4	61.5	61.0	58.8
Knitted underwear	23.06	22.76	20.57	40.5	40.0	37.8	56.2	56.0	54.5
Dyeing and finishing textiles, including woolen and worsted	30.47	30.32	28.91	43.5	43.1	41.6	71.0	70.9	69.4
Carpets and rugs, wool	34.77	34.69	33.30	42.0	42.2	40.7	83.0	82.5	82.0
Hats, fur-felt	34.26	31.10	26.19	38.5	36.2	30.0	90.0	86.3	87.9
Apparel and other finished textile products	23.96	24.17	22.54	36.8	36.8	34.7	65.4	65.9	65.2
Men's clothing	25.66	25.56	24.18	36.5	36.5	34.6	70.5	70.2	70.1
Shirts, collars, and nightwear [4]	20.90	20.65	18.88	38.1	37.6	35.2	55.0	54.9	53.8
Underwear and neckwear [4]	20.21	19.93	18.58	35.7	35.8	34.1	56.0	55.1	53.4
Women's clothing [3 7]	27.48	28.17	25.67	36.8	37.1	34.3	65.1	66.3	64.7
Corsets, and allied garments [7]	24.75	23.99	21.97	40.3	39.7	36.8	60.9	60.5	59.8
Millinery	25.71	29.38	32.02	29.6	32.3	33.9	75.5	76.4	80.3
Leather and leather products	27.79	27.58	25.78	39.0	38.9	36.6	71.5	71.0	70.5
Leather	36.03	34.89	33.09	42.2	41.5	39.6	85.5	84.2	83.7
Boots and shoes	25.97	26.03	25.93	37.9	38.1	35.9	68.3	68.3	67.7
Food and kindred products	31.84	30.97	29.91	42.7	41.9	42.0	76.3	75.7	72.8
Slaughtering and meat packing	34.52	34.02	32.62	42.0	41.4	40.1	82.3	82.1	81.3
Butter	29.70	29.25	28.01	47.7	47.3	46.7	61.7	61.7	59.9
Ice cream	34.07	33.34	32.91	46.5	46.0	46.2	71.5	70.9	69.6
Flour	35.92	36.36	33.79	46.7	47.5	44.9	77.1	76.9	75.5
Baking	32.32	31.90	31.72	43.2	43.1	43.4	74.6	74.1	73.3
Sugar refining, cane	30.00	28.01	33.55	40.5	36.5	37.4	74.1	76.8	80.5
Sugar, beet	37.67	30.90	31.61	51.8	42.2	36.9	72.8	73.0	85.7
Confectionery	25.80	25.30	23.59	41.9	41.4	39.2	61.7	61.4	60.3
Beverages, nonalcoholic [9]	28.52	29.05	28.87	41.9	42.8	43.2	70.6	70.7	69.7
Malt liquors [3 9]	41.57	41.69	43.41	40.8	40.8	41.9	102.2	102.5	103.7
Canning and preserving	25.18	24.93	24.88	37.5	37.6	41.1	68.5	67.7	62.2
Tobacco manufactures	24.91	24.32	23.02	40.8	40.4	38.6	60.5	59.6	59.1
Cigarettes [10]	29.00	28.46	28.31	41.6	41.3	40.7	69.9	68.9	69.6
Cigars [10]	21.74	21.34	19.27	40.2	40.1	37.2	54.3	53.5	51.9
Chewing and smoking tobacco and snuff	25.28	24.38	24.02	40.3	38.9	38.3	62.7	62.7	62.8
Paper and allied products	34.01	33.46	31.26	44.0	43.4	40.8	77.2	77.1	76.7
Paper and pulp	37.18	36.59	34.10	44.8	44.2	41.4	83.1	82.8	82.5
Paper boxes	30.44	29.89	27.80	43.5	42.8	40.3	70.1	70.2	69.3
Printing, publishing, and allied industries	38.60	37.51	36.64	39.5	38.5	38.2	97.7	97.3	96.0
Newspapers and periodicals	42.88	42.29	41.86	36.5	36.1	35.7	115.3	114.6	114.9
Book and job	36.81	35.32	34.07	41.1	40.1	40.1	88.9	88.6	85.4
Chemicals and allied products	38.10	37.73	37.61	42.7	42.3	41.5	88.4	88.3	89.9
Paints, varnishes, and colors	37.86	36.79	36.11	42.3	41.8	41.2	89.0	88.3	87.9
Drugs, medicines, and insecticides [4]	30.27	30.84	29.50	41.7	41.7	40.0	73.1	74.2	73.2
Soaps	37.54	37.14	37.03	41.9	41.1	41.2	89.7	90.3	89.8
Rayon and allied products	32.68	32.96	33.38	39.4	39.5	39.5	82.9	83.4	84.5
Chemicals	44.32	43.38	41.70	43.2	42.6	41.1	102.7	101.9	101.4
Explosives and safety fuses [4]	45.91	45.09	46.31	46.3	46.0	45.7	99.1	98.2	101.3
Ammunition [3]	38.89	38.92	39.72	45.6	45.0	45.2	85.3	86.4	88.0
Fireworks	33.02	31.87	33.30	43.3	41.7	42.6	76.3	76.4	78.1
Cottonseed oil	21.39	21.25	19.23	52.2	52.7	45.1	40.7	40.1	42.6
Fertilizers	22.69	23.10	23.23	38.5	39.2	39.1	58.5	58.9	59.3
Products of petroleum and coal	45.66	43.80	42.95	41.8	40.5	39.5	109.3	108.1	108.8
Petroleum refining	48.85	46.56	45.19	41.7	40.1	38.8	117.4	116.0	116.5
Rubber products	41.57	40.39	39.27	43.6	42.7	41.6	95.6	94.9	94.8
Rubber tires and inner tubes	47.65	46.55	45.80	42.9	41.8	41.2	112.1	111.5	111.4
Rubber boots and shoes	36.18	34.65	33.78	44.8	43.7	42.8	80.8	79.2	78.9
Rubber goods, other	35.81	35.07	33.64	44.0	43.3	41.5	81.4	81.4	81.2
Miscellaneous industries	37.35	36.23	35.45	44.6	44.1	42.7	83.4	81.6	82.8
Professional and scientific instruments and fire control equipment	49.65	48.17	50.24	52.2	52.2	51.0	95.1	92.4	98.5

See footnotes at end of table.

TABLE 3.—*Hours and Earnings in Specified Months*—Continued

NONMANUFACTURING

Industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942	Nov. 1942	Oct. 1942	Sept. 1942
Coal mining:							*Cents*	*Cents*	*Cents*
Anthracite [11]	$35.05	$34.36	$35.40	35.7	35.1	35.8	99.3	98.4	98.6
Bituminous	36.71	36.56	35.64	34.4	34.2	33.5	107.3	107.5	106.5
Metalliferous mining	41.16	40.11	39.16	44.4	44.0	43.2	92.8	91.3	90.6
Quarrying and nonmetallic mining	33.98	34.01	32.85	45.6	45.7	44.7	74.7	74.4	73.8
Crude petroleum production	41.74	42.26	42.38	38.6	39.8	39.9	105.7	103.9	103.7
Public utilities: [12]									
Telephone and telegraph	33.90	33.67	34.10	40.7	40.6	41.4	83.5	83.3	82.9
Electric light and power	40.52	40.71	40.59	40.1	40.5	40.1	100.1	100.0	100.5
Street railways and busses	42.05	40.98	40.39	49.0	47.9	47.4	84.7	84.0	83.6
Trade:									
Wholesale [12]	37.32	36.52	36.08	41.7	41.7	41.2	89.3	87.9	87.8
Retail [12]	23.20	23.36	23.41	40.7	40.9	41.1	62.5	62.3	62.1
Food	27.09	26.75	27.07	40.9	40.9	41.2	63.5	63.0	62.9
General merchandising	19.43	19.75	19.76	36.9	37.3	37.5	52.0	52.0	51.9
Apparel	24.12	23.74	23.93	36.6	36.7	36.8	65.9	64.8	64.7
Furniture and housefurnishings	33.48	33.06	32.16	44.6	44.2	44.0	77.9	77.6	75.5
Automotive	35.56	33.46	32.65	48.3	47.8	47.5	71.6	70.5	69.3
Lumber and building materials	32.98	33.09	32.01	42.7	43.4	42.2	79.8	78.5	78.8
Hotels (year-round) [12]	18.56	18.60	17.95	44.3	45.0	45.3	41.0	40.6	39.2
Laundries	21.86	21.57	21.15	43.3	43.3	43.1	51.0	50.2	49.6
Dyeing and cleaning	25.48	25.23	24.49	42.9	43.5	43.1	61.7	60.1	58.8
Brokerage [12 13]	43.03	43.24	41.86	[14]	[14]	[14]	[14]	[14]	[14]
Insurance [12]	38.66	38.26	37.67	[14]	[14]	[14]	[14]	[14]	[14]
Building construction	45.90	45.36	45.40	38.0	37.9	37.8	120.9	119.8	120.1

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during any part of one pay period ending nearest the 15th of the month. As not all reporting firms furnish man-hour data, average hours and average hourly earnings are based on a smaller sample than are weekly earnings. Weekly earnings for manufacturing groups are now weighted, and are therefore not comparable with the unweighted series published in the November 1942 and earlier issues of the Monthly Labor Review.

[2] New subdivisions; Blast furnaces, steel works, and rolling mills and steel castings were combined in the November 1942 and earlier issues of Monthly Labor Review.

[3] Revisions in the following industries have been made as indicated:

Steel castings—August hourly earnings to 95.9 cents.

Marble—August average weekly earnings, average hours, and average hourly earnings, to $30.78, 38.6, and 79.1 cents.

