MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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In this issue...

Influence of Age on Employment Opportunities • Annual Earnings in Furniture Factories • Industrial Aspects of Labor Mobility • International Labor Conference Program

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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

HUGH S. HANNA, EDITOR

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A new farm-to-market road connecting Muscle Shoals and Memphis highways.

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This Issue in Brief

Industrial Aspects of Labor Mobility.

An analysis of the employment records of 188,757 workers in Michigan over an approximate period of 5 years, indicated that fishermen, miners, and forestry workers were the groups most mobile in search of employment. Agricultural workers were next. Professional and semiprofessional workers were more likely to move, looking for work, than were those usually employed in factories and mechanical industries. The distance traveled was in direct relation to the industry in which work was sought. Labor mobility does not, of course, always bring the job and the worker together, as the worker so often lacks accurate information as to employment opportunities, and much wasted effort results. The article on page 789 throws light upon the mobility (frequency, length, and direction of moves), in relation to industry, of workers in all the industrial groups in Michigan.

Accidents in the Fertilizer Industry.

For each million man-hours worked in the fertilizer industry in 1937, there were 41.59 disabling injuries. This was practically the same rate of frequency as that shown in 1936 (41.45). The severity rate, however, showed a considerable increase in the same period. In 1936 the time lost because of disabling accidents averaged 4.80 days for every thousand man-hours worked, whereas in 1937 the rate rose to 5.81 days. This rise was due largely to the increased number of fatal accidents in 1937. The Bureau of Labor Statistics' findings in its survey of this industry are given on page 856.

Age and Employment.

The reduction in employment in 1937–38 resulted in a higher proportion of older workers among the forces of a group of Massachusetts factories recently studied. This was because, in times of reduction of force, seniority comes into play and the older, experienced workers, especially those with long service, are generally retained. Employers have a sense of obligation in such cases. Younger men may be given preference in hiring, but they also are most likely to be laid off in times of depression. Two-thirds of the men hired during 1937–38 were under 35 years, but the same proportion of those laid off were also from this age group.

Analysis of production records revealed no definite tendency toward decreased productivity with advancing age, except in a few special jobs, nor did there seem to be a greater liability to accidents. Indeed, among the woman workers, the younger ones had the more accidents. Page 765.

Social Insurance in France.

Approximately 5,850,000 workers in industry and commerce and 575,000 in agriculture and forestry were regular contributors under the French social-insurance system in 1936, according to a report covering the system for the years 1935 and 1936. The contributions in 1936 amounted to over 2½ billion francs, but were increased to over 4 billion francs in 1937, owing to general wage increases, the restoration of the 8-percent contribution rate, and an increase in the maximum wage on which contributions are calculated.

More than 1¼ billion francs were expended for sickness benefits for workers in industry and commerce by 699 funds during the period January 1, 1935, to March 31, 1936. Maternity benefits amounted to more than 184 million francs, and death benefits to over 39 million francs. Page 812.

Annual Earnings in Furniture Factories.

Wage earners in furniture factories, whose employment extended over 12 months, averaged $1,202 in 1936. Including all workers employed 9 months or more, the average was $1,177, while for employees working 6 months or more it was $1,133. For all wage earners working any part of the year, the average annual earnings amounted to $997. These figures are based on annual earnings data obtained by the Bureau of Labor Statistics from 68 northern furniture factories for the year 1936. Page 781.

Industrial Instruments and Technological Change.

The use of industrial instruments has recently increased very significantly. These instruments consist of meters, gages, thermometers, chronometers, valves, switches, and numerous other devices for performing the three functions of indicating, recording, and controlling a great variety of conditions and processes. A recent WPA study, summarized on page 818, describes the relation of the increase in the use of these instruments to the types of labor required and to the amount of employment.

Electrification and Rural Life.

That the rural electrification program has contributed enormously toward raising the standard of living and the enjoyment of life on farms is evident from the annual report of the Rural Electrification Administration, summarized on page 905. Not only have the labors of the farmer and his wife been lightened by the installation of electric power, but the improvements in farm techniques made possible by electrical equipment have resulted in new sources of income. Many incidental advantages—in improved safety and rural health, increased farm values, benefits to rural schools and other community meeting places etc.—are noted. Business has also profited, through the sales not only of electrical products but of commodities (such as bathroom equipment), the demand for which is stimulated by availability of electricity.

Labor Requirements on Road Construction.

Of every million dollars spent for construction on Federal road projects completed between July 1935 and August 1937, financed under the Emergency Relief Appropriation Acts of 1935 and 1936, $373,000 was paid to workers at the site. Material costs were $346,000, 16 percent of which went for iron and steel, 16 percent for sand, gravel, and crushed stone, 16 percent for petroleum products, 14 percent for cement, 7 percent for paving materials and mixtures, 6 percent for lumber, and 25 percent for all other materials used. Other costs and profit amounted to $281,000.

For every million dollars in contracts awarded, approximately 1,402,000 man-hours of site and off-site labor were worked on roads. Site man-hours accounted for 58 percent of this total and off-site for 24 percent. In the article on page 824, data on road construction are shown for the following types of construction as well as for the total: Bituminous paving, bridge construction, concrete paving, and grading and drainage.

MONTHLY LABOR REVIEW

FOR APRIL 1939

INFLUENCE OF AGE ON EMPLOYMENT OPPORTUNITIES

By Dwight L. Palmer and John A. Brownell, *Industrial Relations Section, Massachusetts Institute of Technology*

Summary

A STUDY of employment opportunities by age groups in New England industries was conducted during August and September 1938 by two staff members of the Industrial Relations Section of the Massachusetts Institute of Technology, for the Bureau of Labor Statistics, in order to obtain information for the use of the Committee on Employment Problems of the Older Workers. The inquiry was designed to illustrate the problems of employment encountered by workers in different age groups in New England; to collect such information as was obtainable on hiring and lay-off policies, and on accident, sickness, and production records, by age; and to indicate the possibilities for a broader inquiry.

The survey was confined to 26 rather large manufacturing companies, of which only one had fewer than 200 employees. For the most part, they employ skilled or semiskilled labor and are old established firms, representing a balanced group of New England factories in diverse lines of business. The inquiry was carried out by personal interview, usually with the operating executive of the plant, supplemented by detailed statistical records compiled by the companies on special forms developed for the purpose.

The study covered all age groups and both sexes, and provided an analysis of the age distribution of employees on a recent date in 1938 and on the corresponding date in 1937; an analysis by age groups of the hirings and separations for 1 year and of the ages of applicants for jobs; and analyses of accident and sickness rates and cost, and of productivity, by age groups.

New England workers are not representative of the entire country because New England has more middle-aged and older persons in its working population than has the country as a whole.

The findings of the survey may be summarized as follows:

1. The age distribution of the working population is markedly affected by industrial fluctuations and, in New England, the reduction in employment which took place in 1937–38 resulted in an increase in

the proportion of workers in each 5-year age group over 30 years, and a decrease in the proportion in each group under that age.

2. Productivity records for three firms indicate no definite tendencies toward diminution in production with advancing age, except in a few special jobs. This relates to employed workers; ineffective workers of any age presumably are weeded out.

3. Accident records, available for only seven plants and hence not suitable for broad generalization, showed no definite relationship between age and either frequency or severity of accidents in the case of men, while among woman workers, younger women experienced more accidents. Records for one large plant showed a trend toward fewer and less severe accidents and lower accident costs for older workers; the records of another large plant indicated a trend in the opposite direction.

4. Interviews with employers reveal that the sense of obligation to provide for older workers who are no longer able to work constitutes their only specific reason for hesitation in the hiring of older workers, except for the belief in some instances that younger men and women are more versatile. Employers expressed a generally high regard for the older workers on their pay rolls. On jobs where skill is required, and where there is any shortage of suitably trained workers, age is definitely not a consideration in hiring.

5. Two-thirds of the men hired were younger workers under 35. On the other hand two-thirds of the 1937–38 cut in working force was taken by the men in this same age group. It appears that older people who are on industrial pay rolls are protected by the employers' sense of obligation to older workers with long service records, and by seniority policies governing lay-offs. Seniority appears to be important in both union and nonunion plants.

Purpose of the Study

The older worker's much-discussed present difficulty in finding a job is, at least in part, a reflection of the severe unemployment of the last 9 years. At the same time, there may be particular hazards of employment affecting other age groups as well as the older workers. It is clear that, if a problem really exists for any age group, a solution which does not simultaneously solve the problem of general unemployment must be carefully scrutinized to make certain that it does not merely transfer the problem from one set of workers to another. Comparatively little objective information has been available on the subject of the employment obstacles—whether based on reality or misconception—which face these different age groups in the employable population.

The study of employment opportunities by age groups which is presented here was undertaken to illustrate the problems of employ-

ment encountered by workers of different age groups in New England and to determine the availability and usefulness of existing industrial records as sources of information on the subject.

Interest in obtaining factual information on this subject has been heightened in New England by the Massachusetts act of 1937, which states that it is "against public policy to dismiss from employment any person between the ages of 45 and 65, or to refuse to employ him, because of his age." Although the act is enforceable only through publication of violations, it has awakened employers to the alternative of industrial, as compared with legislative, action in this field.

In order to cover a large number of workers within the brief time available for the survey, only rather large manufacturing establishments were included. With one exception, the 26 companies covered each had 200 or more employees. Although the group was too limited to be strictly representative of New England industry, every effort was made to include a balanced group of industries and firms, with respect to size of community and plant, competitive situation, age of the industry and firm, technical labor requirements, union agreements, and seasonal fluctuations.

The 26 companies cooperating in the study, whose records are summarized here, represent the following broad industrial classifications:

	Number of plants
Light metal	5
Light electrical equipment	4
Shoes	3
Textiles	3
Rubber goods	3
Heavy chemicals	2
Heavy steel	2
Miscellaneous	4

As a group these firms employed about 30,000 factory workers in 1938.

Method of Study Employed

The data collected covered the age distribution of factory employees[1] on a date in the summer of 1938 and the corresponding date in 1937, shown separately by skill wherever possible; the age grouping of persons hired and rehired and of persons separated fron their jobs during 1 year; the age grouping of persons applying for work; accident exposure, frequency, severity, and cost for factory workers by age groups for 1 year, and similar information (except cost) as regards sickness of employees; and productivity of factory workers by age

[1] Although efforts were made to cover both clerical and factory workers, the data obtained with regard to the former were so scattered and incomplete that it was decided to limit the present report to factory workers only.

groups. Standard forms were provided for records on each subject covered. Personal interviews were arranged, in most cases with the chief executive of each firm; the general nature of the survey was outlined, and the importance of obtaining objective statistical data was emphasized, even though the cost of compiling such information involved a reduction in coverage. The operating staff which was to do the actual clerical work was given careful instructions on the definitions and procedures involved in the completion of the forms, with necessary adaptations to the diverse record keeping of the several firms. As a result of these interviews it was possible to secure data which are accurate within a narrow margin of clerical error.

The reception of this survey by industry was almost uniformly friendly and cooperative. If the requests had been for information of the type which can be given easily and quickly in one interview, this willingness to be of aid might provide little cause for comment. But the work involved in completing the various forms constituted a clerical task of very considerable proportions. Certain types of information, particularly on accidents and sickness, where it was necessary to compute the time exposure for each age group, could only be obtained from a limited number of firms. Accordingly, each of the tables presented here deals only with those companies among the 26 covered from which adequate data [2] were collected on the particular subject in question.

The Results Obtained

It is essential to keep in mind the age distribution of the population in New England [3] in order fully to understand the particular problem of the relation of age to employment opportunities in this area. New England has more than its share of older persons. According to the 1930 United States Census, New England had a larger percentage of population over 35 and a smaller percentage below 30 years of age than had the United States as a whole. New England also had a higher percentage of gainful workers in each 5-year age group between 40 and 74. Whereas 43.6 percent of New England's gainful workers were between these ages, only 39.3 percent of the gainful workers of the United States as a whole fell in this category.

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[2] The Social Security Act has undoubtedly caused many firms to improve and enlarge their labor records. In addition, the 1937 Massachusetts act, designed to eliminate age discrimination in employment, requires that "* * * every employer shall keep a true and accurate record of the ages of all his employees." Legislation of the foregoing types rendered the field work both easier and more productive.

[3] This is not intended as an endorsement of the policy of deliberately matching the age distribution of a company's employees to the age distribution of the local population. Since many industries are suitable primarily for certain age groups, such a policy, to be sound, would have to be based on a study of all employment in a district and impartial allocation of suitable age groups to each employer.

BUSINESS FLUCTUATIONS AND FACTORY AGE DISTRIBUTION

The make-up of the working population is continually changing between periods of active and depressed business, and this affects not only the size of the group actually at work but its age composition as well. Accordingly, the period covered by the present survey (mid-1937 to mid-1938) was chosen in order to analyze employment through a time of marked and consistent shrinkage of industrial production.

Table 1 shows an analysis of 24 New England plants which employed 32,489 factory workers in 1937, and compares the age distribution of that year with that of 1938. During these 12 months the total employment of the whole group of firms was reduced by 15.9 percent, to 27,314, although 7 of the firms increased their forces during the period.

TABLE 1.—*Comparative Age Distribution of Factory Workers, by Sex, in 24 New England Plants* [1]

Age group	Men		Women		Total	
	1937	1938	1937	1938	1937	1938
Total number of workers	22,934	20,663	9,555	6,661	32,489	27,314
	Percentage distribution [2]					
Under 30 years	30.3	28.2	63.1	54.4	40.0	34.5
30 years and over	69.7	71.8	36.9	45.6	60.0	65.5
15 to 19 years	2.4	2.6	10.0	6.0	4.7	3.4
20 to 24 years	13.5	12.0	33.2	27.4	19.3	15.7
25 to 29 years	14.4	13.6	19.9	21.0	16.0	15.4
30 to 34 years	12.1	12.2	10.5	12.7	11.7	12.3
35 to 39 years	12.0	12.3	9.1	10.6	11.2	11.9
40 to 44 years	11.8	12.0	7.0	8.5	10.3	11.1
45 to 49 years	11.1	11.5	4.5	5.6	9.1	10.1
50 to 54 years	9.0	9.3	2.9	4.1	7.2	8.0
55 to 59 years	5.9	6.5	1.5	2.1	4.6	5.4
60 to 64 years	4.2	4.3	.9	1.3	3.2	3.6
65 to 69 years	2.4	2.5	.4	.6	1.8	2.1
70 to 74 years	1.0	1.0	.1	.1	.7	.8
75 years and over	.2	.2			.2	.2

[1] In every case the comparison was between 1937 and 1938, with 12 months intervening between the 2 pay rolls analyzed. Efforts were made to get the age distribution for June of each year, but the records of certain firms necessitated the use of a different month in some cases.

[2] In this and the following tables figures representing less than 1/10 of 1 percent are omitted. All other figures are shown to the nearest tenth of 1 percent.

It is apparent from the record given in table 1 that, in a time of lay-off, greater protection is given the older workers. Thus a net lay-off of about 16 percent of the workers employed in these plants in 1937 resulted in a reduced proportion of the total workers in each age group under 30 years, and an increased proportion in every age group over 30. The percentage of the total force aged 29 or less was reduced from 40 to 35 while the proportion aged 30 or over increased from 60 to 65 percent. More than two-thirds of the total net reduction took place in the group under 30, which represented only 40 percent of the 1937 force. The men under 30, who were only about 30 percent of the 1937 male force, suffered 50 percent of the net male reduction.

In this connection seniority appears to be a determining factor, although recent studies indicate that need and ability also play their part. Among the executives interviewed there was a general feeling that the firm's obligation to a worker increases substantially with his length of service. No difference was apparent in this respect between the firms with union seniority agreements and the nonunion plants.

AGE DISTRIBUTION, HIRING, AND SEPARATIONS

An error frequently made in approaching the problem of age and employment is to analyze primarily the age distribution of persons hired and rehired. It cannot be too strongly emphasized that a study of the ages of persons hired may be totally misleading without a simultaneous examination of separations from the working force over the same period, and of the age distribution of the current force. This is demonstrated by the following tables which compare the age distribution of the hirings, lay-offs, and total separations occurring over a 12-month period with the age distribution of those employed by the same companies at the beginning of the period. Table 2 shows the distribution of male factory employees in 17 [4] plants and female workers in 11 [5] plants for which records could be obtained.

TABLE 2.—*Distribution, by Age, of Factory Employees Hired, Laid off, and Totally Separated During a 12-Month Period, in New England Plants* [1]

Age group	Males (17 plants)				Females (11 plants)			
	Age distribution at beginning of period	Hired and rehired	Laid off	Total separations (including lay-offs)	Age distribution at beginning of period	Hired and rehired	Laid off	Total separations (including lay-offs)
Number of employees	18,560	3,728	3,498	4,713	7,906	2,072	3,034	4,123
	Percentage distribution							
Under 35 years	43.9	67.6	68.2	67.1	79.5	75.3	87.5	88.0
35 years and over	56.1	32.4	31.8	32.9	20.5	24.7	12.5	12.0
15 to 19 years	2.5	10.2	5.2	5.1	11.5	10.4	15.9	14.1
20 to 24 years	14.2	25.2	27.6	26.7	37.7	32.0	46.0	47.1
25 to 29 years	14.8	18.5	22.2	21.9	20.6	22.0	18.6	19.7
30 to 34 years	12.4	13.7	13.2	13.4	9.7	10.9	7.0	7.1
35 to 39 years	12.5	11.3	9.9	9.9	8.2	10.9	6.0	5.7
40 to 44 years	12.2	9.6	9.4	9.0	5.6	7.9	3.8	3.5
45 to 49 years	11.0	6.2	5.7	5.6	3.1	4.2	1.9	1.7
50 to 54 years	8.5	3.4	4.0	4.0	1.8	1.4	.6	.6
55 to 59 years	5.3	1.3	1.7	1.9	.9	.3	.2	.3
60 to 64 years	3.5	.2	.6	1.0	.6	----	----	.1
65 to 69 years	2.1	.3	.3	1.0	.3	----	----	.1
70 to 74 years	.8	.1	.1	.3	----	----	----	----
75 years and over	.2	----	.1	.2	----	----	----	----

[1] In every case the comparison was between 1937 and 1938, with 12 months intervening between the 2 pay rolls analyzed. Efforts were made to get the age distribution for June of each year, but the records of certain firms necessitated a different month in some cases.

[4] Representing all the industrial classifications on page 767 except textiles.

[5] Representing all the industrial classifications on page 767 except steel and textiles.

The table indicates that while two-thirds of the men hired and rehired were under 35 years, it was also in this age group that over two-thirds of the lay-offs and two-thirds of the total separations took place. With the women, the situation was similar except that the lay-offs were even more concentrated in the age groups under 35. Thus, while the younger workers are favored in hiring, they are even more likely to be laid off when reduction of the working force is necessary.

It should be emphasized that the age distributions shown do not represent a static situation, and a study covering some other period might show a different age structure. Nevertheless, this record presents a clear-cut picture of the recent situation in the New England plants covered by the survey.

APPLICATIONS

The question of age and employment may be clarified by analyzing the age distribution of applicants for industrial work. Records of all of the people seeking work at a plant are difficult to find because most firms weed out unlikely applicants before accepting written applications. Figures covering 2,494 individuals were obtained from 6 firms [6] which take applications from all who apply. The age distribution of these applicants is presented in table 3.

TABLE 3.—*Percentage Distribution, by Age, of Unselected Applicants for Factory Work in 6 New England Plants* [1]

Age group	Men			Women: Total
	Skilled [2]	Semiskilled and unskilled [2]	Total	
Number of applicants	622	1,348	1,970	524
	Percentage distribution			
Under 30 years	39.7	80.3	67.3	93.5
30 years and over	60.3	19.7	32.7	6.5
15 to 19 years	4.0	24.5	17.9	54.2
20 to 24 years	19.3	32.3	28.2	31.9
25 to 29 years	16.4	23.5	21.2	7.4
30 to 34 years	16.7	7.3	10.4	1.0
35 to 39 years	15.8	4.7	8.2	3.6
40 to 44 years	12.4	4.3	6.9	1.5
45 to 49 years	9.0	1.9	4.1	----
50 to 54 years	3.7	.6	1.6	.2
55 to 59 years	2.1	.4	.9	----
60 to 64 years	.6	.4	.5	.2
65 to 69 years	----	.1	.1	----
70 to 74 years	----	----	----	----
75 years and over	----	----	----	----

[1] The period covered differs for each plant but in all cases unselected groups of applicants were used.
[2] Uniformity of definitions for the terms "skilled," "semiskilled," and "unskilled" is difficult, if not impossible. The distinctions usual to each industry and plant were accepted.

[6] Two firms in the miscellaneous classification; one firm from each of the following categories: Textile electrical equipment, rubber, and shoes.

In these cases the concentration in the younger age groups was even greater than in the age distribution of persons actually hired or rehired. Thus, 72 percent of the applicants were below 30 years of age, and 92 percent were under 40. The woman applicants, as a group, were even younger, 86 percent being less than 25 years old. While only one-fifth of the semiskilled and unskilled men applying were over 29, the skilled applicants were decidedly older. Three-fifths were 30 or over, and 28 percent were over 39. It may be that this age distribution reflects the ideas, held by the local unemployed, as to the hiring policies of the six firms. If a rumor gets started that a company hires only those under 30, it may effectively discourage older people from applying for work, whether or not the rumor be true. In any case the coverage is too narrow to present a true cross section of all of the unemployed seeking work, but it does indicate the picture of job seekers which is presented to these New England factories.

In one plant, which is the largest single factor in the local labor market, the State employment service was extensively used. An analysis of the applications at this employment agency is presented in table 4.

TABLE 4.—*Age Distribution, by Sex, of Applicants for Work at a Public Employment Office in New England, September 1938*

Age group	Men		Women	
	Number of applicants	Percent of total	Number of applicants	Percent of total
Under 30 years	373	38.4	33	44.6
30 years and over	599	61.6	41	55.4
15 to 19 years	70	7.2	8	10.8
20 to 24 years	159	16.4	20	27.1
25 to 29 years	144	14.8	5	6.7
30 to 34 years	125	12.9	11	14.9
35 to 39 years	90	9.3	7	9.5
40 to 44 years	89	9.2	10	13.5
45 to 49 years	88	9.0	2	2.7
50 to 54 years	75	7.7	5	6.7
55 to 59 years	51	5.2	3	4.1
60 to 64 years	46	4.7	0	
65 to 69 years	28	2.9	2	2.7
70 to 74 years	5	.5	0	
75 years and over	2	.2	1	1.3
Total	972	100.0	74	100.0

In this case the average age of applicants is considerably higher than in the plants whose records are summarized in table 3. Only 39 percent of the applicants were under 30 years, while another 39 percent were 40 or more years old. This may be attributable either to special conditions in the industry and locality represented here, or to the greater average age of applicants at public offices.

ACCIDENT COSTS, BY AGE GROUPS

An important question often raised in discussing deterrents to the hiring of older workers is whether, as a group, they are more frequently or more severely injured than their younger colleagues.

Data on this subject are hard to collect, for several reasons. Although good records are generally available on number of accidents, days lost, and total direct cost, and these items can easily be classified by age groups, such figures have no meaning until compared with the relative exposure to hazard of each age group.

Although no attempt was made to evaluate the degree of hazard for each job, it was deemed essential to measure at least the comparative time length of exposure of each age group. This made it necessary to compile, by age groups, the hours worked by all employees—a process which is extremely costly because records are not maintained in this way. Although the period covered was limited to 1 year, only seven firms were willing to undertake the task of compiling the data. In two firms, where the weekly hours of work are uniform throughout the force, the total weeks worked by each age group were estimated from the records.

It was the opinion of the investigators that if accidents affect the employment opportunities of different age groups, it would be cost as related to exposure which would exert the greatest influence. As used in this study, direct cost was defined as the actual cash expended for compensation, specific benefits, and medical care. Each company, or its insurance carrier, maintains a separate file for each worker suffering a lost-time injury, and in this file each cash payment in connection with that accident is entered. Accordingly, it was a simple matter to obtain the total direct cost from these records.[7] Since State laws differ, and direct medical cost is influenced by the presence or absence of a salaried physician within the firm, it must be remembered that cost has a somewhat different significance for each firm studied. Premium cost, however, is even less uniform, since it is based on the average accident experience of all firms in the industry and State, modified by the weighted average of several years' accident experience for the individual firm. In addition, premium costs vary by 20 percent or more, depending on whether the insurance carrier is a mutual company, which pays dividends to policyholders, or a stock company, which does not.

No combination of the records for all seven firms is presented, partly because of their diverse character and their limited number, and partly because there appeared to be no definite relationship between age and accidents, except for a tendency for accident hazards among women to be higher among younger workers. In all cases, however,

[7] In the few cases in which final settlement had not yet been made, the insurance company's estimate of the ultimate cost was used.

the small accident cost per employee in these firms—which no doubt had safety records well above the average for New England—suggests that the cost of accidents in such firms does not constitute a convincing reason for favoring any age group in developing employment policies.

The records of two of the large companies which compiled data on exposure to accidents illustrate completely opposite tendencies. They are shown in table 5. These two firms accounted for almost 80 percent of the employees in the seven firms for which accident records were available. Although they represent two different industries, the nature of the operations which their employees perform are somewhat similar. Both firms exerted the greatest care in compiling their figures. For the first plant (plant A) the records show that frequency, severity, and cost of accidents decrease as age increases, while in the second plant (plant B) frequency and severity as clearly increase with age, and cost shows a general tendency to rise. The divergent experience of these firms indicates the importance of further study before conclusions may safely be drawn.

TABLE 5.—*Frequency, Severity, and Cost of Accidents to Male Factory Workers, During 1937, in 2 New England Plants, by Age Groups*

Age group	Plant A					Plant B				
	Exposure (man-years of 2,000 man-hours)	Number of lost-time accidents	Number of accidents per 100 man-years	Days lost per 100 man-years	Direct cost per man-year	Exposure (man-years of 2,000 man-hours)	Number of lost-time accidents	Number of accidents per 100 man-years	Days lost per 100 man-years	Direct cost per man-year
15 to 19 years	57	6	10.5	124.7	$10.17	30	0	0	0	0
20 to 24 years	438	27	6.2	71.6	2.05	144	5	3.5	46.5	$1.43
25 to 29 years	504	26	5.2	51.8	1.65	208	6	.3	28.4	.91
30 to 34 years	413	31	7.5	77.5	7.44	225	5	2.2	42.7	1.41
35 to 39 years	396	30	7.6	86.7	[1] 10.80	277	11	4.0	52.3	[2] 1.94
40 to 44 years	416	26	6.3	47.4	4.98	282	18	6.4	124.8	3.82
45 to 49 years	385	12	3.1	24.7	1.24	222	12	5.4	303.2	12.31
50 to 54 years	253	9	3.6	32.8	.97	165	5	3.0	33.3	1.57
55 to 59 years	170	3	1.8	10.0	.43	120	10	8.0	121.7	5.56
60 to 64 years	86	2	2.3	20.9	[3] 9.41	79	6	7.6	72.2	1.81
65 to 69 years	71	0	0	0	0	32	6	18.8	431.2	15.92
70 to 74 years	16	0	0	0	0	16	0	0	0	0
75 years and over	5	0	0	0	0	0				
All ages	3,210	172	5.4	53.6	4.15	1,800	84	4.7	99.3	3.69

[1] The cost of 1 fatal accident in this age group, amounting to $4.109, has been omitted.
[2] The cost of 1 fatal accident in this age group, amounting to $3,382.65, has been omitted.
[3] The high cost and low severity combination in this group is due to a high specific benefit for a permanent arm injury.

SICKNESS BY AGE GROUPS

Records on frequency and duration of absence caused by sickness are rare and are usually found only in those firms where sickness and accident insurance is made available to the employees. Even then,

records seldom cover absences lasting less than 7 days, and no distinction is made between sickness and nonoccupational accidents. A further difficulty is found in measuring the relative exposure of each age group, without which the other figures are of little value.

Only five New England plants submitted statistics on this subject. Their records were not comparable and showed no clear-cut trends. Three plants showed a decided increase in days lost from sickness as age increases, but the other two plants showed a less decided trend in the opposite direction.

PRODUCTIVITY

Another question frequently asked is whether younger or older workers turn out a larger volume of work. Here, again, the records necessary to an adequate answer are rarely kept. Surprisingly few occupations were found in which a substantial number of workers were employed on work of equal difficulty, the speed of which was governed by the worker himself, and for which individual production records were maintained. However, some information with regard to the effect of age on productivity was obtained from six companies. As examples of this type of data, table 6 presents a comparison of productivity by age groups for 172 textile weavers, 127 textile spinners, and 147 workers in nonferrous metal manufacturing. Although not conclusive, the figures do suggest that, for those workers who remain on the pay roll, that is, who can maintain the minimum production standards, there is no clear relation between age and output.

TABLE 6.—*Productivity of Employees in New England Plants, by Age Groups*

172 TEXTILE WEAVERS[1]

Age group	Men				Women			
	Number of workers	Productivity			Number of workers	Productivity		
		Average	Highest	Lowest		Average	Highest	Lowest
15 to 19 years	0				0			
20 to 24 years	1	90.5	90.5	90.5	5	97.5	114.2	80.1
25 to 29 years	4	103.9	109.5	93.4	12	98.8	114.5	79.7
30 to 34 years	5	98.7	113.5	83.1	24	101.5	115.6	84.7
35 to 39 years	8	99.8	111.5	88.1	14	99.2	122.2	84.3
40 to 44 years	8	104.0	114.2	92.7	19	100.5	115.0	90.6
45 to 49 years	2	107.4	113.0	101.8	20	100.2	114.0	85.1
50 to 54 years	8	106.6	122.2	91.5	18	97.5	118.7	82.1
55 to 59 years	4	93.5	101.0	80.0	10	96.8	110.6	90.7
60 to 64 years	5	104.0	119.3	94.2	2	98.9	103.8	95.9
65 to 69 years	1	86.5	86.5	86.5	1	100.0	100.0	100.0
70 to 74 years	1	90.2	90.2	90.2	0			
75 years and over	0				0			

[1] These figures include all employees of the firm who worked 2 or more 40-hour weeks in both 1937 and 1938. Productivity is measured by calculating for each worker the total piece-work earnings for four 40-hour weeks. The arithmetical average of the totals for all workers, both men and women, is expressed as 100.

TABLE 6.—*Productivity of Employees in New England Plants, by Age Groups*—Con.

127 TEXTILE SPINNERS [2]

Age group	Men				Women			
	Number of workers	Productivity			Number of workers	Productivity		
		Average	Highest	Lowest		Average	Highest	Lowest
15 to 19 years	0				0			
20 to 24 years	0				13	87.6	96.0	84.4
25 to 29 years	5	105.2	108.3	102.7	10	86.8	93.1	81.7
30 to 34 years	13	102.6	107.8	95.6	1	86.1	86.1	86.1
35 to 39 years	14	105.4	118.5	98.3	3	88.0	90.6	86.4
40 to 44 years	14	103.9	109.5	99.0	2	91.8	93.6	90.1
45 to 49 years	16	102.7	110.0	95.1	0			
50 to 54 years	21	102.0	110.4	95.2	1	88.6	88.6	88.6
55 to 59 years	7	101.2	107.2	98.4	0			
60 to 64 years	6	100.7	105.8	93.4	0			
65 to 69 years	0				0			
70 to 74 years	1	97.6	97.6	97.6	0			
75 years and over	0				0			
147 NONFERROUS-METAL WORKERS [3]								
15 to 19 years	4	92	94	91	2	86	94	78
20 to 24 years	6	96	110	87	4	96	112	76
25 to 29 years	15	103	115	93	10	104	126	82
30 to 34 years	14	103	113	88	9	100	121	79
35 to 39 years	7	103	107	94	6	105	131	92
40 to 44 years	11	104	116	87	3	104	129	86
45 to 49 years	11	101	123	86	1	98	98	98
50 to 54 years	7	106	115	92	3	89	96	84
55 to 59 years	10	99	115	86	1	102	102	102
60 to 64 years	13	96	105	81	3	102	112	92
65 to 69 years	4	90	99	82	0			
70 to 74 years	3	91	95	86	0			
75 years and over	0				0			

[2] Productivity measured by calculating for each worker the average weekly piece-work earnings for thirteen 40-hour weeks. The arithmetic average of the totals for all workers, both men and women, was expressed as 100.

[3] Includes several different factory operations. Productivity computed by calculating the average hourly earnings of each worker for a 3-month period, and expressing the result as a percentage of the average hourly earnings for his department over the same period.

In general, these records show no pronounced tendency for productivity to vary with age. Cases of high individual output on the part of people well advanced in years may be the result of encountering a few "physiological freaks" and may not justify the assumption that the occupation in question is particularly suited to older workers. It should be added, however, that the field survey revealed no assumption on the part of employers that, prior to the approach of retirement age, productivity is reduced with advancing years.

In addition to those factors of age which can be measured statistically, the investigators received, during their 2 months' direct contact with industrial executives, certain impressions pertaining to the problem of the employment of workers in different age groups. Although the considerations raised by these impressions are, by their very nature, impossible to verify statistically, they are presented here as a background for more complete understanding of the question.

SKILL

In a substantial number of skilled occupations there appears to be a shortage of qualified workers, and in such cases any accredited applicant with the desired skill is welcomed irrespective of age. However, in other occupations, which formerly required skilled workers, technological developments have simplified the requirements and rendered the skill obsolete. In such cases skilled men have little advantage in seeking employment, and may even, because of the nature of the former job, be at a disadvantage as compared with unskilled applicants.

In a few skilled operations it was found that advancing age, at least to the extent that it is assumed to foster maturity and responsibility, is considered a definite advantage. This may occur where the nature of the work prevents close supervision, or where the least carelessness could result in substantial damage to equipment or product.

VERSATILITY

Some of the employers expressed a preference for hiring younger workers, on the ground that youth is more versatile and flexible. This preference seems to be based largely on the argument that it is desirable to shift men to several departments during their early years with the company so that they will have a wider knowledge of the plant. Such a policy involves keeping them at a minimum rate for a considerable time while they learn the various operations, and it may be felt that the older worker is more dependent on comparatively high earnings which can best be maintained by keeping him on the job at which he has acquired substantial dexterity. In some cases a preference for younger applicants is based on the assumption that advancing age lessens the willingness or the ability to learn new operations.

No evidence was found, however, of the existence of any inflexible age limits in hiring. For example, of the 17 companies included in table 2, 5 firms had hired some new employees aged 50 or over, and 7 other plants had rehired employees in that category. These 12 firms, moreover, accounted for about 96 percent of all the workers hired or rehired by the 17 plants. The Massachusetts law against age discrimination makes questioning as to any formal hiring age limits a delicate matter. However, the records reveal what is more important than any formal policy, namely, the actual practice of each of the included firms.

PHYSIOLOGICAL AGE

It may also be worthy of comment that in almost all phases of the problem of age and employment it is "physiological age" which is of

importance rather than strict chronological age. The latter is used on the assumption that the two measures correlate closely. Many experts maintain that it is inaccurate to attribute specific physiological characteristics to certain age groups, because individuals differ so widely. If this is true it would justify the expense of the considerable study and experimentation that would be necessary to develop practical and more positive tests for measuring physiological age.

PENSIONS

In addition to the general recognition of seniority rights, by the executives interviewed, there was found a strong sense of obligation to provide for workers when they become too old to work, especially those with substantial service records. Pensions were a very live issue to all of the employers and, while only three had formal pension plans, nearly all were paying some form of pension to a few superannuated employees. All the executives seemed to accept the principle that an old employee with inadequate savings cannot be discharged without a pension.

In this situation it is not surprising that employers should prefer young applicants who will be longer in reaching the pension age and who, when they are retired, will be provided for by the Social Security Act. That same act, however, when its pension provisions become fully effective for all industrial workers, may remove one of industry's major reasons for hiring primarily from the younger applicants.

EXECUTIVES' OPINION OF OLDER WORKERS

Apart from this apprehension that the older worker will ultimately become a liability to the company, the employers generally had a high regard for the older people on their pay rolls. No prejudice against older workers, based on low productivity or high accident or sickness rates, was encountered among the executives interviewed, except as regards a very few special occupations. On the contrary, many of the executives felt that older workers up to 55 and even 60 could more than hold their own against the young people. That high regard, however, is not extended equally to an older applicant who is unemployed through the closing down or curtailment of operation in another plant, even though he may have had an equally good reputation with his former employer and be intrinsically more desirable than many people already on the prospective employer's pay roll.

This relationship between preference for young applicants and a sense of obligation to older workers who are no longer able to carry on their regular work, as well as the similarity shown in table 2 between the age distribution of persons hired and of those laid off,

suggests that a definite state of equilibrium has been established with respect to the age composition of the working force. The employer who feels that he cannot get rid of a worker because of his age, without providing some kind of pension, is also careful to see that his working force is not too heavily loaded with older people, and therefore picks his replacements from the younger applicants. Similarly perhaps, the employer who knows that older workers have greater difficulty in finding new employment retains them when a lay-off is necessary, and releases the young people who can more easily get other jobs. It may be that, if the hiring preference were reversed so that older people could obtain jobs more easily than the young, the older workers would lose their current advantage in retaining their jobs during a lay-off. This is especially likely since the change would result in a smaller proportion of older workers being included among the long-service employees.

Any plan to improve the situation of the older worker which would disturb the balance apparently existing at present, should be carefully analyzed to make certain that the action it contemplates will not create compensating reactions which will result in a new equilibrium without any net gain to older workers as a group.

It is important to consider the origin and present basis for the practice of hiring predominantly from the younger groups. It may result from carefully considered policy, or be merely a habit which has unconsciously grown up. The passage of time alone would continually increase the average age of a completely stable force. Only by hiring young people can any stability of average age be maintained. Some such simple factors may explain the origin of the firmly established habit of hiring primarily from the lower-age groups.

Whatever the origin of the practice, it appears that it is the foremen who now maintain the rule, since they usually have the final word in selecting applicants. If any change is to be made, the foremen as well as the principal executives of industry must be convinced of its wisdom. However, it is not certain that the preference for younger workers is a very compelling one. In times of serious unemployment in all age groups, a very slight preference might confine all hiring to one age group as long as the supply of desirable applicants holds out.

Conclusions

1. The company records of many New England industries contain valuable data relating to age and employment possibilities. The executives of these firms welcome impartial efforts to analyze and present such data in the interest of clarifying the many issues involved.

2. The business cycle, as it alters the number of workers employed, intermittently contributes changes both to the average age and to the age distribution of a firm's employees. Moreover, the average age of

a working force would increase by 1 year during every 12 months if no hiring or firing took place. These factors are of great importance in any effort to understand the relation of age to employment.

3. The objective analysis in this study with reference to accident frequency, severity, and cost does not provide sufficient evidence to be conclusive as to the relation of accidents to advancing years. The available data, however, suggest that any differential that may exist among the several age groups would constitute in many industries too insignificant a percentage of total wage costs to make it a valid consideration in determining employment policies.

4. When industrialists feel, as they seem to in New England, that needy older workers cannot be laid off without some kind of pension, there appears to be a strong case for hiring younger men for those job vacancies which occur. Younger applicants are chosen for the great majority of vacancies that occur in New England industry.

5. It is equally clear, for reasons partly indicated above, that in a period of curtailment it is the younger workers who bear the brunt of the lay-off.

6. This study indicates that any realistic approach to the problem of age and employment opportunities, must recognize the interaction of three closely linked factors, i. e., the age distribution of (1) the labor force at any particular time, (2) the hires, and (3) the lay-offs and separations, by which the existing distribution was achieved. Consideration of one factor without the others may result in wholly misleading conclusions, or in a failure clearly to perceive the nature of the problem.

ANNUAL EARNINGS IN 68 NORTHERN FURNITURE FACTORIES, 1936 [1]

THE average annual earnings in the furniture manufacturing industry in the North in 1936 amounted to $1,202 for wage earners whose employment extended over 12 months. When the group was enlarged to include those working 9 months or more, the average fell slightly to $1,177, and then dropped again, to $1,133, when employees working at least 6 months were included. For all of the employees who had work in these factories at any time during the year, the average was only $997. These averages are based upon an analysis of the annual earnings of 8,701 workers in 68 furniture factories, but relate only to their earnings in the factories in which they were at work in October 1937.

Scope and Method of Study

The above data on annual earnings were obtained during the course of the Bureau's general survey [2] of wages and hours in the furniture industry, made in the winter of 1937–38. That survey included case goods,[3] upholstered, novelty, kitchen, wood office, metal office, and public seating furniture. The information on wages and hours related for the most part to a pay-roll period during the month of October 1937. In addition to these figures, the Bureau collected information where possible on annual earnings and number of pay-roll periods worked during the calendar year 1936.

Because of the great amount of time involved in compiling data for individual workers for all pay-roll periods in the year, the information was obtained only from those plants with figures available in summary form. This necessarily reduced the coverage for the annual data, as compared with that obtained in connection with wages and hours. In the northern region, of a total of 300 establishments with 32,693 wage earners scheduled, annual data were collected only for 68 plants with 8,701 workers. In the southern territory, the survey covered 73 establishments and 10,735 employees for wages and hours, but annual data were obtained only for 2 plants with 251 workers. In view of the very small coverage in the South, annual data are not shown for this region in the present article.

It should be noted that the larger sample covering wages and hours was selected on a representative basis, taking into consideration product, geographical distribution, size of plant, corporate affiliation, size of community, and unionization. On the other hand, the smaller

[1] Prepared by J. Perlman and Victor S. Baril, assisted by Abner C. Lakenan, of the Bureau's Division of Wage and Hour Statistics.

[2] For report on that general study, see Monthly Labor Review, November 1938. A similar report, in greater detail, was published in mimeographed form.

[3] "Case goods" include largely bedroom and dining-room furniture.

sample for which annual data were obtained is not so well balanced, the selection here being determined almost entirely by the availability of the information in summary form in the various establishments. Because of this limitation, therefore, the article first presents the annual data on the basis of individual plants. This presentation indicates the variation in annual earnings among the various establishments. Summary figures are also shown, but in analyzing them one should bear in mind the smallness of the coverage, as well as the inevitable inequalities existing in the sample.

The sample covering annual data in the northern region includes plants located in 14 States—California, Illinois, Indiana, Iowa, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Oregon, Vermont, Washington, and Wisconsin. In terms of the number of wage earners, the heaviest representation appears in New York, Michigan, Wisconsin, Ohio, and California.

It should also be pointed out that the figures cover only the total earnings and number of pay-roll periods in 1936 of each employee *in the establishment in which he worked during October 1937*,[4] which includes the pay-roll period covered by the wages and hours data. This limitation makes it necessary to classify the wage earners according to the number of months worked in that plant in 1936, the classes used here embracing those employees whose work extended over (1) 12 months, (2) 9 months or more, (3) 6 months or more, and (4) any part of the year. Those who worked in the same establishments throughout the year constitute the stable employees. However, those who worked 9 but less than 12 months may also be classified with the permanent labor force, because in most instances the opportunities for such persons to obtain work in other plants are very small. In other words, for these employees the figures obtained by the Bureau cover more or less their total annual earnings for 1936. No such reliance may be placed on the data when the group is enlarged to include those whose work extended over 6 months or more and least of all when those employees are included who worked any part of the year, as each of these classes includes a large number of employees who quite likely worked in other establishments.

The proportion of employees whose work extended over 12 months, 9 months or more, and 6 months or more to those who worked any part of the year throws some light on labor turn-over in the various plants covered. In some establishments, however, the proportion of those who worked during 12 months to the total employees is relatively small, because of partial temporary shut-downs for inventories, repairs, or strikes, or because of the granting of vacations without pay. During shut-downs, the average annual earnings of the force retained are often considerably higher than those for the

[4] For a fuller discussion of the limitations of the annual data collected by the Bureau, see the article on annual earnings in navy and private shipyards, in the December 1938 issue of the Monthly Labor Review.

normal force at other times, owing to the fact that the former is largely composed of working foremen and generally of the more skilled and efficient employees.

Although 1936 was not a year of high activity in the furniture manufacturing industry, it was one during which both employment and pay rolls were rising very rapidly to the high level maintained throughout most of 1937. Using 1923–25 as a base or 100, the index numbers of employment in 1936 amounted to 84.8, which may be compared with 57.4 in 1932, 61.0 in 1933, 64.6 in 1934, and 75.6 in 1935. On the other hand, in 1937 the index stood at 94.0. As regards pay rolls, the index numbers were 34.6 in 1932, 35.9 in 1933, 42.1 in 1934, 53.6 in 1935, 66.0 in 1936, and 78.0 in 1937.

Average Annual Earnings of Individual Plants

Table 1 presents the average annual earnings of individual establishments in the furniture manufacturing industry in the North for which such data were obtained for 1936. These averages are presented separately for each product.

Analysis of the annual data indicates the wide variation among the 68 plants in the ratio of employees whose work extended over 12 months to those who worked any part of the year. In 18 establishments, this ratio was below 50, amounting to less than 10 percent in 7,[5] 10 and under 20 percent in 2, 20 and under 30 percent in 3, 30 and under 40 percent in 4, and 40 and under 50 percent in 2 plants. A close examination of the figures shows that in nearly every case this low ratio may be attributed to either a complete or partial shut-down. Of the remaining 50 establishments, on the other hand, the ratio was 50 and less than 60 percent in 15, 60 and less than 70 percent in 17, 70 and less than 80 percent in 11, and 80 and less than 90 percent in 7 plants. The figures for this latter group of plants are largely an indication of the existing differences in labor turn-over.

The average annual earnings of employees who worked the full year also varied widely among the 66 establishments reporting such employees, the figures ranging from $822 to $2,345. Of these plants, in 2 the average was less than $900, in 8 between $900 and $1,000, in 14 between $1,000 and $1,100, in 13 between $1,100 and $1,200, in 12 between $1,200 and $1,300, in 9 between $1,300 and $1,400, in 5 between $1,400 and $1,600, and in 3 over $1,600. To a marked degree, the average annual earnings varied inversely with the ratio of employees who worked during 12 months to the total labor force. As explained before, this is due to the fact that the most stable employees are generally the more skilled and efficient workers. In fact, some of the establishments with the highest averages were evidently those that had shut down partially at some time during the year.

[5] Of the 7 plants, 2 reported no employees whose work extended over 12 months.

TABLE 1.—*Average Annual Earnings in 68 Individual Furniture Factories in the North, by Product, 1936*

Product and plant	Relative number of employees whose work extended over—				Average annual earnings of employees whose work extended over—			
	12 months	9 months or more	6 months or more	Any part of the year	12 months	9 months or more	6 months or more	Any part of the year
Case goods:								
Plant No. 1	71.4	85.7	100.0	100.0	$958	$1,014	$933	$933
Plant No. 2	60.9	73.9	78.3	100.0	1,235	1,207	1,173	986
Plant No. 3	12.0	72.0	80.0	100.0	1,070	1,118	1,061	889
Plant No. 4	5.6	61.1	66.7	100.0	1,080	982	944	722
Plant No. 5	62.0	74.0	78.0	100.0	1,027	995	975	804
Plant No. 6	36.0	44.0	56.0	100.0	1,406	1,307	1,138	740
Plant No. 7	51.6	61.3	61.3	100.0	1,002	975	975	692
Plant No. 8	------	63.8	73.8	100.0	------	1,072	1,014	811
Plant No. 9	73.5	89.4	91.2	100.0	1,520	1,460	1,441	1,348
Plant No. 10	62.2	84.4	88.9	100.0	1,016	968	933	857
Plant No. 11	54.1	77.0	93.4	100.0	1,095	1,000	916	874
Plant No. 12	69.5	73.4	76.6	100.0	1,252	1,227	1,191	957
Plant No. 13	73.1	83.8	86.9	100.0	831	807	793	722
Plant No. 14	53.7	76.8	86.3	100.0	822	765	718	641
Plant No. 15	81.0	87.0	90.0	100.0	955	928	915	846
Plant No. 16	74.8	80.0	85.2	100.0	1,059	1,047	1,009	895
Plant No. 17	56.5	67.3	70.8	100.0	1,300	1,242	1,213	945
Plant No. 18	60.6	79.6	92.1	100.0	982	916	859	815
Plant No. 19	19.4	80.2	84.5	100.0	1,255	1,059	1,034	917
Plant No. 20	73.1	83.1	84.9	100.0	1,153	1,130	1,117	973
Plant No. 21	62.9	89.5	90.2	100.0	1,293	1,245	1,240	1,139
Upholstered furniture:								
Plant No. 1	66.7	86.7	86.7	100.0	1,166	1,105	1,105	982
Plant No. 2	87.1	90.3	93.5	100.0	955	967	946	897
Plant No. 3	------	62.9	65.7	100.0	------	1,374	1,369	1,037
Plant No. 4	53.6	92.9	100.0	100.0	1,548	1,532	1,476	1,476
Plant No. 5	58.8	82.4	94.1	100.0	1,374	1,302	1,234	1,176
Plant No. 6	83.3	83.3	83.3	100.0	1,094	1,094	1,094	961
Plant No. 7	53.1	62.5	65.6	100.0	1,319	1,359	1,375	1,139
Plant No. 8	32.6	80.4	89.1	100.0	1,293	1,231	1,170	1,073
Plant No. 9	51.2	65.1	69.8	100.0	1,277	1,214	1,198	906
Plant No. 10	83.3	87.5	93.8	100.0	1,118	1,102	1,075	1,035
Plant No. 11	63.1	78.5	82.6	100.0	980	939	918	803
Plant No. 12	57.3	70.7	84.0	100.0	1,197	1,156	1,055	929
Plant No. 13	43.1	56.9	65.5	100.0	1,242	1,191	1,113	829
Plant No. 14	63.2	73.5	83.8	100.0	1,068	1,023	947	818
Plant No. 15	59.5	77.0	79.7	100.0	1,379	1,260	1,239	1,049
Plant No. 16	23.7	87.6	92.8	100.0	1,990	1,647	1,594	1,494
Plant No. 17	80.6	95.0	96.4	100.0	1,181	1,151	1,143	1,112
Plant No. 18	60.4	90.1	93.7	100.0	943	857	846	801
Plant No. 19	61.8	89.4	95.9	100.0	1,188	1,091	1,058	1,023
Plant No. 20	79.9	87.5	90.3	100.0	1,223	1,203	1,181	1,095
Plant No. 21	54.4	73.7	79.5	100.0	1,689	1,593	1,539	1,313
Plant No. 22	69.4	86.9	90.3	100.0	1,183	1,162	1,143	1,063
Plant No. 23	60.5	83.0	86.2	100.0	1,247	1,178	1,160	1,047
Novelty furniture:								
Plant No. 1	86.4	95.5	97.7	100.0	1,160	1,125	1,110	1,095
Plant No. 2	5.1	16.9	47.5	100.0	1,367	1,136	869	609
Plant No. 3	53.3	71.1	75.6	100.0	1,046	1,002	977	777
Plant No. 4	44.4	56.7	73.4	100.0	1,035	975	862	699
Plant No. 5	68.2	75.3	82.4	100.0	1,048	1,016	962	838
Plant No. 6	82.4	86.8	88.2	100.0	1,119	1,102	1,095	1,000
Plant No. 7	8.3	53.8	89.6	100.0	1,568	1,196	1,009	942
Kitchen furniture:								
Plant No. 1	8.3	87.5	91.7	100.0	1,180	852	838	793
Plant No. 2	67.8	73.6	84.3	100.0	920	902	835	733
Plant No. 3	72.9	84.0	88.4	100.0	1,162	1,120	1,091	993
Wood office furniture:								
Plant No. 1	74.3	86.5	89.2	100.0	1,266	1,220	1,206	1,113
Plant No. 2	77.8	93.3	97.8	100.0	1,076	1,027	1,020	1,002
Plant No. 3	60.3	71.2	76.7	100.0	1,066	1,019	990	799
Plant No. 4	70.6	79.7	86.4	100.0	1,112	1,072	1,031	921
Plant No. 5	28.3	70.1	71.7	100.0	1,282	1,292	1,287	1,050
Metal office furniture:								
Plant No. 1	20.0	90.8	96.7	100.0	1,356	1,288	1,250	1,213
Plant No. 2	59.9	69.4	76.2	100.0	1,305	1,271	1,213	982
Plant No. 3	65.6	78.2	83.7	100.0	1,227	1,194	1,159	1,024
Plant No. 4	57.7	84.8	87.4	100.0	1,322	1,241	1,224	1,095
Plant No. 5	2.1	68.8	79.9	100.0	2,345	1,554	1,445	1,225
Plant No. 6	34.3	86.9	90.1	100.0	1,166	1,234	1,215	1,132
Public seating furniture:								
Plant No. 1	75.4	82.5	87.7	100.0	936	914	893	806
Plant No. 2	50.9	85.5	96.4	100.0	1,529	1,446	1,367	1,327
Plant No. 3	35.8	76.2	78.6	100.0	1,366	1,286	1,270	1,062

As regards the ratio of employees whose work extended over 9 months or more to the total labor force, only 1 of the 68 establishments reported a relatively low figure, namely 16.9 percent, which was clearly due to a protracted partial shut-down. The extent of variation in labor turn-over among the remaining 67 plants may be seen from the fact that in 1 the ratio was 40 and under 50 percent, in 3 it was 50 and under 60 percent, in 9 it was 60 and under 70 percent, in 20 it was 70 and under 80 percent, in 27 it was 80 and under 90 percent, and in 7 it was 90 and under 100 percent. The large number of establishments with a ratio above 70 percent is indicative of the relatively low labor turn-over in the industry.

The average annual earnings of employees who worked 9 months or more ranged in the individual plants from $765 to $1,647. The averages amounted to less than $900 in 4 establishments, between $900 and $1,000 in 11, between $1,000 and $1,100 in 13, between $1,100 and $1,200 in 15, between $1,200 and $1,300 in 15, between $1,300 and $1,400 in 4, with the remaining 6 plants scattered over a fairly wide range above $1,400. In other words, the heaviest concentration, accounting for 30 of the 68 establishments, occurred between $1,100 and $1,300.

For employees whose work extended over 6 months or more, the average annual earnings in the individual plants ranged from $718 to $1,594. The spread in the average annual earnings for employees who worked any part of the year was from $609 to $1,494.

Annual Earnings of Individual Workers

The average annual earnings of wage earners whose employment extended over 12 months amounted to $1,202 in 1936. (See table 2.) That this average covers a considerable spread of individual annual earnings, ranging from a figure under $400 to one over $2,500, may be seen from table 3. In spite of this wide range, there is a large concentration between $900 and $1,300, which accounts for over one-half (54.3 percent) of the workers. There were only 14.6 percent paid less than $900 during the year, which may be compared with roughly one-third (31.1 percent) receiving $1,300 and over. In fact, as many as one-tenth (10.6 percent) earned $1,600 and over, and 5.2 percent were paid $1,800 and over.

Classified on the basis of skill, the average annual earnings of employees who worked during 12 months were $1,317 for skilled, $1,120 for semiskilled, and $988 for unskilled employees. This means a difference of $197 between skilled and semiskilled workers, as compared with a difference of $132 between semiskilled and unskilled employees. These differences are also shown by a comparison of the respective distributions. For example, the percentage earning under $1,000 a

year, which is slightly above the average of the unskilled workers, amounted to 17.5 percent for skilled, 33.1 percent for semiskilled, and 55.8 percent for unskilled employees. On the other hand, if $1,300 is taken as the lower limit, which is slightly below the average of the skilled, the number earning that figure or above was 44.1 percent for skilled, 21.4 percent for semiskilled, and 8.0 percent for unskilled workers.

The average annual earnings of employees who worked 9 months or more were $1,177, or only $25 less than the average of those working throughout the year. According to the distribution of individual employees whose work was spread during 9 months or more, the largest concentration also appeared between $900 and $1,300, within which limits were found over one-half (51.3 percent) of the employees. The number earning under $900 constituted 18.7 percent, while three-tenths were paid $1,300 and over. There were 10.6 percent earning $1,600 and over, while 5.2 percent received $1,800 and over, which figures are exactly the same as the respective percentages of employees working during 12 months.

Comparing the average annual earnings for the skill groups of employees who worked 9 months or more, the difference amounted to $190 between skilled and semiskilled workers and to $139 between the semiskilled and unskilled employees, the respective averages being $1,294, $1,104, and $965. According to the distributions, the number paid $1,300 and over, which is slightly above the skilled average, was 43.1 percent for skilled, 21.3 percent for semiskilled, and 6.4 percent for unskilled workers. By contrast, the number earning under $1,000, which is somewhat above the unskilled average, amounted to 21.0 percent for skilled, 36.8 percent for semiskilled, and 59.9 percent for unskilled workers.

The average annual earnings of employees who worked 6 months or more were $1,133, which may be compared with $997 for those who worked any part of the year.

In view of the small coverage, any generalizations with respect to differences in average annual earnings among the various product divisions of the industry should be made with caution. Generally speaking, the highest average annual earnings were reported in the metal office and public seating furniture branches of the industry. Upholstered furniture plants occupied a middle position, while the lowest figures are shown for plants making case goods, novelty, kitchen, and wood office furniture.

TABLE 2.—*Average Annual Earnings in 68 Furniture Factories in the North, by Product and Skill, 1936*

Product	Employees whose work extended over—															
	12 months				9 months or more				6 months or more				Any part of the year			
	All workers	Skilled	Semi-skilled	Unskilled	All workers	Skilled	Semi-skilled	Unskilled	All workers	Skilled	Semi-skilled	Unskilled	All workers	Skilled	Semi-skilled	Unskilled
	Number of employees															
All branches of industry	4,386	2,118	1,848	420	6,696	3,085	2,919	692	7,301	3,310	3,195	796	8,701	3,655	3,885	1,161
Wood furniture	3,412	1,690	1,413	309	4,771	2,291	2,016	464	5,252	2,467	2,233	552	6,233	2,734	2,692	807
Household furniture	3,117	1,550	1,294	273	4,383	2,108	1,861	414	4,842	2,273	2,071	498	5,737	2,514	2,489	734
Case goods	1,289	616	544	129	1,806	815	791	200	1,931	868	838	225	2,320	971	1,016	333
Upholstered furniture	1,222	661	488	73	1,651	902	649	100	1,750	954	686	110	2,033	1,056	813	164
Novelty furniture	438	209	176	53	695	306	302	87	918	363	422	133	1,111	398	522	191
Kitchen furniture	168	64	86	18	231	85	119	27	243	88	125	30	273	89	138	46
Wood office furniture	295	140	119	36	388	183	155	50	410	194	162	54	496	220	203	73
Metal office furniture	610	263	266	81	1,207	491	567	149	1,302	520	617	165	1,537	557	757	223
Public seating	364	165	169	30	718	303	336	79	747	323	345	79	931	364	436	131
	Average annual earnings															
All branches of industry	$1,202	$1,317	$1,120	$988	$1,177	$1,294	$1,104	$965	$1,133	$1,254	$1,063	$910	$997	$1,168	$923	$701
Wood furniture	1,175	1,287	1,089	964	1,131	1,245	1,048	926	1,084	1,205	1,005	864	958	1,121	879	667
Household furniture	1,178	1,287	1,092	965	1,131	1,245	1,047	921	1,082	1,204	1,002	856	956	1,121	879	657
Case goods	1,149	1,266	1,059	971	1,093	1,208	1,018	922	1,056	1,169	989	868	919	1,074	857	657
Upholstered furniture	1,229	1,331	1,126	(1)	1,194	1,301	1,083	947	1,163	1,270	1,055	909	1,045	1,186	935	688
Novelty furniture	1,125	1,206	1,096	(1)	1,096	1,195	1,053	(1)	992	1,126	941	789	871	1,058	817	630
Kitchen furniture	1,162	(1)	(1)	(1)	1,071	(1)	1,033	(1)	1,045	(1)	1,009	(1)	958	(1)	937	(1)
Wood office furniture	1,150	1,284	1,052	(1)	1,135	1,249	1,054	(1)	1,109	1,219	1,035	(1)	972	1,121	883	(1)
Metal office furniture	1,278	1,409	1,214	(1)	1,304	1,452	1,240	1,057	1,261	1,416	1,197	1,015	1,114	1,350	1,030	811
Public seating	1,328	1,479	1,232	(1)	1,272	1,402	1,215	(1)	1,252	1,365	1,200	(1)	1,062	1,245	1,011	721

[1] Employees too few to justify computation of an average.

TABLE 3.—*Percentage Distribution of Workers in 68 Furniture Factories in the North, by Skill, 1936*

Annual earnings	Percent of employees whose work extended over—							
	12 months				9 months or more			
	All workers	Skilled	Semi-skilled	Un-skilled	All workers	Skilled	Semi-skilled	Un-skilled
Under $100	-------	-------	-------	-------	-------	-------	-------	-------
$100 and under $200	-------	-------	-------	-------	-------	-------	-------	-------
$200 and under $300	-------	-------	-------	-------	(1)	0.1	-------	-------
$300 and under $400	(1)	-------	0.1	0.2	0.1	.1	0.1	0.4
$400 and under $500	0.1	-------	.3	.2	.4	.3	.5	.6
$500 and under $600	.6	0.3	.6	2.6	1.3	.9	1.3	2.9
$600 and under $700	1.4	.8	1.9	2.4	2.5	1.3	3.3	4.9
$700 and under $800	4.5	2.4	5.6	10.2	5.8	3.5	6.7	12.7
$800 and under $900	8.0	5.6	9.0	15.8	8.6	5.9	9.7	15.6
$900 and under $1,000	12.9	8.4	15.6	24.4	13.1	8.9	15.2	22.8
$1,000 and under $1,100	15.1	11.9	16.9	21.5	13.9	11.2	15.7	18.7
$1,100 and under $1,200	13.8	12.8	15.2	11.4	12.5	11.8	13.8	10.5
$1,200 and under $1,300	12.5	13.7	13.4	3.3	11.8	12.9	12.4	4.5
$1,300 and under $1,400	9.5	10.7	9.5	3.6	9.0	10.6	8.8	2.5
$1,400 and under $1,500	6.3	8.3	5.0	2.1	6.0	7.7	5.2	1.7
$1,500 and under $1,600	4.7	6.9	2.8	1.7	4.4	6.8	2.6	1.4
$1,600 and under $1,700	3.2	5.0	1.7	.2	3.2	4.8	2.3	.3
$1,700 and under $1,800	2.2	3.5	1.2	.2	2.2	3.6	1.1	.4
$1,800 and under $1,900	1.9	3.4	.5	-------	1.7	3.2	.5	-------
$1,900 and under $2,000	1.0	2.0	.2	-------	1.0	1.9	.2	-------
$2,000 and under $2,100	.8	1.5	.2	.2	1.0	1.8	.3	.1
$2,100 and under $2,200	.3	.4	.1	-------	.4	.7	.1	-------
$2,200 and under $2,300	.3	.5	.1	-------	.3	.4	.1	-------
$2,300 and under $2,400	.3	.6	.1	-------	.3	.3	.1	-------
$2,400 and under $2,500	.1	.2	-------	-------	.1	.2	-------	-------
$2,500 and over	.5	1.1	-------	-------	.4	.8	-------	-------
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Annual earnings	Percent of employees whose work extended over—							
	6 months or more				Any part of the year			
	All workers	Skilled	Semi-skilled	Un-skilled	All workers	Skilled	Semi-skilled	Un-skilled
Under $100	(1)	-------	-------	0.1	2.0	1.0	2.2	4.7
$100 and under $200	(1)	(1)	-------	.1	3.5	1.6	3.7	8.7
$200 and under $300	0.3	0.3	0.3	.6	4.2	2.4	4.7	8.7
$300 and under $400	.7	.4	.6	2.0	3.7	1.9	4.2	7.7
$400 and under $500	1.6	1.0	2.0	2.9	3.3	2.2	3.9	4.7
$500 and under $600	2.8	1.9	3.0	5.4	3.2	2.6	3.6	4.2
$600 and under $700	3.9	2.4	4.7	7.3	3.6	2.6	4.1	5.3
$700 and under $800	6.7	4.3	7.7	12.6	5.8	4.2	6.4	8.7
$800 and under $900	8.7	6.5	9.7	14.1	7.4	6.1	8.0	9.7
$900 and under $1,000	12.4	8.9	14.1	19.9	10.6	8.2	11.7	13.6
$1,000 and under $1,100	13.0	10.5	14.3	16.2	10.9	9.7	11.7	11.0
$1,100 and under $1,200	11.6	11.2	12.7	9.2	9.7	10.0	10.5	6.3
$1,200 and under $1,300	10.8	12.1	11.4	3.9	9.1	10.8	9.3	2.7
$1,300 and under $1,400	8.3	10.0	8.1	2.1	7.0	9.1	6.6	1.5
$1,400 and under $1,500	5.5	7.2	4.7	1.5	4.6	6.5	3.9	1.0
$1,500 and under $1,600	4.0	6.3	2.3	1.3	3.4	5.7	1.9	.9
$1,600 and under $1,700	3.0	4.5	2.1	.3	2.5	4.1	1.7	.2
$1,700 and under $1,800	2.0	3.4	1.0	.4	1.7	3.1	.8	.3
$1,800 and under $1,900	1.6	3.0	.5	-------	1.3	2.7	.4	-------
$1,900 and under $2,000	.9	1.8	.2	-------	.7	1.6	.2	-------
$2,000 and under $2,100	.9	1.7	.3	.1	.7	1.5	.2	.1
$2,100 and under $2,200	.4	.7	.1	-------	.3	.6	.1	-------
$2,200 and under $2,300	.2	.4	.1	-------	.2	.4	.1	-------
$2,300 and under $2,400	.3	.5	.1	-------	.2	.5	.1	-------
$2,400 and under $2,500	.1	.2	-------	-------	.1	.2	-------	-------
$2,500 and over	.3	.8	-------	-------	.3	.7	-------	-------
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Less than 1/10 of 1 percent.

INDUSTRIAL ASPECTS OF LABOR MOBILITY

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BOTH industry and labor benefit from the ability and willingness of workers to move from places in which their services are not needed to places where they are in demand. Were it not for labor mobility, industrial activities would at times be seriously handicapped because of an inadequate number of workers residing in the community of operation. Similarly, employment opportunities would be restricted to what local industries could offer, if workers were confined to a single market for their services.

Labor mobility, however, does not always bring job and job seeker together. Much wasted effort occurs because the unemployed worker does not always know where his services are most likely to be needed; this waste is particularly noticeable when normal industrial operations are disturbed by an economic depression. Another factor that limits the effectiveness of migration in bringing men and jobs together is the marked differences in the needs of individual industries for workers to supplement the resident labor force; these differences are the result not only of changes in general business activity, but also of seasonal and long-time changes in the activity of particular industries.

Information concerning these and other aspects of labor mobility has been limited almost solely to conditions existing in the extractive industries, such as agriculture, and forestry and fishing, where the need for a mobile labor supply is readily observed. It is the purpose of this article to present information on the movement of workers in all the major industrial groups in the State of Michigan, with special reference both to variations occurring during the worst part of the depression and to those caused by seasonal fluctuations in business activity.

The place and time at which this information was collected make it especially suitable for an analysis of mobility in relation to industry. Michigan includes within its borders a wide variety of industrial centers and raw-material-producing areas, ranging from the important manufacturing cities and fertile agricultural sections in the southern part of the State, to the depressed mining, lumbering, and agricultural areas in the northern part of the State. The period studied, April 1930 to January 1935, is also a particularly suitable one, in that it included some of the worst years of the depression, when migration was frequently the only alternative to prolonged unemployment.

Summary of Findings

Among the 188,757 workers whose employment histories were examined, the most mobile group consisted of persons usually employed in forestry, fishing, and the extraction of minerals. About one-fifth of these workers made one or more moves during the 57-month period covered by the study. The group in agriculture had the second highest proportion of workers moving. Persons usually engaged in professional and semiprofessional service were more mobile than were persons usually employed in the manufacturing and mechanical industries, including the automobile industry. Workers continuously unemployed during the period studied were least mobile.

The distance a worker moves is related to the industry in which he seeks work. Workers entering the manufacturing and mechanical industries made the highest proportion of moves that were confined within the boundaries of a county; workers entering agriculture made the highest proportion of moves across county lines within the State of Michigan; and workers who entered the transportation and communication industries reported the highest proportion of moves across State lines.

When the 57-month period covered by the Michigan census is divided into two parts, corresponding roughly to the recession and revival phases of the depression, it is found that there were important differences during the two periods in the proportion of moves to and from various industries. During the first part of the period—April 1930 to October 1932—there was a pronounced movement of workers from manufacturing into agriculture, whereas during the second part of the period—November 1932 to January 1935—many workers moved from agriculture into the manufacturing industries. The movement of workers into rural areas during a time when economic conditions were growing increasingly worse was a reflection of the large volume of unemployment, and the insecurity of living, in cities; while the reversal of the "back to the land" movement when economic conditions improved demonstrates the strong attraction and greater opportunities of industrial employment.

The number and direction of moves made by Michigan workers were also influenced by seasonal changes in employment opportunities. Labor needs at planting and at harvest time are clearly evident in the movement of workers into agriculture. Among other industries seasonal variations in movement were related to seasonal changes in industrial activity, although the relationship was less marked than in the case of agriculture.

The Michigan Census and the Mobility Study

The labor mobility study was based upon data collected in the Michigan Census of Population and Unemployment. That census was taken during the early months of 1935 as a special work project of the Michigan State Emergency Relief Administration. The census was conducted on a complete enumeration basis in some types of community, and on a 20-percent sample basis in others. Where less than the total population was enumerated, every effort was made to secure a group of persons who were typical of the community in which they lived. A separate census schedule was filled out for each household, and about 522,000 of such schedules were taken in all. About 40 percent of the total population of Michigan was represented on these schedules. For the mobility study, 120,247 of the original 522,000 census schedules were selected to yield a reliable cross section of the State as a whole.[1]

The mobility and industry data were taken from the work history section of the Michigan census schedule. This work history was filled out for every person who was 15 years of age or older at the time of enumeration (January 14, 1935). The work history covered the 57-month period from April 1930 to January 1935. For each month during that period it showed whether the person was employed (in which case the occupation and industry were entered), or whether he was unemployed or not seeking work. In addition, each place of work (or place of residence for periods of unemployment or not seeking work) was indicated.

A person was considered to have made a move whenever his work history showed a change between communities under one of the following circumstances: (1) Between places of work, when the person was employed both before and after moving, (2) between places of residence, when the person was unemployed both before and after moving, or (3) between place of work and place of residence, when the person was employed at one end of the move and unemployed or not seeking work at the other, provided in this case that the move was longer than between adjoining counties. This restriction was adopted because short-distance moves between employment and unemployment were usually of the "commuting" type which did not involve a definite transfer of workers from one labor market to another.

[1] The tabulation of the mobility data from the Michigan census schedule was a cooperative undertaking of the Michigan State Emergency Relief Administration, the Michigan Works Progress Administration, and the Division of Social Research of the Works Progress Administration, Washington, D. C.

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Usual Industry of Workers

Since the individual household frequently contained more than one worker, the 120,247 households included in the mobility study contained 188,757 persons who had been in the labor market (working or seeking work) for the whole or a part of the period studied. In table 1 these persons are classified by their usual industry and by the longest move they made during the period studied. The "moving" column in this table shows, in addition, the proportion of workers in each industrial group that made one or more moves during the period studied. Because the usual industry was the industry in which the person worked longest during the period studied, table 1 shows the relative mobility of workers attached to various industries.

TABLE 1.—*Usual Industry and Longest Move Completed*

Usual industry	Number of workers	Percent of workers					
		Total	Moving				Total not moving
			Total moving	Longest move within the county	Longest move between Michigan counties	Longest move interstate [1]	
All industries	188,757	100.0	12.9	2.7	6.4	3.8	87.1
Agriculture	28,260	100.0	16.9	4.1	9.6	3.2	83.1
Other extraction [2]	3,377	100.0	20.4	4.8	9.2	6.4	79.6
Manufacturing and mechanical	67,185	100.0	11.5	2.7	5.1	3.7	88.5
Automobile factories	31,682	100.0	10.5	2.8	4.9	2.8	89.5
Other	35,503	100.0	12.4	2.6	5.4	4.4	87.6
Transportation and communication	12,046	100.0	14.4	2.6	6.2	5.6	85.6
Trade	28,446	100.0	11.0	2.1	5.3	3.6	89.0
Public service	3,420	100.0	10.3	2.0	5.2	3.1	89.7
Professional and semiprofessional service	11,899	100.0	16.5	1.9	9.1	5.5	83.5
Domestic and personal service	17,589	100.0	13.5	2.5	6.2	4.8	86.5
Casual employment and unknown industries	886	100.0	9.0	1.6	4.4	3.0	91.0
Unemployment [3]	15,649	100.0	9.6	1.6	6.5	1.5	90.4

[1] Includes a few persons who moved from foreign countries (particularly Canada) to Michigan.
[2] Forestry and fishing, and extraction of minerals.
[3] Includes persons who had no private employment during the time they were in the labor market.

Approximately one-eighth (12.9 percent) of the workers made one or more moves [2] during the period April 1930 to January 1935. The most mobile group in table 1 is that consisting of workers in extractive industries other than agriculture, i. e., forestry and fishing, and extraction of minerals. More than one-fifth of these workers made one or more moves during the 57-month period studied. The relatively high proportion moving was in large part a result of the long-

[2] This proportion moving is slightly higher than the proportion reported in an earlier article which was based upon the same study. (See Monthly Labor Review, January 1939, p. 16.) The higher mobility in the present report is due to the inclusion of workers who were in the labor market for less than the 57-month period studied, many of whom moved at the time of entering or leaving the labor market.

The exclusion of "commuting" type moves from the study explains the small proportion of persons in table 1 who reported their longest move as within the confines of the county.

time decline of employment opportunities in lumbering and mining in Michigan. For many of these workers, migration was the only alternative to becoming part of the "stranded population" of cut-over timber areas or submarginal mining communities. The second highest proportion of workers moving was found in the group whose usual industry was agriculture. The mobility of this group is explained chiefly by the fact that many persons who worked in agriculture for most of the period studied also had industrial employment either before or after the worst years of the depression. The shift of workers in this group from industry to agriculture or from agriculture to industry usually involved a change in place of residence. These shifts between agriculture and industry are of fundamental importance in an analysis of industrial adjustment and are discussed more fully below.

Another group that contained a large proportion of persons who moved during the survey period consisted of workers in professional and semiprofessional service. These persons moved longer distances than did most persons in the study. For persons in professional and semiprofessional service, migration was apparently an important means of finding new employment opportunities during the depression.

The mobility of workers in manufacturing and mechanical industries was less than might be expected in view of the severity of the economic dislocation in this branch of industry. It must be remembered, however, that the manufacturing and mechanical industries are generally located in the more populous urban centers, and that workers separated from these industries during the depression formed an immediately available labor supply subject to recall at each increase in industrial activity. The possibility of recall probably tended to hold many workers in these centers who otherwise would have moved, while the existence of a large labor surplus tended to reduce the attraction of these industries for outsiders. It is especially noteworthy that workers attached to the automobile industry reported a relatively small amount of migration. The extreme depression of this industry during most of the years covered by this study must have discouraged migration to the automobile centers and encouraged migration out of Michigan, in which case the workers could not be reported in the Michigan census unless they had returned to the State by January 1935.

The "unemployment" entry in table 1 represents persons who had no private employment during the time they were in the labor market, which in many cases was for the entire period, April 1930 to January 1935. The proportion of persons in this group who made one or more moves was distinctly less than that of all workers, and lower than that of all but one of the industrial groupings. Moreover, the proportion of continuously unemployed workers making interstate moves

was smaller than that of any of the groups. It should be noted, however, that a long-time unemployed group usually includes a high proportion of older workers, which in itself tends to lower the mobility of the group. Aside from the age factor, however, the most probable reason for the relatively low mobility of this group is the inertia produced by long-continued unemployment. Another reason is that many persons in this group received relief, which normally tends to hold population in place.[3]

Industry After Move

The information presented up to this point has indicated the relative mobility of persons usually attached to particular industries. In the next table attention is directed to the move rather than the person moving. Each move is classified by range, i. e., by an indication of distance traveled, and by the industry or activity after moving. From this table it is possible to show that industries differ in the extent to which they draw workers from the immediate vicinity of operation.

TABLE 2.—*Industry After Move, and Range of Move*

Industry after move	Number of moves	Percent of moves				
		Total	Within the county	Between Michigan counties	Interstate [1]	Other [2]
All industries	34,847	100.0	20.9	49.9	26.6	2.6
Agriculture	5,194	100.0	27.5	54.4	17.0	1.1
Other extraction [3]	961	100.0	27.5	49.1	21.4	2.0
Manufacturing and mechanical	8,591	100.0	31.1	42.9	23.7	2.3
Automobile factories	4,074	100.0	30.9	45.7	21.8	1.6
Other	4,517	100.0	31.3	40.4	25.4	2.9
Transportation and communication	2,144	100.0	27.8	36.4	33.0	2.8
Trade	3,065	100.0	25.2	46.4	25.5	2.9
Public service	393	100.0	22.9	54.2	17.6	5.3
Professional and semiprofessional service	1,797	100.0	17.8	52.8	24.9	4.5
Domestic and personal service	2,456	100.0	24.0	46.8	26.7	2.5
Casual employment and unknown industries	191	100.0	38.8	36.7	21.4	3.1
Unemployment	8,039	100.0	4.7	60.2	32.2	2.9
Not seeking work	2,016	100.0	5.6	49.4	41.2	3.8

[1] Moves from other States to Michigan and from Michigan to other States.
[2] Moves between other States, and between Michigan and foreign countries (particularly Canada).
[3] Forestry and fishing, and extraction of minerals.

It is evident from table 2 that manufacturing and mechanical industries, including automobile manufacturing, drew a larger proportion of their workers from within the county than did any other industries; an explanation of this result has already been suggested. Short distance moves (within the county) were least important in the case of persons leaving the labor market and of persons who were unemployed after moving. This was due in part to the exclusion from the study of moves within a county that involved unemployment

[3] For a more complete discussion of this point see article already cited (Monthly Labor Review, January 1939, p. 16).

or not seeking work at destination and that did not constitute a real labor market transfer. Moves to unemployment or to not seeking work were therefore more frequently between Michigan counties or interstate in range.

The industries that drew most heavily upon other counties in Michigan for a supplementary labor supply were agriculture, public service, and professional and semiprofessional service. Excluding moves followed by unemployment or not seeking work, the moves that were interstate in range were most commonly made by persons who entered transportation (particularly lake shipping) and communication industries.

Industrial Shifts and Time of Migration

In addition to providing a rough measure of the distance from which different industries drew workers, the investigation of mobility on a move basis provides information on the shifts between different industries according to the time at which the workers moved. The importance of such information is that it shows changes in the distribution of the mobile part of the labor supply under different economic conditions. Although the period covered by this study is too short to permit an analysis of the long-time variations in the distribution of the labor force, or even of the variations throughout one complete business cycle, it is possible to compare the industrial shifts associated with migration during the part of the study period when economic conditions were becoming increasingly worse, with the industrial shifts when economic conditions were improving. The period studied has accordingly been divided into two parts, corresponding approximately to the recession and revival phases of the past depression. The first period covers the interval April 1930–October 1932, the second period the interval November 1932–January 1935. The selection of the two periods was based upon indexes of employment in Michigan.[4]

The classification of the moves according to industry before and after moving and by period of move is first used to trace the broad shifts between industries as a result of migration. This involves a comparison of the number of persons who worked in a given industry before moving with the number who worked in it after moving. The resulting percentage change indicates whether the industry was gaining or losing workers through migration. The findings are presented in table 3.

[4] This information was supplied by the United States Bureau of Labor Statistics.

TABLE 3.—*Industrial Shifts Accompanying Moves, and Period of Move*

Industry	Total			First period [1]			Second period [2]		
	Number in class		Percent of change	Number in class		Percent of change	Number in class		Percent of change
	Before moving	After moving		Before moving	After moving		Before moving	After moving	
All industries	34,847	34,847	-------	11,975	11,975	-------	22,872	22,872	-------
Agriculture	5,537	5,194	−6.2	1,511	2,427	+60.6	4,026	2,767	−31.3
Other extraction [3]	921	961	+4.3	386	274	−29.0	535	687	+28.4
Manufacturing and mechanical	8,256	8,591	+4.1	3,526	2,134	−39.5	4,730	6,457	+36.5
Automobile factories	3,166	4,074	+28.7	1,368	777	−43.2	1,798	3,297	+83.4
Other	5,090	4,517	−11.3	2,158	1,357	−37.1	2,932	3,160	+7.8
Transportation and communication	2,671	2,144	−19.7	1,116	858	−23.1	1,555	1,286	−17.3
Trade	3,367	3,065	−9.0	1,307	1,185	−9.3	2,060	1,880	−8.7
Public service	489	393	−19.6	164	131	−20.1	325	262	−19.4
Professional and semiprofessional service	1,841	1,797	−2.4	715	774	+8.3	1,126	1,023	−9.1
Domestic and personal service	2,394	2,456	+2.6	749	755	+0.8	1,645	1,701	+3.4
Casual employment and unknown industries	267	191	−28.5	75	88	+17.3	192	103	−46.4
Unemployment	6,211	8,039	+29.4	1,383	2,503	+81.0	4,828	5,536	+14.7
Not seeking work	2,893	2,016	−30.3	1,043	846	−18.9	1,850	1,170	−36.8

[1] April 1930–October 1932.
[2] November 1932–January 1935.
[3] Forestry and fishing, and extraction of minerals.

There are several striking facts contained in this table. One is the marked shift into agricultural employment during the first period, and the shift out of agricultural employment during the second period. Another is the large net movement out of manufacturing industries during the early part of the depression and the large net movement into these industries during the later part of the depression. The movement away from automobile manufacturing during the first period, and the even more marked movement to the automobile industry during the second period, are especially striking. As will be shown later, there was a definite shift of workers from manufacturing into agriculture during the early part of the depression, and from agriculture into manufacturing during the later part. These shifts represent the "back to the land" movement of industrial workers when employment in the cities was contracting, and the reverse movement into industry when employment in the cities was expanding.

The deepening of depression during the first period and the improvement in economic conditions during the second are revealed also in the greater gains (or the smaller losses) in employment in nearly all industries during the second period than during the first. Agriculture and professional and semiprofessional service are the only industries that are exceptions to this statement.

Moves involving unemployment show with particular clarity the economic character of migration during the two periods under consideration. During the first period, 81.0 percent more persons were unemployed after moving than before, whereas during the second

period this percentage had declined to 14.7. It is evident that migration was relatively more successful during the second period than during the first. At the same time, it should be noted that economic conditions had not improved enough during the second period to bring about a greater number of moves to employment than to unemployment. This explains why, in some industries, there was only a smaller decrease rather than an actual increase in employment during the second period.

During the 57-month period there were 30.3 percent fewer persons not seeking work after moving than before, or in other words, 30.3 percent more persons entered the labor market than left it at the time of moving. This shift into the labor market was proportionately greater in the second period than in the first. In part, this change represents the normal entrance of new workers, but in part it also reflects the reentrance of workers whose withdrawal was interrupted by the depression. The interesting point here is the resort to migration as a means of entering or reentering the labor market, probably as a result of the limited opportunities in rural areas and one-industry towns.

Reference has been made above to the pronounced gains and losses in agriculture and industry resulting from migration. This is one of the most significant industrial shifts that is shown by the analysis of moves according to industry. The evidence presented so far has indicated that agriculture gained workers during the first period and lost workers during the second period, and that manufacturing industries lost workers during the first period and gained workers during the second. Evidence is presented next to show that the gains of agriculture during the first period were largely due to workers' leaving manufacturing when they moved, and that the losses of agriculture during the second period were largely due to workers' entering manufacturing. This evidence is presented in table 4, in which the industries entered by workers who moved out of manufacturing and agriculture are compared for the two periods.

Table 4 demonstrates that there was a well-defined movement of workers from the manufacturing industries into agriculture during the period April 1930 to October 1932, and from agriculture into manufacturing during the period November 1932 to January 1935. The proportion of moves made in the first period from manufacturing to agriculture (27.7 percent) was half again as great as the proportion in the second period (18.5 percent). In the case of moves from agriculture, approximately the same proportions (25.8 and 26.5 percent) were to agriculture and to manufacturing during the first period; during the second period, however, the proportion of moves to manufacturing (41.5 percent) was more than double the proportion to agriculture (19.3 percent). It should also be noted that the proportion

of moves to manufacturing during the second period was about the same for agricultural and industrial workers.[5]

TABLE 4.—*Industries Entered by Workers Moving From Manufacturing and Mechanical Industries and From Agriculture*

Industry entered at time of move	Number of moves		Percent of moves	
	First period (April 1930–October 1932)	Second period (November 1932–January 1935)	First period (April 1930–October 1932)	Second period (November 1932–January 1935)
	Workers moving from manufacturing and mechanical industries			
All industries	3,526	4,730	100.0	100.0
Agriculture	979	873	27.7	18.5
Other extraction [1]	51	64	1.4	1.4
Manufacturing and mechanical	883	1,939	25.0	40.9
Transportation and communication	152	195	4.3	4.1
Trade	278	276	7.9	5.8
Public service	38	52	1.1	1.1
Professional and semiprofessional service	62	74	1.8	1.6
Domestic and personal service	105	146	3.0	3.1
Casual employment and unknown industries	39	31	1.1	.7
Unemployment	792	915	22.5	19.3
Not seeking work	147	165	4.2	3.5
	Workers moving from agriculture			
All industries	1,511	4,026	100.0	100.0
Agriculture	390	776	25.8	19.3
Other extraction [1]	80	191	5.3	4.7
Manufacturing and mechanical	401	1,669	26.5	41.5
Transportation and communication	114	238	7.5	5.9
Trade	142	281	9.4	7.0
Public service	12	25	.8	.6
Professional and semiprofessional service	59	63	3.9	1.6
Domestic and personal service	45	109	3.0	2.7
Casual employment and unknown industries	16	26	1.1	.6
Unemployment	205	558	13.6	13.9
Not seeking work	47	90	3.1	2.2

[1] Forestry and fishing, and extraction of minerals.

These findings represent two types of situation. One is the "back to the land" movement of industrial workers seeking to escape economic insecurity in the cities. Such persons frequently moved to the farm of a friend or relative, or to an abandoned farm, where they hoped at least to maintain themselves. Many then returned to the cities when industrial opportunities improved. The other situation represents the effect of the depression in blocking the normal migration of workers from country to city. Both of these situations are of considerable importance as affecting the distribution of the labor force.

[5] The "back to the land" movement is equally evident from a comparison of the absolute number of moves between manufacturing and agriculture during the two periods, even though the information is derived from a relatively small sample of the population of Michigan. Of the moves made by Michigan workers included in the sample, 979 were from manufacturing to agriculture, and only 401 were from agriculture to manufacturing during the first period. During the second period this relationship was reversed: 873 moves were from manufacturing to agriculture, 1,669 moves from agriculture to manufacturing.

The "back to the land" movement seems generally to have failed in its purpose. In the first place, such migration was usually to the poorest farming areas where it was extremely difficult to make a living. The high proportion of the population on relief in the counties of Michigan that showed the largest increases in farm acreage from 1930 to 1935 shows that "back to the land" migration merely shifts the relief burden from urban to rural areas.[6] Furthermore, absence from the city usually reduced the workers' contact with employment opportunities, and thereby lengthened the period of unemployment. In the great majority of cases, therefore, there were no tangible benefits derived by industrial workers from emergency migration to rural areas.

The depression not only caused many city dwellers to move to rural areas, but it also restricted the movement of young farm people to the cities. Farm-to-city migration has been a characteristic of the American population movement for many years because of the surplus population in rural areas relative to employment opportunities. In addition, such migration is necessary to maintain the population of the large cities, since "without migration, the population of the large cities would soon begin to decrease." [7] Thus, the slowing down of the farm-to-city movement during the worst years of the depression was against the best interests of both the country districts and the cities.

Seasonal Pattern of Migration

One of the important characteristics of migration, and one about which little information has been available, is the time of year at which workers move when they enter a given industry. Such movement is, of course, related to the seasonal rise and fall of employment in the industry in question. Nevertheless, the peaks of migration may either precede or follow the peaks of employment in the industry. If the labor market were perfectly organized, an expanding industry would absorb the available workers in the local community before it drew workers from other communities. That is, it would seem reasonable to expect that an increase in migration would follow an increase in employment. Workers ordinarily have such incomplete knowledge of the labor market, however, that they frequently move to another community in search of employment in a given industry with little more basis for doing so than the rumor that jobs would soon be available. Under such conditions, an increase in migration to an industry precedes an increase in employment in that industry.

By relating the month of move [8] to the industry of employment after the move it is possible to obtain information on the seasonality

[6] See Michigan State Emergency Welfare Relief Commission, Unemployment Relief and Economic Security, by William Haber and Paul L. Stanchfield, Lansing, 1936, pp. 130, 131.

[7] National Resources Committee, The Problems of a Changing Population, Washington, 1938, p. 136.

[8] The month of the move was the last month at the location which the worker left.

of migration in Michigan industries. Unfortunately, such a classification of the data is so involved that only three such patterns can be shown, namely moves into agriculture, moves into the automobile industry, and moves to all industries.

The procedure used in obtaining the seasonal indexes was as follows: The moves made during each month of the period studied were first plotted on graph paper. Next, a line describing the trend was fitted to each plotted series, and the percentage differences of the individual monthly values from the trend were calculated. An average of the individual monthly values was then computed and seasonal indexes of migration obtained in which the average monthly movement throughout the year was taken as 100. The results, for all moves, moves into agriculture, and moves into automobile manufacturing, are presented in table 5 and the figure on page 801.

TABLE 5.—*Seasonal Indexes of Movement*

[Average for year=100]

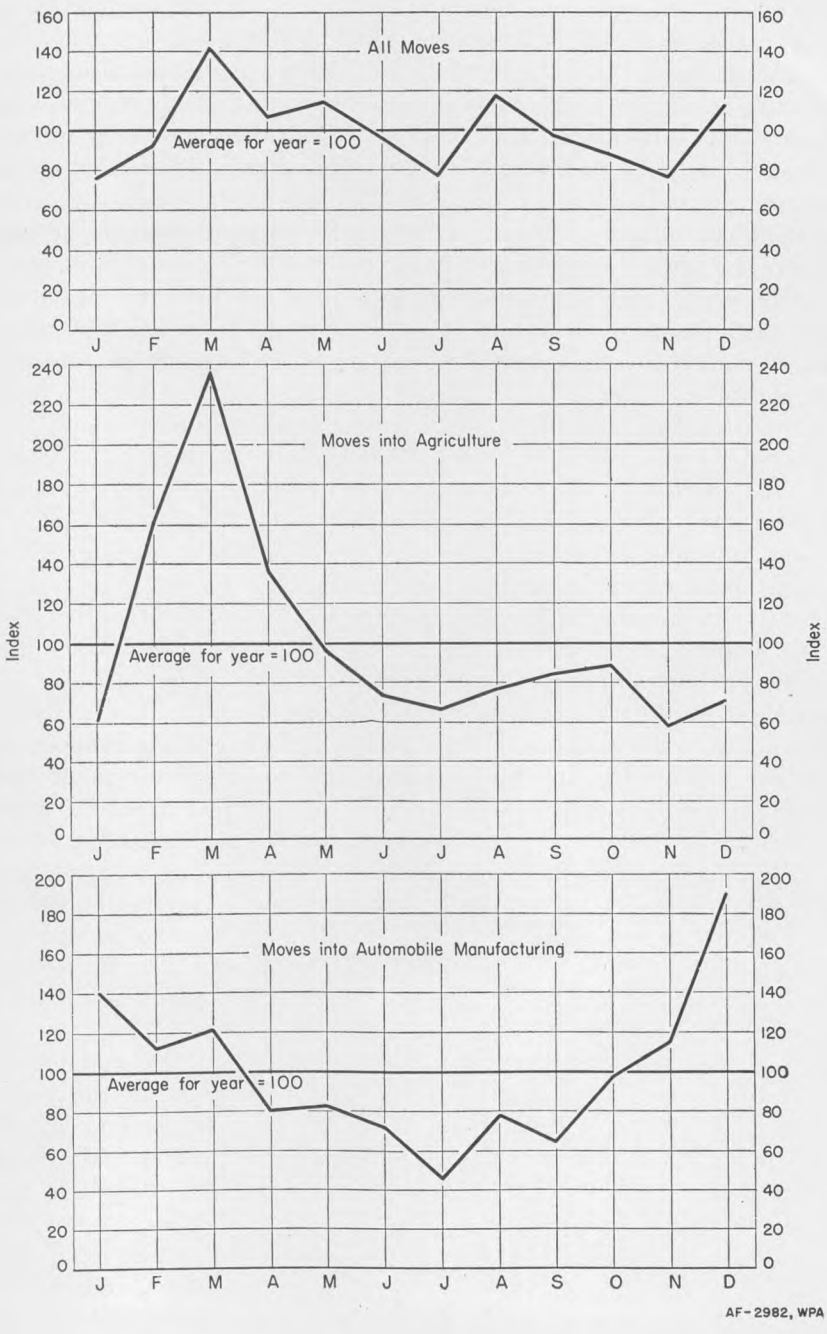
Month	All moves	Moves into agriculture	Moves into automobile manufacturing	Month	All moves	Moves into agriculture	Moves into automobile manufacturing
January	76	60	140	July	78	65	46
February	92	161	112	August	118	76	78
March	142	236	121	September	98	84	65
April	107	136	80	October	88	88	98
May	114	95	82	November	77	57	116
June	97	72	72	December	113	70	190

The indexes derived for all moves reveal, in general, the influence of the seasonal rises and falls in general business conditions. According to table 5, the volume of movement is lowest in midwinter (January), rises to a peak in early spring (March), and declines to a midsummer low in July. Then follows a secondary peak in August, a subsequent decline to November, and a third peak at the end of the year. On the whole, this pattern of migration for all workers moving is predominantly a reflection of economic conditions, although it is probable that it is also influenced by the ease or difficulty of migration at different times of the year.