Malt liquors—July average weekly earnings, average hours, and average hourly earnings, to $44.10, 42.3, and 103.5 cents.

Ammunition—June, July, and August average weekly earnings to $39.27, $39.98, and $40.58; June and July average hours to 46.3 and 46.4; June, July, and August average hourly earnings to 84.9, 86.2, and 87.4 cents.

Women's clothing—August weekly earnings to $26.38.

[4] New series—agrees with Standard Industrial Classification definition.

[5] New subdivisions; Electrical equipment and communication equipment were combined in the November 1942 and earlier issues of Monthly Labor Review.

[6] New subdivisions; Agricultural implements and Tractors were combined in the November 1942 and earlier issues of the Monthly Labor Review.

[7] Because of changes in the composition of the reporting sample, hours and earnings are not comparable with those previously published as indicated:

Locomotives—Average weekly earnings and average hourly earnings (comparable August $53.36 and 111.3 cents).

Agricultural machinery—Average weekly earnings and average hourly earnings (no comparable August).

Tractors—Average weekly earnings (no comparable August).

Knit cloth—Average weekly earnings, and average hourly earnings (comparable August $27.32 and 66.4 cents).

Women's clothing—Average weekly earnings (comparable July $24.37).

Corsets—Average hourly earnings (comparable August 58.4 cents).

[8] Industry definitions changed slightly to conform to Standard Industrial Classification, not strictly comparable with previously published series.

[9] New subdivisions: Nonalcoholic beverages and malt liquors were combined in the November 1942 and earlier issues of the Monthly Labor Review.

[10] New subdivisions: Cigarettes and cigars were combined in the November 1942 and earlier issues of the Monthly Labor Review.

[11] See table 7 of October 1940 "Employment and Pay rolls" for revised figures for anthracite mining, February 1940 to September 1940, inclusive.

[12] Not comparable with figures published in Employment and Pay rolls pamphlet prior to January 1939 as they exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

[13] See note 18 in table 9 in the July 1941 issue of "Employment and Pay rolls" for revised average weekly earnings in the brokerage industry January 1939 to January 1941.

[14] Not available.

TABLE 4.—*Indexes of Employment and Pay Rolls in Selected Manufacturing[1] and Nonmanufacturing[2] Industries, November 1941 to November 1942*

EMPLOYMENT

Industry	1941			1942										
	Average	November	December	January	February	March	April	May	June	July	August	September	October	November
Manufacturing														
All industries	130.3	138.4	138.3	136.6	138.7	140.6	142.2	143.5	145.1	148.5	152.1	154.6	155.5	156.6
Durable goods [3]	151.3	164.2	164.5	164.2	167.2	170.5	173.8	177.2	181.5	186.1	191.1	194.2	198.2	201.6
Nondurable goods [4]	113.7	118.1	117.6	114.8	116.3	117.0	117.3	116.9	116.5	118.8	121.3	123.3	121.8	121.1
Nonmanufacturing														
Anthracite mining [5]	49.7	50.2	49.1	49.0	48.8	48.4	47.8	48.2	45.5	46.8	46.7	46.6	46.2	46.2
Bituminous-coal mining [5]	86.2	95.1	95.5	95.1	94.5	93.7	93.5	92.9	92.7	93.0	92.3	91.6	90.6	89.3
Metalliferous mining [6]	77.6	79.5	80.2	80.7	81.0	81.9	81.9	82.2	81.8	81.5	80.3	78.6	77.7	79.1
Quarrying and nonmetallic mining	49.8	52.6	50.9	46.8	46.7	47.7	50.3	51.7	51.9	51.6	51.5	50.7	50.0	48.5
Crude-petroleum production	61.0	60.9	61.1	61.3	60.6	59.7	58.8	58.1	57.5	57.1	56.7	55.9	55.5	55.0
Telephone and telegraph [7]	86.3	90.1	90.0	90.4	90.3	90.5	91.2	91.7	92.5	93.5	93.8	93.6	93.3	93.1
Electric light and power [7]	92.7	93.4	93.1	92.0	90.5	89.6	88.9	88.0	87.7	86.9	85.9	84.2	82.6	81.3
Street railways and busses [7 8]	69.3	70.2	70.6	70.4	70.7	71.2	72.1	72.9	74.0	74.8	75.0	75.7	75.9	75.9
Wholesale trade	94.0	96.3	96.3	94.9	94.3	93.9	92.7	91.2	90.4	89.7	90.2	89.4	90.0	89.3
Retail trade [7]	98.0	103.0	113.0	95.4	94.0	94.4	94.3	94.0	92.8	90.3	89.4	91.7	94.6	96.8
Year-round hotels [5]	95.0	96.1	95.3	94.2	94.1	93.5	95.2	96.1	95.5	94.4	93.4	93.9	[illegible]	95.3
Laundries [5]	108.5	108.9	108.4	108.8	107.6	107.9	110.3	113.7	114.8	119.1	117.4	116.4	115.9	114.2
Dyeing and cleaning [5]	115.1	117.2	113.3	109.8	109.5	113.8	121.3	127.6	130.1	126.9	123.7	123.0	124.8	119.7

See footnotes at end of table.

TABLE 4.—*Indexes of Employment and Pay Rolls in Selected Manufacturing* [1] *and Nonmanufacturing* [2] *Industries, November 1941 to November 1942*—Continued

PAY ROLLS

Industry	1941			1942										
	Average	November	December	January	February	March	April	May	June	July	August	September	October	November
Manufacturing														
All industries	165.3	185.0	191.0	195.9	202.9	209.2	214.8	221.2	226.5	234.3	245.8	252.6	261.3	270.6
Durable goods [3]	199.3	228.0	236.0	248.6	257.9	267.3	277.2	288.2	299.1	310.3	327.3	337.2	350.6	366.6
Nondurable goods [4]	132.0	143.0	147.1	144.4	149.1	152.3	153.7	155.7	155.4	160.0	166.1	169.8	174.0	176.6
Nonmanufacturing														
Anthracite mining [5]	41.4	41.8	35.9	39.4	49.6	50.9	44.7	51.5	56.0	45.9	48.2	50.2	48.3	49.2
Bituminous-coal mining [5]	99.6	116.4	119.9	117.1	118.2	116.7	118.3	122.1	140.3	112.7	118.6	122.2	124.8	123.9
Metalliferous mining [6]	81.9	89.8	93.7	94.3	98.4	99.1	99.1	100.8	102.0	99.3	102.1	99.1	99.8	104.1
Quarrying and nonmetallic mining	51.8	57.5	55.8	48.9	52.0	54.4	58.1	63.0	65.1	65.9	67.4	67.5	68.9	66.4
Crude-petroleum production	60.5	64.2	64.6	64.8	64.8	62.6	63.2	62.0	62.9	62.4	62.4	64.9	64.1	62.6
Telephone and telegraph [7]	112.7	118.3	122.9	120.9	120.9	121.8	122.2	125.0	125.3	126.0	127.4	130.5	128.4	129.0
Electric light and power [7]	111.2	115.2	115.2	114.6	113.7	113.5	113.5	113.6	113.6	113.4	112.8	112.5	111.1	109.4
Street railways and busses [7] [8]	75.4	78.5	80.0	80.5	83.7	84.7	84.4	86.8	89.4	91.0	93.8	93.6	95.3	97.8
Wholesale trade	87.1	91.6	92.8	91.8	93.7	93.9	92.2	91.7	91.0	91.3	91.7	92.3	94.6	96.3
Retail trade [7]	93.4	98.5	107.8	94.6	93.9	93.7	93.6	94.0	93.4	91.8	91.4	93.1	96.4	99.2
Year-round hotels [5]	88.5	93.2	93.3	91.5	92.6	91.6	93.5	95.4	96.6	96.5	96.6	98.5	103.2	103.9
Laundries [5]	99.3	101.9	102.6	103.8	102.5	104.3	108.6	113.8	115.2	117.8	116.8	117.3	118.9	118.5
Dyeing and cleaning [5]	90.4	93.0	88.6	86.5	85.6	92.7	105.7	113.1	117.7	109.2	106.4	107.9	112.5	107.9

[1] 1939 average=100—adjusted to 1940 and preliminary 1941 data supplied by Bureau of Employment Security. Not comparable with previously published indexes.

[2] 1929 average=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude petroleum production are in November 1934 and subsequent issues of "Employment and Pay Rolls" or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5, 6, and 7.

[3] Includes the following groups: Iron and steel and their products; machinery except electrical; transportation equipment except automobiles; nonferrous metals and their products; lumber and timber basic products; stone, clay, and glass products; electrical machinery; automobiles; and furniture and finished lumber products.

[4] Includes the following groups: Textiles and finished textile products; leather and leather products; food and kindred products; tobacco manufactures; paper and allied products; chemicals and allied products; products of petroleum and coal; rubber products; textile-mill products and other fiber manufactures; apparel and other finished textile products; printing, publishing, and allied industries; and a number of miscellaneous industries not included in other groups.

[5] Indexes have been adjusted to the 1935 Census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of "Employment and Pay Rolls." See also table 7 of October 1940 "Employment and Pay Rolls" for revised figures for anthracite mining, February to September 1940.

[6] See table of February 1941 "Employment and Pay Rolls" for revised indexes January 1938 to January 1941.

[7] Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable with indexes published in "Employment and Pay Rolls" prior to January 1940 or in Monthly Labor Review prior to April 1940. Comparable series, January 1929 to April 1942, available in mimeographed form.

[8] Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

EMPLOYMENT AND UNEMPLOYMENT IN DECEMBER 1942

A DECLINE of 200,000 in the number of unemployed persons carried unemployment to a new low of 1,500,000 in December 1942, according to returns from the Bureau of the Census Monthly Report on the Labor Force. The size of the civilian labor force declined by 1,100,000 persons between November and December, while employment decreased by 900,000. All of the 900,000 decrease in the number of employed persons was accounted for by the seasonal decline in agricultural employment (table 1).