The series for agriculture shows an exceptionally well-defined seasonal pattern. Following a low level of mobility during the winter months, the volume of movement rises sharply to its peak in March. It declines steadily throughout the late spring and summer, and reaches a low point in July. Then follows a moderate rise in early fall, and finally a decline to the year's low point in November.

This series follows closely the needs of agriculture for its labor supply, the spring rise corresponding to the planting season, and the fall rise to the harvesting season. The rise in the fall is much smaller than the rise in the spring because many persons who enter agriculture in

SEASONAL MOVEMENT OF MICHIGAN WORKERS



the spring remain on the farm during the growing season. Some of these workers seek industrial employment during the winter months and return to farming the next spring.

The automobile manufacturing series, while not so regular as the agriculture series, nevertheless follows a fairly clear seasonal pattern. Starting in the fall months, there is a steady rise to the year's peak in December. Migration then tapers off during the spring months and declines gradually to the year's low point in July. This index corresponds generally to the seasonal fluctuations in employment in the automobile industry. However, it reaches its peak about 4 months before the peak of employment in the industry.[9]

The considerable time interval by which the peak in migration preceded the peak in automobile employment indicates that these workers moved to the automobile centers at the first signs of seasonal expansion in the industry. As shown in table 2, these workers were attracted principally from nearby communities during the years covered by the Michigan census. For many of the workers here studied, therefore, little risk was involved in shifting into work at automobile plants. But for those migrants who came from more distant places, information concerning employment opportunities in the automobile industry was less reliable, and migration entailed a greater risk. It must be remembered that only the successful job seekers are reported here; undoubtedly many of the workers who moved into the automobile centers were unable to secure employment. What is true of the automobile industry applies to other industries as well. Since industry benefits from the willingness of workers to move to areas in which their services are needed, it seems obvious that the effectiveness of this means of distributing the labor supply is improved when full information is made available about job opportunities.

[9] During 3 of the years covered by this study, namely 1930, 1931, and 1934, April was the peak month in automobile employment. In 1932 employment during April fell behind employment during the peak month, February, by only 1,000 persons (see Michigan report previously cited, p. 153).

PROGRAM OF INTERNATIONAL LABOR CONFERENCE OF JUNE 1939

By JOHN S. GAMBS, *Assistant United States Labor Commissioner, Geneva*

EACH year, in June, the International Labor Organization in Geneva holds an International Labor Conference. At these Conferences the work of the preceding 12 months is reviewed and acted upon by some 400 representatives of governments, employers, and workers from approximately 50 countries. The attitude of these delegates toward the problems of the Organization helps to determine its program for the following year.

Next June, Mr. John G. Winant, by virtue of his post as director of the International Labor Office, is to be secretary-general of the Conference, the twenty-fifth in the history of the Organization. This will be the first time that an American citizen will have had that high honor. Other Americans will take part, as in recent years; two will represent the Government, while two others will represent employers and labor. These four delegates will, together, have perhaps a dozen or more advisers.

Much of the discussion of the year's work centers on the annual report of the Director, which is discussed by representatives of governments and by delegates of employers and workers from every quarter of the globe. Last year the discussion of the Director's report covered five main subjects: Reduction of hours, freedom of association, increased participation of the Americas, problems of the Eastern agricultural countries, and the relationship of social justice to war. Although events move rapidly and the relative importance of these problems has altered considerably in the past year, the problems themselves remain.

The second and perhaps greater task of the Conference is the elaboration of international regulations to be submitted to member States for ratification. The following six items are on the agenda for action: Generalization of the reduction of hours of work in industry, commerce, and offices; reduction of hours of work in coal mines; regulation of hours of work and rest periods of professional drivers (and their assistants) of vehicles engaged in road transport; technical and vocational education and apprenticeship; regulation of contracts of employment of indigenous workers; and recruiting, placing, and conditions of labor (equality of treatment) of migrant workers.

In order to understand more clearly how the items on the agenda will be handled at the twenty-fifth International Labor Conference in June, it is necessary to know the process of drafting international regulations. At last year's Conference, a number of tripartite committees, each concerned with problems which now appear as items

on this year's agenda, discussed the appropriate preliminary reports that had been drawn up by the I. L. O. permanent office staff. Out of this discussion the staff was able to sense the attitudes of the delegates, and received guidance for the preparation of a questionnaire on each item. A sample of the questions sent to Governments regarding certain topics on the agenda is as follows:

Technical and vocational education and apprenticeship (3d question).—(1) Do you consider it desirable to provide for all children on reaching a specified age an initiation into occupational life within the framework of the compulsory education system, by developing among such children the idea of and the taste for manual work so as to facilitate their future vocational guidance?

(2) If so, what should be: (*a*) the age of commencement of such initiation? (*b*) its duration?

(3) What form should this initiation take with regard to: (*a*) the importance of practical work? (*b*) the nature of such work? In this connection, do you agree: (*i*) that it is desirable, in drawing up programs, to avoid any vocational specialization? (*ii*) that practical work should nevertheless take into account the nature of the principal occupations and industries in the district?

Regulation of hours of work of professional drivers (eleventh question).—Do you consider that hours of work should be defined as comprising the time during which the worker is at the disposal of the employer or of any person entitled to claim his services?

Generalization of the reduction of hours of work (eighth question).—Do you consider that the competent authority in each country should be permitted to exempt from the application of the international regulations undertakings or establishments where only members of the employer's family are employed?

Reduction of hours of work in coal mines (sixth question).—Do you agree that in mines where access is by a shaft the time spent in the mine should be considered to mean the period between the time when the worker enters the cage in order to descend and the time when he leaves the cage after reascending?

The questionnaires were transmitted to the various governments. Experts from various governmental departments replied to the questions. On the basis of these replies, the staff of the International Labor Organization is drawing up for each item a final report which, no doubt, will include the draft of an international regulation.

One of the first tasks of the Conference is to choose tripartite committees, one for each item on the agenda. Thus the large, unwieldy assembly of delegates is broken up into relatively small and effective groups, which discuss intensively the problems at issue. Each committee will have for consideration the documentation prepared by the Office. The committee will determine first, whether the time is ripe to take final action in the field of international regulation. If the answer is in the affirmative, it will examine the proposed regulation to see what alterations are desirable. Finally, it is prepared to submit its report to a plenary session of the Conference, where discussion—though now quite formal—again takes place. A final vote is taken. At this last stage, the proposed regulation must receive two-thirds

of the votes cast before it is adopted and referred to governments for ratification. The Conference cannot go beyond this point. Final action upon the international regulations adopted by the Conference is left to the several governments. They may, within certain time limits, accept the obligations imposed by the convention, or reject them, as they see fit. If a government accepts the obligations imposed, it need not give effect to its acceptance until after one or more other governments have accepted, for a convention or recommendation is a kind of treaty, and there must be at least two parties to an agreement.

Reduction of Hours of Work

Three of the agenda items relate to a question of special interest to Americans, particularly in view of the recently enacted Fair Labor Standards Act. That question is the reduction of hours of work, which will be involved in the following agenda items: Regulation of hours of work of professional drivers; general reduction of hours; and reduction of hours in coal mines.

Since the I. L. O. first began to center attention on the establishment of the 40-hour week, much difference of opinion has prevailed as to the best method of attaining this ideal. Sometimes it has been held that there should be a single, inclusive convention, for all industry; at other times it has been held that this method was inflexible and unrealistic, and that there should be a considerable number of conventions to cover a variety of industries. At the June Conference last year, the hours of work committee decided that its labors should prepare the way neither for one convention nor for many, but for a limited number. An hours convention for maritime labor was adopted recently; this category, therefore, did not have to come up for attention. Barring this classification—and, of course, agriculture—the remainder of economic life was divided into the following classes by the I. L. O.: (1) Industry, commerce, and offices; (2) coal mines; (3) road transport; and (4) other transport.

It is not yet known whether the plan of the Office is to subdivide "Industry, commerce, and offices" into two parts—a manual workers' final report, and a white-collar workers' final report—or only one. It is known that a final report on "Other transport" will not be submitted, but that there will be final reports for coal mines and road transport. Thus, there will be either three or four reports—though none on "Other transport"—and perhaps three or four conventions. By proposing separate conventions, the way is left open for the adoption of at least a part of the program.

Certain flexible provisions and stipulations for progressive application may have a bearing on the result. If the Office, after receiving governmental replies, decides to draw up an industry, commerce, and

offices convention or conventions for 40 hours, it is possible that the draft (or drafts) will contain provisions for a progressive reduction in hours, as does the Fair Labor Standards Act. A similar transitional scheme may appear in the drafts for coal mines and road transport. A certain flexibility will, no doubt, be provided by stipulations in respect to overtime, and in respect to exemptions that would permit countries of sparse population, or in a primitive stage of development, to limit the application of any hours convention they may ratify without being considered to have violated their treaty obligations.

Even if conventions are not adopted, the mere discussion of questions important to labor, the dissemination of information not available elsewhere, the opportunity that delegates have of making an international inventory of the status of problems in which they are interested—all these things have an important place in elevating abor standards.

Technical and Vocational Education and Apprenticeship

The I. L. O. has drawn up a questionnaire on the subject of technical and vocational education and apprenticeship. Judging from the preparatory work, it seems likely that the final report on this item of the agenda will include a draft recommendation. A recommendation is a proposal which has less force than a convention; the latter, when ratified, has the force of a treaty, while the former is submitted to member States "for consideration with a view to effect being given to it by national legislation or otherwise." [1]

It is not yet known what this draft recommendation will contain, but it may be predicted that it will be a sort of model code on vocational instruction, for the guidance of governments, employers, workers, and educators. It will point out the value of coordinating institutions and agencies on the basis of a general educational program. It will stress the value of maintaining an equilibrium between the industrial demand for certain skills and the training of young people to be competent in those skills. Institutions of vocational education will be warned that, although some highly specialized skills are now more in demand than ever, the value of others is being destroyed by the onward march of the machine; and as the solution it may be suggested that young people should receive a general, all-around training for industrial fitness. Allied to this is the problem of a broad general educational background. Although the final report will not assume that unemployment can be appreciably minimized through vocational education, it will point out the evils of blind-alley jobs and will suggest that a more advanced school-leaving age will reduce the labor supply.

[1] Constitution and Standing Orders of the International Labor Organization, Conference Edition, 1938, art. 19, p. 11.

The recommendation seems to have an excellent chance of adoption by the Conference, for this item was placed on the agenda for 1939 without a dissenting vote. If adopted, it will go to member States for consideration.

Migrant Workers and Indigenous Workers' Contracts

There are two items on the agenda which relate to matters in which the United States is involved only to a limited extent. One aims at the regulation of contracts of employment of indigenous workers, and the other relates to the recruitment, placement, and conditions of labor of migrant workers.

The indigenous workers with whom the I. L. O. is concerned "are primarily the workers employed in tropical and subtropical territories by agricultural and industrial undertakings which are owned and managed by Europeans, or * * * are worked in accordance with European methods."[2] The countries most concerned are Great Britain and its Dominions, Belgium, France, Spain, Italy, Liberia, the Netherlands, and Portugal. Although the Government of the United States appreciates the accomplishment of the I. L. O. in raising the standards of indigenous workers, and hopes that further progress will be made during the Conference, it has indicated that it would not be in a position to contribute to the discussions of this subject.

The second item in this category is the recruitment, placement, and conditions of labor of migrant workers. In the last two decades the immigration problems of the United States have altered so completely as to remove the difficulties that still concern other new countries. Our laws are, besides, rather strict about recruiting labor either by stimulating immigration through advertisement, or by admitting contract labor. Since the I. L. O. preparatory work on migrant workers has been directed toward countries in which conditions are unlike ours, our practical cooperation will be limited.

For both of these items the I. L. O. will present final reports including, no doubt, draft conventions. Judging from the preparatory work, there is more agreement among the three groups composing the Conference on the item of migrant workers than on the item relating to indigenous workers, but it seems not unlikely that conventions will be adopted for each of the two items.

Resolutions and Application of Conventions

The Conference always appoints a number of tripartite committees to fulfill specific responsibilities that arise in connection with the administration of the I. L. O., such as the Standing Orders Committee, whose work this year, by contrast with last year's, will be light. The

[2] Regulation of Contracts of Employment of Indigenous Workers, Questionnaire II. Geneva, 1938, p. 6.

Credentials Committee will perform its usual tasks. There will be the always interesting work of the Committee on Resolutions, which examines resolutions submitted, on the basis of their expediency and the competence of the Conference. The Committee on the Application of Conventions will consider the measures that have been taken by member States to give effect to the provisions of conventions to which they are parties. Since the United States has, in the past year, taken its place among the members who have ratified conventions, American delegates will, presumably, cooperate for the first time in the labors of this committee.

DURATION OF PUBLIC RELIEF IN MILWAUKEE COUNTY

AN ANALYSIS of 1,634 cases on the public relief rolls in Milwaukee County, as of January 1, 1937, covered the relief experience of these persons for the 6-year period since January 1, 1937. The findings of this analysis, recently published,[1] indicate that during the 6-year period 46.4 percent of the cases analyzed had received relief for 4 years or more; 41.2 percent had received aid continuously since the time of their acceptance for relief and an additional 28.6 percent had had but one break in an otherwise continuous relief history. In 57.7 percent of the cases, the head of the family had been able to obtain no private employment whatever during the 6 years, and 15 percent had had only from 1 to 5 months' employment.

In making the survey every sixth case in the active case load was taken for study. Analysis of their relief history showed that the median duration of relief for all cases included was 44.8 months out of a possible 72 months. Only one-tenth of the whole group had received relief for less than a year. It is pointed out, however, in this connection, that the analysis was based only on persons who were still on relief at the time the study was undertaken and therefore did not include "the great many who had been on relief rolls, but whose cases were closed. It is quite likely that the duration on relief of these cases may be quite short."

Age, Employment, and Relief Status

The median age of the family heads on relief was 46.5 years (as compared with a median age, for all family heads in Milwaukee, of 41.7). "It should be noted that one-third of the total cases analyzed fall within the most favorable age group from the point of view of employment, namely 30 to 45." Slightly less than 10 percent were under 30, about one-third (34 percent) were between 45 and 60, and 20 percent were over 60 years.

Although 42.3 percent had been able to find some private employment during their relief periods, their earnings were so small as to

[1] American Public Welfare Association How Long are Clients on Relief?, by Benjamin Glassberg and Alexander J. Gregory. Chicago, 1938.

necessitate their being given supplementary relief in order to enable them to provide for their families. Their median age was 44.4, as compared with 48.7 for those who had had no employment.

A direct relationship was noted between length of time on relief and ability to obtain employment other than on WPA. The longer the period of relief the less likely the client was to obtain work.

> This is undoubtedly due to the fact that the so-called long-term "reliefer" is usually the less efficient employee or is physically handicapped and so was the first to be laid off in the early years of the depression. The long years of unemployment which have been his lot since 1931 have naturally resulted in a deterioration of the little skill of which he was possessed.

Causes of Dependency

An additional handicap was the size of the relief families. Among the general population in Milwaukee County the median size of family was 3.51 persons. Among the 1,634 relief families, the median was 4.71 persons, and among the 150 families that had been on relief continuously since 1931 the median was 6.08 persons. In this last group there were 29 (of 150) families that had no employable persons, and 15 of the 33 families with 2 to 4 members contained no employable member.

Among the 150 families continuously on relief during the 6-year period, 43.2 percent of the heads of the family were reported as unskilled workers, 24.3 percent as semiskilled, and 20.0 percent as skilled. The remaining 12.5 percent included 6.3 percent who were "white-collar" workers. By far the greater number (66.6 percent) had had to apply for relief originally because of loss of employment from lay-off or illness, and 14.7 percent because (although employed) they were not able to earn enough to support their families. For nearly a quarter (24.7 percent) the cause of continued dependency was unemployment—inability to find work. In the case of 35.3 percent the continued dependency was due to the physical or mental disability of the breadwinner or to his age. Emotional or personality problems and broken homes (desertion, etc.) were the causes in 32.7 percent, and "disinclination to work" in 3.3 percent. Four percent of the families had some employment but had to have supplementary relief for full family support.

Conclusions

Summarizing the findings, the report concludes as follows:

> How long families are on relief, it is evident, is determined by a number of factors, including the individual characteristics in a given case. There is first to be considered the number of available jobs. * * * Another important factor is the size of a man's family. If it is large it will make it necessary for him to apply for supplementary assistance. The same wage, when received by another worker, will suffice to meet his needs and make relief unnecessary. * * *

Differences in policy between cities will greatly influence the continuity of clients on relief. * * *

In spite of these variations in policy it is evident that a very large proportion of the unemployed who have been forced to apply for relief remain on relief for very long periods. It should be understood that conditioning these findings is the presence or absence of a normal degree of business activity and the presence or absence of available employment opportunities. When business activity is at a low ebb, we will be faced with a group who will be without work opportunities for long periods of time. Since this is the case it would appear that there is need for more careful planning and a more realistic facing of the facts of relief than the Federal Government or the States and local communities have thus far permitted themselves. It is not sufficient to denounce relief as un-American and as degrading. Everyone concerned with the problem will agree that it is most deplorable that in a country possessing such immense wealth of resources and man power millions of people should be forced to depend for a living on relief. Just exactly how degrading and demoralizing a relief experience is may be subject to question. A study recently completed by Mrs. Katherine Ranck and Mrs. Ruth Cavan, published by the University of Chicago Press, would seem to indicate that those relief families who deteriorated and disintegrated did so not because of the depression; that at most the depression intensified tendencies already in evidence, but did not cause them. Leaving this consideration aside, there has been too much of an effort to damn the relief system and by inference those engaged in administering relief, without any attempt to make clear just how relief was to be eliminated or whether it could be completely eliminated, as would appear to be the aim of those who insist that the only form of relief America will "tolerate" is a job. The proponents of the "job only" theory remind us of the days when the classic objection to the introduction of a system of unemployment insurance in the United States was the argument that what was needed was a job, not a "dole." This is all very desirable, to be sure, but is it possible? An analysis of the relief load of any agency will indicate the presence of large numbers who, because of age, or because of physical or mental conditions, or because of the technical requirements laid down by WPA, are not able to work. Some of them might hold down a job if the demand for labor was at a maximum, but with ten or more millions unemployed it is hardly conceivable that these marginal cases would find employment, even on WPA.

CANADIAN TRADE-UNION BENEFITS, 1937

BENEFITS paid in 1937 by 6 of the 31 Canadian central labor organizations amounted to $47,657.78. This was a decrease of $20,331.39, as compared with the figures reported by 5 organizations for the preceding year.[1] The amounts paid in 1937 in benefits for various purposes by each of the organizations are shown in the following table.

Benefits Paid in 1937 by Canadian Labor Organizations

Organization	Death [1] benefits	Strike benefits	Sick benefits
Canadian Association of Railwaymen	$34,500.00		
Canadian Brotherhood of Railway Employees	3,229.96		$999.82
Canadian Brussels Carpet Weavers' Beneficial Association	110.00		
Canadian Shoe Workers' Union and Allied Crafts		$3,215.00	
Civil Service Association of Alberta	[2] 5,500.00		
New Brunswick Farmer-Labor Union		103.00	
Total	43,339.96	3,318.00	999.82

[1] Includes benefits paid by insurance companies with which the organizations had group insurance policies.
[2] Includes disability benefits.

OPERATION OF FRENCH SOCIAL-INSURANCE SYSTEM, 1935 AND 1936

THE number of industrial and commercial wage earners registered under the French social-insurance system on December 31, 1936, was nearly 10½ million and the number of agricultural and forestry workers about 1,250,000, according to a report of the French Ministry of Labor covering the years 1935 and 1936. The number of actual contributors, however, is much smaller than the number registered, because of multiple registrations of the same persons, delay in discharging the names of persons leaving the system, and other errors. The figures for contributors are based on the quarterly leaflets returned by them. Prior to the application of the decree-laws of October 1935, if an insured person had sent in his annual contribution card and had paid at least one contribution during the year he was considered as a contributor, but since the annual card was abolished the figures are based on the quarterly returns. These showed that the number of regular contributors in 1936 in nonagricultural occupations averaged 5,850,000 and in agriculture and forestry, 575,000. As compared with the preceding year, this was an increase of about 350,000 industrial and commercial workers and about 50,000 agricultural workers, but was less than was shown under the former method of computation.[2]

[1] Canada. Department of Labor. Twenty-seventh Annual Report on Labor Organization in Canada, for the Calendar Year 1937. Ottawa, 1938.

[2] Data are from report by Benjamin M. Hulley, American consul, Paris; and Journal Officiel, Paris, December 2, 1938: Rapport du Ministère du Travail sur l'application de la législation des assurances sociales (Statistiques du 1er janvier 1935 au 31 décembre 1936). For a general discussion of contributions, benefits, and coverage of system, see Monthly Labor Review, March 1938.

Contributions paid to the social-insurance fund by employers and workers from the time the law became effective (July 1, 1930) to the end of 1936 were as follows:

	Francs		*Francs*
1930 (6 months)	1, 496, 736, 174	1934	3, 175, 994, 197
1931	3, 562, 401, 338	1935	3, 085, 908, 635
1932	3, 261, 798, 160	1936	2, 641, 654, 512
1933	3, 271, 276, 895		

During the first 5 years, the contributions were based on five salary classes, the maximum monthly contributions for both employers and employees ranging from 12 francs to 80 francs, or an average of 8 percent of wages. The decree-law of October 28, 1935, fixed the contribution at 7 percent of wages for the year 1936, with a maximum of 70 francs per month. Since January 1, 1937, the contribution has amounted to 8 percent of the wage, with a maximum of 100 francs per month. The steady decrease in the amount of contributions from 1933 to 1937 was due to the lowering of wages and the increase in unemployment, and, during 1936, to the reduction in the rate and a change in the method of paying the contributions.

During 1937, because of the restoration of the 8-percent rate, the general increase in wages, an increase in the number of persons insured, and an increase in the maximum wage on which contributions were calculated, the contributions increased to 4,186,000,000 francs.

The organizations administering sickness and maternity insurance at the end of 1936 totaled 1,009, including 727 primary allotment funds (*caisses primaires de répartition*), 267 agricultural mutual-aid societies or agricultural sections of departmental funds, and 15 regional unions. There were also 5 national agricultural unions, and the general guaranty fund. The regional unions, which have the same territorial limits as the regional social-insurance organizations, replaced the 36 reinsurance funds which operated prior to the decree of October 1935. There were 80 primary capitalization funds covering the risks of old age and invalidity, and death.

These organizations have expended the amounts shown in table 1 for certain types of insurance.

TABLE 1.—*Disbursements by Social-Insurance Organizations in France for Various Types of Insurance, 1930 to 1936*

Year	Disbursements (in francs) for—				
	Sickness	Maternity	Death	Other	Total
1930-31	714, 644, 616	155, 780, 335	7, 016, 262	662, 970	878, 104, 183
1932	875, 873, 375	178, 084, 057	30, 460, 686	2, 011, 009	1, 086, 429, 127
1933	935, 401, 696	170, 144, 342	33, 596, 860	2, 145, 244	1, 141, 288, 142
1934	998, 126, 448	173, 035, 780	34, 430, 614	1, 746, 009	1, 207, 338, 851
1935 [1]	1, 097, 925, 128	169, 603, 290	33, 996, 851	2, 279, 210	1, 303, 804, 479
1936 [1]	1, 011, 279, 135	152, 470, 087	14, 278, 431	----------	1, 178, 027, 653

[1] Provisional figures.

More than 1¼ billion francs were expended in benefits for compulsory sickness insurance for workers in industry and commerce by 699 funds for which detailed expenditures were reported during the period January 1, 1935, to March 31, 1936. Maternity benefits paid amounted to more than 184 million francs, and death benefits amounted to over 39 million francs. The amounts paid in benefits of each kind by the 699 nonagricultural funds; and by 83 agricultural sections of departmental funds and 152 mutual-aid societies under the system for agricultural workers are shown in table 2.

TABLE 2.—*Benefit Expenditures of French Social-Insurance Organizations, January 1, 1935–March 31, 1936*

Kind of benefit	Nonagricultural workers	Agricultural workers
	Francs	*Francs*
Compulsory sickness insurance	1,251,119,011	83,102,327
Medical, surgical, dental, hospital, pharmaceutical, etc., benefits	805,471,133	63,720,908
Cash benefits	391,835,382	18,982,454
Old-age pension contributions	14,913,603	224,864
Subsistence payments, in cash and in kind	5,072,102	174,101
Transfers to maternity insurance	174,745	----------
Other disbursements	33,652,046	----------
Maternity insurance	184,317,274	20,335,882
Medical, surgical, hospital, pharmaceutical, etc., benefits	70,793,761	9,592,362
Cash benefits	46,204,676	4,174,965
Old-age pension contributions	1,804,377	45,720
Nursing benefits and milk allowances	57,437,763	6,469,534
Subsistence payments, in cash and in kind	[1] 689,841	53,301
Other disbursements	7,386,856	----------
Death benefits and miscellaneous	39,145,811	4,800,378

[1] Includes expenditures for treatment in special cases.

Retirement under the pension provisions of the law is optional at the age of 60. The law became effective July 1, 1930, and it was provided that there should be a transition period of 5 years before the pension provisions became fully effective, but persons who reached the retirement age before July 1, 1935, were entitled to receive a certain minimum pension. The total number of applications for a pension to December 31, 1936,was 500,741, of which 419,925 had been settled and 80,816 were in process of adjustment.

REVISION OF DISABILITY BENEFITS IN SOVIET UNION

FOR the purpose of providing an incentive to workers to continue in service with the same enterprise, the Soviet Union on December 29, 1938, issued a decree modifying the eligibility requirements and the scale of pensions for disability.[1] By encouraging the workers to acquire long-service records, it is hoped to increase their efficiency and productivity and enable the employing enterprise to benefit by the work of experienced employees.

[1] Data are from Izvestiia (official Soviet daily), Moscow, December 29, 1938.

The Soviet social security system is not an insurance plan, for it is noncontributory. It provides pensions for sickness,[2] accident, and old age, but not for unemployment. It is administered by the labor unions which function as an arm of government.

The decree provides for reduction of benefits in some cases and for increases in others. Formerly, for temporary disability, full wages were paid to workers with 2 years' service in one enterprise and a total work history of over 3 years. The new decree reduces the benefit to 50 percent of wages, but graduates the benefits, without increasing years of service, up to 100 percent after 6 years' continuous service with the same employer. Persons not members of the labor union of their industry receive only half the above benefits.

Workers who are dismissed or who leave their jobs voluntarily become eligible for disability pensions only after they have worked on their new job not less than 5 months.

Previously, expectant mothers received sick benefit for 8 weeks before and 8 weeks after childbirth. The new decree provides for benefit only after 7 months' continuous service in the employing enterprise and reduces the period of benefit to 7 weeks before and 4 weeks after the confinement.

Pensions for permanent invalidity are conditioned upon age and upon the period of service, as shown in the following table.

TABLE 1.—*Years of Service Required for Eligibility to Invalidity Pensions in the Soviet Union, by Age Group*

Age of worker	Period of service (in years) required		
	Males	Females	Hazardous work
20 to 22 years	3	2	2
22 to 25 years	4	3	3
25 to 30 years	6	4	4
30 to 35 years	8	5	5
35 to 40 years	10	7	6
40 to 45 years	12	9	7
45 to 50 years	14	11	8
50 to 55 years	16	13	10
55 to 60 years	18	14	12
Over 60 years	20	15	14

In case of disability before 20 years of age, or if disability has resulted from an industrial accident or disease, the pension is paid regardless of the length of the previous working period.

Increases in the general scale of invalidity pensions are made in the case of permanently disabled workers who have had specified periods of continuous employment with the same employer, as follows.

[2] For provisions of the general sickness insurance system, see Monthly Labor Review, August 1938.

TABLE 2.—*Increase in Invalidity Pensions in Soviet Union, by Class of Work and Period of Service*

Invalidity group	Period of continuous service in the same enterprise	Percent of increase in pension
Group 1: Workers engaged in hazardous work	3 to 5 years	10.0
	5 to 10 years	20.0
	Over 10 years	25.0
Group 2: Workers engaged in metal, electrical, machine construction, coal mining, oil, chemical, rubber industries and trades, and transportation.	4 to 8 years	10.0
	8 to 12 years	15.0
	Over 12 years	20.0
Group 3: All other wage earners and salaried employees	5 to 10 years	10.0
	10 to 15 years	15.0
	Over 15 years	20.0

Disabled workers of either of the first two groups shown in table 2 are allowed to supplement their earnings by home work for the artels or cooperatives, up to a total of 100 rubles per month, without reduction of disability pension; but if these earnings are more than 100 rubles a month, the pension is to be reduced, in proportion to the amount of the earnings, to as low as 50 percent of the full pension. The increases of pension provided by the decree of February 29, 1932, are abolished; but increases made under the terms of that decree, in pensions granted prior to the present decree, remain in effect.

The minimum permanent disability pensions (including increases) fixed by the decree are shown in table 3.

TABLE 3.—*Minimum Invalidity Pension in Soviet Union*

Group of pensioners	Minimum monthly pension		
	With no disabled members in family	With 1 disabled member in family	With 2 or more disabled members in family
Pensioners receiving pension on account of old age or completion of the required service period, and invalids in group 1	*Rubles* [1] 50	*Rubles* [1] 60	*Rubles* [1] 75
Invalids in group 2	40	50	60
Families having lost their breadwinner		30	40
Invalids in group 3	(2)	(2)	(2)

[1] Ruble=about 20 cents in United States currency.
[2] Not less than 25 rubles.

Old-age pensions are payable without regard to whether the beneficiary has been employed for wages.

The savings resulting from the above modifications in benefits and eligibility requirements are to be used by the labor unions for the construction of new dwellings for workers and for the establishment of nurseries and kindergartens. They will supplement the regular appropriations made for this purpose.

BRITISH HEALTH-INSURANCE SYSTEM: CORRECTION

THE January 1939 issue of the Monthly Labor Review contained (p. 77) an article on national health insurance in Great Britain in which the number of insured persons was given as 17,500,000. This figure applied to England and Wales only, the total membership in the system in 1937, including Scotland, numbering 19,842,400 persons. In addition, 421,920 persons were insured in Northern Ireland.

The section on statistics of operation on pages 91 and 92 of that article, showing the estimated number of persons entitled to benefits, and the receipts and expenditures, related only to England. The total receipts in England and Wales in 1937, as given in the statistical abstract for the United Kingdom,[1] the only publication which brings the figures together for the entire system, were £38,963,000 and for Scotland £4,512,000, or a total for Great Britain of £43,475,000. Receipts in Northern Ireland amounted to £861,000. Expenditures for the various types of benefits in England and Wales amounted to £30,339,000 and in Scotland to £3,632,000 or a total of £33,971,000. In Northern Ireland benefit expenditures amounted to £735,000. The total cost of administration in Great Britain was £5,813,000 and in Northern Ireland £135,000.

[1] Great Britain. Board of Trade. Statistical Abstract for the United Kingdom for Each of the 15 Years 1913 and 1924 to 1937. (Cmd. 5903.) London, 1939.

INDUSTRIAL INSTRUMENTS AND CHANGING TECHNOLOGY

A RECENT development that seems to have escaped general notice is the increase in the use of industrial instruments. These may be classified, according to their functions, into three main groups, namely, indicating, recording, and controlling instruments. The indicating type, which was the first to be developed, includes various kinds of meters and gages. Next came the recording type, such as recording thermometers and chronometers. Both of these types have long been in limited use. The control devices, which comprise the third type, were not used extensively in industry until the middle 1920's. In addition to indicating and recording temperature, pressure, speed, liquid level, fluid flow, concentration of solutions, composition of gases, etc., they automatically maintain a desired condition through the operation of valves, switches, and other regulatory devices.

The development of an industry devoted primarily to the making of industrial instruments, the nature of these instruments, and their role in industry form the subject of a recent study by the National Research Project of the Works Progress Administration.[1] With the growth of mass-production industries, the development of new processes, both chemical and mechanical, and standardization of products, quantitative methods of specification and control have become practicable and economical in many fields of production. These methods call for the use of instruments for regulating and facilitating the operation of machines. The use of industrial instruments is in a sense a new stage, increasingly automatic, in the general process of mechanization. Thousands of instruments are now made, some of which are major inventions, while others are minor mechanical refinements. The National Research Project study is not comprehensive, but is restricted to the more standardized types of industrial instruments such as are manufactured on a comparatively large scale and are suitable for installation as auxiliary equipment with major production units.

The earlier and simpler indicating and recording devices have recently been superseded increasingly by instruments that include auto-

[1] U. S. Works Progress Administration. National Research Project. Studies in Equipment Changes and Industrial Techniques, Report No. M–1: Industrial Instruments and Changing Technology, by George Perazich, Herbert Schimmel, and Benjamin Rosenberg. Washington, 1938.

matic control features. In terms of value of sales of the three types of instruments, in 1923 indicators were 28.6 percent of the total, recorders 63.7 percent, and controllers only 7.7 percent; in 1935, indicators were 21.6 percent, recorders 45.1 percent, and controllers 33.3 percent. Control instruments frequently also indicate and record.

The industries that have made most extensive use of industrial instruments are the metals industries, which in 1935 purchased 26.5 percent of the instruments as measured by sales value; the power industries, which purchased 16.3 percent; and petroleum, mainly petroleum refining, which also purchased 16.3 percent.

There has been much emphasis in recent years on the development of labor-saving techniques. Industrial instruments are vitally significant as illustrations of the recent emphasis on capital-saving as well as labor-saving techniques. They have tended to economize materials as well as capital equipment. In some cases, instruments have made possible the use of less expensive materials, and yet they have frequently improved the quality of the product. Fuel economy, particularly important in the power industry, is illustrated by the experience of a public-utility plant, which, merely by means of carbon-dioxide recorders, achieved a saving of 15.5 percent in fuel. Instruments have frequently made possible an increase in the speed of operation of machines without a corresponding rise in operating costs. They have not only increased the efficiency of machinery but also in many cases have safeguarded machinery from excessive strains, etc., and have reduced repair and maintenance costs. Increased efficiency has tended to make unnecessary an increase of capital equipment, and the safeguarding of machinery has tended to prolong its life and thus reduce replacement costs.

The effect of such technological changes in reducing the funds needed for investment is particularly significant under contemporary conditions of restricted outlets for investment throughout the world. Such developments direct attention to the problem of the unemployment of capital resources as well as labor. When income not needed for consumption by those who receive it finds no profitable field for investment, there is raised the further fundamental question of the maintenance of a balanced allocation of income to investment and consumption.

Under prevailing conditions of restricted demand for the products of industry, the increasing use of industrial instruments has had some effect on the demand for labor as well as on the demand for funds for investment. Economies in operating processes, in the reduction of waste, breakage, etc., in the maintenance of continuous operation, and in repair and maintenance charges have contributed indirectly to reductions in labor requirements as well as in requirements for capital outlays. In some cases there have been direct savings of labor. Re-

lays, switches, and other mechanisms for transferring the actions of instruments into automatic operations have eliminated manual workers. In the canning industry, for example, automatic controllers made it possible for a single attendant to operate a battery of kettles. An instrument, used in the automobile industry, for inspecting wristpins and grading them according to size eliminated between 10 and 20 men. When the use of industrial instruments results in a sufficient increase in the volume of production, through price reductions or improvements in quality or variety of products, there is of course no net reduction in the number of workers required.

Another economic effect of the use of industrial instruments is the shift in the composition of the labor force. The obsolescence of certain skills may cause serious dislocations, particularly if the skills are highly specialized and are not in demand in other establishments or industries. Some types of industrial instruments have tended to create a demand for new skills and to require the employment of men with a broad grasp of industrial processes. Some operators and maintenance men are in fact professional engineers.

The authors of the study conclude their survey by evaluating the recent and probable future role of industrial instruments:

> Instruments can be and have been a stimulant to attaining new levels of production by aiding in the increase of labor productivity and in the development of new products and services. However, during the last 8 years (notably from 1929 to 1935) their chief function in the industries which are the largest purchasers of instruments has been to reduce costs and the labor associated with production.
>
> If the attainment of greater levels of production and higher living standards were the primary objectives for the application of the available industrial technology, progressive instrumentation would be an obviously beneficial social goal. The future role of industrial instruments in the economy and their effect on employment will depend on the extent to which such objectives are in conflict with immediate pressures for cost reductions through economies in labor utilization regardless of the levels of production and employment.

PRODUCTIVITY AND EMPLOYMENT IN THE CRUSHED-STONE INDUSTRY, 1913–37

THE national importance of the crushed-stone industry is perhaps somewhat obscured by the localized and widely scattered nature of crushed-stone operations and by the indirect relation of the product to the national economy. In a recent study of the historical development and present status of the industry,[1] its place in the national economy is described:

> Crushed stone for use as furnace flux is one of the three basic raw materials of the iron and steel industry; it is one of the chief materials used in the construc-

[1] U. S. Works Progress Administration. National Research Project. Mineral Technology and Output Per Man Studies, Report No. E-8: Changes in Technology and Labor Requirements in the Crushed-Stone Industry, by Harry S. Kantor and Geoffrey A. Saeger. Washington, 1938.

tion and maintenance of highways and railway roadbed and in various other types of construction. Agricultural limestone constitutes a large part of the total tonnage of soil-rebuilding materials produced in the United States. Other important outlets for crushed stone are the chemical industries, glass manufacture, and sugar refining.

In the early 1890's, when hand labor predominated, the industry produced only 5 or 6 million tons annually. By 1913 the total output was 80 million tons, and the industry offered a livelihood to 67,000 men. The number employed in 1913 has not since been equaled. The great gains in productivity—from 0.49 ton per man-hour in 1913 to 1.38 tons in 1929—brought about a drop of one-third in the number of men employed, despite a two-thirds increase in the industry's production. In 1936 output per man-hour reached an average of 1.85 tons. In that year only 33,000 men, working on the average three-fourths as many hours per year as in 1929, produced 93 million tons at commercial crushed-stone operations.

The main processes are stripping or removal of overburden, drilling and blasting, loading and haulage, crushing, screening, and washing. The estimates of changes in average man-hour output given above and in the accompanying table take into account these various processes.

Production, Employment, and Average Output in the Crushed-Stone Industry, 1929–36 [1]

Year	Commercial operations [2]					All operations				
	Production (short tons)	Average number of men employed	Average hours per man per year	Average output per man-hour		Production (short tons)	Average number of men employed	Average hours per man per year	Average output per man-hour	
				Short tons	Index (1929=100)				Short tons	Index (1929=100)
1929	131,984,945	45,763	2,095	1.377	100.0	139,296,936	50,299	2,072	1.337	100.0
1930	116,523,149	42,675	1,980	1.379	100.1	123,862,811	47,065	1,968	1.337	100.0
1931	90,427,525	41,484	1,557	1.400	101.7	97,498,270	46,456	1,544	1.359	101.6
1932	60,173,358	34,571	1,375	1.266	91.9	67,177,535	40,764	1,361	1.211	90.6
1933	58,013,707	32,933	1,282	1.374	99.8	65,665,117	39,801	1,255	1.314	98.3
1934	67,390,436	33,700	1,303	1.536	111.5	84,699,176	48,112	1,230	1.432	107.1
1935	64,411,083	29,143	1,367	1.616	117.4	81,074,943	44,403	1,242	1.470	109.9
1936	93,175,614	32,573	1,547	1.849	134.3	122,599,090	49,135	1,478	1.688	126.3

[1] Sources and methods of making estimates of employment and average output are described on pages 17, 18, 128, of the report under review. (See footnote 1 above.)

[2] The U. S. Bureau of Mines defines noncommercial production, here excluded, as the tonnages reported by States, counties, municipalities, and other Government agencies, produced either by themselves or by contractors expressly for their consumption, often with publicly owned equipment. (Minerals Yearbook, 1937, p. 1199.)

During most of the years from 1919 to 1929, the industry was expanding and was called upon therefore to increase its productive capacity for meeting the rising demands of such industries as iron and steel, the railroads, highway construction, and glass manufacturing. Many old establishments were modernized and new enterprises naturally utilized the newer techniques. One of the important earlier technological improvements was the adoption of power loading and hauling in the stripping process or removal of material overlying rock deposits.

This made possible the exploitation of important rock deposits which could not have been utilized economically under hand-labor stripping processes. Power loading stimulated the use of larger crushing machines. Improved drilling and blasting processes were introduced, making it possible to shoot down enough rock to keep the shovels busy. Mechanized screening and washing devices not only increased the output per unit of labor but facilitated conformity to the increasingly rigorous specifications of highway and construction engineers and industrial chemists. Building problems at the scene of operations were simplified by belt-conveyor installations between buildings as well as within buildings.

A particularly sigificant phase of technological improvement was the increasing emphasis on balanced operation. Equipment and productive processes were increasingly designed to facilitate a smoother flow of materials and product from the preparatory stage to the final loading for shipment and were planned for the purpose of coordinating and integrating the various stages and units so as to reduce to a minimum the amount of unused capacity. Equipment was selected and operating practices were adopted for the purpose of meeting most efficiently the physical conditions existing at each separate location.

Before 1929, the principal technological changes were of such nature as to be best adapted to large establishments. Between 1913 and 1929, establishments producing more than 100,000 tons per year increased their average output per man-hour almost fourfold, whereas smaller establishments experienced less than a threefold increase. Conditions after 1929 tended to favor a relatively large increase in average man-hour output in the smaller establishments. The increase in the larger limestone establishments between 1929 and 1936 was only 17 percent, while the increase in smaller establishments during the same period was about 44 percent. The larger establishments seemed to have reached relative stability in techniques by 1929, but some important recent technological changes, such as improvements in mechanical shovels, making possible the use of smaller crews and less power, have become available to smaller plants. Another important factor that tended after 1929 to stimulate technological improvements in smaller plants was the change in the character of the market. Rising demand before 1929 made possible the profitable operation of small and relatively inefficient establishments for supplying markets served also by large and relatively efficient producers. After 1929, the declining demand and the intensification of competition made greater efficiency on the part of many small plants the price of survival.

In spite of the impetus to improvement resulting from these conditions, there is still a wide range of efficiency and productivity in the industry. Many producing units offer opportunities for further mechanization and improved techniques. It is probable that any in-

crease in demand and in aggregate production will not be accompanied by a corresponding increase in employment.

Even if commercial output 5 years from now reaches its 1929 total of 132 million tons, the industry is likely to employ 19,000 fewer men than in 1929 to produce that tonnage at an estimated average of 2½ tons per man-hour. If in 5 years production is no greater than in 1936, there will probably be a much smaller gain in productivity, but the number of men employed is likely to be considerably below the 33,000 who worked in the industry in 1936. The prospects for new jobs or reemployment in the commercial crushed-stone industry in the near future are therefore slight.

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Labor Involved in Industrial Production

LABOR REQUIREMENTS IN ROAD CONSTRUCTION [1]

By Lillian Lunenburg, *Bureau of Labor Statistics*

FOR years the Federal and State Governments have been spending large sums annually for the construction of new roads and for repair and maintenance. Under The Works Program and other emergency programs, road building was given an added impetus because of the work-creating potentialities. Men previously unemployed were put to work directly at the road site, and employment was stimulated away from the site in occupations producing materials used in road building.

In order to evaluate the effect on employment of a road-building program, the Bureau of Labor Statistics analyzed reports of contractors and subcontractors on 2,017 completed Federal road projects financed from funds provided by the Emergency Relief Appropriation Acts of 1935 and 1936. These projects were completed between the beginning of the program (in July 1935) and August 1937, and were representative of four types of road work: Bituminous paving, bridge construction, concrete paving, and grading and drainage. The total cost of the completed projects was $85,259,000, or 40 percent of the $211,516,000 worth of contracts awarded for Federal road projects financed from 1935 and 1936 relief funds during the period covered. The Bureau of Public Roads in the Department of Agriculture administers the emergency appropriations for road construction.

In this study the phrase "pay rolls at the site" refers to the pay received by workers of varying degrees of skill who are engaged directly at the construction site. "Expenditures for materials" represent the cost of the materials delivered at the site. "Other costs and profit" cover items such as taxes, depreciation, rent, profit, insurance, etc.

Distribution of Costs per Million Dollars of Contracts Awarded

Of every million dollars spent for road construction, $373,000 was paid to workers at the site. Material costs were $346,000, 16 percent of which went for iron and steel, 16 percent for sand, gravel, and crushed stone, 16 percent for petroleum products, 14 percent for

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

cement, 7 percent for paving materials and mixtures, 6 percent for lumber, and 25 percent for all other materials used. Other costs and profit amounted to $281,000.

On grading and drainage projects pay rolls at the site were more per million dollars than on any of the other types of road work, amounting to $402,000. The lowest material costs ($301,000) were on this type of road construction. The highest material costs and the lowest site pay rolls per million dollars occurred on concrete paving projects. Other costs and profit ranged from $221,000 on concrete paving work to $297,000 on grading and drainage.

The distribution of costs per million dollars of contracts awarded for road construction is shown in table 1, by type of construction

TABLE 1.—*Distribution of Expenditures per Million Dollars of Contracts Awarded for Road Construction, by Type of Construction*

Item	All types	Bituminous paving	Bridge construction	Concrete paving	Grading and drainage
Pay roll at the site	$373,000	$348,000	$308,000	$266,000	$402,000
Cost of material	346,000	373,000	469,000	513,000	301,000
Cement	50,000	29,800	90,000	188,800	27,400
Iron and steel	56,800	27,600	166,500	59,500	52,700
Lumber	21,200	12,300	69,900	6,700	21,100
Paving materials and mixtures	25,200	99,600	8,000	40,500	8,400
Petroleum products	53,600	58,900	20,600	22,100	60,800
Sand, gravel, and crushed stone	54,200	73,500	66,100	113,400	39,100
Other	85,000	71,300	47,900	82,000	91,500
Other costs and profit	281,000	279,000	223,000	221,000	297,000

Labor at the site on road construction, for all types of work combined, was 37.3 percent of the total estimated cost, material 34.6 percent, and other costs and profit 28.1 percent. The proportion of the total estimated cost disbursed as pay at the site of construction on the various types of work ranged from 26.6 percent for concrete paving to 40.2 percent for grading and drainage, a type of road construction in which relatively few materials are required in proportion to the amount of labor necessary. Materials purchased for grading and drainage projects accounted for 30.1 percent of the total cost of such projects, while on concrete paving jobs material costs were 51.3 percent of the cost, the lowest and highest percentages, respectively, reported for any of the four types of construction. On concrete paving jobs materials such as cement and sand and gravel are important factors in the cost. Other costs and profit were noticeably higher on bituminous paving projects (27.9 percent of the cost of the projects) and on grading and drainage (29.7 percent) than on either of the other two types of construction. The use of heavy machinery and equipment on bituminous paving and grading and drainage projects, involving purchase price or rental and upkeep, accounted for these high percentages.

The percentage distribution of labor, material, and other costs and profit for road construction projects is shown in table 2, by type of construction.

TABLE 2.—*Percentage Distribution of Road Construction Costs, by Type of Construction*

Type of construction	Pay roll at the site	Cost of material	Other costs and profit
All types	37.3	34.6	28.1
Bituminous paving	34.8	37.3	27.9
Bridge construction	30.8	46.9	22.3
Concrete paving	26.6	51.3	22.1
Grading and drainage	40.2	30.1	29.7

These percentages can be applied to any amount of money expended for road work, if done by contract, to give an approximation of the distribution of expenditures. The estimates would be most nearly accurate under conditions similar to those prevailing during the construction of the projects included in this study. Actually, the probability of identical conditions on any two projects is slight, because of frequent changes in one or more factors, such as average hourly earnings,[2] cost of materials, etc., each change resulting in subsequent shifts in the ratios of pay rolls at the site, cost of materials, and other costs and profit. For the most part, such shifts in the ratios will not be sufficiently great to affect appreciably estimates of labor and material disbursements based on the analysis of the 2,017 completed road projects.

Distribution of Man-Hours Per Million Dollars of Contracts Awarded

In road construction, carpenters, cement finishers, concrete puddlers, grader operators, common laborers, roller operators, truck drivers, and other workers are employed at the site. In addition to the men who work at the site, men work in mines, forests, factories, transportation systems, and administrative offices to produce and deliver the requisite materials to the construction site. For most types of construction, off-site labor is of considerable importance. However, until quite recently little progress had been made in the measurement of these off-site man-hours. Within the past several years the Bureau of Labor Statistics has made several comprehensive studies of the labor requirements of the more important construction materials [3] and on

[2] Average hourly earnings for all types of work on these 2,017 road projects were 45.8 cents. On bituminous paving jobs average hourly earnings were 42.8 cents; on bridge construction, 51.7 cents; on concrete paving, 49.7 cents; and on grading and drainage projects, 45.7 cents.

[3] For articles in this series see Monthly Labor Review, May 1935, p. 1155 (steel manufacture); March 1936, p. 564 (cement production); May 1937, p. 1136 (lumber production); October 1937, p. 846 (rail transportation of construction materials); December 1937, p. 1391 (clay products); June 1938, p. 1381 (production and distribution of plumbing and heating apparatus).

the basis of these special studies is able to estimate the hours of labor away from the site in mines, forests, factories, transportation, and in administration.

For every million dollars in contracts awarded, approximately 1,402,000 man-hours of site and off-site labor were worked on roads. Site man-hours accounted for 58 percent of this total and off-site for 42 percent. Total man-hours worked were highest (1,453,000) on grading and drainage and lowest (1,154,000) on concrete paving.

Grading and drainage projects used more men at the site than other types of road work, one million dollars of contracts awarded resulting in 880,000 man-hours of site labor. Approximately 814,000 man-hours of site labor resulted from each million dollars spent for bituminous paving jobs, 595,000 man-hours from bridge construction, and 535,000 from concrete paving.

Off-site man-hours per million dollars of contracts awarded were highest (684,000) on bridge construction. On concrete paving projects labor away from the site amounted to 619,000 man-hours, on bituminous paving to 601,000 man-hours, and on grading and drainage to 573,000 man-hours.

In table 3 the man-hours per million dollars of contracts awarded for road construction are shown.

TABLE 3.—*Man-Hours of Labor per Million Dollars of Contracts Awarded for Road Construction*

Labor	All types		Bituminous paving		Bridge construction		Concrete paving		Grading and drainage	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total man-hours	1,402,000	100.0	1,415,000	100.0	1,279,000	100.0	1,154,000	100.0	1,453,000	100.0
Site man-hours	813,000	58.0	814,000	57.5	595,000	46.5	535,000	46.4	880,000	60.6
Off-site man-hours	589,000	42.0	601,000	42.5	684,000	53.5	619,000	53.6	573,000	39.4

For each man-hour of labor at the site there was 0.72 man-hour of off-site labor, a lower ratio than would probably occur if machinery rather than man power were used more extensively at the site. On bridge construction where highly fabricated materials were required in the construction processes, there was 1.15 man-hours of off-site labor to each hour worked at the site; and on concrete paving jobs, 1.16 man-hours per man-hour of site labor. On bituminous paving and on grading and drainage projects, however, the off-site labor was relatively less important than the site labor, amounting to only 0.74 man-hour for every man-hour worked at the site on bituminous paving and 0.65 on grading and drainage.

Table 4 shows the man-hours of off-site labor per million dollars of contracts awarded for various types of road construction, by certain

specified types of materials for which it was possible, on the basis of special studies made of the industries producing these materials, to estimate the man-hours of off-site labor.

TABLE 4.—*Man-Hours of Off-Site Labor per Million Dollars of Contracts Awarded, by Types of Materials and of Construction*

Type of material	Bituminous paving	Bridge construction	Concrete paving	Grading and drainage
Cement	24,600	60,800	134,400	21,200
Iron and steel	37,200	224,900	80,500	71,100
Lumber	13,800	81,400	7,400	24,600
Sand, gravel, and crushed stone	81,700	68,400	130,100	44,700

AGREEMENTS OF GAS, COKE, AND CHEMICAL WORKERS (DISTRICT FIFTY, U. M. W.)[1]

UNIONIZATION in the coal byproducts industry began as recently as 1933 with the passage of the National Industrial Recovery Act. At that time federal labor unions, directly affiliated with the American Federation of Labor, were established in several coke and gas plants in Massachusetts. These locals formed an association known as the Massachusetts Council of Utility Workers, which was changed in the following year to New England Council of Utility Workers. Efforts were made to obtain an international union charter for the byproducts branch of the coal industry, and to organize these workers on a national scale. In 1935 the National Council of Gas and By-Product Coke Workers was formed under the A. F. of L., a loose organization of the federal labor unions in the industry.

After a year's experience with this type of organization, the council petitioned the United Mine Workers of America for affiliation. In August 1936, District Fifty of the U. M. W. was formed, national in scope (other U. M. W. districts are regional), and a Nation-wide organizing drive was begun.

In June 1937, District Fifty representatives began organizing chemical plants which came under their jurisdiction, this being defined as including all products derived from coal-tar processing. It was soon discovered, however, that the distinction between coal-tar and non-coal-tar chemicals was impossible to maintain, as the same companies manufactured both, often in the same plant. Accordingly it was decided that all chemical workers would be accepted into membership in District Fifty.

By March 1939, the Gas, Coke and Chemical Workers (District Fifty) with 126 locals in various parts of the country except the far West, had 127 agreements with employers, covering over 17,000 employees in the industry.

[1] Prepared by Fred Joiner, under the direction of Florence Peterson, chief of the Bureau's Industrial Relations Division.

	Number of locals	*Agreements*
Abrasives	4	1
Alkali	6	3
Building materials	9	13
Drugs and cosmetics	11	16
Explosives	5	3
Fertilizer	7	7
Gas and coke (production and distribution)	42	27
Industrial chemicals	20	6
Coal tar	6	5
Linseed oil	3	4
Paints and varnish	12	21
Wood preserving	5	4
Miscellaneous [1]	10	17
Total	[2] 126	127

[1] Includes polish and wax, food flavoring, textile oils, shampoos, aspirin, fire extinguishers, steel wool, candles, firebrick, shoe polish, and compressed industrial gases.

[2] This is not a total of this column, as a few locals cover more than one industry.

The Bureau of Labor Statistics has on file 90 of these current District Fifty agreements. The following is an analysis of the principal provisions of these agreements.

Duration of Agreements

All of the 90 agreements run for 1-year periods. In addition, most of the agreements make provision for extension and renewal, either indefinitely until required notice is given or, less frequently, for another annual term. Generally 30 days' notice of intention to terminate or change the agreement is required. A few require 45 days' or 60 days' notice, and one agreement was found in which 6 months' notice is necessary. Eleven agreements contain a definite provision for future negotiations when the present agreement expires, and 5 contain a definite termination date but no provision for renewal or further negotiation.

Specific provisions preventing the employer from moving the plant or creating a corporate successor to avoid collective bargaining were found in eight agreements. These agreements expressly bind the company or its successors wherever located in the United States.

Seven agreements stipulate that the union will not negotiate "more favorable" terms with competitors of the employer.

Status of Union

Of the agreements on file, almost half are "closed shop" agreements while half grant sole bargaining rights to the union. Only a small number either provide that the union is to be bargaining agent for its members only, or fail to specify the status of the union in relation to

the employees. Under 17 closed-shop agreements the company agrees to call on the union for new workers. New employees are most frequently required to join the union within 2 weeks, but some agreements specify periods ranging from 48 hours to 30 days. Four agreements, which require new employees to join the union, specifically exempt from the membership requirement present employees who are nonmembers.

Provision for the check-off, whereby the employer agrees to deduct union dues from the employee's pay, is contained in 26 of the 90 agreements.

Pledges by the employer not to discriminate against employees because of union activity are found in nearly all agreements, while the union agrees that there shall be no intimidation of nonmembers and no union activity on company property or during working hours. In one agreement the employer agrees not to foster or promote a company union.

Union delegates or officials are given leave of absence, in many agreements, without loss of seniority or other rights, to attend conventions or participate in other outside union activity.

A number of agreements specifically exclude certain groups of employees from their provisions. Thus foremen and supervisory employees are mentioned in 11 agreements as being outside the agreement, while other exclusions specify watchmen, salesmen, clerical and office employees, laboratory workers, truck drivers, and maintenance, technical, and nonproduction workers.

Twenty-five agreements specify that the union shall be allowed the use of bulletin boards for union announcements inside the plant.

Settlement of Disputes

Without exception, the agreements on file create machinery for the adjustment of grievances. Typically, a shop steward or other union official in each department takes up the matter with the foreman of the employee involved. Failing settlement of the dispute, the matter is passed on to the union grievance committee which meets with the plant management. If the grievance is not adjusted at this point, it is referred to a national representative of the union, who then takes the matter up with a responsible official of the company. If still not settled, the dispute goes to arbitration as outlined below.

Modifications of this typical procedure exist in approximately one-third of the agreements which stipulate that the employee is to take up any grievance with his foreman directly before taking it to the union. In 21 agreements the final step, arbitration, is not specifically provided as part of the adjustment procedure.

Regular meetings between the grievance committee and the employer are sometimes provided. A few agreements call for such meetings on company time, if officials of the company are present.

Arbitration.—By far the largest number of those agreements which provide for arbitration (69 out of 90) also specify that the arbitration award is to be final and binding on both parties. Typical arbitration provisions establish a 3-man arbitration board consisting of 1 representative of each side and an impartial chairman selected by the other 2. In the event of failure to agree on the impartial chairman, he is to be selected by an impartial body or official; those specified in the various agreements include the National Labor Relations Board, the mayor of the city, the American Arbitration Association, State and Federal courts, departments of public utilities, and the United States Department of Labor.

In 12 agreements the typical 3-man board is not provided for, the agreement merely stating that the company and the union are to appoint an impartial umpire. Four agreements in New York and Massachusetts call upon State arbitration tribunals and abide by their rules. Four other agreements provide for arbitration but set forth no detailed outline of procedure to be followed.

Nearly all agreements provide for sharing the expenses of arbitration between the parties. One agreement specifies that the expense is to fall on the losing party.

Strikes and Lock-Outs

Since nearly all agreements analyzed have provisions for grievance procedure, including arbitration, many of them also contain clauses prohibiting strikes and lock-outs during the life of the agreement. Some specify only that work stoppages are forbidden while negotiations are proceeding and one also bans picketing while disputes are being adjusted. "Sit-down" strikes are specifically prohibited in one, and "slow-downs" in another.

One agreement penalizes the employer $2 per day for each employee locked out, and $2 on each employee for each day if a strike is called in violation of the agreement. A similar provision in another agreement fixes the penalty at $1 per day.

Seniority

Some provision for seniority was found in all of the agreements analyzed. Typically the agreements provide that seniority is to prevail in all cases of increase or decrease of the working force. This general provision is modified by fitness and ability in 23 agreements, and family status in 17 others. If these other factors are relatively equal, length of continuous service is to determine the choice. Twenty-

one agreements stipulate that no new employees are to be hired until all former qualified employees are given an opportunity to return.

In over half of the agreements, seniority is to be a factor in promotions, ability also being taken into consideration.

Four agreements specifically allow employees scheduled for lay-off in one department to transfer to other departments of the plant and displace employees with less seniority. Men and women have separate seniority in two agreements, while in one agreement skilled, semiskilled, and unskilled employees are considered in separate seniority groups.

Seniority is lost by quitting, discharge for cause, failure to return to work after lay-off, or by extended lay-off, ranging from 4 months in one agreement to 1 year in several others.

The length of the probationary period for new employees, during which seniority provisions do not apply, varies widely in these agreements, ranging from 15 days to 1 year. The most usual provision is 30 days.

Some agreements provide that the official seniority list may be made available to the union, while others make such lists available to any employee. In three closed-shop agreements in Minneapolis the union is allowed to discipline employees by reducing their seniority status for violation of the union constitution, bylaws, or the terms of the agreement. Nine agreements award top seniority to union officials and members of the grievance committee during their term of office.

Provisions for Slack Periods

Provisions for sharing work during slack periods occupy an important place in these agreements. Thirty-seven contain such provisions, usually providing some limit (in most cases 3 days a week) below which the work shall no longer be shared and lay-offs will begin. In three agreements the employees are to decide whether to divide the work or ask for a reduction of the working force. In a few cases it is stipulated that new and temporary employees are to be laid off before the share-the-work provisions operate. Under six agreements the union must be notified in advance of lay-offs.

Hiring and Discharging

In 17 agreements the employer is required to obtain new employees from the union. In 22 agreements it is specifically provided that the employer alone has the power to hire and fire.

The subject of discharge is taken up in many agreements. Causes for discharge are listed, and the union is specifically given the right to take up a discharge as a grievence case, in 47 agreements. In these instances the employer agrees to reinstate the employee and

compensate him for time lost, if the discharge is found to have been unjust. In approximately one-third of the agreements, advance notice of an impending discharge is necessary.

Hours of Labor and Overtime

The 8-hour day and 40-hour week prevail in almost all the District Fifty agreements on file in the Bureau of Labor Statistics. Only 4 call for a 6-day, 48-hour week, while in 7 others the hours range from 41¼ to 44 per week. Twenty-five agreements stipulate that the work-week shall be Monday to Friday, inclusive, with Saturdays and Sundays off except for watchmen and necessary maintenance men. Sunday work is prohibited in 1 agreement. Advance notice of a change in the schedule of hours is required by 19 agreements.

Additional hours of work necessary for expanded plant operation during peak seasons are allowed in six agreements. During such seasonal operation regular overtime provisions do not apply. Other exceptions to the regular schedule of hours include a 48-hour week for delivery men and a 44-hour week for employees necessary for the continuous operation of the plant, specified in eight agreements.

Other overtime provisions stipulate, in 16 agreements, that employees shall not be required to take time off to equalize overtime earned. In 22 agreements it is provided that overtime must be equally distributed. If an employee works 3 or more hours of overtime, he is to be furnished a meal at company expense, in 13 agreements. If an employee has left the plant and is called back for overtime duty, he is guaranteed not less than 3 hours' overtime pay, in several agreements.

Wage Rates and Other Pay Provisions

Wage increases are established by 19 agreements, while 22 agreements stipulate that the present rate is to remain unchanged during the life of the agreement. Six agreements have provisions for changing the rates during the life of the agreement; 3 adjust wages according to a change in cost-of-living index; 1 calls for automatic increases based on production statistics of the company; 1 agrees to reopen the wage question if the firm's financial statement shows a profit as of a given date; 1 provisional pay increase is based on an increase in the company's net sales.

The overtime rate is time and a half in all agreements except 6. Of these, 4 agreements provide for time and one-third and 2 for time and one-quarter. Overtime work on Sundays and holidays is paid for at the rate of double time in 38 agreements, time and one-half in 24 agreements, and time and one-quarter in 1 agreement.

Employees who report for work but are not given employment for a full shift are given a minimum of 4 hours' pay in 16 agreements, 3

hours' pay in 4 agreements, 2 hours' pay in 12 agreements, and in 1 agreement such employees are guaranteed a full shift's work or 8 hours' pay. Employees "on call" for emergency duty but not actually working are to receive 3 hours' pay for 12 hours' duty on call in 1 agreement, and one-half the regular rate in another agreement. Two agreements provide regular pay for all such waiting time.

Employees temporarily transferred to a higher position are to receive the higher rate of pay which goes with the position, in 29 agreements. In 24 a temporary transfer to a lower position will not result in a deduction from the employee's regular rate unless, as in 2 agreements, such transfer is to avoid a lay-off for lack of work in the employee's regular position.

A guaranteed work year is found in only one agreement. There the employer agrees to give 48 weeks of 5 days or its equivalent if the volume of sales is 15 percent greater than the preceding year, to all employees with over 1½ years' service.

In four agreements an employee may receive his regular rate of pay for jury duty or National Guard service, by turning over to the company all compensation received for such service. In one agreement regular pay, in addition to compensation for civic service, is paid for the first 2 weeks of such service. In one agreement the company agrees to set aside $4,000 annually which the union may disburse in any way it sees fit.

About half (42) of the agreements analyzed were found to contain either provision for minimum rates of pay or detailed wage schedules by job classifications. The most common entrance wage in these agreements is 45 and 50 cents per hour, although a minimum wage of 60 cents is not uncommon, and 1 agreement in the linseed-oil industry provides a starting wage of 65 cents per hour. A few agreements, mostly in the drugs and cosmetics industry where a large part of the working force is made up of women, show a minimum wage of 35 cents, 30 cents, and in 1 instance 25 cents per hour.

Maximum pay, in those agreements which contain detailed wage schedules, is usually around 75 cents per hour, although maximum rates range from 40 cents to $1.12 per hour.

Holidays

In 38 agreements time off with pay is granted on specified holidays, while in 8 others it is provided that such holidays shall be considered regular days off, and the shifts adjusted so that employees may make up time lost. The number of such holidays is typically 6, including New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

Vacations

Over 80 percent of the agreements on file provide vacations with pay for employees. By far the largest proportion of these grant 1 week's vacation with pay to all employees with 1 year or more of service, while in 7 agreements the length of service necessary for a week's vacation ranges from 6 months to 5 years. Provision for longer vacations for employees with additional years of service was found in 15 agreements.

In two agreements deductions from the vacation allowances were used for disciplinary purposes, employees absent without authorization being penalized by reducing their vacation period.

Sickness and Disability Benefits

Eight agreements of those analyzed were found to contain provisions granting sick leave for total disability arising from sickness or injury other than that coming under the compensation laws of their respective States. There is a wide variation in benefits granted:

Three agreements provide full pay, beginning with the eighth day of disability, up to a total of 10 days in any 1 calendar year. Two agreements provide for half pay after the first day of illness up to 1 week in any calendar year. One agreement provides full pay for 40 hours, then half pay for the next 240 hours of sickness. One agreement provides 5 days of sick leave after 1 year's service.

In addition to the above sick benefits, five agreements arrange to compensate injured employees during the "waiting period" provided under State unemployment-compensation laws.

Safety and Welfare

Provisions for safety and welfare are found in approximately half of the agreements on file. Usually this provision is no more than a pledge by the employer that he will abide by State laws covering safety appliances and sanitary conditions.

In a few agreements it is specifically provided that the company shall furnish locker rooms, raincoats and boots for outside work, and transportation for work certain distances away from the plant.

In five agreements older employees are given preference for lighter work.

RECENT ARBITRATION DECISIONS

Closed-Shop Agreement

THE question of a closed-shop agreement was presented for arbitration to Judge Nathan Cayton of the Municipal Court by the District of Columbia Gas Workers' Union and the Washington Gas Light Co. A year ago a small claims and conciliation branch was established in the Municipal Court of the District of Columbia. This branch was given the authority, upon consent of all parties involved in a dispute, to make settlement by means of arbitration and conciliation. The above was the first labor case to be arbitrated since the establishment of the small claims and conciliation branch.

The union involved is a nonaffiliated organization which at the time of the arbitration hearing included in its membership 93 percent of the eligible employees of the company. The arbitrator found that during the 18 months the union had been functioning it had secured a substantial general pay increase, a 5-day, 40-hour week, a uniform system of vacation and sick leave, and recognition of seniority rights. It had also helped to overcome favoritism and nepotism, secured new safety measures, and other benefits.

In opposing the closed shop, the company contended that such an agreement was against the basic principle of freedom of choice to belong or not to belong to a labor union, and that the company would be at the mercy of the union in determining who should work for it. The union contended that, since it already had so high a percentage of the employees, the remaining minority should be compelled to join and to pay the dues required, and thus help to support a movement which had brought all employees considerable benefits.

The arbitrator decided in favor of the closed shop on the ground that the union should be empowered actually to represent all the eligible employees of the company in order to preserve the present satisfactory relationship between the company and its workers. Otherwise, he contended, the union would lose its effectiveness as a representative bargaining agency. The arbitrator held that both the company's and the employees' interests were amply safeguarded against rash or arbitrary conduct on the part of the union, through the provision in the agreement that expulsion from the union shall take place only for cause, after hearing, and that any disputed expulsion may be submitted to arbitration.

Increase in Wage Rates for Piece Workers

The question of whether piece workers on a foundry operation were entitled to an increase in the piece-work rate to parallel a general increase granted to time workers, was submitted to the American Arbitration Association.[1]

The company contended that, because of the considerable capital investment which changed and improved the methods of production, the piece workers automatically were able to increase their output and consequently their weekly earnings. The company's position was that general wage increases are made for the purpose of securing for the worker a larger weekly pay envelope and if, through technological improvements, this result is obtained, the piece-work rate loses its importance, since increased productivity is reflected in higher weekly pay. The union attacked this argument as unsound, contending that payments based on piece-work rates are incentive wages adopted for the purpose of increasing production and that piece-rate workers should not be penalized by the method set up by the employer and should be entitled to the same increase in their incentive pay as has been granted to other workers.

It was the arbitrator's opinion, particularly in view of the fact that the company had benefited from a saving in overhead and a lowered cost on each item produced, that the workers on the piece-work rates were entitled to an increase and, on the basis of the evidence presented by both sides, he awarded them an increase of 10 cents per hundred on the piece-work rate.

Liquidation of Firm

The obligation to fulfill the terms of a union contract, after a firm had changed its name, was referred to the United States Department of Labor Conciliation Service. A contract had been signed between the United Wholesale and Warehouse Employees' Union and a wholesale shoe dealer of New York in May 1938. The following September the company notified the union that it was about to liquidate and that it was therefore no longer bound by the terms of the contract. The union challenged the actuality of such a liquidation, claiming that the only change was a difference in name and that the business was being carried on as usual.

The arbitrator found that there had been a change in corporate title but that the same person was managing and financing the business, that it was dealing in the same kind of footwear, and was buying from the same manufacturers. The only actual difference was a change in certain sales policies. On the basis of these findings, the arbitrator decided that the collective contract entered into was effective until its expiration.

[1] Docket 2522 of the Voluntary Industrial Arbitration Tribunal, American Arbitration Association Journal, January 1939.

Replacement of Discharged Employee

According to the terms of an agreement between a wholesale dry goods company and the union, the company is required immediately to obtain from the union a new worker when any employee resigns or is discharged. The question of such a replacement was recently referred to the United States Department of Labor Conciliation Service for arbitration.

The company contended that the union had not accepted the discharge of this worker and the company therefore had not rehired anyone to take his place; furthermore, that the company had tried out several persons sent from the union and had found them unsatisfactory. In the meantime, the company had paid the discharged worker $50 as adjustment for any claim under consideration.

The arbitrator decided that, under the terms of the agreement, the company should pay to the union the total accrued wages for the time of vacancy, less the $50 paid to the discharged worker, less the amount paid to the men sent by the union who had proved unsatisfactory.

Lay-Off During Depression

The matter of a lay-off of 5 union men during a period of retrenchment by a wholesale shoe company was referred to the United States Department of Labor Conciliation Service. The arbitrator found that no provision for lay-off was made in the agreement, although the matter had been thoroughly discussed during negotiations preceding the signing of the contract. In the absence of such provision the union claimed that the company was not entitled to lay off or discharge any persons covered by the agreement unless such discharge was due to inefficiency or insubordination. The agreement covered 11 union men out of a total of 14 employees in the warehouse. The company contended that there was an implied right under the contract as a whole to lay off any employees if business conditions required.

The arbitrator decided that the company has the right to discharge or lay off any employee in the warehouse department provided, however, that such employee or employees are not covered by the terms of the contract. His argument read in part: "To hold, as claimed by the company, that there is an implied right to lay off employees under the existing contract would be to destroy the stabilizing purposes for which such contracts are entered into. Nor is the 8-month period of this contract so long that the events of the future take unknowable and unforeseen shapes that call for emergency relief. It is obvious that any employees who have a contractual relation with an employer are by virtue of that fact in a preferential position. They are legally in a superior relation to the employee who has no contractual relation,

and who may be dismissed at will by either reason or caprice. Such a preferential relation cannot be denied or brushed aside, since the very purpose of the contract was to establish just such a preferential relationship as against nonunion employees. The loss of business due to the depression is undoubtedly a problem that calls for retrenchment and business strategy, but there is no more reason for asking the union to modify or alter its contract than there is for asking the landlord to modify his lease, or any other holder of a contract with the company to change its provisions."

Refusal of Longshoremen To Go Through Picket Line

When a union of ship clerks and checkers at a San Francisco terminal declared a strike, the longshoremen refused to go through their picket line. Although the terminal was not covered by the general agreement between longshoremen and the Waterfront Employers' Association of the Pacific Coast, members of the association frequently use this port and they contended that the longshoremen could not refuse to load and unload their ships at this port even though it involved going through a picket line of another union.

The matter was referred to the arbitrator for the port of San Francisco, as provided in the agreement signed on October 1, 1938. This agreement provided that the Secretary of Labor should appoint a standing local arbitrator in each of four regional districts—Seattle, Portland, San Francisco, and southern California. To these arbitrators should be referred any questions involving a basic interpretation of the agreement, or any other questions of mutual concern not covered by the agreement relating to the industry, which could not be settled by the joint labor relations committee of the employers and union.

In this case the arbitrator decided that the longshoremen were not compelled to pass through the picket line of the ship clerks and checkers at this terminal. He held that their refusal to do so was not a violation of the agreement which provided that "the employees shall perform work as ordered by the employer in accordance with provisions of this agreement. In case a dispute arises, work shall be continued pending the settlement of same in accordance with provisions of the agreement and under the conditions that prevailed prior to the time the dispute arose * * *."

The arbitrator held that this section of the agreement was intended to apply only to those disputes which arise out of the ordinary and regular course of employment governed by the agreement. The clear aim of this provision was to prevent stoppages of work and job action by way of "quickie" strikes and sudden lock-outs prior to arbitration, but that it was not the intention of the agreement that

the longshoremen should be required to work cargo upon a dock at which there is a strike, especially when it would be necessary to cross a picket line.

The arbitrator explained his decision by saying:

> In the absence of an express agreement that the longshoremen would pass through the picket line of another union on strike, it is to be implied that both parties to the agreement of October 1, 1938, knew or should have known that the longshoremen would not pass through such a picket line. There are certain basic tenets of unionism, a knowledge of which can be reasonably charged to all employers. As pointed out by counsel for the union at the hearing, one of the cardinal principles of unionism is that a union will not permit itself to be used as a means of breaking the strength of another union which at the time is out on strike.
>
> The "sanctity of picket lines" is basic in the teaching and practices of American unionism. The arbitrator is compelled by the record in this case and by a careful analysis of the agreement to accept the view that the Waterfront Employers' Association knew or should have known when they entered into the agreement of October 1, 1938, that if a strike situation involving such facts as existed at the Encinal Terminal on February 18, 1939, should arise, the longshoremen under the agreement would not be expected or required to go through the picket line.

BASIC AGREEMENT ON INDUSTRIAL RELATIONS IN SWEDEN, 1938[1]

A BASIC labor agreement was adopted in Sweden between the Federation of Swedish Employers and the Confederation of Swedish Trade Unions late in 1938, in order to promote industrial peace. Negotiations were begun in the spring of 1936 by employer and employee representatives, designated as the labor-market committee. This committee concentrated its efforts on providing more efficient methods of negotiation in labor conflicts in order to reduce industrial waste resulting from strikes, thereby safeguarding employer-employee interests as well as those of third parties and the general public.

The basic agreement, known as the Saltsjöbaden agreement, contains the results of the committee's deliberations on which full agreement was reached by the committee. It is hoped that under the terms established, if adopted by the employers and employees belonging to the central organizations which established the labor-market committee, capital and labor will be able to compose future differences that arise, thus avoiding the need for enacting special legislation to settle disputes. As many collective labor contracts expire during 1939 and the basic agreement will be considered in negotiating new contracts, the general acceptability of the basic contract will be determined in a comparatively short time.

[1] Report of Hallett Johnson, American consul general, Stockholm.

Specifically the basic agreement provides for: (1) The establishment of a permanent body for negotiations between the two parent organizations of employers and employees; (2) a uniform system of negotiations to settle labor disputes; (3) the establishment of a general practice to be followed with respect to dismissals and furloughs; (4) the abolition of certain direct actions; and (5) the adoption of a system for dealing with labor conflicts touching upon functions essential to society.

Labor Market Board

In order to negotiate differences between employers and employees the basic agreement provides for establishing the labor-market board. Membership is to consist of three representatives each of employers and employees and their alternates. The term of office is 3 years. If a majority decision is not reached in a case, the Federation of Swedish Employers and the Confederation of Swedish Trade Unions are empowered to appoint an impartial chairman to render a decision.

The particular jurisdiction of the board is the handling of certain questions relating to discharges and lay-offs as well as differences which affect services essential to the general public and society as a whole. As an arbitral agency the board is also responsible for interpretation of the provisions of the basic agreement with respect to direct action. Decisions may be made only when all members of the board are present. When the affairs of any trade or trades are under consideration the board may summon representatives of the trade federation concerned or the employers or workers involved. Persons so summoned have no vote but may be heard.

Procedure

A uniform system of negotiation to settle labor disputes is established in order to make existing procedure more effective and to facilitate peaceful settlements. Provision is made for conducting negotiations directly between the parties to a dispute not later than 2 weeks from the day when action was requested, unless the parties agree to a postponement or unless special circumstances require that the case be taken to the central authority without first seeking to obtain a direct settlement. Central negotiations, when invoked, must commence not later than 3 weeks from the date when first called for, unless a postponement is agreed upon by both parties.

No party may appeal for a decision on questions of interpretation or application of a collective agreement, or in any other dispute which should be decided by the labor court under Swedish law, until all obligations to negotiate under the basic agreement have been fulfilled. A party desiring to place a matter before the labor court for arbitration, after meeting the obligation to negotiate, may apply to

the court for a summons to be served or apply to the other party to the dispute not later than 3 months from the day when negotiations were concluded. Failure to follow this procedure results in forfeiture of the right to appeal.

Among the most significant provisions of the basic agreement is the article (ch. II, art. 8) which prohibits direct action by parties to a dispute before they have sought to compose their differences by negotiations and unless such action is approved by the respective employer or labor federations.

Since the labor court has no jurisdiction in an industry after a collective agreement expires, the parties to a dispute in the past could take any action they chose without delay after the expiration date of an agreement. The basic agreement postpones strike or other direct action upon expiration of an agreement and, in combination with the previously existing requirement that notice of termination should be given 3 months before an agreement expires, promotes industrial peace by allowing a long period for negotiation.

> Strikes, lock-outs, blockades, boycotts, or any other similar form of direct actions—even if permissible by law or collective contract—must not be resorted to because of any certain dispute (1) by a party who has forfeited his right to negotiate in the matter; (2) by a party before he has fulfilled his obligation to negotiate; (3) unless, following negotiations, a written notice of the contemplated action is served on the respective trade federation of the other side not later than 3 months from the day the negotiations by virtue of article 9 shall be deemed as having been concluded; (4) without the action having been decided or approved by the respective trade federation.

With the exception of point 4 above, the provisions of the chapter on procedure do not apply to making or prolonging a collective agreement, to resort to sympathetic actions, or to recovery of uncontestable wages or other compensation which may have fallen due.

Dismissals and Lay-Offs

In general, employees have accepted the statutes of the Federation of Swedish Employers whereby employers claim the right to hire and fire workers at their own discretion, to allot the work, and to employ organized or unorganized labor. However, the basic agreement provides for consultation and serving of due notice on workers to be dismissed or laid off, in order to insure a certain degree of protection to the worker in his employment. If employees demand negotiations relative to discharges or lay-offs, the cases are to be referred to the workers' trade federation board which may in turn refer them to the labor-market board if this is deemed to be necessary. The board is required to "seek to arrive at a unanimous opinion in its judgment on problems referred to it and to devise means for bringing about an understanding between the parties."

If employees quit their work to such an extent as to cause inconvenience to the employer, and when there is "no question of a masked strike," the employer may bring the case before his trade federation which may also appeal to the labor-market board for consideration.

Direct Action

Against third party.—Direct actions are defined as any "strikes, lock-outs, blockades, boycotts, or other similar actions, as well as such terminations of employment contracts which are made for the purpose of bringing pressure to bear on the other party or for the purpose of causing damage to him." Such actions are forbidden under the basic agreement if they are directed against a neutral third party, notwithstanding that they may be permissible if directed toward a party to a dispute. The chapter which prescribes this limitation also prohibits action to prevent a party from appearing before a court, action for the purpose of religious or political persecution, and for other purposes.

Against society.—The final chapter of the basic agreement was adopted to prevent labor conflicts from disrupting the essential services, thereby endangering the general public. It provides that in conflicts of this kind the employer and employee organizations shall jointly consider means of protecting the public interest. The labor-market board is the designated agency to deliberate on questions of preventing, limiting, or removing such labor conflicts. If the board reaches a majority decision in a case, the employer and employee organizations are required to take the requisite action to bring about a settlement between the parties concerned.

Effective Date of Agreement

The basic agreement will become effective when it is adopted by organizations of both employers and employees. Pending that time, its validity rests on the law on collective contracts, and to cancel the agreement it is necessary to give 6 months' notice. However, if a collective agreement between two parties is in effect at the time the basic agreement terminates, after due notice is given, the basic agreement remains in effect until the collective agreement terminates.

Women in Industry

RECOGNITION OF MARRIED WOMEN'S RIGHT TO WORK IN SWEDEN

THE problems connected with women's work were made the subject of an inquiry by a committee appointed by the Swedish Government in 1935, and a brief summary of the report of this committee, which was adopted unanimously, is given in the February 13, 1939, issue of Industrial and Labor Information published by the International Labor Office.

The committee was of the opinion that the difficulties of adjustment consequent on the entry of women into economic life could be prevented by the influence of society on some of the factors involved. Attention was called to the following measures which the committee believed could be given immediate consideration: Removal of existing impediments to the right of women to enter certain public employments; provision of more extensive vocational education for girls in industry, handicrafts, and agriculture, and extended vocational guidance, as well as retraining of middle-aged woman workers; public and private measures for equalizing employment opportunities for men and women in any particular district, especially in agriculture and industry, as a means of promoting family life and a higher birth rate.

The conclusions of the committee on specific proposals were—

1. The proposal to prohibit by law married women's retention of, or search for, gainful employment outside the home must be definitely rejected, and also the proposal for other restrictions on married women's right to work.

2. Bonuses, marriage loans, lump-sum payments in respect of acquired pension rights, premature pensioning on leaving an employment, and other similar economic measures intended to encourage voluntary resignation on marriage, cannot be regarded as expedient.

3. Married women and other workers who, for justifiable reasons, wish to have shorter hours, should be given facilities for obtaining part-time work, or work as substitutes for persons absent on annual or sick leave; this should be arranged by means of existing public-service regulations, or, in the case of private employment, of collective agreements.

4. The possibility should be considered of providing married couples with employment, whether public or private, in the same locality, subject to the legitimate interests of other parties.

5. The question of a married woman's right to retain her own surname should be reconsidered at the earliest possible moment.

6. Social institutions to facilitate the care of young children by their mothers should be established and given financial support, but they should be equally available, even if in different forms, to mothers going out to work and those working in the home.

Negro Workers

THE C. C. C. WORK FOR NEGRO YOUTH

SINCE the organization of the Civilian Conservation Corps in 1933, approximately 200,000 young Negroes have served in its ranks. According to a recent report by that corps,[1] the combination of regular work habits, training, discipline, fresh air, and 3 good meals a day has served to improve both the health and the morale of these young men, whose gain in weight since enrollment has generally ranged from 7 to 15 pounds. This report was compiled in the latter part of 1938, and much of the information is applicable to the beginning of 1939. The 30,000 young colored men and war veterans in the corps at that period constituted one-tenth of the total C. C. C. enrollment. They were reported as taking an active part on work projects of the corps throughout the country and in the Virgin Islands.

For the year under review an aggregate monthly allotment of about $700,000 was made by these young men to their parents and dependents.

Personnel.—The colored personnel engaged in the work of the camps included about 2,000 project assistants, leaders, and assistant leaders; approximately 600 cooks; some 800 boys working as store clerks and as managers in the C. C. C. post-office exchanges; 400 typists; over 140 college-trained educational advisers; approximately 1,200 part-time experienced teachers; and about 25 medical Reserve officers and chaplains on active duty. For over 2 years the Negro personnel in Pennsylvania's C. C. C. camps has included 4 engineers and 6 technical foremen.

Among the commanding officers ranking as captains in the United States Army Reserve Corps, at the time of the report, on active duty with the Civilian Conservation Corps, two colored officers were included, one of these being stationed at Fisher's Landing, N. Y., and the other at Gettysburg National Park. Four other line officers were actively engaged at these camps.

Instruction.—Approximately 11,000 colored enrollees have been taught to read and write. More than 90 percent of the enrollees regularly attend classes, ranging from elementary to college level.

[1] Civilian Conservation Corps, Office of the Director. The Civilian Conservation Corps and Colored Youth. Prepared for Second National Conference on Problems of the Negro and Negro Youth, Washington, D. C., January 12–14, 1939. Washington, 1939.

These classes are conducted in camp education buildings, which are well equipped and especially constructed for vocational instruction. Howard University, Wilberforce University, Tuskegee Institute, Hampton Institute, Florida Agricultural and Mechanical College at Tallahassee, Tennessee Agricultural and Industrial State College, and a number of other Negro colleges, have granted scholarships and fellowships to C. C. C. enrollees.

Classes in Negro history had been held ever since the opening of the camps in 1933, it was stated. For 5 consecutive years national Negro health exhibits had been set up for the corps through cooperation with the United States Public Health Service.

In the past 5 years (1933–38), approximately 12,000 colored enrollees have completed first-aid courses through the cooperation of the C. C. C. and the National Red Cross.

Through the War Department and the Office of Education, approximately 90,000 books have been furnished to libraries in Negro camps. Camp recreation halls also are supplied with current magazines and daily and weekly newspapers.

Work projects of Negro enrollees.—Over 100 of the camps are in forests, parks, recreational areas, reservations for fish and game, or on mosquito-control and drainage projects. Soil-conservation undertakings have engaged the energies of about 48 companies.

One C. C. C. company was reported as working at Zanesville, Ohio, on one of the largest tree nurseries in the country, and another was carrying on a flood-control project which had been begun after the Dayton flood of 1913.

Restoration of the battlefields at Yorktown, Va., was made possible through the work of these C. C. C. enrollees. Furthermore, it was reported that one company was doing work in connection with the Williamsburg and Jamestown historical project, and another had been assigned to the Tennessee Valley Administration site.

The textile and food industries and the railroads of the country have been aided by orders of the colored C. C. C. camps for over $33,000,000 worth of supplies.

RECOMMENDATIONS ON VOCATIONAL EDUCATION AND GUIDANCE OF NEGROES

THAT the land-grant colleges in the various States, especially those for Negroes,[1] should conduct studies of problems regarding the future vocational success of this racial group in the sections which the individual colleges serve, is recommended by the United States Office of Education. This recommendation is made in a report which embodies

[1] In many States such colleges are the only publicly controlled higher educational institutions that Negro students may attend.

the results of a survey in 1936 [2] by a staff of 500 Negro relief workers of the "white-collar" class, most of whom had college training. Areas in 33 States and the District of Columbia were included in the study.

Based on the findings of this survey, it is further recommended in the report that the land-grant colleges (1) take an active part in the State educational program formulated to solve the vocational problems of Negroes; (2) cooperate with colleges and universities, extension workers, industrial and business leaders, agricultural employers, interested public officials and lay citizens, in the improvement of the educational facilities and employment status of Negroes; (3) cooperate with other land-grant colleges within a given area, through conferences and other means, in the study of the common problems of that region; and (4) encourage a greater number of their students to consider the needs of Negroes along vocational lines and follow courses other than those which prepare for teaching.

It was also advocated in the report—

> That the Negro citizens, in cooperation with the faculties of the land-grant college, vocational teacher-trainers and supervisors, farm and home demonstration agents, and Jeanes teachers, make a study of the needs of Negroes for vocational education and present their findings to school officials. Such a group should acquaint itself with the provisions of the Federal aid program for vocational education, and through the local school officials seek to share in its benefits.
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> That the group give consideration also to the improvement of the general educational situation among Negroes with respect to (1) establishing needed and accessible high schools; (2) increasing facilities for vocational instruction; (3) enforcing school-attendance laws; (4) encouraging an increase in the number, qualification, and compensation of teachers and supervisors.

Schools for Negroes should, it is felt, pay more attention to measures for providing courses, as soon as practicable, which will meet the requirements of students and of increasing occupational demands; for reducing pupil mortality; and for adapting teaching materials and methods to requirements of present-day occupational life.

Furthermore, it is stated, schools for Negroes should institute as soon as possible a definite guidance program, in charge of competent persons, to begin in junior high-school grades and continue through college, which should provide for the application of modern techniques for the study of individual needs, aptitudes, and interests; frequent surveys of occupations of Negroes and the status and trend of Negro employment; student counseling conducted according to approved methods; and the counseling of both employed and unemployed adults.

It is urged that extension education be furnished "where necessary, by schools and available colleges, for the purpose of (1) providing reeducation to youth and adults; (2) assisting both youth and adults

[2] U. S. Department of the Interior. Office of Education. Bulletin, 1937, No. 38: Vocational Education and Guidance of Negroes, by Ambrose Caliver. Washington, 1938.

in keeping abreast of the changing occupational demands; and (3) repairing the defects resulting from inadequate earlier education."

Schools should cooperate with interested persons and groups in contacting employers in order to open up additional occupational opportunities for Negroes and to aid them to enter new fields now being developed. Schools should also make an effort to change the attitude of Negroes with reference to occupations and the opportunities for training designed to help them to become more efficient in and to hold their present jobs and to equip them for new opportunities when they are offered.

Individuals and groups interested in the matter of improving educational ways and means for Negroes are advised to continue and increase their efforts to secure equitable opportunity for education and equitable distribution of funds, regardless of race or color, especially in connection with Federal and State funds designated for educational purposes.

Cooperation

COOPERATIVE ENTERPRISES AMONG COLLEGE STUDENTS

COLLEGE bookstores operated along more or less cooperative lines have been in existence on American campuses for many years. Their main purpose is of course to reduce the cost of the textbooks required for the various courses. Many of these stores handle not only stationery, notebooks and other students' supplies, but also sweaters, sport goods of different kinds, candy, lunches, etc., and at least one large organization has a tailoring department.

The deprivations attendant upon the depression made it imperative for many students, if they were to be able to continue at school at all, to reduce their expenses in other ways also. Room and board being the outstanding items of expense, these have naturally received the largest amount of attention. The result has been the undertaking of a growing number of cooperative dormitories and cooperative dining clubs for students. Some of these are entirely cooperative, being started and run solely by the students. In others the initiative was taken by the university, which generally also retained a certain measure of control and often of support.