In the year since the attack on Pearl Harbor, the number of women in the labor force increased by 1,700,000, while the number of men decreased by 2,300,000. As a result, the size of the civilian labor force dropped by only 600,000, despite the large drain of men into the armed services.

Women also accounted for all of the increase in the number of employed workers during this period. In the year ending December 1942, the increase in the number of employed women (2,300,000) was more than enough to counterbalance the decline of 600,000 employed males.

TABLE 1.—*Estimated Civilian Labor Force, by Employment Status and by Sex, April 1940–December 1942*

[Source: U. S. Department of Commerce, Bureau of the Census]

Month	Estimated number (millions of persons)								
	Labor force			Employed			Unemployed [1]		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1940									
April	53.9	40.6	13.3	45.1	34.1	11.0	8.8	6.5	2.3
May	54.7	41.3	13.4	46.3	35.3	11.0	8.4	6.0	2.4
June	56.2	42.3	13.9	47.6	36.4	11.2	8.6	5.9	2.7
July	56.9	43.1	13.8	47.6	36.8	10.8	9.3	6.3	3.0
August	56.6	42.9	13.7	47.7	36.9	10.8	8.9	6.0	2.9
September	54.9	41.5	13.4	47.9	36.7	11.2	7.0	4.8	2.2
October	54.4	41.3	13.1	47.0	36.2	10.8	7.4	5.1	2.3
November	53.7	41.1	12.6	46.3	35.8	10.5	7.4	5.3	2.1
December	53.4	40.9	12.5	46.3	35.7	10.6	7.1	5.2	1.9
1941									
January	53.0	40.7	12.3	45.3	35.1	10.2	7.7	5.6	2.1
February	52.9	40.6	12.3	45.7	35.4	10.3	7.2	5.2	2.0
March	52.7	40.4	12.3	45.8	35.4	10.4	6.9	5.0	1.9
April	53.5	40.9	12.6	46.8	36.2	10.6	6.7	4.7	2.0
May	54.2	40.9	13.3	48.5	37.0	11.5	5.7	3.9	1.8
June	56.2	42.3	13.9	50.2	38.3	11.9	6.0	4.0	2.0
July	56.6	42.6	14.0	50.9	38.9	12.0	5.7	3.7	2.0
August	56.4	42.4	14.0	51.0	38.8	12.2	5.4	3.6	1.8
September	54.8	41.0	13.8	50.3	38.0	12.3	4.5	3.0	1.5
October	54.1	40.4	13.7	50.2	37.9	12.3	3.9	2.5	1.4
November	54.1	40.3	13.8	50.2	37.7	12.5	3.9	2.6	1.3
December	54.0	40.2	13.8	50.2	37.6	12.6	3.8	2.6	1.2
1942									
January	53.2	40.0	13.2	48.9	37.0	11.9	4.3	3.0	1.3
February	53.4	40.0	13.4	49.4	37.2	12.2	4.0	2.8	1.2
March	54.5	40.0	14.5	50.9	37.6	13.3	3.6	2.4	1.2
April	53.7	39.8	13.9	50.7	37.8	12.9	3.0	2.0	1.0
May	54.2	40.0	14.2	51.6	38.4	13.2	2.6	1.6	1.0
June	56.1	41.1	15.0	53.3	39.4	13.9	2.8	1.7	1.1
July	56.8	41.6	15.2	54.0	39.9	14.1	2.8	1.7	1.1
August	56.2	41.1	15.1	54.0	39.7	14.3	2.2	1.4	.8
September	54.1	39.2	14.9	52.4	38.2	14.2	1.7	1.0	.7
October	54.0	39.0	15.0	52.4	38.1	14.3	1.6	.9	.7
November	54.5	38.5	16.0	52.8	37.5	15.3	1.7	1.0	.7
December	53.4	37.9	15.5	51.9	37.0	14.9	1.5	.9	.6

[1] Includes persons on public emergency projects.

The largest change during the past year took place among the unemployed. Between December 1941 and December 1942, the number of unemployed persons decreased from 3,800,000 to 1,500,000—a decline of 2,300,000 or more than 60 percent.

TABLE 2.—*Estimated Civilian Labor Force, Employment and Unemployment, by Age Groups, November and December 1940, 1941, and 1942* [1]

[Source: U. S. Department of Commerce, Bureau of the Census]

Labor-market status and age	1942		1941		1940	
	December	November	December	November	December	November
	Estimated number (millions of persons)					
Labor force	53.4	54.5	54.0	54.1	53.4	53.7
14 to 24 years	11.0	11.5	11.7	11.9	11.9	12.2
25 to 54 years	33.5	34.0	34.3	34.3	33.7	33.7
55 years and over	8.9	9.0	8.0	7.9	7.8	7.8
Employed	51.9	52.8	50.2	50.2	46.3	46.3
14 to 24 years	10.5	11.0	10.6	10.6	9.5	9.6
25 to 54 years	32.8	33.2	32.4	32.2	30.0	30.0
55 years and over	8.6	8.6	7.2	7.4	6.8	6.7
Unemployed	1.5	1.7	3.8	3.9	7.1	7.4
14 to 24 years	.5	.5	1.1	1.3	2.4	2.6
25 to 54 years	.7	.8	1.9	2.1	3.7	3.7
55 years and over	.3	.4	.8	.5	1.0	1.1
	Unemployment rate [2] (percent) [3]					
All age groups	2.8	3.2	7.0	7.3	13.3	13.7
14 to 24 years	3.8	4.3	9.7	10.6	20.7	21.3
25 to 54 years	2.0	2.5	5.7	6.0	10.8	11.0
55 years and over	4.4	4.3	8.7	7.8	13.2	13.8
	Percentage distribution of unemployed [3]					
All age groups	100.0	100.0	100.0	100.0	100.0	100.0
14 to 24 years	28.2	28.5	29.8	31.9	34.6	35.2
25 to 54 years	45.7	49.0	51.9	52.1	50.9	50.2
55 years and over	26.1	22.5	18.3	16.0	14.5	14.6

[1] All data exclude persons in institutions. Persons on public emergency work projects are included with the unemployed.
[2] Unemployed as a percent of labor force in each age group.
[3] Percentages computed from unrounded numbers.

Labor Chronology

CHRONOLOGY OF LABOR EVENTS, OCTOBER–DECEMBER 1942 [1]

WITH this issue the Bureau inaugurates a chronology of events in the labor field, selected as being of importance and significance. It is desired to make this department as valuable as possible to the users of the Monthly Labor Review. The Bureau will therefore be interested to know if the readers find this chronology helpful and will be glad to receive any suggestions for its improvement.

OCTOBER

1942

Oct. 2. The President approved an act authorizing him "to issue a general order stabilizing prices, wages, and salaries, affecting the cost of living. * * * Such stabilization shall so far as practicable be on the basis of the levels which existed on September 15, 1942." (Source: Public Law 729; for summary, see Monthly Labor Review, November 1942, pp. 917–921.)

Oct. 2–4. The Confederated Unions of America (Independent) was founded in Chicago at a meeting of 175 delegates, claiming to represent 39 unions with about 300,000 members. The announced purpose of this unification of independent unions was "to work effectively for labor's interests on a national scale." No officer of the new organization would receive a salary of over $5,000 a year; and all the officers would be "under the direct control and supervision of an Executive Board composed of one rank and file member of each affiliated union." (Source: CUA News [Milwaukee, Wis.], October 1942.)

Oct. 3. The President established the Office of Economic Stabilization, under authority of act of October 2. (Source: Federal Register, vol. 7, pp. 7871–7874; for summary, see Monthly Labor Review, November 1942, pp. 917–921.)

Oct. 3. The President by Executive order suspended the 8-hour law as to laborers and mechanics employed by the Civil Aeronautics Administration in necessary war work. (Source: Federal Register, vol. 7, p. 7933; for summary, see Monthly Labor Review, November 1942, p. 924.)

Oct. 5. The Office of Price Administration, in conformity to the President's directive of October 3, issued orders leading to the extension of "rent control to the remainder of the country including rental dwelling units in rural areas." Previously, 363 defense rental areas had been designated in the United States, with a total population of 90 million. (Source: OPA–890.)

Oct. 5–14. The American Federation of Labor held its 62d annual convention at Toronto, Canada. (For summary of proceedings, see Monthly Labor Review, November 1942, pp. 1000–1006.)

[1] Prepared in the Bureau's Division of Historical Studies of Wartime Problems by Edmund Nash.

OCTOBER—continued

1942

Oct. 9. The President approved, by Executive order, the regulations prescribed by the Civil Service Commission for the establishment, in each Federal agency having positions and employees subject to the Classification Act of 1923, of one or more boards of review to consider and pass upon employees' appeals from efficiency ratings. (Source: Federal Register, vol. 7, pp. 8079–8081.)

Oct. 9. The National War Labor Board announced that it had unanimously adopted a general order exempting employers with 8 or fewer employees from the wage-adjustment control of the Executive order of October 3. On October 14, the Board issued a general order allowing wage adjustments, in the cases of individual employees, on the basis of length of service, increased efficiency, promotion, and as a result of an apprentice or trainee system. (Source: General Orders Nos. 4 and 5 of National War Labor Board, B–242 and B–245.)

Oct. 16. Because of the critical shortage of manpower in the nonferrous-metal mining industry, the National War Labor Board authorized an increase (approved by the Director of Economic Stabilization on October 24) of $1 a day to 10,000 copper, lead, and zinc workers in Idaho and Utah, half of the increase being payable to workers who would attain a certain standard of production and continuity at work. The increase was made retroactive to May 16 for Idaho and July 1 for Utah; the retroactive pay was to be in bonds and stamps to those continuing at work and to those immediately returning.