Some of these enterprises are described in a recent report by the United States Office of Education,[1] based upon replies received to a questionnaire addressed to all of the colleges and universities. That report noted that altogether 24 State colleges and universities and 10 State teachers' colleges reported cooperative housing units established by the institution, and 11 State universities and 10 State teachers' colleges reported cooperative units created by the students. In some cases both types of organizations are found, and at others the cooperative owes its existence to some student organization which took the initiative.

Among the privately supported institutions of learning, 32 colleges, 2 medical schools, and 9 junior colleges reported that some provision had been made for cooperative living accommodations. "It appears that the provision of this mode of living has become a permanent policy at institutions of higher learning. Permanence and growth of the cooperative movement in colleges indeed are almost inevitable."

[1] U. S. Department of the Interior. Office of Education. Bulletin, 1938, No. 9: College Projects for Aiding Students. Washington, 1938.

Where the institution has taken the lead in creating the cooperative enterprise, participation is often limited to needy students and in some cases only to students meeting certain scholastic standards.

Producer Activities

A varied list of money-producing activities was reported.

Among those devised by the students themselves, one of the commonest was the agency for supplying services or commodities to other students. "In some of the larger institutions the number of these agencies seems to be limited only by the lack of further ways in which to serve." These not only "afford financial benefit to the students who participate, but they serve as laboratories through which the students in charge gain profitable experience in business organization and management." Such agencies provide laundry, news, travel, furniture-moving, shoe-repair, typing, dry-cleaning, barber, hairdressing, and many other services. At one college a group of girl students has a beauty parlor.

Other student-devised projects include linoleum block printing, making of Christmas cards, sign painting, and operation of student employment bureaus.

In many institutions the administration has initiated work projects for students. Thus, in one institution an organization had been formed, in which only chemistry students were allowed to participate. Its purpose was the manufacture and sale of various chemical products—cosmetics, cough syrup, liniment, soap, vanilla, etc. At several colleges cooperative student groups were making and selling rubber mats of various kinds, manufactured from used rubber tires. Other groups were making metal craft work, woven articles, furniture, etc.

One college maintained a shop, manned by students, where the college furniture and equipment were repaired. Another owned a quarry where the stone used in the university buildings was cut by the students. Other college enterprises giving employment to the students included printing and multigraphing shops, a coal mine, a 250-acre farm, and a steam laundry. In various places students were delivering the mail on the campus, driving school buses, acting as firemen, watchmen, and maintenance men, and participating in radio, orchestral, and university entertainment programs.

These were continuing projects. In addition special jobs had been undertaken at various times in order to give paid employment to the students.

Self-help colleges.—There are in the United States a score or more of the so-called "self-help colleges." These are institutions in which instruction and labor are combined. They emphasize the dignity of labor and its influence on character building, and are run for the

benefit of young people who are without the capital to finance training in the usual pay institutions.

As these colleges aim to be as nearly self-sustaining as possible, most of them are located in the open country where they carry on, with student labor, farming, dairying, and indeed practically all of the activities necessary for the support and maintenance of the college. Some of them have also undertaken industrial enterprises on a commercial basis. None of these activities can, however, be regarded as cooperative, as they are controlled by the college, not by the students.

A number of these colleges are described in the report, the more outstanding of these being Berea, Berry, and the Seventh Day Adventist Colleges, and Tuskegee and Hampton Institutes.

DIVIDEND PRACTICE OF CREDIT UNIONS

IT IS the accepted practice among credit unions to divide the surplus earnings, remaining after provision for expenses, depreciation, and reserves, among the members in proportion to the number of shares held by each. This is in contrast with the so-called "Rochdale principle" practiced by consumers' cooperatives, under which the surplus savings are divided on the basis of the members' patronage.

At least one credit union—in Nebraska—has brought its dividend practice into conformity with Rochdale methods. Under the Nebraska law, credit unions are termed "cooperative credit associations." That act deals with the division of earnings only to the extent of prohibiting associations from paying dividends at a rate higher than the rate of interest charged on loans. The association mentioned above, however, was formed by persons who are members of Farmers' Union cooperatives and as such are familiar with the Rochdale cooperative methods.

This Nebraska association is reported [1] to have adopted the procedure of paying a fixed rate of interest on shares. Any surplus earnings then remaining are paid as patronage dividends on interest paid and interest received by members. Thus, every member, in addition to the fixed rate of interest on his shares, gets a supplementary return based upon that interest; the borrower receives also a refund on the interest he has paid to the association on his loan.

The organization paid 3½ percent interest on shares for 1938, and also paid a patronage refund amounting to 12½ percent, on interest paid and received. This raised the returns on capital to 3.94 percent, and reduced the rate of interest on loans from 6.00 to 5.25 percent.

[1] Nebraska Union Farmer (Omaha), February 8, 1939.

Health and Industrial Hygiene

HEALTH OF INDUSTRIAL POLICYHOLDERS, 1938

A PROGRESSIVE improvement in the mortality rate among the many millions of men, women, and children who are industrial policyholders of the Metropolitan Life Insurance Co. has taken place during the past decade, with only slight regression in 2 years. The year 1938 showed even more marked improvement.[1] In addition to being a banner year for this group, it is reported to have been, in all probability, the best health year of all time among the general population of the United States and Canada; this cannot, however, be definitely determined until the final death rates for the 2 countries become available. The crude death rate for the year was 7.663 per 1,000 as compared with 8.225 per 1,000 in 1937—a reduction of 6.8 percent. The death rate for 1938 (ages 1 and over) was nearly 40 percent lower than for 1911, the first year of the company's series of mortality records. If the same ratio of death had prevailed in 1938 as in 1911 there would have been 240,632 deaths among the industrial policyholders instead of the 130,074 which actually occurred. As a consequence of this improvement in mortality, about 110,500 lives were saved. The total saving in lives since 1911 amounts to approximately 1,383,500. The improvement in mortality among the general population has also been marked but has not been as great as among the group of policyholders.

According to provisional figures for 1938, the average length of life, or expectation of life at birth, reached a new maximum of 61.86 years. In 1911 the life expectancy of industrial policyholders was 46.63 years, or 6.41 years less than that of the general population. In 1936, the latest year for which there are comparable data, the expectation of life among the policyholders was 60.31 years, or only a half year less than that of the general population. The total gain in life expectancy in the 27-year period since the beginning of the mortality series is 15.23 years. Although the decline in mortality has been greatest at the younger ages, it has been significant for every age group except in extreme old age, where the number of policyholders is relatively small. The decrease in mortality during the most productive years of life is regarded as of special economic and social importance, since more and

[1] Metropolitan Life Insurance Co. Statistical Bulletin, January 1939: Minimal Mortality in 1938.

more breadwinners are surviving through the age ranges of life where their children still require their support. "Reduced mortality and sickness," it is said, "has enhanced the potential productivity of the United States and Canada by conserving earning power."

New low death rates were registered for 9 diseases in 1938—scarlet fever, diphtheria, influenza, pneumonia, tuberculosis, diarrheal conditions, appendicitis, chronic nephritis, and puerperal causes—while a rate identical with the previous low was reported for typhoid fever. The rates for deaths by violence—namely, homicides, accidents (all forms combined), accidental burns, and railroad accidents—also were lower than ever before. On the other hand, the 1938 cancer mortality rate was higher than that of 1937 and the rate of 11.2 per 100,000 for syphilis was only slightly below that of the preceding year and very nearly the same as the rate in 1911.

The tuberculosis death rate fell below 50 per 100,000, for the first time, both among industrial policyholders and in the general population. The rate of 46.9 for the policyholders was 10 percent below the 1937 rate—the largest decline reported for any single year in more than a decade. Although large reductions—from 7 to 9 percent—were registered during the worst years of the depression, it was generally assumed that these declines were only temporary and that the widespread privation and suffering caused by the depression would result in a rise in the incidence and death rate of tuberculosis. This has not occurred, and it is stated in the report that it now seems certain that within a very few years the prevalence of tuberculosis will have been so reduced that the disease will no longer rank among the important causes of death in the country. In spite of the improvement which has taken place, however, tuberculosis is still the leading cause of death in the age group 20 to 44, and is a serious problem among the colored population and residents in the slums of the large cities.

Deaths from heart disease declined in 1937 and 1938, the reduction of 4.1 percent in 1938 being the largest recorded in any single year since 1919 when there was a remarkable reduction following the influenza epidemic of the previous fall. The 1938 decline was due in part to the progress made against chronic endocarditis, which mainly affects younger persons, and also to prevention of infectious diseases such as acute rheumatism and streptococcic infections, which helped to reduce the mortality from valvular lesions of the heart. The unusually good weather conditions, with a marked absence of influenza and other respiratory diseases which are so dangerous to sufferers from heart affections, constituted another factor in the favorable showing for 1938.

Deaths of mothers from puerperal causes dropped 10 percent during 1938 or to 6.2 per 100,000 policyholders. This was the lowest point ever recorded for these diseases and marked the eighteenth successive

year, with a single exception, in which the puerperal death rate showed a decrease. The figure for 1938 was 65 percent lower than that of 15 years ago.

A new all-time low in the death rate from chronic nephritis was registered in 1938, with a rate of 53.2 per 100,000, or a reduction of 4.5 percent from the preceding year. The mortality rate from diabetes showed about the same reduction—4.3 percent—and reached about the level prevailing between 1933 and 1936. The factors contributing to the favorable showing for diabetes were the decreased prevalence during the year of respiratory diseases, which are ordinarily responsible for a considerable proportion of the deaths reported among diabetics, improvements in insulin therapy, and the general improvement in the treatment of diabetes.

The appendicitis death rate of 10.4 per 100,000 was 7 percent below the 1937 rate. There has been a decrease of 26 percent in deaths from this disease in the past decade, but it is stated that both among policyholders and the population at large the rate is still very high as compared with the average throughout the civilized world.

The mortality from cancer increased from 96.0 per 100,000 in 1937 to 97.8 in 1938, the highest rate yet reported. The increase in the death rate since 1911 has been nearly 44 percent. However, this rate cannot be regarded as an accurate measure of the actual rise in mortality from this cause, because of the increase in the proportion of elderly persons in our population, the improvement in diagnosis, and the greater accuracy in reporting causes of death, all of which facts have an important bearing on the apparent increase in the death rate. The report states that when allowance is made for these and other factors it is doubtful whether any increase in cancer has occurred.

Violent deaths are grouped under three headings—suicides, homicides, and accidents—and the first named was the only one of the three which had a higher rate in 1938 than in 1937. The highest suicide rate in the past 10 years was in 1932 at the depth of the depression, after which it declined, with slight rises in 1937 and 1938. The homicide rate of 4.4 per 100,000 was the lowest ever recorded among these insured wage earners, while the rate of 48.3 per 100,000 for fatal accidents was much below that of previous years. Automobile fatalities dropped to 17.5 per 100,000—the lowest point since 1926. It is estimated that the decrease in deaths from motor accidents for the country amounted to 8,000 as compared with 1937. In view of this record and the fact that motor-vehicle travel did not decline in 1938, it is considered that there is ground for hope that the safety movement is making headway in safeguarding the lives of the people from this form of accidental death.

135055—39——7

CAUSES AND PREVENTION OF ACCIDENTS IN THE FERTILIZER INDUSTRY, 1936 AND 1937 [1]

THE frequency rate [2] of the injuries in the fertilizer industry remained practically unchanged in 1937 (41.59) from 1936 (41.45), while the severity rate [3] rose from 4.80 in 1936 to 5.81 in 1937.

An analysis of data collected by the Bureau of Labor Statistics shows that the most frequently recurring cause of injuries in both 1936 and 1937 was the handling of tools or equipment. Falls were the outstanding cause of lost time in the 2 years, accounting for the highest number of days lost in 1937 and the second highest in 1936.

A very revealing fact is obtained from the 1937 data by combining the number of injuries due to falls, falling materials, and machinery. These causes, though accounting for only 240 of the 965 injuries, were responsible for 4.11 of the 5.81 days lost per thousand employee-hours worked—more than 70 percent of the total. Involved in only one-quarter of the number of disabling injuries, they were responsible for nearly three-quarters of the total days lost. From the point of severity, then, these three injury causes should be of special interest to safety engineers and management.

From the description of individual accidents it was apparent that the unfavorable experience of the industry can be materially minimized by more attention to and effective practice of fundamental safety principles.

In the geographic comparison of the injury data for 1937 the Southeastern States group experienced the highest injury frequency and severity rates. In each of the three areas compared, the same causes were responsible for the greatest number of injuries and the same types of departments experienced the highest frequency and severity rates.

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[1] Prepared by Roy F. Fleming and Jacob Lotven, Bureau of Labor Statistics, under the direction of Swen Kjaer.

[2] The frequency rate is the average number of disabling injuries for each million employee-hours worked. A disabling injury is defined as one which causes a permanent injury or a loss of time beyond the day or shift on which the injury was incurred.

[3] The severity rate is the average number of days lost for each thousand employee-hours worked. The standard time-loss charges used for fatal and permanent disabilities are those approved by the American Standards Association in 1937.

TABLE 1.—*Summary of Injury Experience for 361 Identical Establishments in the Fertilizer Industry, 1936 and 1937*

Item	1936	1937	Percentage of change
Average number of employees [1]	11,976	12,559	+4.9
Total employee-hours worked	21,086,640	23,204,216	+10.0
Average annual hours per employee	1,761	1,848	+4.9
Total number of disabling injuries	874	965	+10.4
Frequency rate	41.45	41.59	+.3
Total days of disability	101,321	134,891	+33.1
Severity rate	4.80	5.81	+21.0

[1] The average number of employees equals the total number on the pay roll on the fifteenth of each month of plant operation, divided by the number of months of operation.

The number of employees in the 361 establishments covered increased from 11,976 in 1936 to 12,559 in 1937, with a corresponding increase in employee-hours worked from 21,086,640 to 23,204,216, a net gain of 4.9 percent in the number of employees and 100 percent in the number of hours worked. These employees had 874 disabling injuries in 1936 and 965 in 1937, an increase of 10.4 percent. With disabling injuries and employee-hours each increasing by about 10 percent, the frequency rate remained practically unchanged. The increase in the severity rate was due largely to the increase in the number of fatalities.

Experience of Departments in Identical Establishments

This special survey of the causes of injuries in the fertilizer industry, begun in 1936 and continued for 1937 by the Bureau of Labor Statistics with the endorsement and cooperation of the National Fertilizer Association, yielded tabulatable reports from 361 identical establishments for the 2 years. The injury data were collected according to a scheduled series of injury causes for the plant employees of each type of department. The 4 departments, reflecting the general structure of the industry, are unloading and transportation, dry mixing (i. e., the mixing of dry chemical compounds), acidulating (i. e., the treatment of other chemicals with acid), and acid making. The 361 reporting establishments comprised 528 departments in 1936 and 554 in 1937.

Of the total of 874 disabling injuries in 1936, 9 were fatalities, 21 permanent partial disabilities, and 844 temporary total disabilities. In 1937 there were 14 fatalities, 27 permanent partial, and 924 temporary total disabilities. More than one-half of all the injuries listed under specific causes occurred in the handling of tools or equipment in both 1936 and 1937, with 312 and 366 injuries, respectively. Most of these injuries, however, were of a minor character, as is indicated by the relatively low severity rate of 0.77 in 1936 and 0.50 in 1937. Although the frequency rate for the entire group of plants remained practically unchanged for both years, the number of injuries

from specific causes varied. The frequency rate for handling of tools or equipment rose from 14.80 to 15.77, that for falling materials dropped from 4.60 to 3.62, and the rate for acid or chemical burns dropped from 1.80 to 1.08. The changes in the frequency rates of the other injury causes were slight.

TABLE 2.—*Injury Experience of 361 Identical Establishments in the Fertilizer Industry, by Departments and Causes of Injuries, 1936 and 1937*

1936

Cause of injury	Number of disabling injuries resulting in—			Total number of disabilities	Duration of disability (days)	Injury-frequency rate	Injury-severity rate	Average days lost	
	Death	Permanent partial disability	Temporary total disability					Permanent partial disability	Temporary total disability
All departments (528 departments, 11,976 employees, 21,086,640 employee-hours)									
All causes	9	21	844	874	101,321	41.45	4.80	1,648	15
Falls	2	2	92	96	18,888	4.55	.90	2,375	23
Falling materials	-------	2	95	97	9,957	4.60	.47	4,000	21
Handling of tools or equipment	-------	8	304	312	16,289	14.80	.77	1,562	12
Gassing	4	-------	13	17	24,223	.81	1.15	-------	17
Acid or chemical burns	-------	1	37	38	2,250	1.80	.11	1,800	12
Machinery	2	3	34	39	17,326	1.85	.82	1,533	21
Direct burns (heat)	-------	-------	-------	-------	-------	-------	-------	-------	-------
All others	1	5	269	275	12,388	13.04	.59	600	13
Unloading and transportation (120 departments, 1,237 employees, 2,155,337 employee-hours)									
All causes	1	-------	148	149	8,479	69.13	3.93	-------	17
Falls	-------	-------	19	19	527	8.82	.24	-------	28
Falling materials	-------	-------	14	14	402	6.50	.19	-------	29
Handling of tools or equipment	-------	-------	52	52	930	24.13	.43	-------	18
Gassing	-------	-------	1	1	4	.46	(1)	-------	4
Acid or chemical burns	-------	-------	5	5	36	2.32	.02	-------	7
All others	1	-------	57	58	6,580	26.91	3.05	-------	10
Dry mixing (214 departments, 5,002 employees, 8,144,058 employee-hours)									
All causes	-------	8	329	337	24,038	41.38	2.95	2,431	14
Machinery	-------	2	22	24	4,729	2.95	.58	2,150	20
Falls	-------	1	23	24	1,133	2.95	.14	750	17
Falling materials	-------	2	52	54	9,101	6.63	1.12	4,000	21
Handling of tools or equipment	-------	3	131	134	7,876	16.45	.97	2,133	11
All others	-------	-------	101	101	1,199	12.40	.15	-------	12
Acidulating (45 departments, 556 employees, 1,227,687 employee-hours)									
All causes	1	1	39	41	8,238	33.40	6.71	1,800	11
Gassing	-------	-------	4	4	14	3.26	.01	-------	4
Acid or chemical burns	-------	1	4	5	1,820	4.07	1.48	1,800	5
Machinery	-------	-------	4	4	44	3.26	.04	-------	11
Falls	1	-------	3	4	6,023	3.26	4.91	-------	8
Falling materials	-------	-------	5	5	67	4.07	.05	-------	13
Handling of tools or equipment	-------	-------	6	6	71	4.89	.06	-------	12
All others	-------	-------	13	13	199	10.59	.16	-------	15

[1] Less than 0.005.

TABLE 2.—*Injury Experience of 361 Identical Establishments in the Fertilizer Industry, by Departments and Causes of Injuries, 1936 and 1937*—Continued

1936

Cause of injury	Number of disabling injuries resulting in—			Total number of disabilities	Duration of disability (days)	Injury-frequency rate	Injury-severity rate	Average days lost	
	Death	Permanent partial disability	Temporary total disability					Permanent partial disability	Temporary total disability
Acid making (22 departments, 327 employees, 682,807 employee-hours)									
All causes	-------	1	22	23	872	33.68	1.28	300	26
Gassing	-------	-------	-------	-------	-------	-------	-------	-------	-------
Acid or chemical burns	-------	-------	5	5	58	7.32	.08	-------	12
Direct burns (heat)	-------	-------	-------	-------	-------	-------	-------	-------	-------
Machinery	-------	1	-------	1	300	1.46	.44	300	-------
Falls	-------	-------	5	5	368	7.32	.54	-------	74
Falling materials	-------	-------	-------	-------	-------	-------	-------	-------	-------
Handling of tools or equipment	-------	-------	3	3	30	4.39	.04	-------	10
All others	-------	-------	9	9	116	13.18	.17	-------	13
Not elsewhere classified (127 departments, 4,854 employees, 8,876,751 employee-hours)									
All causes	7	11	306	324	59,694	36.50	6.72	1,191	15
Gassing	4	-------	8	12	24,205	1.35	2.73	-------	26
Acid or chemical burns	-------	-------	23	23	336	2.59	.04	-------	15
Direct burns (heat)	-------	-------	-------	-------	-------	-------	-------	-------	-------
Machinery	2	-------	8	10	12,253	1.13	1.38	-------	32
Falls	1	1	42	44	10,837	4.96	1.22	4,000	20
Falling materials	-------	-------	24	24	387	2.70	.04	-------	16
Handling of tools or equipment	-------	5	112	117	7,382	13.18	.83	1,220	11
All others	-------	5	89	94	4,294	10.59	.48	600	15

1937

All departments (554 departments, 12,559 employees, 23,204,216 employee-hours)									
All causes	14	27	924	965	134,891	41.59	5.81	1,315	17
Falls	5	3	109	117	39,577	5.04	1.71	2,300	25
Falling materials	2	6	76	84	26,921	3.62	1.16	2,133	28
Handling of tools or equipment	-------	9	357	366	11,636	15.77	.50	733	14
Gassing	-------	-------	13	13	282	.56	.01	-------	22
Acid or chemical burns	1	-------	24	25	6,291	1.08	.27	-------	12
Machinery	4	5	30	39	28,748	1.68	1.24	820	22
Direct burns (heat)	-------	-------	5	5	125	.22	.01	-------	25
All others	2	4	310	316	21,311	13.62	.92	1,275	14
Unloading and transportation (139 departments, 1,809 employees, 3,217,052 employee-hours)									
All causes	2	2	177	181	19,704	56.26	6.12	2,150	19
Falls	-------	-------	35	35	685	10.88	.21	-------	20
Falling materials	1	1	16	18	10,435	5.60	3.24	4,000	27
Handling of tools or equipment	-------	-------	68	68	1,116	21.14	.35	-------	16
Gassing	-------	-------	2	2	7	.62	(1)	-------	4
Acid or chemical burns	-------	-------	2	2	71	.62	.02	-------	36
All others	1	1	54	56	7,390	17.41	2.30	300	20

[1] Less than 0.005.

TABLE 2.—*Injury Experience of 361 Identical Establishments in the Fertilizer Industry, by Departments and Causes of Injuries, 1936 and 1937*—Continued

1937

Cause of injury	Number of disabling injuries resulting in—			Total number of disabilities	Duration of disability (days)	Injury-frequency rate	Injury-severity rate	Average days lost	
	Death	Permanent partial disability	Temporary total disability					Permanent partial disability	Temporary total disability
Dry mixing (245 departments, 5,105 employees, 8,287,920 employee-hours)									
All causes	5	7	363	375	40,909	45.25	4.94	836	14
Machinery	1	2	15	18	7,780	2.17	.94	750	19
Falls	2	-------	41	43	13,056	5.19	1.58	-------	26
Falling materials	1	-------	28	29	6,646	3.50	.80	-------	23
Handling of tools or equipment	-------	3	161	164	3,413	19.79	.41	450	13
All others	1	2	118	121	10,014	14.60	1.21	1,500	9
Acidulating (51 departments, 748 employees, 1,498,862 employee-hours)									
All causes	1	3	55	59	11,686	39.36	7.80	1,500	22
Gassing	-------	-------	5	5	32	3.34	.02	-------	6
Acid or chemical burns	-------	-------	7	7	88	4.67	.06	-------	13
Machinery	1	-------	4	5	6,250	3.34	4.17	-------	63
Falls	-------	-------	4	4	85	2.67	.06	-------	21
Falling materials	-------	1	5	6	2,611	4.00	1.74	2,400	42
Handling of tools or equipment	-------	2	18	20	2,321	13.34	1.55	1,050	12
All others	-------	-------	12	12	299	8.01	.20	-------	25
Acid making (23 departments, 570 employees, 1,338,152 employee-hours)									
All causes	2	4	48	54	16,252	40.35	12.15	825	20
Gassing	-------	-------	4	4	64	2.99	.05	-------	16
Acid or chemical burns	1	-------	5	6	6,039	4.48	4.51	-------	8
Direct burns (heat)	-------	-------	4	4	107	2.99	.08	-------	27
Machinery	-------	-------	-------	-------	-------	-------	-------	-------	-------
Falls	1	1	7	9	8,738	6.73	6.53	2,400	48
Falling materials	-------	2	7	9	759	6.73	.57	300	23
Handling of tools or equipment	-------	1	12	13	442	9.71	.33	300	12
All others	-------	-------	9	9	103	6.73	.08	-------	11
Not elsewhere classified (96 departments, 4,327 employees, 8,862,230 employee-hours)									
All causes	4	11	281	296	46,340	33.40	5.23	1,595	17
Gassing	-------	-------	2	2	179	.23	.02	-------	90
Acid or chemical burns	-------	-------	10	10	93	1.13	.01	-------	9
Direct burns (heat)	-------	-------	1	1	18	.11	(1)	-------	18
Machinery	2	3	11	16	14,718	1.81	1.66	867	11
Falls	2	2	22	26	17,013	2.93	1.92	2,250	23
Falling materials	-------	2	20	22	6,470	2.48	.73	2,900	34
Handling of tools or equipment	-------	3	98	101	4,344	11.40	.49	950	15
All others	-------	1	117	118	3,505	13.31	.40	1,800	15

[1] Less than 0.005.

The injuries caused by falls, falling materials, and machinery accounted for more loss of time from work than any others. Falls had the second highest severity rates in 1936 and the highest in 1937, 0.90 and 1.71, respectively. The number of fatalities listed against this cause increased from two in 1936 to five in 1937, equaling more than one-third of the total number of deaths in the industry for the latter year. Falling materials were the cause of two deaths in 1937 as compared with none in 1936, and of six permanent partial injuries in 1937 as against two in 1936. In 1936 machinery accounted for two fatalities and three permanent partial disabilities, as compared with four fatalities and five permanent partial injuries in 1937.

Injuries due to gassing showed the outstanding reduction in severity in 1937 over 1936, the rate dropping from 1.15 to 0.01. It is pertinent to note that the four deaths attributed to gassing in 1936 occurred in one plant in a single accident. It would seem, therefore, that the 1937 figure is more indicative of the normal injury experience due to gassing.

The average days lost per disability increased slightly in the temporary total injuries, from 15 days per injury to 17 days. This increase was more than offset by the large reduction in the average days lost per permanent partial injury, the average falling from 1,648 days per case to 1,315 days. Falls and falling materials caused the highest average time lost for both temporary total and permanent partial disabilities in both years.

Unloading and transportation.—Unloading and transportation departments were reported by 120 establishments in 1936 and 139 establishments in 1937, with total employee-hours of 2,155,337 and 3,217,052, respectively. The average number of employees increased from 1,237 in 1936 to 1,809 in 1937. The 149 disabling injuries with 1 fatality and no permanent injuries, in 1936, resulted in a frequency rate of 69.13 and a severity rate of 3.93, while the 181 disabling injuries with 2 fatalities and 2 permanent partial injuries, in 1937, resulted in a frequency rate of 56.26 and a severity rate of 6.12. Falls had a sizable increase in the frequency rate (8.82 to 10.88) and gassing a slight increase (0.46 to 0.62). Causes of injuries showing a marked decrease in the frequency rates were handling of tools or equipment (24.13 to 21.14), acid or chemical burns (2.32 to 0.62), and all others (26.91 to 17.41).

Falling materials were responsible for the greatest increase in the severity rate of injuries occurring in unloading and transportation between 1936 and 1937. Falling materials caused 0.19 day of lost time for every thousand employee-hours in 1936, but this rate jumped to 3.24 days lost in 1937. Falls and handling of tools or equipment experienced slight decreases. Acid or chemical burns retained the same low severity rate for both years (0.02). The "all others"

classification had a large reduction in the severity rate, decreasing from 3.05 to 2.30.

The average time lost per temporary total injury for all causes rose from 17 days per case in 1936 to 19 days in 1937. Largely responsible for this increase were the injury causes in the "all others" group for which the average time loss for this type of disability rose sharply from 10 days to 20 days. For handling of tools or equipment the average time loss decreased from 18 to 16, and for falls, from 28 to 20. The 2 permanent partial injuries averaged 2,150 days of lost time per case in 1937. There were no permanent partial disabilities in 1936.

Dry mixing.—Establishments reporting dry-mixing activities in 1936 included 214 departments with 5,002 employees working a total of 8,144,058 employee-hours. These workers had 337 disabling injuries, of which 8 resulted in disabilities of a permanent character. The frequency rate was 41.38 and the severity rate 2.95. In 1937 these same establishments reported 245 dry-mixing departments with 5,105 employees and a total of 8,287,920 employee-hours. In 1937, these employees experienced 375 disabling injuries, of which 5 resulted in death, 7 in permanent partial, and 363 in temporary total disabilities. The frequency rate increased over the 1936 rate (41.38) to 45.25, while the severity rate rose more sharply from 2.95 to 4.94.

Three of the five causes of injuries in dry mixing were responsible for the increase in disabling injuries in 1937 over 1936. These causes and their frequency rates were handling of tools or equipment (16.45 to 19.79), falls (2.95 to 5.19), and "all others" (12.40 to 14.60). Injuries due to falling materials dropped in frequency, from 6.63 to 3.50. Increases of considerable magnitude in the severity rate occurred in falls (0.14 to 1.58) and "all others" (0.15 to 1.21). Handling of tools or equipment and falling materials experienced noteworthy reductions, with declines in the severity rates of 0.97 to 0.41 and 1.12 to 0.80 respectively.

As for the average days lost per injury, there was no change for temporary total injuries, the average remaining at 14 days for each of the 2 years. There was, however, a large decrease in the average number of days lost per permanent partial injury, with 2,431 days per case in 1936 and only 836 days in 1937.

Acidulating.—There were 45 departments engaged in acidulating in 1936 and 51 in 1937, with 556 employees working 1,227,687 employee-hours in 1936, and 748 employees working 1,498,862 employee-hours in 1937. Forty-one disabling injuries occurred in 1936, 1 of them resulting in death and another in a permanent partial disability, giving a frequency rate of 33.40 and a severity rate of 6.71. In 1937 the frequency rose to 39.36 and the severity rate to 7.80 as a result of 59 injuries, including 1 fatality and 3 permanent partial

disabilities. Injuries caused by "handling of tools or equipment" accounted for the greatest increase in the frequency rate, from 4.89 to 13.34. The outstanding causes of severe injuries in 1936 were acid or chemical burns and falls. In 1937 the important causes of serious injuries were machinery, falling materials, and handling of tools or equipment.

Acid making.—The number of acid-making departments totaled 22 in 1936 and 23 in 1937. The number of employees increased from 327 to 570 and the employee-hours from 682,807 to 1,338,152. Of the 23 disabling injuries occurring in 1936, 1 resulted in a permanent partial disability. The 54 injuries in 1937 included 2 fatalities and 4 permanent partial injuries. The frequency rate increased sharply from 33.68 to 40.35 and the severity rate soared from 1.28 to 12.15. The two outstanding causes of serious injuries in 1937 were falls and acid or chemical burns, each accounting for one death; and falls caused an additional permanent partial disability.

In establishments which were unable to give a regular departmental analysis of their operations there were fewer disabling injuries for every million employee-hours in 1937 than in 1936, and fewer days lost for every thousand hours worked. The frequency rate dropped from 36.50 to 33.40 and the severity rate from 6.72 to 5.23. The reports of 127 departments in 1936 and 96 departments in 1937 gave the total number of employees as 4,854 in 1936 and 4,327 in 1937, with 8,876,751, and 8,862,230 employee-hours worked, respectively. The 324 disabling injuries in 1936 included 7 fatalities and the 296 injuries in 1937 included 4. Eleven permanent partial disabilities occurred in each of the 2 years. The injuries, however, were less severe in 1936 than in 1937, as indicated by the average days lost per injury of 1,191 in 1936 as compared with 1,595 days in 1937.

Falls had the most marked decrease in frequency, dropping from 4.96 to 2.93. There was, however, an increase of 1 fatality and 1 permanent partial disability in 1937 over 1936, and the severity rate rose from 1.22 days lost per thousand employee-hours to 1.92 days. The other causes of injuries having sizable decreases in the frequency rates were gassing (1.35 to 0.23), acid or chemical burns (2.59 to 1.13), and handling of tools or equipment (13.18 to 11.40). The frequency rate of the "all others" classification increased from 10.59 to 13.31 and that of machinery from 1.13 to 1.81.

Geographic Differences

As the number of establishments in most of the States is small, an analysis of the injury data in the fertilizer industry by States would tend to reveal the identity of individual plants. For this reason the States are grouped into three areas in order to discover if any signifi-

cant differences in injury experience existed in various sections of the United States during 1937.

The areas are designated as follows: Southeastern (Alabama, Arkansas, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia); Northeastern (Connecticut, Illinois, Indiana, Maine, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Wisconsin); and Western (Arizona, California, Colorado, Iowa, Kansas, Missouri, Montana, Nevada, Oregon, Texas, and Washington).

TABLE 3.—*Injury Rates in the Fertilizer Industry, by Departments, in Geographic Areas, 1937*

Department	Injury-frequency rate				Injury-severity rate			
	Southeastern States	Northeastern States	Western States	All States	Southeastern States	Northeastern States	Western States	All States
All departments	44.23	37.84	24.60	41.45	7.18	2.73	3.29	5.89
Unloading and transportation	63.39	35.62	44.25	56.16	8.02	1.04	1.46	6.11
Dry mixing	53.94	24.95	19.16	44.85	7.10	.59	.28	5.17
Acidulating	43.32	26.51	33.34	39.36	10.61	.36	.55	7.80
Acid making	43.05	54.94	7.86	40.35	14.24	.41	.14	12.15
Not elsewhere classified	27.22	46.35	36.06	33.40	4.92	4.68	20.29	5.23

With a frequency rate of 44.23 and a severity rate of 7.18, establishments in the Southeastern area experienced more disabling injuries for every million employee-hours worked and lost more days for each thousand employee-hours worked than establishments in either of the other two areas. The Northeastern area occupied the middle ground in frequency rate (37.84) and the most favorable position in severity rate (2.73). The Western area experienced the lowest injury-frequency rate (24.60) and held the middle position in severity rate (3.29). The average number of days lost per permanent partial disability was 1,233 in the Southeastern area, 1,750 in the Northeastern area, and 2,150 in the Western area. For each temporary total disability the average number of days lost was 16, 17, and 22, respectively.

The handling of tools or equipment caused the greatest number of disabling injuries in the Southeastern and Northeastern areas, 274 out of a total of 724 (38 percent) in the former, and 86 out of a total of 204 (42 percent) in the latter. Among the specific causes of injuries in both areas, falls were responsible for the second greatest number of disabilities, and falling materials was third. In the Southeastern area falls accounted for 80 injuries, and falling materials for 69 (11 and 10 percent, respectively). In the Northeastern area falls accounted for 28 injuries (14 percent), and falling materials for 13 (6 percent). In the Western area falls caused the greatest number of injuries, 9

out of a total of 38 (24 percent), and the handling of tools or equipment followed with 6 out of 38 (16 percent).

TABLE 4.—*Injury Experience in the Fertilizer Industry, by Geographic Areas, Departments, and Causes of Injuries, 1937*

SOUTHEASTERN STATES [1]—225 ESTABLISHMENTS

Cause of injuries	Number of disabling injuries resulting in—			Total number of disabilities	Duration of disability (days)	Injury-frequency rate	Injury-severity rate	Average days lost	
	Death	Permanent partial disability	Temporary total disability					Permanent partial disability	Temporary total disability
All departments (349 departments, 9,058 employees, 16,369,159 employee-hours)									
All causes	13	23	688	724	117,497	44.23	7.18	1,233	16
Falls	4	1	75	80	28,252	4.89	1.73	2,400	25
Falling materials	2	6	61	69	24,740	4.22	1.51	1,867	25
Handling of tools or equipment	-------	8	266	274	9,475	16.74	.58	731	14
Gassing	-------	-------	12	12	279	.73	.02	-------	23
Acid or chemical burns	1	-------	13	14	6,175	.86	.38	-------	13
Machinery	4	4	21	29	28,324	1.77	1.73	950	25
Direct burns (heat)	-------	-------	5	5	125	.31	.01	-------	25
All others	2	4	235	241	20,127	14.72	1.23	1,275	13
Unloading and transportation (85 departments, 1,322 employees, 2,334,657 employee-hours)									
All causes	2	2	144	148	18,718	63.39	8.02	2,150	17
Falls	-------	-------	24	24	269	10.28	.12	-------	11
Falling materials	1	1	15	17	10,424	7.28	4.46	4,000	28
Handling of tools or equipment	-------	-------	54	54	824	23.13	.35	-------	15
Gassing	-------	-------	2	2	7	.86	(2)	-------	4
Acid or chemical burns	-------	-------	2	2	71	.86	.03	-------	36
All others	1	1	47	49	7,123	20.99	3.05	300	18
Dry mixing (155 departments, 3,796 employees, 5,932,517 employee-hours)									
All causes	5	8	307	320	42,145	53.94	7.10	1,031	13
Machinery	1	2	13	16	7,724	2.70	1.30	750	17
Falls	2	-------	33	35	12,928	5.90	2.18	-------	28
Falling materials	1	1	23	25	8,701	4.21	1.47	2,400	13
Handling of tools or equipment	-------	3	137	140	2,987	23.60	.50	450	12
All others	1	2	101	104	9,805	17.53	1.65	1,500	8
Acidulating (32 departments, 544 employees, 1,084,846 employee-hours)									
All causes	1	3	43	47	11,509	43.32	10.61	1,500	23
Gassing	-------	-------	4	4	29	3.69	.03	-------	7
Acid or chemical burns	-------	-------	4	4	28	3.69	.03	-------	7
Machinery	1	-------	3	4	6,246	3.69	5.76	-------	82
Falls	-------	-------	4	4	85	3.69	.08	-------	21
Falling materials	-------	1	5	6	2,611	5.53	2.41	2,400	42
Handling of tools or equipment	-------	2	15	17	2,296	15.67	2.12	1,050	13
All others	-------	-------	8	8	214	7.37	.20	-------	27

[1] Includes Alabama, Arkansas, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.
[2] Less than 0.005.

TABLE 4.—*Injury Experience in the Fertilizer Industry, by Geographic Areas, Departments, and Causes of Injuries, 1937*—Continued

SOUTHEASTERN STATES—225 ESTABLISHMENTS—Continued

Cause of injuries	Number of disabling injuries resulting in—			Total number of disabilities	Duration of disability (days)	Injury-frequency rate	Injury-severity rate	Average days lost	
	Death	Permanent partial disability	Temporary total disability					Permanent partial disability	Temporary total disability
Acid making (19 departments, 487 employees, 1,138,092 employee-hours)									
All causes	2	4	43	49	16,206	43.05	14.24	825	21
Gassing	-------	-------	4	4	64	3.51	.06	-------	16
Acid or chemical burns	1	-------	3	4	6,018	3.51	5.29	-------	6
Direct burns (heat)	-------	-------	4	4	107	3.51	.09	-------	27
Falls	1	1	6	8	8,720	7.03	7.66	2,400	53
Falling materials	-------	2	7	9	759	7.91	.67	300	23
Handling of tools or equipment	-------	1	11	12	439	10.54	.39	300	13
All others	-------	-------	8	8	99	7.03	.09	-------	12
Not elsewhere classified (58 departments, 2,909 employees, 5,879,047 employee-hours)									
All causes	3	6	151	160	28,919	27.22	4.92	1,333	19
Gassing	-------	-------	2	2	179	.34	.03	-------	90
Acid or chemical burns	-------	-------	4	4	58	.68	.01	-------	15
Direct burns (heat)	-------	-------	1	1	18	.17	(2)	-------	18
Machinery	2	2	5	9	14,354	1.53	2.44	1,150	11
Falls	1	-------	8	9	6,250	1.53	1.06	-------	31
Falling materials	-------	1	11	12	2,245	2.04	.38	1,800	40
Handling of tools or equipment	-------	2	49	51	2,929	8.67	.50	1,050	17
All others	-------	1	71	72	2,886	12.25	.49	1,800	15
NORTHEASTERN STATES [3]—90 ESTABLISHMENTS									
All departments (141 departments, 2,735 employees, 5,390,931 employee-hours)									
All causes	1	3	200	204	14,725	37.84	2.73	1,750	17
Falls	1	2	25	28	11,109	5.19	2.06	2,250	24
Falling materials	-------	-------	13	13	402	2.41	.07	-------	31
Handling of tools or equipment	-------	1	85	86	2,055	15.95	.38	750	15
Acid or chemical burns	-------	-------	10	10	65	1.85	.01	-------	7
Machinery	-------	-------	8	8	121	1.48	.02	-------	15
All others	-------	-------	59	59	973	10.94	.18	-------	16
Unloading and transportation (37 departments, 412 employees, 729,910 employee-hours)									
All causes	-------	-------	26	26	756	35.62	1.04	-------	29
Falls	-------	-------	7	7	282	9.59	.39	-------	40
Falling materials	-------	-------	1	1	11	1.37	.02	-------	11
Handling of tools or equipment	-------	-------	12	12	249	16.44	.31	-------	21
All others	-------	-------	6	6	214	8.22	.29	-------	36

[2] Less than 0.005.

[3] Includes Connecticut, Illinois, Indiana, Maine, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Wisconsin.

TABLE 4.—*Injury Experience in the Fertilizer Industry, by Geographic Areas, Departments, and Causes of Injuries, 1937*—Continued

NORTHEASTERN STATES—90 ESTABLISHMENTS—Continued

Cause of injuries	Number of disabling injuries resulting in—			Total number of disabilities	Duration of disability (days)	Injury-frequency rate	Injury-severity rate	Average days lost	
	Death	Permanent partial disability	Temporary total disability					Permanent partial disability	Temporary total disability
Dry mixing (59 departments, 867 employees, 1,562,863 employee-hours)									
All causes	-------	------	39	39	921	24.95	0.59	-------	24
Machinery	-------	-------	2	2	57	1.28	.04	-------	29
Falls	-------	-------	4	4	64	2.56	.04	-------	16
Falling materials	-------	-------	5	5	345	3.20	.22	-------	69
Handling of tools or equipment	-------	-------	21	21	373	13.44	.24	-------	18
All others	-------	-------	7	7	82	4.48	.05	-------	12
Acidulating (15 departments, 134 employees, 264,040 employee-hours)									
All causes	-------	-------	7	7	96	26.51	.36	-------	14
Acid or chemical burns	-------	-------	2	2	7	7.57	.03	-------	4
Handling of tools or equipment	-------	-------	3	3	25	11.36	.09	-------	8
All others	-------	-------	2	2	64	7.57	.24	-------	32
Acid making (3 departments, 36 employees, 72,804 employee-hours)									
All causes	-------	-------	4	4	30	54.94	.41	-------	8
Acid or chemical burns	-------	-------	2	2	22	27.47	.30	-------	11
Handling of tools or equipment	-------	-------	1	1	4	13.74	.05	-------	4
All others	-------	-------	1	1	4	13.74	.05	-------	4
Not elsewhere classified (27 departments, 1,286 employees, 2,761,314 employee-hours)									
All causes	1	3	124	128	12,922	46.35	4.68	1,750	13
Acid or chemical burns	-------	-------	6	6	36	2.17	.01	-------	6
Machinery	-------	-------	6	6	64	2.17	.02	-------	11
Falls	1	2	14	17	10,763	6.16	3.90	2,250	19
Falling materials	-------	-------	7	7	46	2.54	.02	-------	7
Handling of tools or equipment	-------	1	48	49	1,404	17.75	.51	750	14
All others	-------	-------	43	43	609	15.57	.22	-------	14

WESTERN STATES [4]—51 ESTABLISHMENTS

All departments (71 departments, 873 employees, 1,544,736 employee-hours)									
All causes	-------	2	36	38	5,078	24.60	3.29	2,150	22
Falls	-------	-------	9	9	217	5.83	.14	-------	24
Falling materials	-------	1	2	3	4,179	1.94	2.71	4,000	90
Handling of tools or equipment	-------	-------	6	6	108	3.88	.07	-------	18
Gassing	-------	-------	1	1	4	.65	([2])	-------	4
Acid or chemical burns	-------	-------	1	1	53	.65	.03	-------	53
Machinery	-------	1	1	2	304	1.29	.20	300	4
All others	-------	-------	16	16	213	10.36	.14	-------	13

[2] Less than 0.005.

[4] Includes Arizona, California, Colorado, Iowa, Kansas, Missouri, Montana ,Nevada, Oregon, Texas, and Washington.

TABLE 4.—*Injury Experience in the Fertilizer Industry, by Geographic Areas, Departments, and Causes of Injuries, 1937*—Continued

WESTERN STATES—51 ESTABLISHMENTS—Continued

Cause of injuries	Number of disabling injuries resulting in—			Total number of disabilities	Duration of disability (days)	Injury-frequency rate	Injury-severity rate	Average days lost	
	Death	Permanent partial disability	Temporary total disability					Permanent partial disability	Temporary total disability
Unloading and transportation (19 departments, 92 employees, 158,185 employee-hours)									
All causes	-------	-------	7	7	231	44.25	1.46	-------	33
Falls	-------	-------	4	4	135	25.29	.85	-------	34
Handling of tools or equipment	-------	-------	2	2	43	12.64	.27	-------	22
All others	-------	-------	1	1	53	6.32	.34	-------	53
Dry mixing (36 departments, 532 employees, 887,450 employee-hours)									
All causes	-------	-------	17	17	246	19.16	.28	-------	14
Falls	-------	-------	4	4	64	4.51	.07	-------	16
Handling of tools or equipment	-------	-------	3	3	54	3.38	.06	-------	18
All others	-------	-------	10	10	128	11.27	.14	-------	13
Acidulating (4 departments, 70 employees, 149,976 employee-hours)									
All causes	-------	-------	5	5	82	33.34	.55	-------	16
Gassing	-------	-------	1	1	4	6.67	.03	-------	4
Acid or chemical burns	-------	-------	1	1	53	6.67	.35	-------	53
Machinery	-------	-------	1	1	4	6.67	.03	-------	4
All others	-------	-------	2	2	21	13.34	.14	-------	11
Acid making (1 department, 47 employees, 127,256 employee-hours)									
Falls	-------	-------	1	1	18	7.86	.14	-------	18
Not elsewhere classified (11 departments, 132 employees, 221,869 employee-hours)									
All causes	-------	2	6	8	4,501	36.06	20.29	2,150	34
Machinery	-------	1	-------	1	300	4.51	1.35	300	-------
Falling materials	-------	1	2	3	4,179	13.52	18.84	4,000	90
Handling of tools or equipment	-------	-------	1	1	11	4.51	.05	-------	11
All others	-------	-------	3	3	11	13.52	.05	-------	4

Departmental frequency rates.—With the exception of the acid-making department in the Northeastern area, operations in the unloading and transportation departments had the worst departmental injury experience in the fertilizer industry. For comparative purposes the exception can be disregarded, as the reports received show only 73,000 employee-hours worked.

Injury-frequency rates for the unloading and transportation departments in the three areas were as follows: Southeastern 63.39, Northeastern 35.62, and Western 44.25. The average number of days lost per temporary total disabling injury was 17, 29, and 33, respectively. The dry-mixing department followed with the second highest frequency rate (53.94) in the Southeastern area and the acidulating department came third with a frequency rate of 43.32. Disregarding the experience of the small group of acid-making departments in the Northeastern area, second place in injury-frequency rate, both in the Northeastern and Western States, was occupied by the acidulating departments. The frequency rates were 26.51 and 33.34, respectively. The dry-mixing departments followed with injury-frequency rates of 24.95 and 19.16.

Departmental severity rates.—That each department of the fertilizer industry in the Southeastern area lost far more days for every thousand employee-hours than either of the other areas is revealed in the following recapitulation of severity rates.

TABLE 5.—*Severity Rates for the Fertilizer Industry, by Area and by Departments*

Department	Severity rates in—		
	Southeastern area	Northeastern area	Western area
Unloading and transportation	8.02	1.04	1.46
Dry mixing	7.10	.59	.28
Acidulating	10.61	.36	.55
Acid making	14.24	.41	.14

Injuries in the acid-making department, with a severity rate of 14.24, accounted for the greatest number of days lost proportionately in the Southeastern area. In the Northeastern and Western areas injuries in the unloading and transportation departments accounted for the highest severity rates, 1.04 and 1.46, respectively. The extremely high severity rates in the Southeastern area were largely due to the concentration of fatalities in this area. Out of 724 disabling injuries 13 (1.8 percent) proved fatal. In the Northeastern area 1 (0.49 percent) out of the 204 disabling injuries resulted in death. In the Western area no fatalities were reported for the year 1937.

Causes of Disabling Accidents

From the accident descriptions in the reports of individual establishments it is possible to indicate the types of accidents found in the various departments. A number of accident descriptions are given, with the safe practice which, if followed, would have prevented the accident. It is clear from the descriptions that many of these acci-

dents were due to violations of the most simple and basic safety rules and procedures, and that better supervision is the keynote for better safety in the fertilizer industry. This is particularly true because of the type of labor involved.

Description of Accident and Safe Practice

Unloading and Transportation

1. A crew was moving the loader near a pile of fertilizer when part of the pile slid down, killing one man and temporarily disabling another.

Piles of loose material should be properly sloped.

2. Oiling gear of motor of wagon loader while machine was in operation. Worker lost two fingers.

Men should not be permitted to clean machinery in motion.

3. Watchman, making his rounds, stopped to wait for grab bucket to be lifted to hopper. After the bucket had been raised, he walked under it. Phosphate rock fell from bucket, injuring kneecap, leaving leg stiff permanently.

Men should be instructed never to walk under loaded buckets, but to wait until bucket is clearly out of the way.

Dry Mixing

1. Four men were moving a Burton loader. The machine fell over, striking one man who subsequently died from the injury.

Floor should be kept in good repair and also clean in order to prevent the accumulation of material making floor surface uneven.

2. A worker entered a batch mixer. Gang boss, on platform below, unaware that worker had entered mixer, ordered machine tender to start the machinery. Worker crushed to death.

Men should be instructed never to enter mixer until after notifying foreman. Foreman should station someone at switch to prevent anyone from throwing machinery into operation while worker is in mixer. Switch should be thrown only after worker who entered mixer has reported back to foreman.

3. Worker trucking fertilizer backed into a hole in the floor leading to cellar of warehouse. Hole used regularly to and from cellar. Fall resulted in death.

"A frame has since been built around this opening." All floor openings should be guarded adequately with both guard and hand rails.

4. A crew of three men was loading fertilizer from a pile. The upper part of the pile was undermined, slid down, and suffocated one of the workers.

Supervisors should never permit workers to undermine pile.

5. While doing overhead repair work employee took short cut by stepping on guard rail rather than going around post and using safety platform. Guard rail broke, and employee was killed by falling 15 feet to concrete floor.

Employees should not be permitted to walk on guard rails. These rails should always be strong enough to support not only the weight of a worker, but also the impact of a falling worker.

6. Employee cut out wrong switch for overhead electric system and stepped on a live rail, causing electrocution. In falling, the worker grabbed the foreman directing the work, causing him to be burned severely enough to lose 6 days from work.

Workers should not be permitted to step on rails, regardless of whether these are alive or dead. It is helpful to use red warning lights which will show red when the current is on.

7. While loading a hand truck with 100-pound bags, the stack behind the worker fell, causing permanent injury to worker's elbow.

Bags should be removed from pile in tier sequence so as to prevent toppling over.

8. While cleaning a screw conveyor in motion, an iron bar in hands of employee caught in the conveyor, causing loss of part of index finger.

Men should not be permitted to clean machinery in motion.

9. Employees were sitting on a cage-mill door while cleaning out cage mill. The door was leaning on an ammonia pipe. Because of the weight of the men the pipe broke off at the valve, spraying liquid ammonia over the men. One worker lost an eye, and two others were temporarily disabled, one for 25 days.

Men should not be permitted to sit on ammonia pipes. When not in operation, the flow of ammonia should be cut off at the tanks. Pipes should be properly protected.

10. Worker caught hand in fan of conveyor belt while greasing conveyor motor.

Men should not be permitted to oil machinery in motion.

Acidulating and Acid Making

1. Worker was digging out hot bin, when falling lump knocked bar out of his hand. Bar struck foot, causing a permanent impairment.

Workers should be instructed in proper method of digging out hot bin so as to prevent falling of material caused by undermining.

2. Worker, mixing phosphate rock and acid, received some superphosphate in eye, causing loss of eye.

Workers should wear goggles for this operation.

3. Employee went up on scaffold to look at a leak in tower trough. One end of scaffold gave way, causing worker to fall, which resulted in a permanent injury to one foot.

Scaffolds should be built of strong timber and should be inspected periodically.

135055—39——8

Labor Laws and Court Decisions

SUPREME COURT DECISIONS ON LABOR RELATIONS

Sit-Down Strikers and the National Labor Relations Act

THE Supreme Court of the United States, in an opinion written by Mr. Chief Justice Hughes, on February 27, 1939, held that although employees had the right to strike, they had no right to commit acts of violence or to seize the employer's plant.[1] The Court declared that the discharge of employees because they had participated in a sit-down strike was not an unlawful labor practice under the National Labor Relations Act, and hence the employer could not be compelled to reinstate them. For this reason, the Court sustained the decision of the Circuit Court of Appeals for the Seventh Circuit setting aside an order of the National Labor Relations Board that required the reinstatement of sit-down strikers. The opinion was by a divided Court, as Mr. Justice Stone concurred in part only, and Mr. Justices Reed and Black dissented.

The case involved a dispute between the Fansteel Metallurgical Corporation, of North Chicago, Ill., and the Amalgamated Association of Iron, Steel, and Tin Workers of North America, an affiliate of the C. I. O. The facts in the case showed that in the summer of 1936 a group of employees organized a union, within the plant, known as Lodge 66. Shortly thereafter the Fansteel Corporation employed a "labor spy" to watch the activities of the union. On September 10, 1936, the superintendent of the plant was requested to meet with a committee of the union. He consented to do so, provided the committee consisted only of employees of 5 years' standing. The committee then presented a contract relating to working conditions etc., but the superintendent objected to the "closed-shop and check-off provisions" and announced that it was the policy of the company to refuse recognition to "outside" unions. Several times thereafter the superintendent refused to deal with the union on the ground that it was an "outside" union. Attempts were made by the employer to form a company union, and subsequently difficulties were placed in the way of the president of the union.

On February 17, 1937, a committee of the union decided upon a "sit-down strike" by means of taking over and holding two of the

[1] *National Labor Relations Board* v. *Fansteel Metallurgical Corporation*, 59 Sup. Ct. 490.

principal buildings. About 95 employees occupied these buildings. Work in the plant ceased. Late in the day the superintendent, with police officials and an attorney, went to each of the buildings and demanded that the men leave. They refused and the attorney for the employer announced that all the employees in the plant were discharged because of the "seizure and retention of the buildings." The men continued to occupy the buildings for a period of about 9 days.

On February 18, the company obtained from the State court an injunction ordering the men to surrender the premises. They refused, and a writ of attachment for contempt was served the following day. The men successfully resisted attempts to evict them, and mediative efforts on the part of the Federal and State Governments proved unavailing. On February 26 the sheriff, with an increased force of deputies, made a further attempt to evict and arrest the men and this time, after a battle, they were ousted and placed under arrest. Most of them were eventually fined and sentenced to jail for violating the injunction.

On regaining possession of the plant, the employer undertook to resume operations and by March 12 the restaffing was approximately complete. A large number of the strikers, including many who had participated in the occupation of the buildings, were solicited individually to return to work with back pay, but without recognition of the union. Some accepted the offer and were reinstated, while others refused to return unless the union was recognized and unless a mass reinstatement took place. Gradually new men were hired to fill the positions of those remaining on strike. Again, the union requested meetings to consider the recognition of the union for collective bargaining, but the corporation refused. There was no collective request for reinstatement of the strikers. The position of practically all the strikers who did not go back, and who were named in the complaint filed with the Board, was that they were determined to stay out until the union reached a settlement.

Early in April the Rare Metal Workers of America, Local No. 1, was organized. A meeting was held in one of the buildings and by a vote of 185 to 15 the men favored the formation of an "independent" union. The National Labor Relations Board concluded that the Rare Metal Workers of America, Local No. 1, was the result of the employer's "antiunion campaign" and that it had dominated and interfered in the formation and administration of it. Upon the basis of these findings, the Board issued an order directing the employer to cease from interfering with the right of the employees to self-organization and collective bargaining. The Board also directed the employer to cease dominating or interfering with the formation or administration of the Rare Metal Workers or any other labor organization, and further ordered the employer to bargain with the Amalga-

mated Association of Iron, Steel and Tin Workers of North America, Lodge 66, to offer, upon application, to the employees who went on strike "immediate and full reinstatement to their former positions," with back pay; and to withdraw all recognition from Rare Metal Workers and completely to disestablish that organization as a representative of the employees for the purpose of collective bargaining.

MAJORITY OPINION

In reviewing the case, Mr. Chief Justice Hughes agreed with the ruling of the National Labor Relations Board that the employer had engaged in unfair labor practices, because of alleged antiunion statements and actions of the superintendent, including the employment and use of a "labor spy." He also sustained the ruling of the Board that the employer was guilty of unfair labor practices in refusing to bargain collectively with the employees on February 17, 1937.

The Court considered the main question as to whether the Board was authorized to require the reinstatement of the employees discharged for engaging in a sit-down strike. In this connection, it was observed that the company had on February 17, clearly discharged its employees when they had refused to leave its property, pursuant to counsel's request, and that this seizure and retention of the company's property was the cause of the discharge of the men. "Nor is it questioned," the Chief Justice observed, "that the seizure and retention of respondent's property were unlawful." He declared that this conduct of the striking employees was "a high-handed proceeding without shadow of legal right," and that it had even been the subject of denunciation by the State court.

In connection with the reinstatement of the striking employees thus discharged, the Court reviewed the contentions of the Board: (1) That the unfair labor practices led to the strike and thus furnished grounds for requiring the reinstatement of the strikers; (2) that under the terms of the act employees who go on strike because of an unfair labor practice retain their status as employees and are to be considered such despite their discharge for illegal conduct; (3) that the Board was entitled to order reinstatement or reemployment in order to "effectuate the policies" of the act.

In answer to the first contention of the Board, the Chief Justice pointed out that the National Labor Relations Act provides a remedy for the unfair labor practices of the employer, and that interference with the right of self-organization could at once have been the subject of complaint to the Board. The same remedy was available to the employees when collective bargaining was refused on February 17, 1937. The Court declared that, reprehensible as was the conduct of the company, "there is no ground for saying that it made respondent an outlaw or deprived it of its legal rights to the possession and pro-

tection of its property." It was also observed in the majority opinion that the employees had the right to strike but could not commit acts of violence or seize their employer's plant. In this regard, the Court said:

> The seizure and holding of the buildings was itself a wrong apart from any acts of sabotage. But in its legal aspect the ousting of the owner from lawful possession is not essentially different from an assault upon the officers of an employing company, or the seizure and conversion of its goods, or the despoiling of its property or other unlawful acts in order to force compliance with demands. To justify such conduct because of the existence of a labor dispute or of an unfair labor practice would be to put a premium on resort to force instead of legal remedies and to subvert the principles of law and order which lie at the foundations of society.

It was further observed that, as the unfair labor practices afforded no excuse for the seizure and holding of the buildings, the employer had its "normal rights of redress." Those rights, in their most obvious scope, included the right to discharge the wrongdoers, and the employer was not deprived of them by the National Labor Relations Act. In support of this conclusion, the Court quoted from its decision in the case of *National Labor Relations Board* v. *Jones & Laughlin Steel Corporation* (301 U. S. 1), in which it was said that "the Board is not entitled to make its authority a pretext for interference with the right of discharge when that right is exercised for other reasons than such intimidation and coercion."

It was argued by the Board, moreover, that under the circumstances of the case, the employees retained their status as such, despite discharge for unlawful conduct, by virtue of the definition in the act of the term "employee" namely—"any individual whose work has ceased as a consequence of, or in connection with, any current labor dispute or because of any unfair labor practice, and who has not obtained any other regular and substantially equivalent employment." The Court was of the opinion that this argument misconstrued the statute, and declared that—

> We are unable to conclude that Congress intended to compel employers to retain persons in their employ regardless of their unlawful conduct—to invest those who go on strike with an immunity from discharge for acts of trespass or violence against the employer's property, which they would not have enjoyed had they remained at work. Apart from the question of the constitutional validity of an enactment of that sort, it is enough to say that such a legislative intention should be found in some definite and unmistakable expression.

It was pointed out that the true purpose of Congress was reasonably clear in that it was "intent upon the protection of the right of employees to self-organization and to the selection of representatives of their own choosing for collective bargaining without restraint or coercion." To assure that protection, the employer is not allowed "to discharge his employees because of union activity or agitation

for collective bargaining." It was observed that the conduct thus protected was "lawful conduct." Congress, it was said, also recognized the right to strike, but this recognition contemplated a "lawful strike." The Court declared that it was not applicable in this case, since "the strike was illegal in its inception and prosecution."

As to the argument of the Board that its order was valid under the terms of the act regardless of whether the men remained "employees," the Court observed that the authority to require affirmative action to "effectuate the policies" of the act is broad but not unlimited. As to this, the Court continued further:

> We are of the opinion that to provide for the reinstatement or reemployment of employees guilty of the acts which the Board finds to have been committed in this instance would not only not effectuate any policy of the act but would directly tend to make abortive its plan for peaceable procedure.

The Board had stressed the fact, in this connection, that when the employer obtained possession of its buildings and resumed operations, it offered reemployment to many of the men who had participated in the strike. The Court was of the opinion, however, that this action did not alter the unlawful character of the strike or the employer's rights in that respect, and declared:

> The important point is that respondent stood absolved by the conduct of those engaged in the "sit-down" from any duty to reemploy them, but respondent was nevertheless free to consider the exigencies of its business and to offer reemployment if it chose.

With respect to the strikers who aided and abetted the sit-down strikers, the Court was of the opinion that they were in no better position than the sit-down strikers themselves, and declared that the employer had a right to discharge such employees as well as the employees who had taken possession of the buildings. The Court, therefore, held that the Board had no power to order their reinstatement.

Finally, the Chief Justice declared that the employer did not engage in an unfair labor practice by refusal to bargain with Lodge 66 after the strike, in view of the change in the situation by reason of the valid discharge of the sit-down strikers and the filling of their positions with new men. The Court did, however, hold that the formation of the organization, Rare Metals Workers of America, was brought about through "promotion efforts" of the company contrary to the act, and that therefore recognition should be withdrawn from this organization.

SEPARATE OPINIONS

Mr. Justice Stone concurred in so much of the Court's decision as held that the Board was without authority to order reinstatement of those employees who were discharged on February 17, 1937. How-

ever, he based this conclusion solely on the construction of the sections of the act under which the Board has been given authority to reinstate only those who are "employees." In this connection, Mr. Justice Stone declared that there was nothing in the act expressing a purpose "to cut off the right of an employer to discharge employees who have destroyed his factory and to refuse to reemploy them, if that is the real reason for his action." He was of the opinion, however, that the employees who aided and abetted the sit-down strikers, but who were not discharged, retained their status as employees, and that the Board had power to reinstate them.

A dissenting opinion was delivered by Mr. Justice Reed, concurred in by Mr. Justice Black. These justices were of the opinion that the order of the Board directing the reinstatement of the sit-down strikers should have been sustained. Mr. Justice Reed pointed out that both labor and management had erred grievously in their respective conduct, and that it could not be said to be unreasonable "to restore both to their former status." He also declared that a disapproval of a sit-down strike does not "logically compel the acceptance of the theory that an employer has the power to bar his striking employee from the protection of the Labor Act." The dissenting opinion observed that the Labor Act had been enacted to protect interstate commerce "from the interruptions of labor disputes." Mr. Justice Reed outlined some of the objects and the assurances which the act extended to the employees. Without the assurance of the continued protection of the law, he said, "the striking employee would be quickly put beyond the pale of its protection by discharge." As now construed by the Court, the dissenting Justice said, "the employer may discharge any striker, with or without cause, so long as the discharge is not used to interfere with self-organization or collective bargaining. Friction easily engendered by labor strife may readily give rise to conduct, from nose-thumbing to sabotage, which will give fair occasion for discharge on grounds other than those prohibited by the Labor Act."

Effect of Breach of Contract by Employees

Two other decisions denying enforcement of orders by the National Labor Relations Board were rendered on the same day as the sit-down strike case by the United States Supreme Court. In the case of *National Labor Relations Board* v. *Sands Manufacturing Co.* (59 Sup. Ct. 508), the Court affirmed an order of the Circuit Court of Appeals for the Sixth Circuit which held that the findings of fact and evidence in the record did not support the Board's conclusions.

In this case, the Sands Manufacturing Co. of Cleveland, Ohio, entered into a contract with the Mechanics Educational Society of

America on June 15, 1935. Shortly afterward, because of lack of work, the firm closed all of its plant except the machine shop. When the employer later wished to increase the machine-shop force, a controversy arose as to the interpretation of the contract. The union contended that the employer could not hire any "new men" as long as old employees in other departments were still available. After a conference with the employees, the union declared that the company would not be allowed to run the machine shop unless it employed old employees. Thereupon the plant was closed. Shortly afterward, the employer negotiated with the International Association of Machinists, an A. F. of L. affiliate, and reopened the plant with "practically all" employees members of this union. The old union picketed the plant, and subsequently obtained an order from the National Labor Relations Board alleging discrimination, lock-outs, coercion, interference with self-organization, and failure to bargain collectively.

It was urged by the Board that the conduct of the employer permitted no reasonable inference except that the employees were locked out, discharged, and refused employment because they were members of the M. E. S. A. and had engaged in concerted activities for the purpose of collective bargaining. The Court, in its decision, however, did not agree with this contention, and stated that the conclusion had no support in the evidence.

Mr. Justice Roberts pointed out that the employer did not attempt to prevent organization of its employees or discourage their affiliation with M. E. S. A. or interfere with their relations with that body, and that "there is no evidence of espionage or coercion by the company."

In support of its conclusions the Board relied on the testimony concerning the antiunion statements of two men connected with the company. Mr. Justice Roberts pointed out, however, that neither of them held such a position that his statements were evidence of the company's policies, and declared that "the inference of hostility to M. E. S. A. drawn from their testimony does not in any event amount to a scintilla when considered in the light of respondent's long course of conduct in respect of union activities and in dealing freely and candidly with M. E. S. A."

It was also argued by the Board that after the plant closed the employer was under an obligation to send for the shop committee of the union and again reason with its members or to wait until it could operate its whole plant "without antagonizing the employees' views with respect to departmental seniority." The Court, however, declared that the employer was not under an obligation to do any of these things. As there was no refusal to bargain, there could be no duty on either side to enter into further negotiations for collective bargaining "in the absence of a request therefor by the employees." Mr. Justice Roberts further observed in this connection that as the

company rightly understood that the men were irrevocably committed not to work in accordance with their contract, "it was at liberty to treat them as having severed their relations with the company because of their breach and to consummate their separation from the company's employ by hiring others to take their places."

Finally, the Court declared that the act did not prohibit an effective discharge for repudiation by the employee of his agreement, any more than it prohibited such discharge for a tort committed against the employer and since the employer had lawfully obtained others to fill the places of the former employees and recognized a new union, the old union and the shop committee were no longer in a position to demand collective bargaining on behalf of the company's employees.

Mr. Justices Black and Reed dissented from the majority opinion, but rendered no written opinion.

Collective Bargaining Under Labor Relations Act

In the third case decided by the United States Supreme Court, it was held that the employer involved had not committed an unfair labor practice inasmuch as the union concerned did not give the employer any indication of a willingness to bargain during a strike. (*National Labor Relations Board* v. *Columbian Enameling & Stamping Co., Inc.*, 59 Sup. Ct. 501.)

From the facts of the case, it appeared that on July 14, 1934, the Columbian Enameling & Stamping Co. of Terre Haute, Ind., and the Enameling and Stamping Mill Employees Union No. 19694 entered into a written contract for 1 year. Between the date of the signing of the agreement and March 23, 1935, numerous meetings were held for the consideration and adjustment of various demands of the union. Because of the failure of the employer to comply with certain demands of the union, a strike was called on March 23, 1935, and on March 30 the employer announced that its factory would be closed indefinitely. The strike was in effect on July 5, 1935, when the National Labor Relations Act became effective, and continued until about July 23, when the plant was reopened. On that day two conciliators from the Department of Labor appeared in Terre Haute and were requested by the union to effect negotiations with the company. The conciliators, on the same day, met and conferred with the president of the company, who agreed to meet them with the scale committee of the union. Later the officials of the company withdrew from the negotiations.

The National Labor Relations Board concluded that, on the day the plant reopened, the union represented a majority of the employees, and that it sought to bargain with the employer, who refused to do so. The Board ordered the employer to discharge all of its production employees who were not employed on July 22, 1935, and to re-

instate its former employees as of that date, and further to desist from refusing to bargain with the union as the exclusive representative of the employer's production employees. Application by the Board for a decree enforcing its order was denied by the Circuit Court of Appeals on the ground that as the employees had struck before the enactment of the National Labor Relations Act, in violation of their contract not to strike and to submit differences to arbitration, they did not retain and were not entitled to protection of their status as employees.

The decision of the United States Supreme Court, however, was based on the ground that the union had given no evidence of a desire to negotiate. After discussing the nature and extent of the legal duty imposed upon the employer by the act, Mr. Justice Stone pointed out that although an employer is compelled to bargain with his employees, no like duty is imposed on his employees. Since there must be at least two parties to a bargain, the Court declared that there can be no breach of the statutory duty by the employer, "when he has not refused to receive communications from his employees," without some indication "of their desire or willingness to bargain."

For these reasons, Mr. Justice Stone expressed the view that the statute does not compel an employer to seek out his employees or request their participation in negotiations for purposes of collective bargaining. He may ignore or reject proposals for such bargaining which come from third persons not purporting to act with authority of his employees, without any violation of law and without suffering the drastic consequences such violation may entail. The employees, the Court observed, must at least have signified to the employer their desire to negotiate in order "to put the employer in default here."

Finally, Mr. Justice Stone announced that substantial evidence must be adduced if the Board's findings are to be sustained, and that this type of evidence "is more than a scintilla, and must do more than create a suspicion of the existence of the fact to be established."

A vigorous dissenting opinion was delivered by Mr. Justice Black, concurred in by Mr. Justice Reed. The opinion declared that the findings of the Board should have been upheld, as the inferences to be drawn from the testimony were for the Board and not the courts, and that "the inferences drawn by the Board were supported by the evidence." It was observed also that various administrative agencies, including the Labor Board, were created to deal with problems of ever-increasing complexity, and that Congress thus sought to utilize procedures more expeditious and administered by more specialized and experienced persons than courts had been able to afford. The dissenting justice observed that "the decision here tends to nullify this congressional effort." It was the view of Mr. Justice Black that the Department of Labor conciliators must have informed the

president of the company of the union's desire for collective bargaining. In this connection, Mr. Justice Black opined that to hold the company was unaware that the conciliators were acting at the instance of the union and, therefore, not to hold it responsible for its refusal to meet with the employees, is "to ignore the record and to shut our eyes to the realities of the conditions of modern industry and industrial strife." It was pointed out further by Mr. Justice Black that the atmosphere of a strike does not evoke, and should not require, punctilious observance of legalistic formalities and social exactness in discussions relative to the settlement of the strike.

CONSTITUTIONAL STATUS OF ANTILEAFLET ORDINANCES

THE constitutionality of city ordinances regulating or forbidding the distribution of leaflets and circulars on the streets has been considered recently by many of the courts, including the Supreme Court of the United States. Although most of the ordinances do not specifically pertain to the distribution of leaflets by labor unions or persons engaged as pickets, they were in many cases enacted for the purpose of discouraging or preventing labor disturbances. The distribution of leaflets sometimes affords an effective medium of publicity for labor groups, and the small cost makes it a useful means of publicizing meetings and strikes, and of appealing to the public in connection with local labor activities. As many communities with such ordinances have also outlawed picketing, labor is thus prevented from presenting its position and appealing for public support.

The stated purpose of some of the ordinances is to prevent the littering of the public streets. Some merely prohibit the throwing or scattering of printed matter in the streets, or the distribution of materials tending to litter the streets. Generally, the ordinances either prohibit the distribution altogether or require the securing of a license. In many instances, when a license is required, special conditions are imposed such as the posting of a bond, the payment of a fee, and even the photographing and fingerprinting of the applicant.

The courts have not been in agreement as to the validity of such ordinances. Measures absolutely forbidding the distribution of leaflets have frequently been held invalid. On the other hand, those prohibiting the scattering of handbills on the streets and those regulating the distribution of leaflets have in many cases been upheld. Quite often, however, burdensome conditions imposed on applicants endeavoring to secure a license to distribute pamphlets have led the courts to hold such ordinances invalid.

Interference With Constitutional Rights—The Lovell Case

An ordinance of the latter type was held unconstitutional by the Supreme Court of the United States on March 28, 1938, in the case of *Lovell* v. *City of Griffin*, 303 U. S. 444. An ordinance of Griffin, Ga., prohibited the distribution of literature of any kind without first obtaining the written permission of the city manager. In this case a member of the sect known as Jehovah's Witnesses was convicted of violating the ordinance by distributing religious tracts without the required permission. The conviction was affirmed by the superior court of the county, and later the supreme court of the State denied an application for review. An appeal to the United States Supreme Court was based on the claim that the ordinance violated the Fourteenth Amendment in that it abridged the freedom of the press.

Mr. Chief Justice Hughes, who delivered the opinion of the Court, held the ordinance invalid and pointed out that it was comprehensive with respect to the method of distribution, and covered every sort of circulation "either by hand or otherwise." It was not limited, the Court said, to ways which might be regarded as inconsistent with the maintenance of public order or as involving disorderly conduct, the molestation of the inhabitants, or the misuse or littering of the streets. The Court pointed out further that the ordinance prohibited the distribution of literature of any kind at any time, at any place, and in any manner, without a permit from the city manager.

After stating that freedom of speech and freedom of the press were among the fundamental personal rights and liberties protected by the Fourteenth Amendment from invasion by State action, the Court declared that the ordinance was invalid on its face, and that "whatever the motive which induced its adoption, its character is such that it strikes at the very foundation of the freedom of the press by subjecting it to license and censorship." The Chief Justice further observed that the liberty of the press is not confined to newspapers and periodicals but "necessarily embraces pamphlets and leaflets." Finally, he announced that the ordinance could not be saved because it related to distribution and not to publication. In this regard, he quoted an earlier case: "Liberty of circulation is as essential to that freedom as liberty of publishing; indeed, without the circulation, the publication would be of little value."

Valid Exercise of Police Power

Prior to the decision in the Lovell case, an ordinance of the city of Fall River, Mass., was held valid by the supreme judicial court of that State as a proper exercise of the police power of the city.[1] The ordinance prohibited the distribution of posters, bills, or sheets of paper

[1] *Commonwealth* v *Kimball*, 13 N. E. (2d) 18.

of any description containing advertising matter of any kind, whether printed or written, in any public street, highway, or public place. The defendant in the case was arrested for distributing a pamphlet entitled "Garment Worker," which contained an advertisement of a play to be given by a labor organization. Among other things contained in the notice was a statement that tickets could be obtained free at the office of the union. The court declared that the distribution of handbills, etc., on the streets tended to annoy travelers, that it obstructed the streets, and littered them with paper. A city could validly prohibit such distribution, the court said, as an exercise of the power to maintain its "internal police." It was also declared that the word "advertising" was not limited to notices for commercial purposes, but applied to any kind of advertising.

A similar ordinance was upheld in another case by the Massachusetts Supreme Judicial Court on December 21, 1938, in the case of *Commonwealth* v. *Nichols* (18 N. E. (2d) 166). In deciding that the ordinance of the city of Worcester was constitutional, the court declared that it did not deny or impair the freedom of the press, but was "a reasonable and valid regulation of the use of the public ways for the preservation of public order, the protection of travelers from annoyance, and the prevention of misuse or littering of the streets."

It was argued by the defendant that the Worcester ordinance should be held invalid on the authority of the Lovell case. The court pointed out, however, that the ordinance of the city of Griffin which was there struck down was not a regulation of the use of the streets. Continuing, the court said that "it was an absolute prohibition of the distribution of 'literature of any kind' anywhere within the city, whether delivered free or sold, without the written permission of the city manager." Since the city manager was thus made the sole arbiter as to what literature of any kind should be allowed within the city, the court stated that "such an ordinance goes far beyond reasonable regulation and infringes upon fundamental rights."

In Los Angeles, Calif., an ordinance similar to that of the two Massachusetts cities was recently held constitutional by the appellate department of the Los Angeles County Superior Court.[2] This ordinance prohibited the distribution of any handbill to pedestrians along any street, or to passengers on any streetcar, or any automobile or other vehicle. The ordinance was upheld as a reasonable exercise of the police power of the city to guard against the littering of the streets. As in the Massachusetts cases, it was argued that the ordinance should be declared unconstitutional on the authority of the Lovell case. The court held, however, that there was a vital distinction between the Griffin ordinance and that of Los Angeles. The ordinance of the city of Griffin, it was pointed out, prohibited the distribution of handbills

[2] *People of California* v. *Young*, 85 Pac. (2d) 231.

and cards "anywhere in the city," while the Los Angeles ordinance prohibited the distribution "only in a very limited number of places."

In Wisconsin, the State supreme court recently upheld the validity of an ordinance of Milwaukee which also prohibited the circulation of handbills on the streets of the city.[3] The court held that this ordinance did not interfere with the freedom of the press, under the ruling in the Lovell case, and declared that the ordinance of the city of Milwaukee and that of the city of Griffin were "widely different." The latter ordinance, the court said, "was manifestly not aimed to prevent the littering of streets, as was the instant ordinance." The court was also of the opinion that the Milwaukee ordinance was not rendered unconstitutional by the enactment of the Wisconsin anti-injunction act which declares lawful the acts of "giving publicity to and * * * communicating information regarding the existence of, or the facts involved in, any [labor] dispute, whether by advertising, speaking, patrolling any public street or any place where any person or persons may lawfully be, without intimidation or coercion, or by any other method not involving fraud, violence, breach of the peace, or threat thereof." It was said that the act was not intended and could not be construed "to repeal or render void existing valid ordinances enacted to provide for the necessities or convenience of traffic in the city streets."

Recent Decisions Based Upon the Lovell Case

The decisions of the State courts heretofore analyzed have been primarily based on the ground that the ordinances were enacted for the purpose of preventing the littering of the streets, and were not intended to interfere with the exercise of the right of freedom of speech and of the press. However, a similar ordinance of Jersey City, N. J., has been held unconstitutional by the United States Circuit Court of Appeals for the Third Circuit,[4] on the ground that the ordinance was "squarely within the decision of the Supreme Court of the United States in *Lovell* v. *City of Griffin*, 303 U. S. 444." This ordinance provided that no person shall distribute about any street or public place any "newspapers, paper, periodical, book, magazine, circular, card, or pamphlet." The court held the ordinance unconstitutional in that it violated the freedom of speech and of the press, which are "fundamental civil rights protected by the Fourteenth Amendment from any abridgement by State action." Recently the United States Supreme Court granted a review of this case.

Although there have been no recent decisions of State appellate courts holding city ordinances of this type unconstitutional, in many cases prosecutions have been dismissed by lower courts on the author-

[3] *City of Milwaukee* v. *Snyder*, 283 N. W. 301.

[4] *Hague, individually and as Mayor of Jersey City, et al.* v. *Committee for Industrial Organization et al.*, 101 Fed. (2d) 774.

ity of the Lovell decision. In the case of *People of New York* v. *Giliona,* decided on December 31, 1938, the police court of Schenectady discharged a defendant who had distributed handbills containing a notice of the meeting of a labor body, in violation of an ordinance of that city. That ordinance prohibited the distribution of handbills upon the streets of the city without a permit. Upon the authority of the Lovell case the court declared that Giliona must be discharged. The court also had occasion to observe that on October 11, 1938, Justice Russell of the State supreme court, in the case of *People ex rel. Gordon* v. *Public Safety Commissioner of the city of Cohoes, N. Y.,* discharged one Max Gordon for an alleged violation of an ordinance similar to the Schenectady ordinance, based upon the authority of the Lovell case. However, without any reference to the Lovell case, the Supreme Court of New Jersey, on February 24, 1939, held an ordinance of Westfield, N. J., making it unlawful to distribute circulars, etc., without a permit, did not apply to one who merely distributed handbills announcing a meeting to discuss Fascism. (*Town of Westfield* v. *Milgram,* 4 Atl. (2d) 515.) In reversing a conviction the court pointed out that reasonable restrictions might be imposed upon the distribution of circulars, but doubted the reasonableness of a regulation imposing hardships on "an individual who desires only to hand out unobjectionable notices of a meeting to persons who may be regarded as potentially interested in the subject matter."

RECENT COURT DECISIONS OF INTEREST TO LABOR

Liability of City for Damages to Property During Strike

THE Supreme Court of Appeals of West Virginia recently held that a city would be liable in damages to an owner of a restaurant whose personal property was destroyed during a strike. In this case, a group of more than five persons assembled for the purpose of compelling the owners of the restaurant to sign a contract, and then destroyed certain personal property in the restaurant.

A West Virginia statute provides that five or more individuals assembled "for the purpose of exercising * * * regulative powers over any person or persons by violence and without lawful authority, shall be regarded and designated as a mob," and that anyone suffering serious injury to his property by a mob within a city, shall have an action against the city for the damages sustained, not to exceed $5,000. In holding that such a suit could be maintained against the city of Logan, the court declared that the group of strikers constituted a "mob" within the meaning of the statute, if the individuals "assembled for the purpose of forcing" the owners of the restaurant "by violence and without lawful authority to sign an agreement." (*Meadows et al.* v. *City of Logan,* 1 S. E. (2d) 394.)

Force and Violence in Picketing

Rioting by a crowd at a retail store was held by the Minnesota Supreme Court to constitute no part of the right to picket and to be in violation of the State riot statute. The crowd assembled in front of the store which was being picketed in an attempt by a local labor organization to unionize the company's employees, and forced its way into the store, resisted the local officers and destroyed merchandise.

In holding that this was a violation of the statute, the court observed that the essential elements of the crime as defined by the statute are an assemblage of three or more persons, the use of force or violence against property or persons, and a resulting disturbance of the public peace. It was pointed out that "regardless of the purpose of the original assemblage the participants disturbed the public peace by using force and violence," and "such conduct is in no sense a part or incident to the right to strike, the right to picket, or to the exercise of any other right afforded individuals attempting to improve their working conditions." The court further declared that "all of the elements of riot were present and each participant became a violator of the riot statute." (*State* v. *Winkels et al.*, 283 N. W. 763.)

Rights of Loyal and Seceding Members of Union

A local union affiliated with the American Federation of Labor was held by the Oregon Supreme Court to be entitled to recover from a local union affiliated with the Committee for Industrial Organization,[1] the money, office furniture, files, and records which came into the possession of the C. I. O. union when some of the members of the A. F. of L. union seceded and joined the C. I. O. union.

In its decision, the court pointed out that the charter of the particular A. F. of L. union provided that it must conform to the constitution of the United Brotherhood of Carpenters and Joiners of America, and that in case of the withdrawal or dissolution of the union, all property, moneys, books, and papers should become the property of the brotherhood. The constitution of the brotherhood provides that "the funds or property of a local union cannot be divided * * * among the members individually, but shall remain the property of the local union for its legitimate purpose while 10 members remain therein." As more than 10 members remained affiliated with the A. F. of L. union, the court declared that that union had never ceased to exist.

It was the opinion of the court that the charter of the A. F. of L. union and the constitution of the united brotherhood "constituted an enforceable contract" and precluded the seceding members from transferring the money, office furniture, files, and records of the A. F. of L.

[1] The name of this organization was later changed to Congress of Industrial Organizations.

union to the C. I. O. union. The court declared in this connection that the seceding members forfeited "all right to the property and funds of the union," and had "no more right to control the disposition of such property and funds than if they had never been members thereof." (*Harris et al.* v. *Backman et al.*, 86 Pac. (2d) 456.)

Breach of Contracts by Seceding Union

A C. I. O. cannery workers' union was held by the Supreme Court of Washington to be liable for breach of contracts, although the contracts were executed by an A. F. of L. union, as the union was the same organization except for change in name and affiliation. The contracts provided that the union would procure employment for workers in an Alaska cannery upon payment by each worker of $5 for a permit to work there. It was urged that as the contracts were executed by local No. 18257 of the Cannery Workers' and Farm Laborers' Union which was affiliated with the American Federation of Labor, C. I. O. local No. 7, which took over the entire membership and property of the A. F. of L. local, was not liable for breach of the contracts.

In holding that the new union was liable, the court pointed out that the only changes made were in name and transferring allegiance to the Committee for Industrial Organization, and in every other way "the union remained the same and hence could not by the simple change of name and affiliation be relieved from a contractual obligation." It was also observed that the new organization followed the old in the manner of conducting business, and kept in office most of the officers of the old union. (*Labonite* v. *Cannery Workers' and Farm Laborers' Union, et al.*, 86 Pac. (2d) 189.)

COVERAGE OF TEACHERS' TENURE LAWS

TENURE laws for teachers in the United States vary not only in regard to the civil and political subdivisions to which they are applicable, but also in the classes of school positions protected. In such legislation, tenure is defined as "permanent employment, with notice before dismissal and right to a hearing." The National Education Association recently made an analysis [1] of teacher tenure laws, from which the data in this article are taken. In that analysis continuing contract laws are not included, as their only security is that of requiring notice before dismissal.

In only 6 of the 16 States listed in table 1 are the tenure provisions applicable to the whole State. In 5 States—Colorado, Illinois, Kansas, Minnesota, and Oregon—only the teachers in the large cities are protected.

[1] National Education Association of the United States. Critical Analysis of Teacher Tenure Legislation. Washington, D. C., January 1939.

TABLE 1.—*Coverage of Teacher-Tenure Laws in States With Such Legislation*

State	Area covered by tenure law
California	Mandatory in school districts with more than 850 pupils in average daily attendance; optional, under 850.
Colorado	First-class districts of over 20,000 population.
Florida	Counties of not more than 155,000 or less than 150,000 population.
Illinois	Cities of over 500,000 population.
Indiana	City and town school corporations.
Kansas	Cities of over 120,000 population.
Louisiana	Entire State.
Maryland	Entire State (but Baltimore teachers are under a separate plan).
Massachusetts	Entire State (but Boston teachers are under a separate plan).
Michigan	Optional with each district upon vote of electors.
Minnesota	First-class cities.
New Jersey	Entire State.
New York	Cities and union free districts having a population of over 4,500 and employing a superintendent.
Oregon	Cities of more than 20,000 population.
Pennsylvania	Entire State.
Wisconsin	Do.[1]

[1] Milwaukee not included under State law.

In table 2 the various types of school employees coming under tenure legislation are reported.

TABLE 2.—*Classes of School Employees Covered by State Teacher-Tenure Laws* [1]

Type of employee (as defined in tenure law)	States
All certificated employees	California, Louisiana, Michigan, Wisconsin.
Administrative and supervisory employees in certificated positions.	California.
Teachers	Colorado, Florida, Illinois, Indiana, Kansas, Maryland, Massachusetts, Minnesota, New Jersey, New York, Oregon, Pennsylvania.
Supervising principals	Massachusetts, New Jersey, Pennsylvania.
Principals	Florida, Illinois, Indiana, Kansas, Maryland, Massachusetts, Minnesota, New Jersey, New York, Oregon, Pennsylvania.
Assistant (or vice) principals	Florida, Kansas, Maryland, Oregon.
Supervisors	Florida, Indiana, Minnesota, New York, Oregon, Pennsylvania, Wisconsin.
Superintendents	Indiana, Kansas, Massachusetts (except union or district superintendents), New York (cities).
Assistant superintendents	Indiana, Minnesota.
Appointive administrative employees when holding certificate is necessary to employment.	Florida.
Professional employees required to hold an instructor's certificate.	Kansas.
Professional assistants of county superintendents	Maryland.
Members of State teachers' retirement system	Do.
Holders of certificates required of teachers in State-aided high schools.	Massachusetts.
Placement teachers	Minnesota.
Visiting teachers	Minnesota, Pennsylvania.
Holders of teachers' certificates	New Jersey.
Directors	New York (cities).
Teaching and supervising staff	New York.[2]
Directors of vocational education	Pennsylvania.
Dental hygienists	Do.
School secretaries when their selection is on basis of merit from eligibility list.	Do.
School nurses if certified as teachers	Do.
Any regular full-time employee who is certified as teacher.	Do.
Full-time employees of Stout Institute, Wisconsin Mining School, and local boards of vocational education.	Wisconsin.

[1] This table should be interpreted in the light of table 1. Only 6 States have State-wide tenure laws.
[2] Associate superintendents and examiners are excluded from the law for cities.

Labor Organizations

LABOR ORGANIZATIONS IN CANADA, 1937

MEMBERS of trade-unions in Canada at the close of 1937 totaled 384,619—a gain of 62,146 over 1936. The number of trade-union locals was 3,258—an increase of 372 as compared with the preceding year.

Based upon returns from trade-unions and upon other reliable data, the international-union group in the Dominion included the Canadian members of 96 organizations—an increase of 8 over the 1936 record. This group had 2,048 branches in Canada (a gain of 152 as compared with the previous year) and a total membership of 217,465 (which was 42,696 above the figure for 1936).

The national Catholic group consists of 285 unions, a gain of 95, the total membership as supplied by the secretary of the Federation of Catholic Workers of Canada being 52,000, an increase of 7,000.

There were 72 independent units, 12 more than in 1936, the membership as reported by 67 being 16,521, a loss of 2,342.

These statistics are taken from the Twenty-seventh Annual Report of Labor Organization in Canada, for the calendar year 1937, published by the Canadian Department of Labor.

The paid-up membership, as of December 31, 1937, of the Trades and Labor Congress of Canada, was 145,966. That of the All-Canadian Congress of Labor was 19,335.[1] The total number of affiliated members of the Canadian Federation of Labor was reported as 52,622.

	Members	*Percent*
All industries	384, 619	100. 00
Mining and quarrying	26, 909	7. 00
Building	30, 408	7. 90
Metal	38, 318	9. 97
Printing and paper making	24, 273	6. 31
Clothing, boots and shoes	28, 830	7. 50
Railroads	79, 347	20. 63
Other transportation and navigation	35, 161	9. 14
Public service, personal service, and amusement	37, 106	9. 64
All other trades, and general labor	84, 267	21. 91

[1] It is in general maintained that the percentage of members in arrears is quite substantial—in some cases as great as 25 percent.

Of the 96 international organizations with branches or members in the Dominion, 16 had 5,000 members or over. Six of these important bodies are composed of employees connected with railroad operation, as indicated in the following table:

International Trade-Unions in Canada Having 5,000 Members or Over, 1937 [1]

Organization	Number of Canadian local units	Reported Canadian membership
United Mine Workers of America	72	19,000
Brotherhood of Maintenance-of-Way Employees	196	13,000
Brotherhood of Railway Carmen of America	112	11,733
Brotherhood of Railroad Trainmen	92	11,456
International Union United Automobile Workers of America	7	10,000
International Brotherhood of Pulp, Sulphite and Paper Mill Workers	44	9,600
Steel Workers Organizing Committee	20	8,929
International Ladies' Garment Workers' Union	17	8,014
International Association of Machinists	78	7,600
Amalgamated Association of Street, Electric Railway and Motor Coach Employees of America	26	7,056
Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees	94	6,932
Amalgamated Clothing Workers of America	20	6,505
United Brotherhood of Carpenters and Joiners of America	87	6,287
Brotherhood of Locomotive Firemen and Enginemen	96	5,271
American Federation of Musicians	29	5,000
Order of Railroad Telegraphers	13	5,000

[1] The Canadian Brotherhood of Railway Employees which is not an international union has 14,790 members.