The Board also created a 5-man panel to recommend specific plans and policies for the stabilization of labor relations in the industry. (Source: National War Labor Board, B–251, B–263, B–264.)

Oct. 17. The War Manpower Commission issued General Order 1, providing transportation for any worker and three of his dependents "from points in the continental United States to places of employment in the nonferrous-metal industry in States west of the Mississippi River." Funds had been allocated for this purpose from the Emergency Fund of the President on October 8. (Source: Federal Register, vol. 7, pp. 8457–8458.)

Oct. 20. The War Manpower Commission reported on the availability of manpower for industrial purposes throughout the United States. The report listed 227 communities and areas, divided into three groups: 66 areas where labor shortages existed; 64 areas where shortages were anticipated; and 97 areas with labor surpluses. The War Production Board had asked for this information to enable war procurement agencies to place their contracts where labor was available. By December 7 the list of areas was extended to 270, with the corresponding figures for the three groups being 102, 77, and 91. (War Manpower Commission, PM–4052 and PM–4197.)

Oct. 21. The President approved the Revenue Act of 1942, which raised the normal income tax to 6 percent of net income and the surtax to 13 percent on the first $2,000 of net income, with progressive increases in the tax up to a maximum of 82 percent for net income over $200,000. A flat 5-percent victory tax was imposed on all 1943 annual earned income of over $624, or on all weekly income over $12, the tax to be deducted from wage and salary payments by all employers. (Source: Public Law 753.)

Oct. 22. The National War Labor Board, in order to prevent the pirating of workers, interpreted the Executive order of October 3 as prohibiting "an employer from hiring an individual at a rate higher than the one previously established in his plant for workers of similar skill and productive ability." (Source: National War Labor Board, B–262.)

OCTOBER—continued

1942

Oct. 27. The President approved the regulations of the Economic Stabilization Director, limiting individual net salary incomes to a maximum of $25,000. He also authorized the National War Labor Board and the Commissioner of Internal Revenue to control all wage and salary adjustments in conformity with the Emergency Price Control Act of October 2. (Source: Federal Register, vol. 7, pp. 8748–8750 and 10050–10057; for summary, see Monthly Labor Review, December 1942, pp. 1142–1147.)

Oct. 27. The War Production Board announced the organization of the Labor Requirements Committee, the duty of which would be to inform the War Manpower Commission on the feasibility of supplying labor to meet any future production programs, and on the availability of various types of labor; and to create a system of labor priorities for the transfer of labor to the more essential industries. Regional and area requirements committees—like the one in operation for some time in San Francisco—would be organized to expedite the formulation of local labor-priorities systems. (Source: War Production Board, 2069.)

NOVEMBER

Nov. 2. John L. Lewis, president of United Mine Workers of America, announced that the international headquarters of that union had granted permission, for the first time, for work on Sunday and holidays, in order to forestall a threatened coal shortage. Miners in Washington, Oregon, Montana, Wyoming, Utah, Colorado, and New Mexico were affected. The union also agreed to a Nation-wide increase in miners' hours of work. (Sources: OWI–742; and United States Mine Workers Journal, Nov. 15, p. 4.)

Nov. 4. The War Manpower Commission and the Department of Agriculture offered to recruit cotton pickers from surrounding States and to pay their transportation if the Arizona Cotton Growers' Cooperative Association would guarantee certain minimum requirements as to working conditions. (Source: OWI–752.)

Nov. 5. The National War Labor Board announced that it had recommended that the Government take over the management of the Toledo, Peoria & Western Railroad Co. for the duration of the war. The management of the railroad had refused to comply with the Board's order of September 23 on rates of pay and working conditions of the carrier's employees. (Source: National War Labor Board, B–282.)

Nov. 6. The National War Labor Board announced its policy of approving increases in wages and salaries only in exceptional cases, when necessary to correct maladjustments, inequalities, the standard of living, or to promote the prosecution of the war. (Source: National War Labor Board, B–284; for summary, see Monthly Labor Review, December 1942, pp. 1144–1147.)

Nov. 6. The War Manpower Commission issued the "Directive to Promote Employment Stabilization on Dairy, Livestock, and Poultry Farms." The Secretary of Agriculture and the United States Employment Service were directed to assist in the recruitment of additional workers for such farms. The Army and Navy had agreed not to accept the enlistment of these specified farm workers; war contractors were to be instructed not to hire them; and the Selective Service System would instruct its local boards to defer them. (Source: Federal Register, vol. 7, pp. 9218–9220; Office of War Information, PM–4066 and OWI–721.)

NOVEMBER—continued

1942

Nov. 6. The War Manpower Commission announced the availability of a "manning table plan" that it had prepared, together with the Selective Service System, for the orderly withdrawal of workers from war industries into the armed forces. The "manning table" was a listing of jobs, not men; for each plant it would show "the essential characteristics needed by each worker for each job, and the estimated length of time required to replace each worker." (Source: Office of War Information, War Manpower Commission, PM–4096 and PM–4201.)

Nov. 9–13. The Congress of Industrial Organizations (C. I. O.) held its 5th convention in Boston. (For summary of proceedings, see Monthly Labor Review, December 1942, pp. 1219–1222.)

Nov. 11. The Secretary of Labor, acting under the Walsh-Healey Public Contracts Act, and at the request of the War and Navy Departments and the Maritime Commission, ordered the lowering of the minimum age of women employed in war industries from 18 to 16. The order contained provisions for the welfare of working girls under 18. (Source: United States Department of Labor, Division of Public Contracts, 543–42.)

Nov. 13. The President approved an act lowering the draft age to 18, exempting from draft registered men aged 45 or over, and authorizing the deferment of workers "engaged in an agricultural occupation or endeavor essential to the war effort." (Source: Public Law 772.)

Nov. 17. The National War Labor Board decided unanimously that its jurisdiction extended to all labor disputes over wage adjustments in nonwar industries. (Source: National War Labor Board, B–301.)

Nov. 18. The President directed Montgomery Ward & Co.—even though not engaged in war industry—to comply with the direction of the National War Labor Board to sign, with its employees' union in Chicago, a labor agreement containing a maintenance-of-membership clause to which the company objected. The company had agreed to sign only if the President would direct it to do so. (Source: National War Labor Board, B–343.)

Nov. 22. The National War Labor Board announced the appointment of regional advisory boards to assist its 10 regional directors in the administration of the wage-stabilization program. Each advisory board would be composed of 6 persons drawn, by arrangement for individual convenience, from a pool of 12, representing equally the public, management, and labor (2 from the A. F. of L. and 2 from the C. I. O.). The Board published a list of 29 industries, having about 8 million workers, for which the regional directors would make final decisions concerning wage increases, without review by the Board; the Board expressed the hope that all industries would eventually be added to this list. It had been announced earlier that the regional, branch, and field offices of the Wage and Hour and Public Contracts Divisions of the Labor Department would cooperate with the National War Labor Board by furnishing information or assistance to labor in the filling of applications for wage and salary increases. (Source: National War Labor Board, B–273, B–309, B–310, and B–312.)

NOVEMBER—continued

1942

Nov. 22. The War Manpower Commission announced approval of a management-labor plan for the mobilization and utilization of labor in region 12 (California, Washington, Oregon, Nevada, and Arizona). The major provisions of this first region-wide comprehensive plan, which was hoped to serve as a model for the other manpower regions, included continuous survey of the labor supply and needs of essential industries; central clearance for all hiring; promotion of the maximum utilization of available labor, with the elimination of labor pirating and migration; and facilitation of the orderly withdrawal of employees into the armed forces by the recruitment and training of new workers. (Source: Office of War Information, War Manpower Commission, PM–4157.)

Nov. 23. Essential employees in the aircraft and shipbuilding industries were barred from voluntary enlistments into the Army and the Navy; also affected were all the esssential employees who had resigned within 60 days. (Source: OWI–853.)

Nov. 24. The National War Labor Board adopted an order authorizing, without its preliminary approval, "adjustments which equalize the wage or salary rates paid to females with the rates paid to males for comparable quality and quantity of work." (Source: General Order 16 of National War Labor Board; Federal Register, vol. 7, p. 9861.)

Nov. 24. The National War Labor Board delegated to the Secretary of War (but subject to Board review, in its discretion) authority over wage and salary adjustments for civilian employees in the War Department. Wages and salaries fixed by statute were exempt. Similar authority (but not all-inclusive in every case) was subsequently delegated to the Navy Department; the Office of Price Administration (over local board clerks); the Federal Reserve System; the United States Employment Service; the Department of Interior; State, county, and municipal agencies; the Department of Agriculture; and the Tennessee Valley Authority. (Source: General Orders of the National War Labor Board, Nos. 14, 17, 18, 19, 20, 21, 24, 25; B–360.)

Nov. 27. By unanimous decision, the National War Labor Board for the first time took away an established maintenance-of-membership clause from a union—the Chemical Workers Union (A. F. L.), Local 22574, East Alton, Ill.—which had called a strike. The Board promised the restoration of the usual maintenance provision after 6 months, if the union would show its "good faith and responsibility." (Source: National War Labor Board, Case No. 458, and B–332.)

Nov. 28. The National War Labor Board unanimously adopted a resolution setting aside any union rules, regulations, laws, or constitutional provisions that would prevent union members from withdrawing from unions during the 15-day "escape" period provided by the standard maintenance-of-membership clause in agreements between unions and employers. The same resolution also provided that employers "shall refrain from attempting to influence employees to resign from unions" or otherwise interfere with the voluntary action and free choice of employees, prior to the effective date of the maintenance provision. (Source: National War Labor Board, B–327.)