ORGANIZATION OF LABOR IN RUMANIA [1]

A ROYAL decree governing the formation, recognition, and functioning of corporations (*bresle*) of salaried and wage-earning employees and craftsmen in Rumania was enacted on October 11, 1938, to supersede the trade-union law of May 24, 1921, with its subsequent amendments. Associations, federations, and trade-unions of workers which, under the terms of the trade-union law or any other law, were in existence on October 11 and wished to retain their legal personality were required to bring their rules into agreement with the provisions of this decree within 2 months and to submit a request to the Ministry of Labor for the retention of their legal personality. If this request was rejected they might still continue to function as de facto societies, but without the title of association, federation, or trade-union.

The work of the corporations is to be carried on in the interest of the State, and affiliation with international bodies is prohibited. Representation at international demonstrations or congresses is permitted only by specific permission of the Ministry of Labor.

[1] Monitorul Oficial, Bucharest, October 12, 1938.

Formation of Corporations

Salaried and wage-earning employees and craftsmen working in the same, similar, or kindred occupations, as well as salaried employees of the State, the departments, local authorities, autonomous offices, and other public and public-utility services, are entitled to form corporations. All persons, either Rumanians or aliens, over 18 years of age, who are employed in a specified occupation, may become members of a corporation. Membership is open also to persons, temporarily unemployed, who were working in the occupation in question for not less than a year before becoming members of the corporation. Procedure in resignation or exclusion from membership is also given. A registry of corporations and associations is to be maintained by the Ministry of Labor, in which pertinent facts concerning the organizations are to be recorded. The presidents of corporations are to report, within 15 days and with supporting documents, any action taken in their corporations.

Recognition of Legal Personality

The recognition of legal personality of a corporation is made by royal decree, issued at the suggestion of the Ministry of Labor upon the request of the committee of labor and published in the official gazette. The corporation must be a separate occupational unit, confined to one district. Legal recognition is given to only one corporation for each class of occupation in each district, but sections of a corporation may be formed in the chief centers of the district.

The application for recognition, together with all the documents required, must be addressed to the Ministry of Labor, which will submit it to the committee of labor for its opinion. After full investigation the committee of labor may require the rules of the corporation to be amended to conform to the conditions established in this decree, and give its opinion as to whether the corporation should be recognized, in view of the stated aim of the corporate system to investigate, defend, and promote occupational interests, whether industrial, commercial, agricultural, technical, economic, cultural, or social.

Essential conditions with which the corporation must comply in order to be recognized are: (1) Corporations of wage earners or craftsmen must include at least 10 percent of the wage earners employed in their particular occupation in the district or of the total number of craftsmen belonging to the same class of occupation; in no case may the number of founder members be less than 30 persons, but if the requisite number of workers cannot be found in the district, persons wishing to do so may unite with the corporation which most nearly corresponds to their occupations; (2) corporations must give their members occupational, moral, and patriotic training; (3) the heads of corporations

must be Rumanian citizens in full enjoyment of all civil and political rights, whose character, capabilities, and patriotism will constitute a guaranty for the character and work of the corporation.

Exclusive rights of recognized corporations include the following: To plead in a legal action; to conclude collective labor agreements; to appoint representatives from among their members to chambers of labor, insurance funds and offices, advisory or deliberative committees, courts of law, and all other public or private institutions where occupational interests should be represented; and to take action for the benefit of their members in matters involving collective or individual labor agreements. Other rights are: To appoint delegates on conciliation and arbitration committees in collective labor disputes when not less than half of their members are wage earners in the enterprises of the occupational group to which the corporation belongs; to appoint delegates to accompany the inspectors of the Ministry of Labor (under specified conditions) on visits to industrial establishments to enforce laws and regulations for labor protection or organization, collective agreements, or workshop rules; and to set up institutions for the management, training, and occupational improvement and defense of labor, either on their own account, or in cooperation with other corporations, with occupational chambers, or with the Ministry of Labor. They may also, if their rules allow and on the explicit condition that their individual members are not to receive profits, establish and maintain for the interests of the members businesses and cooperative societies, or social institutions and mutual benefit funds, and may issue publications to further the cultural and technical development of members and the defense of occupational interests.

The rules for the corporation must provide for the registration of information as to the name and location of the corporation, its objects, its initial assets and subscriptions, and the rules for giving assistance to its members, conditions governing membership, rules for forming sections, the stipulation that none of them are to pay more than 70 percent of their receipts for the expenses of the corporation, a statement of respect for the constitution and laws of the country and an explicit renunciation of any form of internal or external activity contrary to the interests of the State, the recognition of the place of the corporation in the economic structure of the country, and rules for the establishment and functioning of the managerial and supervisory bodies of the corporation.

A corporation may lose its legal personality by withdrawal of recognition, by a decision of its own general assembly carried by a two-thirds vote of all its members, or automatically under certain conditions specified in the decree. The withdrawal of recognition is decided upon by the Council of Ministers, after consideration of a report by the Minister of Labor upon the suggestion of the committee

of labor, if it is established that the corporation is not functioning in accordance with the purpose for which it was constituted or the conditions governing its recognition no longer prevail. Withdrawal of recognition is announced by royal decree.

Management and Supervision

The groups responsible for the management of the corporation are the general assembly and the committee of management. The general assembly consists of all contributing members, and acts on matters not reserved by statute to the committee of management. The committee of management must be composed of at least seven members, Rumanians over 30 years of age, who are or have been actively employed in the trade belonging to the occupational category of the corporation for at least 3 years, are in full possession of civil and political rights, and have never been convicted of a criminal offense or any of the misdemeanors mentioned in the decree. The Ministry of Labor has general and permanent right of supervision and control over the activities of the corporation, to be exercised through certain of its sections which will be empowered to attend the meetings of the committee of management and of the general assembly. Certain rights of supervision are exercised also by a committee of censorship, consisting of from three to five members, one of whom must be an expert accountant.

Associations of Corporations

Two or more corporations with legal personality may form associations by class of occupations. A single association may be recognized for the whole country for each class of occupation or related occupations, the headquarters of the association to be in the national capital. When these associations have legal personality, they have the right to plead in a legal action, at the request of the Ministry of Labor or other authority, to appoint representatives upon any official commissions or organizations and delegates to all kinds of international gatherings and demonstrations, and to issue publications in the interest of the occupational concerns of their members.

Penalties

The officers or authorized agents of a corporation or association are subject to penalties for violation of the prohibitive provisions of this decree or for making false statement. Persons found guilty of hindering the exercise of the right of free association by preventing a person from joining a corporation or forcing a person to join a corporation by any means are liable to fine or imprisonment or both. Fines are payable to the special "labor fund."

Industrial Disputes

TREND OF STRIKES

PRELIMINARY estimates indicate a 10-percent increase in strike activity in February 1939 as compared with January. The estimates for each of these months are shown in the table below. The largest strikes during February were one in the New York dress industry early in the month and a short stoppage at the Plymouth plant of the Chrysler Corporation in Detroit, February 22 and 23.

Trend of Strikes, 1933 to February 1939 [1]

Year and month	Number of strikes					Workers involved in strikes		Man-days idle during month or year
	Continued from preceding month	Beginning in month or year	In progress during month	Ended in month	In effect at end of month	Beginning in month or year	In progress during month	
1933		1,695				1,168,272		16,872,128
1934		1,856				1,466,695		19,591,949
1935		2,014				1,117,213		15,456,337
1936		2,172				788,648		13,901,956
1937		4,740				1,860,621		28,424,857
1937								
January	100	171	271	132	139	108,621	214,268	2,720,281
February	139	211	350	204	146	99,335	226,329	1,491,268
March	146	614	760	510	250	290,324	358,155	3,288,979
April	250	535	785	512	273	221,572	394,178	3,377,223
May	273	604	877	547	330	325,499	445,170	2,982,735
June	330	610	940	582	358	281,478	474,954	4,998,408
July	358	472	830	533	297	143,678	353,682	3,007,819
August	297	449	746	451	295	143,033	238,828	2,270,380
September	295	361	656	393	263	88,967	160,241	1,449,948
October	263	320	583	378	205	67,242	127,109	1,181,914
November	205	262	467	265	202	68,929	118,632	981,697
December	202	131	333	213	120	21,943	60,518	674,205
1938								
January	120	159	279	156	123	35,033	55,554	471,746
February	123	189	312	180	132	52,847	77,098	509,747
March	132	251	383	220	163	55,766	104,690	758,760
April	163	257	420	238	182	77,478	109,629	830,284
May	182	266	448	269	179	81,150	122,633	1,157,916
June	179	197	376	223	153	52,027	94,186	849,544
July	153	182	335	185	150	48,464	83,097	756,257
August	150	224	374	224	150	45,867	77,829	809,155
September	150	187	337	209	128	95,463	131,668	979,957
October	128	216	344	202	142	51,736	110,982	831,335
November	142	169	311	201	110	38,034	69,914	518,954
December	110	136	246	162	84	33,673	53,558	424,708
1939								
January [1]	84	171	255	155	100	50,000	65,000	525,000
February [1]	100	185	285	170	115	55,000	70,000	600,000

[1] Strikes involving fewer than 6 workers or lasting less than 1 day are not included in this table nor in the following tables. Notices or leads regarding strikes are obtained by the Bureau from more than 650 daily papers, labor papers, and trade journals, as well as from all Government labor boards. Letters are written to representatives of parties in the disputes asking for detailed and authentic information. Since answers to some of these letters have not yet been received, the figures given for the late months are not final. This is particularly true with regard to figures for the last 2 months, and these should be considered as preliminary estimates.

The number of strikes and workers involved in February were about the same as in February of last year but there was an increase of about 17 percent in man-days of idleness because of strikes.

The estimates for January and February are based on newspaper reports and other information available as this goes to press. An analysis of strikes in each of these months, based on detailed and verified information, will appear in subsequent issues of the Monthly Labor Review.

ANALYSIS OF STRIKES IN DECEMBER 1938[1]

THE Bureau of Labor Statistics has received detailed information on 136 strikes which began in December 1938, involving more than 33,000 workers. The following analysis is based on these strikes, plus 110 which continued into December from preceding months, making a total of 246 strikes in progress in December, involving more than 53,000 workers and causing about 425,000 man-days of idleness during the month.

Slightly more than half of the strikes beginning in December were in 4 industry groups: Trade 20 (retail 16 and wholesale 4), building and construction 19, transportation and communication 18, and textiles 14. Of the 33,673 workers involved in the strikes beginning in December, nearly 12,000 (36 percent) were in the automobile manufacturing industry. Two short strikes accounted for most of these workers. One was the strike from December 2 to 6 at the Fisher Body plant in Flint, Mich., and the other was from December 1 to 5 at the Chrysler Corporation plant in Newcastle, Ind. The industry groups affected by the greatest number of man-days of idleness were: Lumber and allied products (81,000), due largely to the dispute which began last July at the Bloedel Donovan Lumber Mills in Bellingham, Wash.; textiles (52,000); trade (46,000); automobiles (37,500); and transportation and communication (34,000).

[1] Detailed information on a few strikes has not yet been received. (See footnote to preceding table.) Data on missing strikes will be included in the annual report.

TABLE 1.—*Strikes in December 1938, by Industry*

Industry	Beginning in December		In progress during December		Man-days idle during December
	Number	Workers involved	Number	Workers involved	
All industries	136	33,673	246	53,558	424,708
Iron and steel and their products, not including machinery	3	2,573	10	3,011	17,953
Blast furnaces, steel works, and rolling mills	1	2,150	1	2,150	8,600
Cutlery (not including silver and plated cutlery), and edge tools	1	346	1	346	2,076
Hardware	1	77	1	77	1,386
Steam and hot-water heating apparatus and steam fittings	------	------	1	89	267
Stoves	------	------	1	30	360
Structural and ornamental metalwork	------	------	2	81	1,841
Wire and wire products	------	------	1	105	2,205
Other	------	------	2	133	1,218
Machinery, not including transportation equipment	2	557	7	2,122	18,071
Agricultural implements	1	535	1	535	1,605
Electrical machinery, apparatus, and supplies	1	22	2	68	296
Foundry and machine-shop products	------	------	1	37	592
Other	------	------	3	1,482	15,578
Transportation equipment	4	11,987	5	13,276	37,571
Automobiles, bodies and parts	4	11,987	5	13,276	37,571
Nonferrous metals and their products	4	110	5	530	3,770
Aluminum manufactures	1	34	1	34	68
Brass, bronze, and copper products	1	26	1	26	312
Lighting equipment	1	35	1	35	420
Silverware and plated ware	1	15	1	15	30
Other	------	------	1	420	2,940
Lumber and allied products	5	297	12	4,107	80,842
Furniture	1	36	6	1,790	35,257
Sawmills and logging camps	2	91	3	2,091	42,919
Other	2	170	3	226	2,666
Stone, clay, and glass products	1	313	3	478	7,403
Brick, tile, and terra cotta	1	313	3	478	7,403
Textiles and their products	14	1,058	31	4,002	51,958
Fabrics:					
Carpets and rugs	1	311	1	311	933
Cotton goods	1	12	2	512	10,512
Cotton small wares	------	------	1	9	189
Dyeing and finishing textiles	1	26	2	45	841
Woolen and worsted goods	1	60	1	60	120
Other	1	146	1	146	584
Wearing apparel:					
Clothing, men's	1	15	2	59	1,264
Clothing, women's	6	356	15	726	9,341
Hats, caps, and millinery	1	102	2	493	4,658
Shirts and collars	------	------	2	1,011	10,886
Knit goods	1	30	1	30	30
Other	------	------	1	600	12,600
Leather and its manufactures	1	301	2	343	7,203
Boots and shoes	1	301	2	343	7,203
Food and kindred products	9	1,769	15	2,729	20,930
Baking	2	122	3	135	587
Canning and preserving	------	------	1	16	416
Confectionery	2	72	2	72	801
Slaughtering and meat packing	5	1,575	7	2,393	16,563
Other	------	------	2	113	2,563
Tobacco manufactures	------	------	1	13	273
Cigars	------	------	1	13	273
Paper and printing	4	500	7	1,024	21,723
Boxes, paper	1	17	2	32	332
Printing and publishing: Newspapers and periodicals	2	423	4	932	20,371
Other	1	60	1	60	1,020
Chemicals and allied products	3	910	5	992	6,721
Petroleum refining	1	800	1	800	4,800
Other	2	110	4	192	1,921
Rubber products	------	------	2	320	5,792
Other rubber goods	------	------	2	320	5,792

TABLE 1.—*Strikes in December 1938, by Industry*—Continued

Industry	Beginning in December		In progress during December		Man-days idle during December
	Number	Workers involved	Number	Workers involved	
Miscellaneous manufacturing	2	31	7	230	1,577
Other	2	31	7	230	1,577
Extraction of minerals	3	391	6	1,459	10,958
Coal mining, anthracite	1	30	2	845	1,935
Coal mining, bituminous	2	361	2	361	4,562
Metalliferous mining			1	40	840
Other			1	213	3,621
Transportation and communication	18	2,958	23	4,810	34,263
Water transportation	7	477	7	477	3,152
Motortruck transportation	6	2,256	11	4,108	28,312
Motorbus transportation	1	43	1	43	172
Taxicabs and miscellaneous	3	167	3	167	2,357
Radio broadcasting and transmitting	1	15	1	15	270
Trade	20	3,967	40	6,437	46,034
Wholesale	4	1,923	9	2,789	17,732
Retail	16	2,044	31	3,648	28,302
Domestic and personal service	8	122	15	363	4,019
Hotels, restaurants, and boarding houses	5	84	6	97	1,150
Laundries	1	12	5	172	1,047
Dyeing, cleaning, and pressing	1	19	3	87	1,801
Elevator and maintenance workers (when not attached to specific industry)	1	7	1	7	21
Professional service			2	124	3,119
Recreation and amusement			2	124	3,119
Building and construction	19	1,255	26	1,447	9,891
Buildings, exclusive of P. W. A.	8	627	11	669	1,724
All other construction (bridges, docks, etc., and P. W. A. buildings)	11	628	15	778	8,167
Agriculture and fishing	2	282	5	904	7,510
Agriculture	1	27	3	499	3,850
Fishing	1	255	2	405	3,660
W. P. A., relief, and resettlement projects	9	3,963	10	4,023	15,327
Other nonmanufacturing industries	5	329	7	814	11,800

New York with 31 strikes, Pennsylvania with 20, and Illinois with 11, had more new strikes in December than any other States. There were 8 each in California and Ohio and 7 each in Indiana and Iowa. There were more workers involved in new strikes in Michigan (8,271) than in any other State, due principally to the Fisher Body strike at Flint. Next in order were New York (7,482,) Indiana (4,472), and Ohio (3,096). The most man-days of idleness because of strikes were in New York (84,000), Washington (42,500), and Pennsylvania (36,000). (See table 2.)

An average of 248 workers were involved in the 136 strikes beginning in December. About 68 percent of the strikes involved fewer than 100 workers each, 25 percent of them involved from 100 to 1,000 workers each, and 7 percent involved 1,000 or more workers each. Only one strike in the latter group—the Fisher Body dispute at Flint, Mich.—involved as many as 5,000 workers. (See table 3.)

TABLE 2.—*Strikes in December 1938, by State*

State	Beginning in December		In progress during December		Man-days idle during December
	Number	Workers involved	Number	Workers involved	
All States	136	33,673	246	53,558	424,708
Alabama	1	34	5	894	19,883
Arkansas	1	57	1	57	171
California	8	464	18	1,326	21,062
Colorado			1	75	750
Connecticut	1	26	2	417	3,570
District of Columbia	1	27	2	37	496
Florida			2	472	3,364
Georgia	1	56	1	56	896
Illinois	11	1,349	14	2,067	23,907
Indiana	7	4,472	10	5,171	27,503
Iowa	7	284	8	659	9,751
Kentucky	1	55	2	178	3,308
Louisiana	1	110	2	182	1,160
Maryland	1	255	2	301	786
Massachusetts	5	1,062	6	1,071	9,952
Michigan	6	8,271	7	9,560	31,904
Minnesota	1	535	2	591	3,061
Missouri	2	381	4	518	5,748
Nebraska	1	35	2	81	1,686
New Jersey	5	468	14	1,316	12,445
New York	31	7,482	69	11,359	83,760
Ohio	8	3,096	14	3,430	15,812
Oklahoma	1	800	1	800	4,800
Oregon			1	1,509	30,021
Pennsylvania	20	2,696	32	5,053	36,482
Rhode Island	4	533	5	568	943
South Carolina	1	12	1	12	12
Tennessee			1	150	3,900
Texas	1	8	3	63	1,317
Virginia	2	83	2	83	1,471
Washington	4	260	5	2,260	42,520
West Virginia			1	13	52
Wisconsin	2	753	3	1,403	2,893
Interstate	1	9	3	1,826	19,322

TABLE 3.—*Strikes Beginning in December 1938, Classified by Number of Workers Involved*

Industry group	Total	Number of strikes in which the number of workers involved was—					
		6 and under 20	20 and under 100	100 and under 500	500 and under 1,000	1,000 and under 5,000	5,000 and under 10,000
All industries	136	37	56	28	6	8	1
Manufacturing							
Iron and steel and their products, not including machinery	3		1	1		1	
Machinery, not including transportation equipment	2		1		1		
Transportation equipment	4				1	2	1
Nonferrous metals and their products	4	1	3				
Lumber and allied products	5	1	3	1			
Stone, clay, and glass products	1			1			
Textiles and their products	14	4	5	5			
Leather and its manufactures	1			1			
Food and kindred products	9	1	5	2		1	
Paper and printing	4	1	2	1			
Chemicals and allied products	3	1	1		1		
Miscellaneous manufacturing	2	2					
Nonmanufacturing							
Extraction of minerals	3		2	1			
Transportation and communication	18	4	11	2		1	
Trade	20	4	11	2	2	1	
Domestic and personal service	8	7	1				
Building and construction	19	9	6	3	1		
Agriculture and fishing	2		1	1			
W. P. A., relief, and resettlement projects	9	1	1	5		2	
Other nonmanufacturing industries	5	1	2	2			

Recognition, closed shop, discrimination, or other union-organization matters were the major issues in about half of the strikes beginning in December. These strikes included approximately one-third of the total workers involved. Wages and hours were the major issues in about one-fourth of the strikes, involving a similar proportion of the total workers. In the remaining fourth of the strikes, including 40 percent of the workers involved, the major causes were rivalry between unions, questions of jurisdiction, sympathy strikes, and various specific grievances over such questions as seniority, methods of wage payment, delayed pay, and lay-offs (on W. P. A. projects). The large proportion of workers in this group is accounted for to a large extent by the strike referred to before in the automobile industry at Flint, Mich., where the workers sought a change from piece rates to day rates in one department.

TABLE 4.—*Major Issues Involved in Strikes Beginning in December 1938*

Major issues	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues	136	100.0	33,673	100.0
Wages and hours	33	24.3	8,893	26.4
Wage increase	19	14.0	4,090	12.1
Wage decrease	8	5.9	2,557	7.6
Wage increase, hour decrease	5	3.7	2,216	6.6
Wage decrease, hour increase	1	.7	30	.1
Union organization	69	50.7	11,239	33.4
Recognition	15	11.0	1,695	5.0
Recognition and wages	10	7.4	829	2.5
Recognition and hours	1	.7	7	(1)
Recognition, wages and hours	16	11.8	2,071	6.2
Closed shop	20	14.6	2,263	6.7
Discrimination	5	3.7	797	2.4
Other	2	1.5	3,577	10.6
Miscellaneous	34	25.0	13,541	40.2
Sympathy	4	2.9	82	.2
Rival unions or factions	6	4.4	1,304	3.9
Jurisdiction	2	1.5	60	.2
Other	22	16.2	12,095	35.9

[1] Less than 1/10 of 1 percent.

Of the 246 strikes in progress during December, 162 were terminated during the month. The average duration of these strikes was 24½ calendar days. About 43 percent of them were terminated in less than a week after they began, 37 percent lasted from a week to a month and 20 percent lasted for a month or more. Eleven strikes in the last group (7 percent of the total) had been in progress for 3 months or more. The largest of these were a strike of auto mechanics at garages in Milwaukee, Wis., which had been in progress since May, and a dispute at the Phillips-Jones Corporation (shirt factory) at Pottsville, Pa., which began in August.

TABLE 5.—*Duration of Strikes Ending in December 1938*

Industry group	Total	Number of strikes with duration of—					
		Less than 1 week	1 week and less than ½ month	½ and less than 1 month	1 and less than 2 months	2 and less than 3 months	3 months or more
All industries	162	70	26	33	13	9	11
Manufacturing							
Iron and steel and their products, not including machinery	6	1	1	1	1		2
Machinery, not including transportation equipment	5	1		1	2		1
Transportation equipment	5	4		1			
Nonferrous metals and their products	5	2		3			
Lumber and allied products	5		2	1		1	1
Stone, clay, and glass products	2			1			1
Textiles and their products	11	4		2	2	1	2
Food and kindred products	8	5	3				
Paper and printing	4	2		1	1		
Chemicals and allied products	3	1		2			
Rubber products	1						1
Miscellaneous manufacturing	5	1	1	1	1	1	
Nonmanufacturing							
Extraction of minerals	3	1			1	1	
Transportation and communication	20	11	3	4	1		1
Trade	31	14	3	5	3	4	2
Domestic and personal service	12	6	3	1	1	1	
Professional service	1			1			
Building and construction	18	7	5	6			
Agriculture and fishing	3	1	1	1			
W. P. A., relief, and resettlement projects	9	6	3				
Other nonmanufacturing industries	5	3	1	1			

In about 43 percent of the strikes ending in December, government officials or boards assisted in negotiating settlements. Approximately 70 percent of the total workers involved were in these strikes. In 38 percent of the strikes, including 19 percent of the total workers involved, settlements were negotiated directly between employers and representatives of organized workers. About 18 percent of the strikes, including 9 percent of the total workers involved, were terminated without formal settlements. In practically all of these cases the strikers returned to work without settlements of the disputed issues, or they lost their jobs entirely when employers replaced them with new workers, moved, or went out of business.

TABLE 6.—*Methods of Negotiating Settlements of Strikes Ending in December 1938*

Negotiations toward settlements carried on by—	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	162	100.0	38,547	100.0
Employers and workers directly	3	1.9	599	1.6
Employers and representatives of organized workers directly	61	37.7	7,254	18.8
Government officials or boards	69	42.5	27,161	70.4
Terminated without formal settlement	29	17.9	3,533	9.2

The results of strikes ending in December 1938 are indicated in tables 7 and 8, the latter showing results in relation to the major issues involved. In 40 percent of the strikes, as shown in table 7, the workers obtained substantially all that they expected. This group of strikes included about 29 percent of the total workers involved. About 26 percent of the strikes, including 51 percent of the workers, resulted in partial gains or compromises, while 26 percent of the strikes, including 13.5 percent of the workers involved, resulted in little or no gains to the workers.

In terms of number of strikes, the data in table 8 indicate that the strikes over union-organization matters were a little more successful from the workers' point of view than the wage-and-hour disputes. Of the strikes over union-organization matters, the workers substantially won 44 percent, compromised 28 percent, and lost 28 percent. Of the wage-and-hour strikes, they won 36 percent, compromised the same proportion, and lost 28 percent.

About 76 percent of the workers in the wage-and-hour strikes obtained compromise settlements, while 10 percent won their demands and 14 percent gained little or nothing. In the strikes over union-organization matters, 37.5 percent of the workers obtained compromise settlements, while 50 percent won their demands and 12.5 percent gained little or nothing.

TABLE 7.—*Results of Strikes Ending in December 1938*

Results	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	162	100.0	38,547	100.0
Substantial gains to workers	64	39.6	11,165	29.0
Partial gains or compromises	42	25.9	19,683	51.1
Little or no gains to workers	42	25.9	5,222	13.5
Jurisdiction, rival union, or faction settlements	8	4.9	2,205	5.7
Indeterminate	5	3.1	172	.4
Not reported	1	.6	100	.3

TABLE 8.—*Results of Strikes Ending in December 1938 in Relation to Major Issues Involved*

Major issues	Total	Strikes resulting in—					
		Substantial gains to workers	Partial gains or compromises	Little or no gains to workers	Jurisdiction, rival union, or faction settlements	Indeterminate	Not reported
	Number of strikes						
All issues	162	64	42	42	8	5	1
Wages and hours	39	14	14	11			
Wage increase	23	10	7	6			
Wage decrease	13	3	6	4			
Wage increase, hour decrease	2	1	1				
Wage decrease, hour increase	1			1			
Union organization	90	40	25	25			
Recognition	16	7	3	6			
Recognition and wages	19	9	7	3			
Recognition and hours	1	1					
Recognition, wages, and hours	23	12	7	4			
Closed shop	23	7	5	11			
Discrimination	5	2	2	1			
Other	3	2	1				
Miscellaneous	33	10	3	6	8	5	1
Sympathy	4					4	
Rival unions or factions	6				6		
Jurisdiction	2				2		
Other	21	10	3	6		1	1
	Number of workers involved						
All issues	38,547	11,165	19,683	5,222	2,205	172	100
Wages and hours	11,305	1,098	8,578	1,629			
Wage increase	4,012	306	2,453	1,253			
Wage decrease	5,103	427	4,330	346			
Wage increase, hour decrease	2,160	365	1,795				
Wage decrease, hour increase	30			30			
Union organization	12,367	6,207	4,632	1,528			
Recognition	1,009	695	132	182			
Recognition and wages	2,659	442	1,753	464			
Recognition and hours	7	7					
Recognition, wages, and hours	2,919	602	1,903	414			
Closed shop	1,946	784	703	459			
Discrimination	228	100	119	9			
Other	3,599	3,577	22				
Miscellaneous	14,875	3,860	6,473	2,065	2,205	172	100
Sympathy	82					82	
Rival unions or factions	1,995				1,995		
Jurisdiction	210				210		
Other	12,588	3,860	6,473	2,065		90	100

ACTIVITIES OF UNITED STATES CONCILIATION SERVICE, FEBRUARY 1939

THE United States Conciliation Service in February 1939 disposed of 281 situations involving 94,478 workers. This agency entered these situations at the request of employees, employers, and other interested parties.

Of the situations handled, 103 were labor disputes of various kinds—strikes, threatened strikes, lock-outs, and controversies. These involved 80,626 workers. The remaining 178 situations, involving 13,852 workers, consisted of services rendered, such as supplying information requested, adjusting complaints, holding conferences regarding labor conditions, etc.

The facilities of the Service were used in 24 major industrial fields, such as the building trades, manufacture of automobiles, food, iron and steel, textiles, etc. (table 1).

The employees and employers utilizing the good offices of the Service were in 41 States and the District of Columbia (table 2).

TABLE 1.—*Situations Disposed of by United States Conciliation Service, February 1939, by Industries*

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries	103	80,626	178	13,852	281	94,478
Agriculture			1	1	1	1
Automobile	6	28,291	3	302	9	28,593
Building trades	7	5,201	13	6,012	20	11,213
Chemicals	2	1,086	2	2	4	1,088
Communications			1	1	1	1
Domestic and personal	6	982	3	3	9	985
Food	11	3,824	6	1,005	17	4,829
Iron and steel	7	5,709	8	146	15	5,855
Leather	1	5	3	4	4	9
Lumber	6	540	6	6	12	546
Machinery	8	2,737	7	12	15	2,749
Maritime	3	1,366	5	134	8	1,500
Mining			6	9	6	9
Motion picture			1	5	1	5
Nonferrous metals	3	11,395	2	66	5	11,461
Paper and printing	10	2,616	10	1,335	20	3,951
Petroleum			7	566	7	566
Professional	2	6,001	2	2	4	6,003
Rubber			1	1	1	1
Stone, clay, and glass	2	151	5	5	7	156
Textile:						
Cotton	2	1,000	5	39	7	1,039
Other	13	7,091	25	3,589	38	10,680
Trade	5	98	5	10	10	108
Transportation	8	1,933	11	91	19	2,024
Utilities			2	2	2	2
Unclassified	1	600	38	504	39	1,104

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TABLE 2.—*Situations Disposed of by United States Conciliation Service, February 1939, by State*

State	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States	103	80,626	178	13,852	281	94,478
Alabama	3	264	2	26	5	290
Arkansas			1	3	1	3
California	3	521	14	319	17	840
Colorado			1	1	1	1
Connecticut			3	13	3	13
District of Columbia	2	19	18	63	20	82
Delaware			1	35	1	35
Florida	1	6	3	3	4	9
Georgia	1	825	3	10	4	835
Idaho	1	6			1	6
Illinois	3	632	11	124	14	756
Indiana	4	131	3	3	7	134
Iowa	2	28	4	7	6	35
Kentucky	1	500	2	3	3	503
Louisiana	1	130	2	131	3	261
Maine			1	1	1	1
Maryland			3	919	3	919
Massachusetts	4	2,770	7	1,655	11	4,425
Michigan	4	30,630	5	5	9	30,635
Minnesota	1	62	2	2	3	64
Missouri	6	696	8	520	14	1,216
Montana	1	11,000			1	11,000
Nevada	1	2			1	2
Nebraska	1	1,152			1	1,152
New Hampshire			1	1	1	1
New Jersey	7	2,693	5	5	12	2,698
New Mexico	1	240			1	240
New York	9	8,127	10	1,421	19	9,548
North Carolina	1	600	5	1,203	6	1,803
Ohio	8	1,359	16	34	24	1,393
Oklahoma			3	4	3	4
Oregon			5	104	5	104
Pennsylvania	12	5,353	7	306	19	5,659
Rhode Island	4	3,272	4	485	8	3,757
South Carolina			1	1	1	1
South Dakota			1	1	1	1
Tennessee	5	1,270	3	12	8	1,282
Texas	1	8	5	92	6	100
Virginia	5	459	1	24	6	483
Washington	6	7,511	8	6,306	14	13,817
West Virginia	2	245	7	8	9	253
Wisconsin	2	115	2	2	4	117

EFFECT OF RURAL ELECTRIFICATION UPON FARM LIFE

BETWEEN the creation in May 1935, of the Rural Electrification Administration, and June 30, 1938, that agency made loans to 370 organizations to enable them to extend electric power to farm areas. For this purpose more than 87½ millions of dollars were granted in loans, facilitating the construction of nearly 80,000 miles of power line to serve some 270,000 families.

From the beginning, cooperative associations have been the largest borrowers. In the approximate 3-year period covered by the report of the Rural Electrification Administration [1] cooperative associations formed 86.5 percent of the borrowers, received 88.6 percent of the loans made, and constructed 88.4 percent of the high lines erected. The loans made to cooperative and public projects accounted for about 95 percent of all loans made.

The report points out in this connection that the Administration has been "glad to encourage the cooperative form for two reasons. Rural electrification on an area basis can be extended much more quickly as a nonprofit undertaking than under auspices where a quick and substantial return on the investment is the prime consideration. Furthermore, the cooperative form tends to increase the user's awareness of his part in the undertaking. He becomes not merely a customer but a member."

Most of the loans made have been for the purpose of building rural lines, but 18 associations unable to obtain power at all or at what the Administration considered reasonable rates were given assistance in the building of their own generators. One of these—in Wyoming—was in a section 55 miles from the nearest railroad and so isolated that there was no other feasible source of power.

Loans to cover the cost of farmstead wiring and plumbing have also been made.

The program has had a great influence on the policies of private utility companies, arousing their interest in the business possibilities inherent in the electrification of rural areas, causing the lowering of rates, and the modification of the guaranties and charges previously

[1] U. S. Rural Electrification Administration. Report, 1938. Washington, 1939.

demanded from farmers. In one case a power company reduced its general rate, resulting in an estimated saving of $838,000 annually to consumers in the State.

TABLE 1.—*REA Loans for Electrification, up to June 30, 1938, by Type of Borrower*

Type of organization	Organizations receiving loans		Loans granted		Miles of line		Customers	
	Number	Percent	Amount	Percent	Number	Percent	Number	Percent
Cooperative associations	320	86.5	$77,687,858	88.6	70,643.4	88.4	247,996	89.0
Private companies	20	5.4	2,083,767	2.4	2,108.8	2.6	9,054	3.3
Other [1]	30	8.1	7,947,586	9.1	7,134.9	8.9	21,680	7.8
Total	370	100.0	87,719,211	100.0	79,887.1	100.0	278,730	100.0

[1] Mainly municipalities and public power districts.

Except for a few flagrant instances, these utilities are reported to have generally abandoned their earlier obstructive and "spite-line" tactics. "Nevertheless, selective or 'cream-skimming' practices are still prevalent in many areas, a factor that may seriously handicap some existing projects and the electrification of many farms in the future."

Effect Upon Farm Living Standards

The installation of electric power has revolutionized life on farms in the areas supplied. Celebrations in honor of the energizing of the power lines have dramatized this fact by ceremonies including the burial of a kerosene lamp—as a symbol of the drudgery being abolished by the installation of electricity.

Water-pumping plants making possible a modern bathroom and plenty of running water for the stock, kitchen, and laundry; and electric lights for house, barns, and farmyard, electric refrigeration for both food and farm products, labor-saving electrical appliances for both home and farm—all of these contribute immeasurably to the enjoyment and comfort of life on the farm.

Vivid and touching are some of the statements of the farm families testifying to this fact. The housewife who formerly did her ironing over a hot range or unsatisfactory gasoline or kerosene stove can now, on a hot day, move her electric iron onto a shady porch and do her work in comfort. One farmer wrote: "Thanks for the only good lights we ever had."

In one section of South Carolina, where the farms are small and relatively nonproductive, it has been impossible thus far to extend the power system on a self-sustaining basis. The community church, however, is served by an REA line, and there the housewives gather every Tuesday for an ironing bee.

The report points out that "while their wives are finding electricity the ideal household helper, farmers on REA-financed lines are learning that it is the cheapest and most tireless hired man they ever had." Fruit farmers in Virginia and California are using power-driven sprayers, washers, and graders. In the latter State electric dryer fans are being used to hasten the drying or evaporation of fruit. In California also an electric X-ray machine is being used which detects immature or frozen oranges or those low in sugar content; with this machine four persons can inspect "without guesswork" at least one and one-half carloads of fruit a day. In sheep-raising States such as Nevada and Oregon the farmers are using electric shearers. Maryland farmers are experimenting with fans to speed the tobacco drying and curing process. Dairying is being made possible in new areas and is being made more efficient in older dairy districts through the use of electrical milkers and the quick cooling of milk that is possible with electricity. Production of eggs on poultry farms is being speeded by scientific lighting systems. Electrically warmed hotbeds make possible better production of foodstuffs for out-of-season markets.

In the Cotton Belt the farmers are using electricity to achieve a much needed diversification of cash crops, "crops which in turn are helping to pay the electric bill for the whole farm." Farmers in the Spring Wheat Belt are using electricity as a means of extending their operations into the dairying field—"a type of farming which is peculiarly in need of and able to use electric power."

The irrigation made possible through the water pumped by electric systems is extending farm operations in arid regions and preventing crop losses elsewhere in dry seasons. Such irrigation is reported as an important gain in such areas as Arizona, New Mexico, Oregon, and the Panhandle of Texas.

These are only a few of the wide variety of the labor-saving and income-producing operations made possible through the program.

Among the incidental benefits of the program are the lessened fire hazard resulting from the elimination of the kerosene lamp and lantern; the lowered insurance premiums because of this lessened risk and the availability of water; the market information so easily obtainable over the radio; the improvement in rural sanitation and consequently in rural health; the greater attractiveness of farm life to the young people (resulting in greater stability of population) because of the new conveniences; increased farm values; better lighting and equipment of rural schools, churches, and halls; and, altogether, an increased sense of community of interest within the area served.

Effect Upon Private Business

Incidentally the program has had a stimulating effect on private business in many lines. From the forests and pole-treating plants in such widely separated States as Florida, Minnesota, Idaho, Georgia, and Tennessee have come the poles used to carry the wires. The wires, hardware, plastics, etc., used in erection of the line have meant additional business for the copper mines of Arizona, Michigan, Montana, and Tennessee, the iron mines of Minnesota, the steel plants of Pennsylvania and West Virginia, the wire plants of New Jersey, and the aluminum smelters of Tennessee. Manufacturers of electric meters, water pumps, electric-light bulbs, plumbing, lighting fixtures, bathroom equipment, washing machines, refrigerators, radios, household appliances (such as toasters, irons, vacuum cleaners, fans, ranges, etc.), innumerable articles of equipment for the farm, office furniture and equipment for the new cooperative associations, and the automobiles, maintenance trucks, tools, gasoline and oil used by them—all have benefited by increased business arising from the program, and will continue to do so.

An Ohio company manufacturing electrical pumps found itself so prosperous as a result of this new demand that it paid all of its 500 employees a bonus from the "plus" business.

The retail dealers in appliances and the electrical contractors have likewise enjoyed boom conditions. It is estimated that for every dollar invested in rural power lines the farmer spends an equal amount for wiring, plumbing, and appliances. In one county in Wisconsin, it is reported, 600 farms "had been wired at an average cost of $200 before the project had completed 8 months of operation. The wiring was paid for almost entirely in cash. Every electrician and electrical dealer in the area was busy for months." Also illustrative is the case of 8 dealers in an Oklahoma town who added new lines of merchandise and employed new salesmen to handle their expanding rural business.

The largest check ever written on the local bank in a Minnesota town was one for $53,700, drawn by the Fillmore County Cooperative Electrical Association to the contractor who built the lines; and the largest deposit, $90,000, was also made by this same association.

Other local businesses are also benefiting by the use of power in their own operations. Electric lights are of course a definite advantage in the display of the merchants' goods. Creameries, filling stations, garages, and machine shops also are electrifying their plants and machinery. A Missouri fish hatchery is using electric lights under water to attract insects upon which the fish feed. The electrification program in Arkansas is reported to have proved a stimulus to "many small plants in northern Arkansas where native raw materials are being turned into a great variety of manufactured products."

Geographic Distribution of Rural Electrification

The following table shows, by States, the number of organizations to which loans had been granted, the amount of loan, miles of line, and customers to be served, as of June 30, 1938.

TABLE 2.—*Development of Rural Electrification, at End of June 1938, by State*

State	Organization			Miles of line			Loans			Customers		
	Cooperative	Private	Other	Cooperative	Private	Other	Cooperative	Private	Other	Cooperative	Private	Other
Alabama	5		1	1,643		66	$1,499,350		$65,000	6,159		270
Arizona	2			149			178,000			583		
Arkansas	8	1		1,357	520		1,486,000	$336,000		5,381	1,736	
California	2		1	574		600	810,500		700,000	1,452		1,800
Colorado	4			716			750,000			2,304		
Connecticut	1			92			92,000			230		
Delaware	1			385			427,037			1,200		
Florida	3	2		386	244		471,000	213,000		1,847	696	
Georgia	24			3,311			3,542,615			15,140		
Idaho	2			888			970,750			2,994		
Illinois	8	1		2,556	98		2,971,130	81,500		8,421	300	
Indiana	20			5,773			6,009,695			20,076		
Iowa	26	1	1	4,824	3	(1)	5,626,712	5,617	95,000	14,651	50	(1)
Kansas	7	1		1,400	35		1,511,651	35,000		3,954	100	
Kentucky	12	1		2,247	39		2,364,600	71,700		9,381	291	
Louisiana	3			961			927,000			3,639		
Maine		1			69			91,000			386	
Maryland	1			165			225,000			600		
Michigan	10			3,918			4,655,000			13,446		
Minnesota	26	1		5,492	100		5,955,236	110,000		16,388	300	
Mississippi	9		1	1,525		60	1,585,700		71,000	5,656		270
Missouri	12	1		2,388		127	2,520,000	112,000		7,983	615	
Montana	7	1		675	133		727,600	152,700		2,381	403	
Nebraska			15			4,535			5,168,200			12,454
Nevada			1			84			168,000			102
New Jersey	2			254			257,500			892		
New Mexico	2			283			360,000			597		
New York		1			210			250,000			1,000	
North Carolina	7	3		1,209	247		1,410,100	224,250		5,979	1,371	
North Dakota	3			583			691,972			2,231		
Ohio	22			6,788			7,292,525			24,261		
Oklahoma	8	1		2,396	99		2,288,000	85,000		6,298	365	
Oregon	3	1		301	109		356,000	100,000		1,318	572	
Pennsylvania	7			2,269			2,509,500			8,108		
South Carolina	1		2	148		1,044	134,000		1,023,328	558		4,287
South Dakota	3			501			537,000			1,449		
Tennessee	6		4	1,552		171	1,786,400		182,058	7,524		899
Texas	24		1	4,302		249	4,423,985		256,000	15,609		845
Utah		1			14			5,000			38	
Virginia	7	2		1,870	190		2,045,800	211,000		7,372	831	
Washington	5		2	830		147	969,200		159,000	2,518		582
West Virginia	2			359			533,000			1,316		
Wisconsin	19		1	5,015		53	6,085,800		60,000	16,014		171
Wyoming	6			561			700,500			2,086		
Total	320	20	30	70,643	2,109	7,135	77,687,858	2,083,767	7,947,586	247,996	9,054	21,680

[1] Loan made for construction of generating plant.

At the end of the fiscal year no cooperative electric associations had been formed in New York and little or nothing had been done in the New England States. In New York the private utilities, alive to the possibilities of the new program, had provided farm electrical facili-

ties without waiting for the formation of cooperatives. New Hampshire farms had already been fairly well electrified before the inauguration of the REA program. In Massachusetts and Connecticut, State laws and regulations "have effectively blocked efforts of farmers to construct and operate cooperative power lines. Unserved Maine and Vermont rural areas are so cut up, either by nonagricultural land or by existing power lines, as largely to preclude the establishment of self-supporting independent power systems."

In some cases, the report states, the formation of cooperatives has been blocked or seriously hampered by the building of so-called "spite lines" into the most thickly settled parts of the territory planned to be served. In this way the "cream" of the area is skimmed off, leaving an area too sparsely settled to make possible a self-liquidating project. At the end of 1937–38 "approximately 20 percent of the REA-financed projects had experienced utility interference at some time, in some degree."

NUTRITIVE VALUE OF DIETS OF CITY WORKERS

THE evaluation of the adequacy of diets of different population groups, which has been a subject commanding widespread interest for some years, was the subject of a recent extensive investigation [1] based on dietary records, each of which covered 1 week during the period December 1934 to February 1937. It was found that in spite of the country's abundant food supplies, large numbers of Americans are not well fed. This condition is found not only among persons too poor to purchase suitable food but also among many who do not buy foods providing the necessary elements to provide good nutrition.

The families of wage earners and clerical workers participating in the special food study were selected from among those cooperating in the study of income and disbursements made by the Bureau of Labor Statistics in 1934–36. A family, for the purposes of the study, included two or more persons living together and sharing a common table. The study covered wage earners, and clerical workers as well, who did not earn over $2,000 a year or $200 in any month. Families that had received relief or that had not earned more than $500 in the preceding 12 months were not included. This exclusion of persons receiving relief or who had very low incomes raised the group studied to a higher economic level than characterizes city workers as a whole. Most of the records were obtained from white families, but some were obtained from Negro families in Middle Atlantic and southern cities.

Budgetary studies show almost invariably that food expenditures form the largest single item and that the average expenditure for food

[1] U. S. Department of Agriculture. Diets of Families of Employed Wage Earners and Clerical Workers in Cities, by Hazel K. Stiebeling and Esther F. Phipard. Washington, 1939.

tends to increase as family earnings increase. However, there is a wide variation in the amounts spent for food by individual families having the same income, even when the influence of family size is ruled out. The expenditure for food, rather than the family income, was used, therefore, as the major basis for classification in the present study. Also, as a base, a food-expenditure unit is considered more satisfactory than a per capita figure, since families must spend more to feed adults than young children and more to feed adolescent children than moderately active adults. A scale of relative figures was worked out in which the expenditures for food of a moderately active man were taken as a unit, and the expenditures for persons of different age, sex, and activity were expressed as fractions of this value.

The records secured covered the kind, quantity, and cost of the food purchased by a family during a week, the number of persons, the number of meals which each received from the family food supply, and data on the weight, height, and activity of each family member. The consumption of food during the week was determined by taking an inventory by weight of the food on hand at the beginning and end of the week and a day-by-day record of the food purchased or obtained from gardens, cellars, or other sources of supply. An attempt was made to record the amount of inedible waste or edible food thrown away, but this was found to be impracticable; the data presented on quantities of food therefore represent what was brought into the kitchen rather than the physiological intake. In computing the nutritive value, allowance was made for inedible refuse, according to accepted standards, but no deductions were made for waste of edible food.