Nov. 30. Because of the disparity between farm and industrial wages, the Director of Economic Stabilization authorized the exemption of agricultural workers earning less than $2,400 yearly from the provisions of the Presidential order of October 3, stabilizing all wages and salaries. The Secretary of Agriculture was given discretion to prevent pay increases for farm labor. (Source: Federal Register, vol. 7, p. 10024.)

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DECEMBER

1942

Dec. 2. Representatives of the A. F. of L. and the C. I. O., after 2 days of deliberation in Washington, signed an agreement to remain in force (after being approved by the Executive Councils of the two labor organizations) "until labor unity is effected." The agreement provided for the establishment of a "joint A. F. L.–C. I. O. committee to hear and decide any disputed jurisdictional differences that may arise between the two * * * organizations." Should the joint committee fail to agree, the dispute would be settled by an arbiter appointed either by the committee within 5 days thereafter, or subsequently by the President of the United States. Of immediate urgency and first to be considered were the A. F. L.–C. I. O. jurisdictional disputes in various shipyards on the western coast. (Sources: A. F. of L. Weekly News Service, Dec. 8, 1942; and The C. I. O. News, Dec. 7 and 14, 1942.)

Dec. 4. The President directed the Federal Works Administrator to close WPA operations in 16 States and the District of Columbia by February 1, and in the remaining States as soon as possible after that date. (Source: Work Projects Administration.)

Dec. 5. The President issued an Executive order providing for the most effective mobilization and utilization of the national manpower and transferring the Selective Service System to the War Manpower Commission. The induction of men 38 years old and over was stopped, and men between the ages 18 and 37, inclusive, would no longer be permitted to enlist. The Army, upon request, would release men of 38 and over to esssential industrial and agricultural employment.

The Chairman of the War Manpower Commission was authorized to take "all lawful and appropriate steps to assure" the U. S. Employment Service exclusive control over "all hiring, rehiring, solicitation, and recruitment of workers" in any area, plant, or occupation he might designate. Employers were forbidden to retain workers whose services would be more urgently needed elsewhere.

The Chairman was also authorized to appoint and consult with "a Management-Labor Policy Committee to be selected from the fields of labor, agriculture, and industrial management."

The Chairman of the Commission would consult with the Secretaries of the Army and Navy concerning the "efficient utilization of the Nation's educational facilities and personnel for the effective prosecution of the war." (Source: Federal Register, vol. 7, pp. 10177–10179.)

This order embodied most of the recommendations, for Government action, of a report by the Management-Labor Policy Committee of the War Manpower Commission, released on November 9.

Dec. 5 The President, by Executive order, directed the Secretary of Agriculture "to assume full responsibility for and control over the Nation's food program." (Source: Federal Register, vol. 7, pp. 10179–10181.)

Dec. 8. The National War Labor Board forbade the operation of "escalator clauses" in labor agreements where such clauses would increase wages or salaries by more than 15 percent over those prevailing on January 1, 1941. (Source: General Order No. 22 of National War Labor Board.)

Dec. 9. The War Manpower Commission "froze" over 600,000 workers in 34 essential industries within the Detroit metropolitan area. Employers were ordered not to hire or solicit workers from other essential industries in the area unless the prospective employees held certificates of release from their former employers or from the Review Unit of the U. S. Employment Service. Six "acceptable reasons for changing employment" were listed. (Source: War Manpower Commission.)

DECEMBER—continued

1942

Dec. 14. In order to prevent the pirating of skilled workers, the National War Labor Board announced the establishment of maximum rates for the "more than 50,000 tool and die workers in all jobbing and manufacturing plants in a 6-county Detroit, Mich., area." A special Detroit Area Tool and Die Commission was created to rule on disputes arising from the application of the new order. (Source: National War Labor Board, B–346.)

Dec. 14. The National War Labor Board authorized (subject to ultimate review on its own initiative) the Wage Adjustment Board for the Building Construction Industry to make final rulings in accordance with the provisions of the President's Stabilization Order of October 3, provided such rulings were unanimous or that no dissenting member appealed to the National War Labor Board within 7 days after the ruling. (Source: General Order 13–A of National War Labor Board.)

Dec. 15. The National War Labor Board announced its unanimous decision that it had no authority on Constitutional grounds "to issue any directive order or regulation in * * * disputes governing the conduct of * * * State or municipal agencies * * *." The disputes that had been called to the Board's attention involved 32,000 transportation employees in New York City, 400 public works employees in Newark, N. J., and 800 gas and water employees in Omaha, Nebr. (Source: National War Labor Board, B–351.)

Dec. 16. The National War Labor Board announced the creation of a tripartite Trucking Commission to decide labor disputes and wage and salary adjustments in the trucking industry, involving approximately half a million workers. The Commission was also authorized to consider cases involving the trucking activities of other industries, whenever referred to it by the Board. (Source: National War Labor Board, B–350.)

Dec. 17. The Office of Defense Transportation announced that special labor-management committees had been appointed in 25 "critical" cities to survey and to remedy labor shortages in the trucking industry. (Source: Office of War Information, Office of Defense Transportation, PM–4227.)

Dec. 18. The National War Labor Board delegated (subject to ultimate review) its authority to rule on wage and salary adjustments in Alaska to the Territorial Representative of the Wage and Hour and Public Contracts Divisions of the Department of Labor. (Source: General Order No. 23 of National War Labor Board.) The other Territories and possessions of the United States had been free from wage and salary review since October 31. (Source: National War Labor Board, B–276.)

Dec. 22. The President approved the Joint Resolution of Congress extending overtime rates of compensation to nearly all civilian employees of the United States Government. (Source: Public Law 821; for summary of law, see this issue of Monthly Labor Review, p. 359.) The basis for overtime computation was defined by Executive order, on December 26. (Source: Federal Register, vol. 7, p. 10897.)

Dec. 24. The National War Labor Board announced a twofold decentralization plan, involving (1) establishment of panels composed of public, management, and labor representatives in major cities, to consider all labor disputes referred by the U. S. Conciliation Service, and to make recommendations to the regional advisory boards (see item under Nov. 22), just as national panels are doing with respect to the National War Labor Board; and (2) granting of authority to the Board's regional directors "to make final decisions on all voluntary wage or salary adjustment cases involving employers of not more than 100 employees." About two-thirds of all requests for wage or salary adjustments are of this nature. (Source: National War Labor Board, B–357.)

DECEMBER—continued

1942

Dec. 27. The Office of Price Administration announced that upon the direction of the Department of Agriculture, it would "undertake the rationing of virtually all commercially processed vegetables and fruits—canned, bottled, and frozen vegetables, fruits, juices; dried fruits; and all soups." The actual rationing would begin as early in February as possible. (Sources: OPA–1375 and OPA–1393.)

Dec. 28. The President suspended the 8-hour law as to laborers and mechanics employed by the War Department on public works within the United States. (Source: Federal Register, vol. 7, p. 11051; for summary, see this issue of Monthly Labor Review, p. 257.)

Dec. 28. William Green, president of American Federation of Labor, announced appointment of a 9-man Post-War Planning Commission, headed by Matthew Woll (vice president of the Federation), to investigate and report on (1) labor representation at the post-war peace conferences, (2) specific labor proposals to be inserted into peace treaties, (3) post-war reconstruction to forestall depression, and (4) universal extension of social, economic, and political security. (Source: A. F. of L. Weekly News Service, Dec. 28.)

Recent Publications of Labor Interest

FEBRUARY 1943

Agriculture and Agricultural Labor

Labor, power, and machinery on small farms in Ohio. By F. L. Morison and Ross V. Baumann. Wooster, Ohio, Agricultural Experiment Station, 1942. 38 pp. (Bull. No. 628.)

Satellite acres: A study of 1,100 households in rural Rhode Island with income from combinations of nonagricultural employment and agricultural production. By W. R. Gordon. Kingston, R. I., Rhode Island State College, Agricultural Experiment Station, 1942. 80 pp., charts. (Bull. No. 282.)

Bio-sociología-rural de Chile: Previsión social del trabajador agrícola. By Serafín Elguin M. and others. (In Boletín Medico-Social, Caja de Seguro Obligatorio, Santiago de Chile, August–September 1942, pp. 344–436.)

A series of eight articles concerning Chilean agricultural laborers, covering such subjects as housing, cost and nutritional value of food, legal protection, cooperatives, colonization, wages, and social insurance.

Child Labor and Child Welfare

The relationship between problems of children and problems of manpower. By Marshall Field. New York, National Citizens' Committee of White House Conference on Children in a Democracy, 122 East 22d Street, 1942. 18 pp.

Address before the Delaware White House Conference on Children in a Democracy, Wilmington, November 18, 1942. Discusses care of children of working mothers, wartime problems of education, juvenile delinquency in wartime, child labor, and maternal and child health.

Standards of child health, education, and social welfare. Washington, U. S. Children's Bureau, 1942. 21 pp. (Publication No. 287.) 10 cents, Superintendent of Documents, Washington.

Published as a guide to States and localities and to private agencies in the development of services for meeting the wartime needs of children. Based on recommendations of the White House Conference for Children in a Democracy and conclusions of discussion groups.

Trends in State legislation, 1941–42. By Norene McDermott. (In The Child, U. S. Children's Bureau, Washington, November 1942, pp. 69–71. 5 cents, Superintendent of Documents, Washington.)

Summary of State legislation in the child-labor field in 1941–42, especially with regard to modifications to meet the labor emergency in agriculture and in other fields. It is noted that in spite of these relaxations of labor standards in the child-labor field, advances were made that more than offset them.

Cooperative Movement

Harvard Cooperative Society, past and present, 1882–1942. By N. S. B. Gras. Cambridge, Mass., Harvard University Press, 1942. 191 pp., illus. $1.50.

Chronological history of the oldest of the student cooperatives in the United States, with statistics of operation.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entry. The amounts do not include postage, and also they are subject to change.

Problems of cooperation: A study of the deficiencies of the cooperative method of economic organization and the difficulties in the way of its expansion. By James Peter Warbasse. New York, Cooperative League of the United States of America, 1942. 212 pp. $1.

Defects "as shown by autopsies on dead societies" covered are given under the headings of errors in financial policy, in educational and social work, in and about the store, and in organization and management; and dangers from without (underselling by competing businesses, false reports about the cooperative, and admitting disloyal and disruptive members). The "obstacles to cooperative development," in Dr. Warbasse's opinion, lie in the noncooperative element, organic hindrances, and political hindrances. The book is written on the basis of the author's 25 years' active experience in the cooperative movement in the United States.

The Washington Self-Help Exchange—a summary of its work, 1941. Washington, Washington Self-Help Exchange, Inc., [1942?]. 20 pp., illus.

A description of the Exchange and its activities through 1940 was given in the Monthly Labor Review, July 1941 (reprinted as Bureau of Labor Statistics Serial No. R. 1343).

Cooperation in Canada, 1941. By J. E. O'Meara and Lucienne M. Lalonde. Ottawa, Dominion Department of Agriculture, 1942. 16 pp., charts. (Publication No. 740; Circular No. 173.)

Gives descriptive accounts of the state of the cooperative movement in Canada, with statistics of membership, business, etc., of both producers' and consumers cooperatives.

Bibliographical review of literature on cooperation in Latin America. New York, Edward A. Filene Good Will Fund, Inc., 1942. viii, 155 pp.; mimeographed. (Studies of the Cooperative Project sponsored by U. S. Bureau of Labor Statistics and U. S. Work Projects Administration, series F, Cooperation in Latin America, part 1.)

Latin America. By Jane Powell. [Washington, Pan American Union], 1942. 21 pp. (Reprinted from Year Book of Agricultural Cooperation, London, 1942.)

Brief account of the progress, including some statistics, of agricultural and other cooperatives in 18 of the Latin American republics.

Cost and Standards of Living

Cost of living indexes in wartime. By Faith M. Williams, Frances R. Rice, Emil D. Schell. (In Journal of American Statistical Association, Washington, December 1942, pp. 415–424. $1.50.)

Wartime living costs. By Frances R. Rice and Emil D. Schell. (In Contemporary America, American Association of University Women, Washington, November 1942; 24 pp., mimeographed. 15 cents.)

A summary of the general changes in cost of living and of changes in the separate items with some account of variations in costs between cities. Wage changes in relation to cost of living are broadly indicated. The effects of wartime conditions on family spending are described. Mention is made of major developments in the field of price and wage policy.

Working class budgets, June 1942; a comparison with June 1941. (In Bulletin of Institute of Statistics, Oxford, England, Vol. 4, Supplement No. 3, October 10, 1942; 12 pp., diagrams.)

Results of a study of cost of living of workers' families in selected cities of England and Scotland. The survey indicated that expenditures for all the main items of the budgets except rent increased from June 1941 to June 1942. Increased food expenditure, however, the writer states, was due to increased consumption, possibly, of more of the relatively expensive kinds of food, and not to higher prices. The general nutritional intake of food showed improvement over 1941, especially of protein, which increased mainly because of consumption of more cheese and milk.

Economic and Social Problems

Democratic processes at work in the South: Report of Commission on Interracial Cooperation, Inc., 1939–1941. By Jessie Daniel Ames. Atlanta, Commission on Interracial Cooperation, Inc., 1941. 21 pp. 5 cents.

In the fall of 1941, 8 of the Southern States comprising the field of operations of the Commission on Interracial Cooperation had interracial organizations which

work for better race relations through education of public opinion. The report of the Commission describes the spread of the principles of interracial cooperation in the South through these means.

Economic effects of steady employment and earnings: A case study of the annual wage system of Geo. A. Hormel & Co. By Jack Chernick. Minneapolis, University of Minnesota Press, 1942. 75 pp., bibliography, charts. $1.25.

The study shows the effects of stabilized employment on the employees of this plant and the community (Austin, Minn.) in which it is located.

Fluctuations in income and employment, with special reference to recent American experience and post-war prospects. By Thomas Wilson. London, Sir Isaac Pitman & Sons, Ltd., 1942. 213 pp., bibliography, chart. (London School of Economics and Political Science, Studies in economics and commerce, No. 8.) $6.

Part I is a review of trade-cycle theory, in which the author makes much use of Mr. Keynes' "General theory of employment, interest, and money." The second part is a study of cyclical fluctuations in the United States from 1919 to 1937, with emphasis on the problem of redistributing income "to offset the partial exhaustion of investment opportunities." At the end of the volume the author offers suggestions for post-war policies. The future of democratic government, he holds, depends on success in solving the problem of unemployment.

International economic development—public works and other problems. By Lewis L. Lorwin. Washington, U. S. National Resources Planning Board, 1942. 111 pp. (Technical paper No. 7.) 30 cents, Superintendent of Documents, Washington.

Includes a description of international public works such as inland-waterways projects and sanitation systems and an account of the development of the idea, largely under the influence of Albert Thomas, the first Director of the International Labor Office, who brought the proposal into public discussion in 1931. Such projects are described as affording new and promising methods by which economic and social readjustments may be made. There is a section on labor supply and social standards. Suggestions are offered regarding the steps deemed desirable for development of public policy in this field.

Education and Training

Annotated bibliography of instructional materials for diversified occupations. Columbia, Mo., University of Missouri, Department of Industrial Education, 1941. 75 pp.; mimeographed.

A selected bibliography on training. Washington, Federal Public Housing Authority, November 1942. 9 pp.; mimeographed.

How to train workers for war industries: A manual of tested training procedures. Edited by Alvin E. Dodd and James E. Rice. New York, Harper & Bros., 1942. 260 pp., bibliography. $3.

The volume contains information developed by the American Management Association and other agencies in the field of industrial training, which can be used for training workers in war industries.

Job instruction: A manual for shop supervisors and instructors. By Western Electric Co. Washington, U. S. War Production Board, Labor Division, [1942]. 43 pp., bibliography. (Training within industry publication.) 10 cents, Superintendent of Documents, Washington.

Housing

FHA homes in metropolitan districts: Characteristics of mortgages, homes, borrowers under the FHA plan, 1934–1940. Washington, Federal Housing Administration, 1942. 238 pp., maps, charts.

Housing in Philadelphia, 1941. Philadelphia, Philadelphia Housing Association, 1942. 23 pp., illus.

Report for 1941 and the first half of 1942 describing the housing problem in the Philadelphia area and what has been done to improve the situation.

Residential vacancies in wartime United States. By Keith W. Johnson. (In Survey of Current Business, U. S. Department of Commerce, Washington, December 1942, pp. 19–22, chart. 15 cents, Superintendent of Documents, Washington.)

Shows the vacancy rates over a period of years ending in August 1942 and discusses the future housing prospects.

Transport development and building cycles. By Walter Isard. (In Quarterly Journal of Economics, Cambridge, Mass., November 1942, pp. 90–112, charts. $1.25.)

This article aims to disclose a fundamental relation between transport development and building activity.

England houses her war workers. By Lady Simon. (In State Government, Chicago, December 1942, pp. 229, 230 et seq., illus. 35 cents.)

Industrial Accidents and Workmen's Compensation

Accident experience of the gas industry for 1941. New York, American Gas Association, 1942. 18 pp. (Statistical bull. No. 47.)

Coal miners' safety manual. By J. J. Forbes, M. J. Ankeny, Francis Feehan. Washington, U. S. Bureau of Mines, 1942. 218 pp., illus. 25 cents, Superintendent of Documents, Washington.

The prevention of accidents on farms and in homes. Washington, U. S. Bureau of Agricultural Economics, 1942. 49, v pp.; mimeographed.

Analyzes farm and home accident data collected from all available sources and representing practically all types and conditions of agriculture in the United States.

Disability evaluation: Principles of treatment of compensable injuries. By Earl D. McBride, M. D. Philadelphia, etc., J. B. Lippincott Co., 1942. Various paging. 3d ed. $9.

An interpretation of the physiological and mechanical effects of physical injury as related to extent of incapacity of injured persons. There is a chapter on the doctor as an expert witness and one on workmen's compensation laws. Different physical disabilities are discussed in detail.

Permanent partial disability under workmen's compensation acts. By Oscar E. Whitebook. (In Iowa Law Review, Iowa City, November 1942, pp. 37–54. $1.)

Municipal workmen's compensation in Pennsylvania. Philadelphia, Pennsylvania Government Administration Service, 1942. 22 pp.; mimeographed. (PGAS pamphlet, Vol. 2, No. 2.) 10 cents.

Industrial Relations

Industrial relations and the determination of conditions of employment in wartime. By I. Bessling. (In International Labor Review, Montreal, November 1942, pp. 525–568. 60 cents.)

Report of New York State Joint Legislative Committee on Industrial and Labor Conditions. Albany, 1942. 150 pp., charts. (Legislative document, 1942, No. 47.)

This report of a continuing committee of the New York Legislature contains recommendations as to legislation in the field of labor and industrial relations. Special subjects considered by the committee include unemployment insurance, education, industrial migration, and planning for post-war reconstruction.

The closed shop. By Julia E. Johnsen. New York, H. W. Wilson Co., 1942. 263 pp. (Reference Shelf, Vol. 15, No. 7.) $1.25.

Selected articles on the open and closed shop, summaries of pro and con arguments, and bibliographies of general discussions and of writings for and against the closed shop.

The Pullman strike: The story of a unique experiment and of a great labor upheaval. By Almont Lindsey. Chicago, University of Chicago Press, 1942. 385 pp., illus. $3.75.

A comprehensive account of the struggle of the American Railway Union against the labor policies of the Pullman Palace Car Company. The author describes in detail the background of the 1894 strike and the effect of Federal intervention in the strike. The study is well documented and contains a bibliography of material on the strike and on labor and social conditions, mainly in the 1880's and 90's.

Union-management cooperation: A psychological analysis. By Irving Knickerbocker and Douglas McGregor. (In Personnel, New York, November 1942, pp. 520–539. 50 cents.)

This article has also been reprinted by the Department of Economics and Social Science of the Massachusetts Institute of Technology as number 9 of its series of publications on industrial relations.

Labor Organizations

The law of labor unions. By Edward M. Dangel and Irene R. Shriber. Boston, National Law Publishers, 1941. xxxii, 743 pp. $15.

The New Orleans longshoremen. By Herbert R. Northrup. (In Political Science Quarterly, New York, December 1942, pp. 526–544. $1.)

Traces the history of the New Orleans longshoremen and examines the problems encountered by their unions.

Types of union recognition in effect in December 1942. Washington, U. S. Bureau of Labor Statistics, [1943]. 15 pp., charts; processed. (Industrial relations problems arising under war production, memorandum No. 5.) Free.

Negro Labor and Welfare

Color—unfinished business of democracy. (In Survey Graphic, New York, November 1942, pp. 455–564 et seq., charts, illus. 50 cents.)

This special number of Survey Graphic, the seventh in the "Calling America" series, contains articles by key persons, both white and colored, on current developments as regards democracy and the colored races. Part I, Negroes, U. S. A., 1942, treats of the Negro and the war and the Negro in American life, including industry; part II, The challenge of color, discusses the colored peoples in the New World and in the Old World.

The Negro handbook. Compiled and edited by Florence Murray. New York, Wendell Malliet & Co., 1942. 269 pp. $3.50.

Presents current facts and figures about the Negro, including information on Negro labor unions, occupations in industry and the professions, participation in government and politics, and housing and home ownership.

Selected bibliography on the Negro. New York, National Urban League, 1942. 23 pp.; mimeographed. 10 cents.

The references, classified by subject, include material on social and economic problems.

To secure for Negroes their basic civil rights. New York, Womans Press, December 16, 1942. 10 pp.; mimeographed. (Public Affairs News Service bull. No. 2, series No. 7.) 10 cents.

Discusses Federal and State civil-rights provisions as applying to Negroes, and certain specific rights stated especially to need implementation, including the right to a job.

Personnel Management

A list of references on the civil service and personnel administration in the United States—Federal, State, and local. Compiled by Ann Duncan Brown. Washington, Library of Congress, Division of Bibliography, July 1942. 107 pp.; mimeographed.

Trends in office organization and personnel policies. By Ordway Tead and others. New York, American Management Association, 1942. 36 pp. (Office management series, No. 99.)

In "Industrial relations in the office," the first of the four articles in this pamphlet, Mr. Tead discusses common shortcomings in the handling of office personnel matters and makes suggestions for improving procedures.

Wartime office personnel problems. By Robert N. McMurry and others. New York, American Management Association, 1942. 43 pp. (Office management series, No. 97.)

Five papers by different personnel experts: Improving interview techniques; Selecting office workers from the factory; Upgrading women workers for men's work; Adjusting personnel standards to the manpower shortage; Effect of current salary trends on the office; Controlling turnover of office personnel.

Post-War Reconstruction

The balance sheet of the future. By Ernest Bevin. New York, Robert M. McBride & Co., 1941. 303 pp. $2.75.

Describes the part of labor and capital in the war and afterwards.

Plan for permanent peace. By Hans Heymann. New York and London, Harper & Bros., 1941. xx, 315 pp., maps, charts. $3.50.

One chapter is on the potentialities of the International Labor Organization.

Relief for Europe—the first phase of reconstruction. Washington, National Planning Association, 1942. 59 pp. (Planning pamphlet No. 17.) 25 cents.

Toward post-war adjustments in America. By Vera Reynolds Kilduff and Esther Cole Franklin. Washington, American Association of University Women, 1942. 47 pp., bibliography; mimeographed. (Contemporary America, Vol. IV, No. 3. 30 cents.)

Full employment of manpower, wise use of industrial facilities and of natural resources, economical techniques for exchange of goods, and balanced policies for investment and financing, are listed as the major economic goals of the post-war period. Problems and plans are briefly analyzed in terms of these major goals.

War and post-war planning in California. Sacramento, State Planning Board, Division of State Planning, 1942. 32 pp.; mimeographed.

Review of major problems, including certain labor questions, and an outline program for consideration and approval by the State Planning Board.

Price and Wage Control

The problem of price and wage control. By J. Steindl. (In Bulletin of Institute of Statistics, Oxford, England, Vol. 4, No. 14, October 10, 1942, pp. 269–274.)

A discussion of experience in Canada and the United States. It is stated that a stoppage of wage increases cannot prevent inflation because the main inflationary factor is the restriction of civilian supply. A stoppage of wage adjustments, it is held, would require compulsion in the allocation of labor to jobs, and this is viewed as having an unfavorable effect on production. The prevention of inflation requires, it is stated, a policy of comprehensive rationing. It is also held that in limited fields subsidies are necessary.

Second report of U. S. Office of Price Administration, covering operations of the Office between May 1 and July 31, 1942. Washington, Government Printing Office, 1942. 255 pp., charts. (House doc. No. 891, 77th Congress, 2d session.)

Wage determination: The evidence before the Wage and Hour Division. By E. B. Mittelman. (In Political Science Quarterly, New York, December 1942, pp. 564–597. $1.)

Critical review of the work of the Wage and Hour Division, U. S. Department of Labor. The conclusion reached by the author is that the Wage and Hour Division "has not, in general, penetrated the wage problem much beyond the work of the arbitration boards called in for the occasion."

British wartime price administration and price movements. By James S. Earley. Washington, U. S. Office of Price Administration, 1942. 182 pp.; mimeographed.

Outlines the major principles and objectives of British price regulation, measures adopted for control of prices and supply of commodities, and operations.

Wages and prices—responsibilities of the Government. (In Round Table, London, December 1942, pp. 17–23. 5s.)

The author advocates wage control in Great Britain, with the Government treating the wage and earnings problem as a part of general price stabilization. Measures adopted in British Empire countries are cited.

Relief Measures and Statistics

Final statistical report of Federal Emergency Relief Administration. Washington, U. S. Work Projects Administration, 1942. 405 pp., charts.

Public and private aid in 116 urban areas, 1929–38, with supplement for 1939 and 1940. By Enid Baird and John M. Lynch. Washington, U. S. Social Security Board, Bureau of Public Assistance, 1942. 116 pp., charts. (Public assistance report No. 3.) 40 cents, Superintendent of Documents, Washington.

The report, covering relief expenditures in urban areas over a 12-year period, shows not only trends in expenditures, but also attempts to analyze these expenditures from the background of economic depression and the far-reaching changes that have occurred in the structure of public and private aid.

Public assistance, 1941. Washington, U. S. Social Security Board, Bureau of Public Assistance, 1942. 45 pp., charts. (Public assistance report No. 4; reprinted from Social Security Yearbook, 1941.)

How to help cases of distress: A yearbook of information respecting the statutory and voluntary means of relief [*Great Britian*]. London, Charity Organization Society, 1942. 255 pp. 3s. 6d.

Social Security (General)

Social insurance and allied services. By Sir William Beveridge. London, His Majesty's Stationery Office, 1942. 299 pp. (Cmd. 6404.) 2s. (Reproduced photographically by Macmillan Co., New York. $1.)

A summary of this report is given in this issue of the Monthly Labor Review (p. 272).

Social insurance and allied services: Memoranda from organizations—Appendix G to report by Sir William Beveridge. London, His Majesty's Stationery Office, 1942. 244 pp. (Cmd. 6405.) 2s.

Contains memoranda submitted by organizations and individuals for consideration in preparation of the report by Sir William Beveridge (see preceding entry).

Wages and Hours of Labor

Earnings and hours in men's cotton-garment industries and in plants manufacturing single pants other than cotton, 1939 and 1941. Washington, U. S. Bureau of Labor Statistics, 1942. 25 pp., chart. (Bull. No. 719.) 10 cents, Superintendent of Documents, Washington.

Earnings in manufacture of industrial machinery, 1942. By H. R. Hosea, O. C. Clark, G. E. Votava. Washington, U. S. Bureau of Labor Statistics, 1942. 46 pp. (Bull. No. 720.) 10 cents, Superintendent of Documents, Washington.

Estadística de salarios [*México*]. By Pedro Merla. (In Trabajo y Previsión Social, Secretaría del Trabajo y Previsión Social, México, August 1942, pp. 13–37.)

Examines the rise in indexes of wages in Mexico in comparison with those of cost of living, from 1935 to June 1942, and gives data as to employment, total wages, production, and costs of finished products in the manufacture of various articles entering into the cost-of-living index, for each year from 1936 through 1941, with conclusions reached and recommendations.

Wartime Conditions and Policies

Labor in wartime. (In Law and Contemporary Problems, Durham, N. C., Vol. IX, No. 3, summer 1942, pp. 371–578. $1.)

Topics covered in this symposium include the effect of the war on labor legislation; work of labor boards and agencies in wartime; recruitment, training, and allocation of manpower; wartime methods of dealing with labor in Great Britain and the Dominions; and labor mobilization by the Germans.

Nothing counts but victory: Conserve materials to win the war, by John Miller; *How to get a job in war work*, by John Miller; *What boys and girls can do to win the war*, edited by Albert Parry; *What women can do to win the war*, edited by Albert Parry; *What you can do in civilian defense*, edited by F. J. Meine and H. L. Hitchens. Chicago, Consolidated Book Publishers, Inc., 1942. 5 pamphlets; various paging. 15 cents each.

United States at war, December 7, 1941–December 7, 1942. (Special number of Army and Navy Journal, Vol. 80, No. 15, whole number 3143, Washington, December 12, 1942; 180 pp., illus.)

Articles on labor questions in this number of the Army and Navy Journal are: American labor in the war; The American Federation of Labor and the war; The CIO and the war; The independent unions in the shipbuilding industry and their war efforts; All-out mobilization for all-out war; Manpower and the Army; Labor, management, and the Navy.

War without inflation: The psychological approach to problems of war economy. By George Katona. New York, Columbia University Press, 1942. 213 pp. $2.50.

Discussion of such topics as the effects of attitudes of mind on inflation and the problems of price-fixing, rationing, taxation, wage stabilization, saving, and government publicity. It is stated that public authorities should give careful consideration to prevailing attitudes of mind and should adopt measures designed to insure an understanding of policies regarded as necessary to prevent inflation.

Wartime economic and social organization in Free China. (In International Labor Review, Montreal, December 1942, pp. 692–715. 60 cents.)

Reviews the measures taken during the past two years for the social and economic organization of the country with a view to national defense. While these measures have been planned from the standpoint of the military needs of the country, they have also taken into account considerations of a progressive social policy which is gradually taking shape.

War problems as they affect British home life. By Ruth Taylor. (In Public Welfare News, Chicago, December 1942, pp. 1–3, 8.)

Results of a study, made on the author's recent trip to England, of the effects of war upon home life, showing the part that women are taking in war work and the difficulties resulting from blackouts, rationing, long hours of work, shortage of transportation, etc.

Wholesale Prices

Wholesale prices, January-June 1942. Washington, U. S. Bureau of Labor Statistics, 1942. 52 pp., charts. (Bull. No. 718.) 10 cents, Superintendent of Documents, Washington.

The bulletin gives index numbers for groups and subgroups of commodities and index numbers and average actual prices of individual commodities.

Index numbers of wholesale prices of foodstuffs in Puerto Rico. San Juan, Department of Agriculture and Commerce, Bureau of Commerce, 1942. 58 pp., charts. (Bull. No. 1.)

Women in Industry

Vocational information digest: War demands for college women. New Brunswick, New Jersey College for Women, 1942. 51 pp. 25 cents.

Students' reports on information and advice given them by speakers at the Fourth Vocational Information Conference held at the New Jersey College for Women, New Brunswick, October 29 to 31, 1942. The theme of the conference was "War demands for college women."

War jobs for women. Washington, U. S. Office of War Information, Magazine Section, 1942. 48 pp. 10 cents, Superintendent of Documents, Washington.

Contains information as to the kinds of war jobs for women which are obtainable—in serving Uncle Sam, in the war industries, in business and the professions, and as volunteers in various services—describing the qualifications necessary, pay, training, and where to find out about them and to apply for them.

Women in industry. Chicago, National Safety Council, 1942. 8 pp., illus. (Safe practices pamphlet No. 107.)

Deals with measures for promoting safety and health for women in industry.

Women in industry—their problems of health. By Milton H. Kronenberg, M. D. (In Industrial Medicine, Chicago, December 1942, pp. 589–592. 50 cents.)

Discusses the work of women in industry from the standpoint of adequate provision for their health and well-being.

The women learn fast. By Carl N. Brown. (In American Machinist, New York, December 24, 1942, pp. 1492–94. 35 cents.)

Describes how the General Electric Company trains woman machine operators rapidly with an "observe-then-do" program.

Women workers in Argentina, Chile, and Uruguay. By Mary M. Cannon. Washington, U. S. Women's Bureau, 1942. 15 pp. (Bull. No. 195.) 5 cents, Superintendent of Documents, Washington.

Shows extent of employment of women in various fields and discusses their wages, hours, and working conditions; labor legislation for working women; organizations of employed women; and educational opportunities.

Conscription of women in Great Britain. By Margaret G. Bondfield. (In Occupations, the Vocational Guidance Magazine, New York, December 1942, pp. 283–287. 50 cents.)

Youth Problems

Barriers to youth employment. Prepared for American Youth Commission by Paul T. David. Washington, American Council on Education, 1942. 110 pp. $1.75.

A study of obstacles which frequently seem to stand in the way of youth employment, such as entrance requirements for certain occupations, seniority practices, child-labor regulation, and minimum-wage laws. The importance of these barriers and the advisability of revising present policies and practices to facilitate youth employment are considered.

Civilian Conservation Corps. A monograph prepared by Legislative Reference Service, Library of Congress. Washington, Government Printing Office, 1942. 149 pp. (Senate doc. No. 216, 77th Congress, 2d session.)

Describes the organization and functioning of the Civilian Conservation Corps and considers similar youth labor groups in Europe. Part I deals with the social and cultural background of the CCC, its history, and the social groups involved in its formation. Part II includes a general account of the set-up of the CCC, both formal and informal. Part III attempts to evaluate the important accomplishments of the CCC and to indicate some of its shortcomings. Part IV concerns the more important problems, such as costs, and alternatives listed. Part V presents the experience of other nations with labor camps. (Part V is available only in mimeographed form, on request from Legislative Reference Service, Library of Congress.)

Governmental programs for youth. (In Bulletin of Committee on Youth Problems, American Council on Education, Washington, November 1942, pp. 2–7.)

Compilation of the youth programs supported by the Federal Government, with a description of the purpose, requirements, etc., of each.

Which jobs for young workers? No. 1, *Employment of young workers in war industries;* No. 2, *Advisory standards for shipbuilding;* No. 3, *Advisory standards for lead and lead-using industries.* Washington, U. S. Children's Bureau, 1942. 4, 5, and 5 pp.

First of a series of leaflets dealing with accident and health hazards in industries in which young workers are apt to be employed in wartime, and setting up advisory standards concerning hazards of occupations. No. 1 is a general introduction to the series, and numbers 2 and 3, as indicated by the titles, deal with the shipbuilding and lead-using industries, respectively.

Work experience programs for older youth in school. Hartford, Conn., State Department of Education, 1942. 44 pp. (Bull. XXI.)

Review of types of programs now being attempted in Connecticut high schools, summary of legal requirements, common questions and answers, and methods of organizing work experience programs.

General Reports

A national defense bibliographical series on the worker and his needs: No. 1, *The health of the worker;* No. 2, *The worker as a consumer;* No. 3, *Workers and national defense.* Washington, U. S. Work Projects Administration, Workers Service Program, August 1941. 20, 11, and 12 pp.; mimeographed.

Annual report of Department of Labor and Industrial Relations, Territory of Hawaii, July 1, 1941, to June 30, 1942. Honolulu, 1942. 58 pp.

The report describes the effect of the war on the industrial life of the Territory and summarizes the work of the bureaus of labor-law enforcement, workmen's compensation, unemployment compensation, and research and statistics.

A short history of labor conditions under industrial capitalism: Volume I, Great Britain and the Empire, 1750 to the present day. By Jürgen Kuczynski. London, Frederick Muller, Ltd., 1942. 272 pp. 12s. 6d. ($4.50, S. J. R. Saunders, Toronto).

Labor in Latin America. By Ernesto Galarza. Washington, American Council on Public Affairs, [1942?]. 16 pp.

Reviews the attitude of workers in Latin America toward democracy and the war effort, and gives some information on labor organization, industrial and agricultural wages, cost of living, housing, and labor migration in Latin America.

Brazil under Vargas. By Karl Loewenstein. New York, Macmillan Co., 1942. xix, 381 pp., map. $2.75.

Labor provisions of the Brazilian Constitution of 1937, labor organizations, minimum wages, labor courts and their administration, protection of small farmers, protection of the family, restrictions on employment of aliens, and other matters of labor interest, are among the subjects treated.

Las estadísticas del trabajo en Cuba. By J. E. de Sandoval and Robert Guye. (In Trabajo, Ministerio del Trabajo, Habana, June 1942, pp. 277–300.)

The article gives information on the legislative background of the recently-formed Cuban Statistical Commission, the report of the technical specialist furnished by the International Labor Office to cooperate with the Commission, and an outline of a general scheme for the collection and presentation of Cuban labor statistics.

Earning and living in colonial Mexico City: I, Prices and profits; II, Workers and taxes. By Chester L. Guthrie. (In Bulletin of the Pan American Union, Washington, August 1942, pp. 421–431; September 1942, pp. 514–518. 15 cents each.)

This account of economic life in colonial (17th century) Mexico City contains information on marketing and price regulations for grain, meat, livestock, etc.; guilds and their control and operation; and wages. Reprinted from Revista de Historia de América, Mexico City, December 1939.

Anuario estadístico de Venezuela, 1940. Caracas, Ministerio de Fomento, Dirección General de Estadística, 1941. 710 pp.

Includes data on number of persons employed and total and average salaries and wages in industry, commerce, and service enterprises, by States and by industries, as shown in censuses of 1936; and in agriculture and grazing, by States, according to the agricultural census of 1937; employment of aliens and nationals in the petroleum industry, with average salaries and wages, for 1936–38; wholesale and retail prices of various articles for 1940 and earlier years; detailed summary of a cost-of-living study made in Caracas in 1939; and for 1939 and 1940, statistics of labor inspection, industrial accidents, and placements of workers by private and Government employment offices.

World economic survey, 1941–42. Geneva, League of Nations, 1942. 198 pp., charts. $2.50, Columbia University Press, New York.

Following a general outline of the economic situation in different countries, chapters are devoted to production, consumption and rationing, finance and banking, price movements and price control (including information on wages and wage control), international trade, and the transport situation.

U. S. GOVERNMENT PRINTING OFFICE: 1943