Expenditures for Food

About 4,000 records were analyzed, classified by region, race of family, and season of the year. In addition they were grouped in 10 categories according to level of expenditure for food on both a per-person and a food-expenditure-unit basis. Between 25 and 40 percent of their income was spent for food by the majority of the families. Increase in income was accompanied by an increase in the money expended for food, but the number of dollars spent for food usually did not increase proportionately with the increase in income, and the percentage spent for food therefore tended to fall somewhat. Families having average per capita incomes of $5 to $6 per week had average weekly food expenditures of $1.25 to $1.87 per person, while with per capita incomes of $8 to $10 the average expenditure was $2.50 to $3.12 per person. An analysis of the food expenditures by regions shows that of the white families included in the study, those living in the East, North, and far West spent more for food than those in southern cities. In the New England, Middle Atlantic, East North Central,

West North Central, and Pacific regions, from 16 to 21 percent of the families were spending $3.75 or more for food per person per week, as compared with 11 to 12 percent in South Atlantic, West South Central, and Mountain cities, and only 6 percent in the East South Central cities. Less than 3 percent of the Negro families in southern cities were spending as much as $3.75 a person in a week, whereas almost 25 percent of such families in Middle Atlantic cities were spending this much or more. From 11 to 17 percent of the families in the North Atlantic, North Central, and Mountain regions had a per capita weekly expenditure of $1.87 or less for food; 20 to 39 percent of the white families in the South; and 9 percent of Pacific coast families. Among Negro families in the Middle Atlantic region 29 percent were spending $1.87 or less per person per week for food, while 68 percent in southern cities were in this group.

Purchases of nearly all kinds of food increased with increased expenditures, but the increase was most pronounced in the case of milk, butter, cream, eggs, meat, fruits, and succulent vegetables; and least for grain products, sugar, and fats other than butter and cream. In every region families with small food expenditures used only a small amount of milk. Little seasonal difference in the purchase of different foods was found in three of the regions for which a comparison was made, except that the figures for meat, poultry, and fish were slightly higher in winter and those for fruit and vegetables in summer.

Nutritive Value of Diets

In determining the nutritive value of the food the average content of diets was computed in calories, protein, calcium, phosphorus, iron, and the different vitamins. When the per capita weekly food expenditures were from $1.25 to $1.87, the diets were rather restricted in many families, while in the higher expenditure groups the diets had a higher average nutritive value. It was found that the quantity of protein in the diets generally reached the required standard, so that there was little likelihood of a deficiency in this respect. Less than half of the families purchased food giving the average daily suggested allowance of calcium, while about half of the families received a plentiful amount of iron and the diets of less than 5 percent were plainly short in this essential mineral. Only about one-third of the families obtained diets high enough in vitamin A value to insure good visual adaptation in semidarkness, and the diets of nearly four families out of five failed to supply the liberal allowance of this vitamin which is now recommended. The diets of about half of the families failed to furnish the daily allowance of vitamin B (thiamin) and of vitamin C (ascorbic acid) recommended by nutritionists. The latter

vitamin cannot be stored in the body and must be supplied daily. The pellagra preventive factor appeared to be ample except in cities in the Southeast where the deficiency among low income groups was serious.

Classification of the diets of families in different regions, as good, fair, or poor, according to their nutritive content, showed that all grades of diet were found in most expenditure groups but the percentage that fell in the higher grades increased with rising expenditures for food. Measured by present-day standards, the diets of fully half of these families (40 to 60 percent) were found to be in need of improvement. Over 60 percent of the diets of Negro families in the South were in this class. Diets of white families were found to be poor when the weekly food expenditure was less than $1.60 per person in North Atlantic and Pacific Coast cities; $1.55 in East North Central cities; or $1 in East South Central cities; and for Negro families in the South when they spent less than 95 cents per person. The quality of the food supply selected by the families was not, however, solely a question of the money expended, as at every expenditure level above a certain minimum some families obtained good diets while others procured diets only fair or poor from the standpoint of nutritive value.

Adequacy of Diets

The amount for which an adequate diet could be purchased at the retail price levels of 1935, taking into account the dietary habits of the different sections, was $2.75 per person a week for white families in North Atlantic cities; $2.70 in East North Central; $2.15 in East South Central; and $2.60 in Pacific coast cities. For Negro families in the South $1.90 was necessary. However, good diets were selected by only from 2 to 4 white families in every 10 expending these amounts or more, and a little over 3 families in every 10 of the Negro families in the South. As compared with a standard plan for economical adequate diets, the diets as a whole for all regions and all levels of food expenditure tended to be relatively high in fats, sugar, meat, poultry, and fish, and low in milk products, fruits, and vegetables other than potatoes. Average diets in the study included fewer eggs, from one-half to two-thirds as much milk, and less than two-thirds as much of vegetables and fruits as the diets which were classed as good, but even the good diets did not provide the quantities of these protective foods believed by many authorities to be optimal. "Modification of present-day diets," it is stated, "so as to improve their nutritive qualities without adding much to the outlay for food, is chiefly a matter of putting considerably more emphasis upon leafy and green-colored vegetables and upon milk. Many of the inexpensive varieties and forms of these foods yield excellent returns in nutritive value for their cost."

Minimum Wages and Maximum Hours

GUARANTEED ANNUAL WAGE ENCOURAGED BY FAIR LABOR STANDARDS ACT

INTERPRETATION of the provisions of the Fair Labor Standards Act, 1938, governing the regulation of working time of workers who are employed on an annual basis by the terms of a collective-bargaining agreement between a certified union and an employer, has opened the way for growth of the policy of guaranteed annual wages in industry. According to Interpretative Bulletin No. 8 of the Wage and Hour Division of the United States Department of Labor,[1] the Administrator of the law interprets sections 7(b) (1) and 7(b) (2) [2] of this act to permit employees fulfilling the requirements of those sections to work up to 12 hours a day and 56 hours a week without payment of overtime, provided they do not work more than 1,000 hours in 26 consecutive weeks or over 2,000 hours within a 12-month period. Employment on an annual basis means that the employee is guaranteed a fixed annual wage or continuous employment for a year. In common with other interpretations of the Administrator, this one is subject to change upon direction by the authoritative rulings of the courts or if the Administrator himself subsequently decides that the prior interpretation is incorrect.

The general requirement under the wage and hour law is that overtime pay at one and one-half the regular hourly rate of the employee must be paid to workers for all hours in excess of 44 per week during the first year of operation under the law, for hours in excess of 42 per week beginning on October 24, 1939, and for hours in excess of 40 per week beginning with October 24, 1940, and thereafter. The law also requires that minimum wages must be paid at the rate of 25 cents an hour, increasing at the end of 7 years to 40 cents an hour or such sum not less than 30 cents an hour as the Administrator may prescribe.[3]

The mere existence of a collective labor agreement does not exempt employers or employees from the wage and hour provisions of the law. Exceptions may be made only if the act provides a specific exemption. If the terms of a collective labor agreement do not meet the require-

[1] Press releases Nos. R. 189 and 190.
[2] For a summary of the law see Monthly Labor Review for July 1938.
[3] See Monthly Labor Review, January 1939.

ments of the law they must yield to the legal standards. This is not interpreted as destroying the collective contract, and neither employer nor employee is relieved of any obligations he or they may have assumed by contract. Moreover, the law does not in any way restrict the processes of collective bargaining to secure higher standards.

Employment of workers in excess of 44 hours per week without extra payment for overtime is permissible under sections 7 (b) (1) and 7 (b) (2) if (1) the employee is covered by a collective-bargaining agreement which meets the requirements of either of these sections; (2) the representatives of employees who made the agreement in accordance with either section are certified as bona fide by the National Labor Relations Board; and (3) certain substantive provisions prescribed in either section 7 (b) (1) or 7 (b) (2) are included in the collective-bargaining agreement.

The Administrator will consider as bona fide only those representatives of employees who have been certified by the National Labor Relations Board in accordance with a procedure announced by the Board. A union, desiring to enter into agreements with employers under either section 7 (b) (1) or 7 (b) (2), need not secure a separate certification with respect to each employer with whom it wishes to contract. One certification is sufficient to satisfy the requirement on all agreements that a particular union may enter.

It appears to the Administrator that, in enacting section 7 (b) (1), Congress intended to meet the exceptional employment situation in mining and lumber camps, where work in excess of 44 hours per week is carried on continuously for many months, followed by protracted periods of inactivity. This section does not guarantee continuous employment or a fixed wage to workers in such employment, but requires that they be paid in accordance with the minimum-wage standards set in the act. Contracts entered may be yearly agreements, but they provide only that no employee shall be worked more than 1,000 hours in 26 consecutive weeks. The limitation is on number of hours worked. Thus an employer who pays his employees for 1,040 hours in a 26-week consecutive period but who gives them a week's vacation with pay and allows them to work only 1,000 hours satisfies the 1,000-hour limitation.

Under section 7 (b) (2) employment is guaranteed on an annual basis. The intent of Congress in making this provision is interpreted by the Administrator to have been to guarantee the employee employment on an annual basis or at a fixed annual wage. In this way the regularization and stabilization of employment and income are encouraged. The limitation of 2,000 hours is upon the number of hours worked and not upon the hours paid for. If an employer pays

his employees for 2,080 hours during the year, giving them 2 weeks' vacation with pay, the actual working year is 2,000 hours and the 2,000-hour limitation is satisfied.

The Administrator states further that if an employer works his employees in excess of the prescribed limits as to hours and months under either of the two sections of the law here dealt with, he must pay them one and one-half their regular hourly rate of pay for all hours worked in excess of 44 hours in any workweek. Even when sections 7 (b) (1) and 7 (b) (2) are properly invoked as the basis for exceptions from the overtime provisions of the act, it is required that an employee hired pursuant to a collective labor agreement which meets the requirements must receive the overtime rate of pay (one and one-half times the regular hourly rate) for time worked in excess of 12 hours in any workday or 56 hours in any workweek. Cases under sections 7 (b) (1) and 7 (b) (2) and seasonal exemptions under section 7 (b) (3) are the only instances where the law fixes a limit to the workday over which overtime payment is required.

APPLICATION OF FEDERAL 8-HOUR LAW

AS EARLY as 1830 the hours of labor of certain employees of the United States Government were limited to 10 a day, and in 1868 a law was enacted limiting the hours of specified groups to 8. It was not until 1892 that an 8-hour law [1] was enacted applying to all laborers and mechanics employed in the construction of public works. That law was amended in 1913 to provide that the service and employment of all laborers and mechanics employed by the United States or the District of Columbia, or by any contractor or subcontractor, upon a public work of the United States, should not exceed 8 hours a day.

Congress in 1912 enlarged the scope of the 8-hour law so that it would apply to Government contracts in general.[2] This legislation, still in effect, limits the hours of employment of certain persons engaged on any work for the Federal Government, and provides penalties in the case of contractors permitting or requiring their employees to work more than 8 hours. In more detail the statute provides that every contract made to which the United States, any territory, or the District of Columbia, is a party, which may require or involve the employment of laborers or mechanics, shall contain a provision that no laborer or mechanic in the employ of the contractor or any subcontractor, shall be required or permitted to work more than 8 hours in any one calendar day upon such work. The law does not apply to contracts for the purchase of supplies by the Government or for such materials or articles as may usually be bought in the open market.

[1] U. S. Code 1934, Title 40, sec. 321.
[2] U. S. Code 1934, Title 40, secs. 324-326.

From an opinion by the Acting Comptroller General of the United States, on October 14, 1938 (Comptroller General Opinion A–97726), it would appear that the enforcement of the statute has not always been strictly observed by the departments of the Government.[3]

The opinion was rendered in connection with an inquiry from the Veterans' Administration. That Governmental agency had entered into many contracts for the furnishing of miscellaneous orthopedic supplies, and other services, without regard to the provisions of the 8-hour law.

The Acting Comptroller General, in his opinion, declared that the act applies to contracts of this type. It was pointed out that the act is mandatory and, within its own limitations, applies to every contract of whatever kind or description to which the Government is a party and which may require or involve the employment of laborers or mechanics to do "any part of the work contemplated by the contract." Furthermore, the Comptroller observed, the act reposes no discretion in the heads of departments or independent agencies, or contracting officers or representatives of the Government, to omit from any contract requirements for compliance with its provisions.

The sole question for determination, it was said, was whether a contract is within the statutory exceptions, and if not, whether it may require or involve the employment of laborers or mechanics. A further question may arise, upon occasion, as to whether certain employees are laborers or mechanics within the meaning of the statute. It was observed, in this connection, that generally the term "laborer" is defined as one who performs manual labor or works at a toilsome occupation requiring physical strength, as distinguished from mental training and equipment, while a "mechanic" is any skilled worker with tools, who has learned a trade. Hence the statute is applicable to every public contract, otherwise within its terms, which may require the employment of labor by hand or tools.

In a subsequent case, the Soil Conservation Service of the Department of Agriculture advanced a question as to whether the 8-hour law related "to farm hands or laborers engaged in agricultural pursuits." The Acting Comptroller General, in his opinion,[4] stated that farm employees have been classed almost universally by the courts as laborers and therefore "would appear to come squarely within the generally accepted definition of the term." However, the opinion distinguished a specific point advanced by the Soil Conservation Service. In those cases where the agency purchases a standing crop at a stipulated price per acre, a separate contract should be entered into for the harvesting of the crop, and should contain the statutory stipulations. On the other hand, if the seller should undertake delivery of the crop

[3] Copy of law may be obtained from the Bureau of Labor Statistics.

[4] Comptroller General Opinion A–99718 (January 3, 1939).

to the Government when harvested as a part of the contract of sale, there would appear to be no necessity for the incorporation of the statutory requirements, since the contract would be merely a contract of purchase of the harvested crop.

In stressing the importance of incorporating the 8-hour provision in contracts even though it would result in some excess cost or loss to the Government, the Comptroller's decision stated that no doubt "such a possibility was considered and discounted by the Congress when the statute was enacted and would not appear to be a matter for administrative concern, so long as there is proper adherence to the law as it is written. The act is remedial in character and should be given a broad application to the end that its manifest purposes may be served."

MUNICIPAL SALARIES IN STATE OF WASHINGTON, 1938

SALARIES in various municipalities in the State of Washington in 1938 varied considerably from city to city, some of the variation being due at least in part to the size of the respective populations served.

The salaries of specified employees in 18 municipalities with a population of over 6,000 are given in the following table:[1]

Municipal Salaries in the State of Washington, 1938

City	Population	Clerk	Treasurer	Engineer	Water superintendent	Street superintendent	Park superintendent	Police chief	Fire chief	Librarian
Seattle	365,583	$4,200	$4,200	$5,000	$5,000	-------	-------	$5,000	$5,000	$5,500
Spokane	115,514	3,060	3,120	3,600	3,600	$2,280	$3,600	3,180	3,180	3,000
Tacoma	106,817	2,940	[1] 4,000	4,200	4,500	3,600	2,820	3,600	3,600	3,600
Bellingham	30,823	[2] 2,400	[2] 2,400	2,400	2,400	2,400	2,100	2,400	2,400	2,190
Everett	30,567	2,400	2,400	1,800 to 2,400	2,700	1,980	1,500	2,750	3,000	2,400
Yakima	22,101	2,400	2,250	3,000	2,700	1,890	-------	2,500	2,750	1,920
Walla Walla	15,976	2,040	2,040	2,220	2,520	1,440	1,260	2,040	2,040	2,000
Vancouver	15,766	2,100	1,800	1,500 to 1,800	2,520	-------	2,520	1,980	1,980	1,500
Hoquiam	12,766	1,800	1,500	-------	3,867	2,277	-------	[3] 1,500	2,613	1,518
Olympia	11,733	[2] 3,000	([2])	[4] 3,300	[4] 1,650	1,980	1,320	2,160	2,100	1,800
Wenatchee	11,627	1,980	1,980	[5] 3,000	2,100	([5])	([5])	2,190	2,130	2,040
Longview	10,642	1,620	1,620	[6] 1,600	-------	([6])	-------	2,000	2,820	[7] 1,680
Port Angeles	10,188	2,220	2,220	2,700	[8] 3,180	-------	-------	2,220	2,220	1,740
Bremerton	10,170	2,700	2,400	3,600	2,100	2,040	1,500	2,400	2,400	1,500
Centralia	8,058	2,100	-------	2,280	2,280	1,800	-------	2,100	2,100	1,620
Puyallup	7,094	1,980	1,800	[4] 2,580	([4])	-------	-------	1,980	1,830	1,380
Anacortes	6,564	600	600	[9] 3,000	([9])	([9])	1,320	1,782	1,782	990
Kelso	6,260	1,800	1,800	-------	1,980	1,920	-------	1,980	1,980	1,200

[1] Comptroller.
[2] Acts both as clerk and as treasurer.
[3] Also receives $900 as deputy health officer.
[4] Acts both as engineer and as water superintendent.
[5] Acts not only as engineer but also as street and park superintendent.
[6] Acts both as engineer and as street superintendent.
[7] 1937.
[8] Water and light superintendent.
[9] Acts not only as engineer but also as street and water superintendent.

The Association of Washington Cities, which collected the above statistics, also reported on salaries for a number of other municipal employees, among them police captains, police sergeants, firemen, assistant librarians, and skilled, semiskilled, and unskilled laborers.

[1] Data are from The American City (New York), January 1939 (p. 58).

WAGES IN GERMANY IN 1938

WAGE scales and regulations as to working conditions in the various industries in Germany are, as a rule, issued as decrees of the "labor trustees" in the main industrial districts of the country. In most cases they are based on former collective agreements. The wage scales are in most cases extremely detailed, there being differentiation by age, sex, skill, occupation, locality, cost of living, years of service, etc. The wage scales here presented are those in effect in one or more of the districts in which the industry is important, and the wage rates given are for adult time workers.[1] Little change was reported in wage rates in 1938, but in a number of the production industries the actual earnings, especially of skilled workers, were higher than indicated by the basic wage rates, because of such factors as higher rates for efficiency, family allowances, overtime work, etc. There were improvements in working conditions in 1938, such as longer vacations in many industries, special compensation in some industries for illness, to supplement the benefits from sickness insurance, etc.

Deductions from Wages

There are three general classes of deductions from wages in Germany—so-called "legal deductions," regularly recurring though technically voluntary contributions, and miscellaneous donations to various party organizations.

TABLE 1.—*Percentages of Gross Earnings of German Workers Deducted for Taxes and Insurance*

Industrial group	Percent of gross earnings of—		
	Total	Males	Females
All groups (average)	13.2	13.2	12.9
Metal working	13.9	13.9	13.6
Chemicals	12.4	12.4	12.7
Building	13.1	13.1	----------
Sawmills	11.7	11.7	----------
Woodworking and furniture	13.2	13.2	----------
Paper manufacturing	11.7	11.7	11.9
Paper processing	14.2	14.7	13.8
Printing	14.3	14.3	13.7
Lithography	14.3	14.7	13.0
Textiles	12.5	12.1	12.5
Clothing	13.5	13.6	13.4
Shoes	13.1	13.1	13.2
Confections and baking	12.7	14.2	12.1
Breweries	13.9	13.9	----------

[1] Data in this article are from a report by A. Dana Hodgdon, American consul at Berlin, prepared with the collaboration of the following consular officers: Edwin C. Kemp, Bremen; Stephen B. Vaughan, Breslau; Franklin B. Atwood, Cologne; J. F. Huddleston, Dresden; C. M. Gerrity, Frankfort on the Main; Allan Dawson, Hamburg; David H. Buffum, Leipzig; Roy E. B. Bower, Munich; and A. John Cope, Jr., Stuttgart.

The legal deductions consist of taxes and insurance payments and vary in different industries and localities. The main taxes are a municipal head tax (similar to a poll tax) and a wage or income tax. Insurance payments cover health, invalidity and old-age, and unemployment insurance.

The preceding table, based on official information, shows the average percentage deductions for taxes and insurance from gross earnings in the main industrial groups.

The regularly recurring contributions are mainly dues paid to the German Labor Front, of which virtually all wage earners and employers are members, and contributions to the "Winter help." Dues in the German Labor Front vary according to earnings, and range from 30 pfennige to 4.40 marks[2] a month. Contributions to the winter help fund are expected of workers and are supposed to be an amount equal to 10 percent of the wage tax for the 6 months from October 1 to March 31. A minimum of 25 pfennige a month is requested of those not earning sufficient to be liable to the wage tax.

Miscellaneous donations include those made in response to special drives for money to which the worker is expected to contribute, such as street collections, house-to-house canvasses, and solicitations by such organizations as the Hitler Youth. The amounts of such contributions vary, but constitute, it is said, a not insignificant item in the working man's budget.

Wages in Manufacturing Industries

AIRPLANE MANUFACTURE

Airplane workers are paid according to the wage scales of the metal industry, especially those referring to automobiles. The wage scale in effect in Saxony is as follows:

	Hourly rate (pfennige)
Skilled workers	38. 0–80. 0
Semiskilled workers	29. 0–71. 0
Unskilled workers	21. 5–68. 0
Female workers	19. 0–47. 5

Earnings on a piece-rate basis are from 30 to 40 percent above the basic wage rates.

A 48-hour week prevails in the airplane industry. Time and a quarter is paid for overtime up to a 60-hour week and time and a half for overtime in excess thereof and for Sunday and holiday work, except that for four specified holidays double time is paid. An additional 7 pfennige is paid for night work.

Annual vacations with pay are granted to workers after 6 months' service, and range from 6 to 12 working days according to length of service.

[2] Exchange value of mark (100 pfennige) in November 1938=40.04 cents.

AUTOMOBILE INDUSTRY

Working conditions and wage scales in the automobile industry in Germany are regulated by the act of January 20, 1934. The wage scales in Saxony and the Stuttgart district have been in effect since the spring of 1936 and in the Frankfort district since April 1938. The hourly wage rates for adult workers in the highest locality groups in Saxony and the Stuttgart district, and also their average actual hourly earnings in June 1938, are as follows:

	Saxony (pfennige)	*Stuttgart (pfennige)*
Wage rates:		
Skilled workers	80	74
Semiskilled workers	71	67
Unskilled workers	68	61
Female workers	47. 5	48
Average actual earnings:		
Skilled workers	88	107
Semiskilled workers	78	98
Unskilled workers	75	78
Female workers	52	58

In Frankfort adult skilled workers are paid rates ranging from 61 to 72 pfennige per hour. In Saxony earnings of piece workers average about 25 percent higher and in the Stuttgart district from 60 to 100 percent higher than the basic wage rates. In Frankfort from 18 to 20 percent above the hourly rates is paid for piece work.

A 48-hour week is the regular working time in the industry. Night work is paid 50 percent additional in Frankfort and Stuttgart, and in Saxony 10 percent extra between 8 and 12 p. m. and 15 percent between 12 p. m. and 6 a. m. Overtime in Saxony is paid at the rate of 25 percent extra the first hour and 30 percent extra thereafter; in Frankfort, 50 percent extra is paid; and in Stuttgart, 15 percent extra is paid for the first 3 hours per week, 25 percent thereafter up to 60 hours per week, and 50 percent for over 60 hours. For work on Sundays and holidays time and a half is paid in Stuttgart; time and a half to double time in Frankfort; and 30 to 60 percent extra in Saxony.

Vacations with pay are granted to workers in the industry. Adult workers in Saxony receive a minimum of 6 days annually after 6 months' service, with pay at 10 percent above the minimum basic rates. In Frankfort and Stuttgart vacations range from 6 to 12 days according to length of service.

BOOT AND SHOE INDUSTRY

The present wage scales in the boot and shoe industry have been in effect since April 1, 1936, and consist of five regional wage scales. In Frankfort male workers are paid a rate of 76½ pfennige an hour and female workers 57 pfennige. In the summer of 1938, actual hourly earnings of adult skilled workers averaged 90 to 112 pfennige; actual

weekly earnings of male workers averaged 36.72 marks and of female workers 27.54 marks.

The normal workweek is 48 hours. Time and a quarter is paid for overtime and double time for night work. Regular rates are paid for legal holidays. Paid vacations of 9 working days annually are customary. Family allowances are arranged by company regulations.

CERAMIC INDUSTRY

The German ceramic industry is located principally in Bavaria, Thuringia, Saxony, and Silesia. Household goods form three-fourths of the total production and technical ceramics the other fourth. The present wage scale in the industry was established in 1931 and revised in 1932 and 1936. The hourly wage-scale rates, and also the average actual weekly earnings in the middle of 1938, are reported as follows:

	Hourly rates (pfennige)	*Actual weekly earnings (marks)*
Skilled workers, male	74. 0	35–37
Skilled workers, female	44. 0	21–22
Other workers, male	60. 5	30–32
Other workers, female	37. 5	18–19

Specialized workers receive a minimum of 25 percent above the wage rates for skilled workers. Basic piece-work rates are computed on average output and hourly rates plus 25 percent.

The regular working time in the industry is an 8-hour day and 48-hour week. Overtime work is paid for at the rate of time and a quarter, and Sunday and holiday work at time and a half. Night-shift workers receive 5 percent above the regular rates.

Annual vacations with pay are granted after 1 year's service and range from 6 to 9 days, depending on length of service.

CHEMICAL INDUSTRY

The chemical industry (including, in addition to chemical plants proper, plants in the mineral oil, rubber, and synthetic-fiber branches) is one of the ranking industries of Germany, owing in large measure to the large-scale manufacture of synthetic raw materials as substitutes for imported raw materials. The wage scale for the industry was established in 1928, and in the Frankfort district became effective in 1931. The hourly wage rates, and the average actual weekly earnings in the industry in the summer of 1938, follow:

	Rate per hour (pfennige)	*Actual weekly earnings (marks)*
Skilled workers	72	34. 56
Semiskilled workers	70	33. 60
Unskilled workers	68	32. 64

A payment of 15 percent above the hourly wage is made for piece work. Additional compensation is provided for dangerous and unhealthful work.

Houses at nominal rents are provided by some large firms for their workers.

A 48-hour week prevails in the industry. Night work is paid for at 25 percent above the regular rate. Overtime work is paid for at the rate of time and a quarter. Holiday work is generally prohibited. Under a Government decree of December 3, 1937, workers receive regular pay for six specified legal holidays.

Annual vacations with pay, of from 8 to 12 working days, are provided for in the wage scale, but most plants, it is reported, extend the vacation period to 18 days. Special provision is made for longer vacations in certain exposed occupations.

FURNITURE MANUFACTURE

The wage scale in the Rhenish-Westphalian furniture industry has been in effect since October 1, 1936. It provides for basic hourly wage rates as follows:

	Rate per hour (pfennige)
Skilled workers	68–80
Semiskilled workers	61–72
Unskilled workers	54–64

Piece-work earnings, on an average efficiency basis, must be 15 percent above time-work rates. Additional compensation is given for work done at a distance from the plant.

An 8-hour day and 48-hour week are usual in the industry. Overtime work is paid for at time and a quarter for the first 2 hours, and night-shift and Sunday work are paid for at time and a half. Double time is paid for work on three specified holidays.

In case of dismissal, notice of from 2 to 4 weeks, depending on length of service, must be given workers.

Vacations of from 1 to 11 days are granted to workers with service of from 300 working hours to 10 years.

GLASS INDUSTRY

Plate glass.—A new wage agreement, covering the entire plate-glass industry in Germany, became effective in July 1937. Maximum wage rates for adult workers in districts with the highest cost of living are as follows:

	Rate per hour (pfennige)
Special workers	115
Machinists, journeymen	115
Foremen	90–105
Drawing-machine attendants	85
Sorters	95
Sorters, assistant	75

	Rate per hour (pfennige)
Skilled workers:	
Cutters, thick glass	90
Cutters, glass	76
Mixers	80
Other skilled workers	81–90
Semiskilled workers	74–80
Unskilled workers	72

Twenty-five percent additional is paid for very dirty work under high temperatures (except regular repair work). Piece-work rates must be at least 15 percent in excess of the basic time rates. Actual earnings, it is understood, exceed the above wage rates only in exceptional cases.

The agreement provides for a normal 8-hour day and a rest of 16 hours between shifts in plants with continuous operation. Time and a half is paid for Sunday work and double time for five specified holidays.

Vacations of from 6 to 12 working days a year, according to length of service, are granted. In case of sickness a special allowance is given, equal to the difference between the amount received from the sickness insurance fund and 90 percent of the gross wages.

Two weeks' notice of termination of employment by both employer and employee is provided.

Hollow glass.—A general working agreement for the hollow-glass industry for the whole of Germany has been in effect since February 24, 1936. In Silesia there are two distinct groups of factories, one group engaged in mass production of table glassware, lighting glassware, bottles, and tumblers, and the other producing decorated and ornamental blown glassware, fancy cut-glass products, and stem glassware. The wage scales in Silesia are not entirely uniform, because of the two distinct groups and the difference in cost of living in the different localities. The following table is illustrative of the weekly wages of an adult married worker in both branches of the hollow-glass industry in the different manufacturing centers of Silesia.

TABLE 2.—*Weekly Wages in the Silesian Hollow-Glass Industry, 1938*

Occupation	Ordinary hollow glassware		Fancy hollow glassware	
	Weisswasser	Penzig	Glatz	Hirschberg
	Marks	*Marks*	*Marks*	*Marks*
Smelter foremen	38. 97–39. 95	35. 75–40. 15	[1]	[1]
Smelter mates	26. 46–29. 40	26. 04–27. 60	40. 20–48. 20	38. 88
Mold makers, foremen	37. 92	36. 48	40. 40–48. 45	[1]
Mold makers, mates	31. 20	31. 20	19. 55–28. 30	28. 32
Jar makers, foremen	37. 82	38. 55	[1]	[1]
Jar makers, mates	24. 80	24. 96	[1]	24. 00
Glassmakers, mates	26. 76–30. 84	28. 80	40. 80	40. 80
Ball makers	20. 64	21. 60	14. 88	
Skilled workers			25. 44–26. 40	32. 64
Unskilled workers, male	23. 52–26. 40	24. 00–26. 88	20. 16–22. 56	21. 60–25. 92
Unskilled workers, female	12. 00–16. 80	13. 92–14. 88	13. 44–14. 40	14. 40

[1] Rates established by individual agreements.

Piece-rate earnings of skilled workers and especially of foremen, it is stated, are about 15 percent higher than time wage rates.

An 8-hour day and 48-hour week are provided for by the agreement. For overtime work an increase of 15 percent is given for the first 5 hours and 25 percent thereafter. Time and one-half is paid for Sunday and holiday work and for night work between 8 p. m. and 6 a. m.

Annual vacations are granted after 9 months' service, the minimum being 6 working days a year.

IRON AND STEEL INDUSTRY

There were no changes in 1938 of the basic wage rates and general working conditions in the Rhenish-Westphalian iron and steel industry. The hourly wage rates for certain classes of workers are as follows:

	Hourly rate (pfennige)
Blast-furnace, coke and ore transportation workers, etc.	79.3
Martin-steel workers	85.3
Rolling-mill workers	79.5–90.5

In addition a family allowance is paid to married workers, amounting to 1 pfennig per hour, and 2 pfennige per hour for each dependent child. Actual earnings of such skilled workers as rollers, blast-furnace workers, and skilled steel workers are considerably in excess of the minimum rates fixed.

In the Siegerland iron and steel industry, which produces chiefly sheet steel and tin plate, the hourly rates are as follows:

	Rate per hour (pfennige)
Skilled workers	59
Semiskilled workers	55
Unskilled workers	50
Female workers	35

All workers also receive a family allowance of 1 pfennig per hour for the wife and for each dependent child.

Actual earnings of skilled workers are considerably above the basic wage rates.

The normal workweek in the German iron and steel industry is 48 hours, except that blast furnaces and repair departments, Martin-steel plants, and rolling mills producing thick plates, have a 57-hour week. Workers in rolling mills and hammer and drop-forge plants have an 8-hour day but work 1 hour overtime when required.

Annual vacations with pay are granted after 1 year's employment and range from 6 to 12 days according to length of service.

METAL INDUSTRY

The metal industry in Germany covers the following branches: Iron and steel production; smelteries and rolling mills; fabrication of products from iron, steel, and other metals; manufacture of machinery,

apparatus, and vehicles; electro-technical industry; and optical and precision instruments. Because of the great number of classes of workers included, only the general conditions in the industry are presented.

The wage scales in effect in the Berlin-Brandenburg district, which may be considered typical, were fixed in 1936. The minimum hourly rates for adult male workers are as follows:

	Rate per hour (pfennige)
Highly skilled workers	93
Skilled workers	82
Semiskilled workers	72
Unskilled workers	66

Women receive 70 percent of the established rates for men. Piece work must be paid on a scale at least 15 percent higher than the ordinary hourly wage rate, but actual piece-work earnings are reported to be 40 to 60 percent higher.

There is considerable overtime work in this industry and in consequence, it is said, workers are probably earning more than at any time since 1929.

The regular workweek in the industry is 48 hours, including time spent in changing clothes, washing, and meals.

Overtime work is paid for at 15 percent above regular rates. Fifty percent extra is paid for overtime work between 10 p. m. and 6 a. m., however, and for Sunday and holiday work. Night work, other than shift work, is paid for at 50 percent extra.

Annual vacations range from 6 to 25 days, depending on length of service.

In case of dismissal of workers, 1 week's notice must be given those who have worked 8 weeks or more, and 2 weeks' notice after 6 months' work.

In Silesia the wage scales fixed by an agreement of December 1932 were still in force in 1938. Provisions as to vacations, however, have been modified. Hourly wage rates prevailing in the different districts are as follows:

TABLE 3.—*Hourly Wage Rates in the Metallurgical Industries of Silesia, 1938*

Wage district	Industry	Skilled workers	Semi-skilled workers	Unskilled workers	Female workers
		Pfennige	*Pfennige*	*Pfennige*	*Pfennige*
Upper Silesia	High blast furnaces, steel and iron mills, rolling and wire mills	55.0	----	39.0	27.0
	Allied power plants	63.0	----	43.0	29.0
Lower Silesia	Foundries, enamel-plate plants	59.0	53.0	46.0	33.0
Breslau	Construction of machinery, railway cars, motors	66.5	59.5	53.0	37.5
Brieg	Foundries, machine factories	63.0	53.0	47.0	33.0
Grunberg	Construction of machinery, railway cars, bridge, iron and steel material.	64.0	57.0	51.5	35.5
Glatz	Foundries and machine shops	60.0	53.5	47.0	----
Neisse, Ratibor	Brewery and distillery machinery	64.0	55.5	47.5	29.0
Goerlitz	Gold and silver ware and other fine metals	67.0	59.0	49.0	37.0
Lower Silesia	Construction of machines and railway cars	66.5	60.0	53.0	36.5

Piece-work earnings are generally 25 to 30 percent higher than the time rates, and specially skilled workers may earn as much as 50 to 60 percent above the minimum time rate. No extra compensation is provided for night work.

A 48-hour week and an 8-hour day are customary. Fifteen percent additional is paid for the first 2½ hours of overtime and 50 percent additional thereafter. Time and a half is paid for Sunday and holiday work.

Vacations with pay are granted after 1 year's service, and range from 6 to 12 days per year according to length of service.

PRINTING INDUSTRY

Wage scales in the printing industry in 1938 were the same as those established in a wage agreement made in June 1932, with a few amendments.

Book printing.—Minimum hourly and weekly wage rates for adult workers are here given. Piece work is unusual, except occasionally for machine compositors.

	Rate per hour (pfennige)	*Rate per week (marks)*
Skilled workers:		
Hand compositors, printers, stereotypers, and electrotypers	80–100	38. 40–48. 00
Machine compositors	96–120	46. 08–57. 60
Proofreaders	86–108	41. 28–51. 60
Unskilled workers:		
Male workers	62–85	29. 57–41. 00
Feeders, female	41–59	19. 68–28. 39
Other female workers	34–48	16. 13–23. 25

For efficiency, up to 20 percent additional is paid to hand compositors, printers, stereotypers, and electrotypers; up to 25 percent additional to machine compositors; and 20 percent additional to proofreaders.

An 8-hour day and a 48-hour week are the regular working hours in the industry. Overtime rates for skilled workers are 15 percent higher than regular wage rates from 8 to 9 p. m.; 25 percent higher from 9 to 11 p. m.; 35 percent higher from 11 p. m. to 2 a. m.; and 60 percent higher from 2 to 6 a. m. Time and a half is paid for work on three specified holidays and time and three-quarters for irregular work on Sundays. The overtime rates for unskilled workers differ slightly. Regular Sunday work is paid for at 60 percent more than regular rates.

In addition to seven national holidays, workers are entitled to vacations of from 3 to 12 working days a year.

Bookbinding.—Wage rates in the bookbinding branch of the industry are essentially the same as for book printing. During the first year after apprenticeship, bookbinders under 23 years of age

receive from 44 to 55 pfennige an hour, and after reaching 23 years from 73.5 to 92 pfennige. Female workers, if under 16 years of age, receive during the first 4 years from 19 to 53 pfennige per hour, and if over 16 years, receive during the first 3 years from 24.5 to 53 pfennige. Piece rates are not common in bookbinding.

The standard working time is 8 hours a day and 48 hours a week. For the first hour of overtime 25 percent over the regular rate is paid, and for each additional hour thereafter, 30 percent. Regular Sunday work is paid 75 percent over the regular rates and occasional Sunday work 60 percent more. Time and a half is paid for work on three specified holidays.

Annual vacations of from 3 to 12 working days are granted to workers, in addition to nine national holidays.

Lithographic, offset, and music-printing and music-engraving trades.—Skilled workers in this branch of the printing industry are paid wage rates from 28.90 to 34.00 marks a week, but higher rates for efficiency enable adult workers to earn as much as 65 marks or more. Unskilled male workers are paid from 38.50 to 42.00 marks a week and female workers from 21.25 to 27.50 marks a week. Piece-work earnings of music engravers average 1.35 marks an hour, it is stated, and those of music copiers 1.10 marks an hour.

The normal working time is 8 hours a day and 48 hours a week. Time and a quarter is paid for overtime and time and three-quarters for Sunday and holiday work.

Annual paid vacations of from 5 to 12 working days are granted, in addition to seven national holidays.

SHIPBUILDING

The basic wage scale in the shipbuilding industry in Germany has been in effect since October 1, 1934, the only amendments covering vacations and holidays and commercial and technical employees. Hourly wage rates and average actual weekly earnings in the spring of 1938 of adult male workers in Hamburg, the most important shipbuilding center, are here shown. The only women employed in the industry are canteen workers and charwomen.

	Rate per hour (pfennige)	*Actual weekly earnings (marks)*
Skilled workers	72	42. 00
Trained workers	66	36. 00
Unskilled workers	58	30. 50

In Bremen, other North Sea ports, and western Baltic ports, the hourly rates are from 5 to 7 pfennige less than in Hamburg. A special wage scale is provided for commercial and technical employees.

For especially unhealthful or dangerous work, such as working on tankers, workers are paid 1.50 marks extra the first day, 1 mark the second day, and 50 pfennige for additional days.

The average earnings of piece workers are about 22 percent above the regular time rates. About 72 percent of the work in the industry is piece work. A special efficiency bonus (not provided in the agreement but given voluntarily) is paid to piece workers, according to work done, skill, and length of employment, as follows: Skilled workers, 10 to 16 pfennige per hour; trained workers, 8 to 10 pfennige; and unskilled workers, 2 to 8 pfennige.

Married workers receive 2 pfennige extra per hour and an additional 3 pfennige per hour for each child until he finishes school.

The regular working hours are 48 a week. Overtime work is paid for at 25 percent above the regular rate for the first 2 hours and 40 percent thereafter. The agreement specifies that overtime should be avoided as far as possible and should not exceed 2 hours a day. Time and a half is paid for Sunday and holiday work. Night shifts and Sunday and holiday shift work are paid for at 10 percent more than the regular rate.

All workers, after 6 months' employment, are entitled to paid vacations ranging from 6 to 12 working days annually, depending on length of employment. Commercial and technical employees receive vacations ranging from 6 to 18 days.

SOAP MANUFACTURING

In May 1938 the wage scale of September 15, 1936, was still effective in the soap industry. The basic wage rates in western Germany for adult workers under this scale, which vary according to locality, were as follows:

	Rate per hour (pfennige)
Skilled workers	72–80
Semiskilled workers	64–72
Unskilled workers	60–68
Female workers	44–50

The agreement makes no provision for piece work. For very dusty work 2 pfennige per hour extra are paid. A family allowance of 1 mark per week is paid for the wife and each dependent child up to 14 years of age.

The usual working time is 8 hours a day and 48 hours a week. Time and a quarter is paid for overtime and time and a half for night and Sunday work. Double time is paid for specified holidays.

Workers in the soap industry are granted annual paid vacations of from 4 to 12 days according to length of service.

TEXTILE INDUSTRY

Wage scales in effect in all branches of the German textile industry vary in the different industrial centers according to the living costs in those districts.

The wage scale in the principal branches of the industry in Saxony, one of the leading centers of the industry, has been in effect since 1932. The hourly wage rates and the average actual weekly earnings in the middle of 1938 in the four important branches of the industry in Saxony—cotton spinning, worsted- and knitting-yarn spinning and wool combing, hosiery and knit goods, and fabric gloves—are shown in the following table, by occupations:

TABLE 4.—*Basic Hourly Wage Rates and Average Actual Weekly Earnings in Saxon Textile Industry in 1938, by Occupations*

Industry and occupation	Wage rates per hour	Average actual earnings per week [1]
Cotton spinning	*Pfennige*	*Marks*
Cotton shakers, machine oilers, moisteners, and yarn sorters, male	58.7	27.37
Head grinders, male	65.6	30.58
Card grinders, male	62.0	28.91
Assistant grinders, male	60.1	28.03
Tearing-machine tenders, male	55.9	26.09
Tearing-machine tenders, female	41.1	19.18
Mixers, carders, spoolers, reelers, warpers, layers, packers, ring spinners, and needle setters, female	41.2	19.23
Bobbin carriers, warehousemen, washers, ironers, combers, preparatory workers, steamers, willowers, dyers, needle setters, and spindle-band workers, male	56.8	26.49
Other female workers	36.5	17.03
Worsted- and knitting-yarn spinning and wool combing		
Worsted-yarn spinning:		
Ring spinners, spoolers, twisters, reelers, fiber layers, and preparatory spinners, female	41.6	19.40
Knitting-yarn spinning:		
Preparatory, ring, and fly-frame spinners, doublers, twiners, and reelers, female	41.6	19.40
Wool combing:		
Washers, carders, willowers, waste hands, rag washers, bale packers, and dryer hands, female	40.2	18.74
Combers, ironers, drawers, and cutting-silk workers, female	41.6	19.40
Wool sorting:		
Sorters, female, skilled	40.2	18.74
Other departments:		
Packers, stitchers, and other female workers	38.3	17.86
Warehousemen, washers, ironers, combers, preparatory workers, steamers, willowers, dyers, needle setters, and spindle-band workers, male	56.8	26.49
Hosiery and knit goods		
Cotton, circular, and warp loom workers, knitters on cotton-glove, Jacquard, narrowing, and 8-lock machines, warpers, workers on double-rib warp looms	55.9	26.44
Hand-loom workers, and machine knitters	53.2	25.17
Circular-machine and circular rib-top machine workers	50.8	24.02
Spoolers	44.3	20.94
Circular-loom workers and knitters on hand-operated machines, female	35.1	16.59
Knitters, machine, automatic and Gallon, female	33.7	15.93
Circular-machine and circular rib-top machine workers, female	31.9	15.09
Runner-on workers, trimming-machine workers, linkers, stitchers, menders, spoolers, embroiderers, cutters, tambour-machine workers, warpers, edge cutters, female	31.9	15.09
Fabric gloves		
Knitters, warp, circular, and double-rib warp looms, warpers, cutters, setters, needle setters, and winding-room hands, male	65.1	30.80
Spoolers, male [2]	55.3	26.14
Trimmers, finishers, tenters, male	60.6	28.64
Trimmers, female	41.1	19.45
Stitchers, buttonhole makers, spoolers, cutters, and menders, female [2]	39.1	18.44
Layers, examiners, finishers, patent-fastener workers, tackers, and storeroom keepers, female	37.2	17.60

[1] Computed on the basis of the average working week in the industry, which was about 44 hours in the middle of 1938.

[2] 10 percent additional over basic time and piece-work rates is paid for spooling of silk and rayon.

The majority of the textile workers in Saxony are time workers. On piece work, the basic hourly rates are increased on the average by 20 percent. Piece-work earnings in cotton spinning, worsted- and knitting yarn spinning, and wool combing are reported to be at least 10 to 12 percent higher than the basic rates; for female workers on hosiery, knit goods, and fabric gloves, 10 to 12 percent higher, and for male workers, from 20 to 25 percent higher. Efficient workers, it is understood, earn from 30 to 35 percent more than the basic standard rate of their class.

The regular working time in the industry is 48 hours a week—8½ hours from Monday to Friday and 5½ hours on Saturday. The average actual working time in the spring of 1938 was 7.38 hours a day and 44.3 hours weekly.

Time and a quarter is paid for overtime and time and a half for night, Sunday, and holiday work. Regular night-shift work is paid 15 percent additional.

Workers are entitled, after 6 months' employment, to from 6 to 10 days' vacation each year with pay, according to length of employment.

Wages in Building Construction

The Berlin building industry is regulated by two wage orders: The Reich wage order of November 26, 1936, making general regulations regarding working conditions and, to a limited extent, wages for the entire country; and the district wage order of April 1, 1937, regulating wages on building projects in Greater Berlin.

The minimum hourly wage rates for workers in the construction industry in Greater Berlin are shown below. In towns in Brandenburg and Pomerania the rates are slightly lower.

	Marks per hour
Masons	1. 08
Carpenters	1. 08
Concrete workers, skilled	1. 08
Stone and mortar carriers	1. 08
Concrete molders	1. 08
Scaffold workers	. 96
Mortar mixers, concrete and water carriers	. 96
Concrete workers, unskilled	. 96
Elevator and hoist operators	. 96
Unclassified workers	. 90
Foundation and subsurface foremen	. 90
Foundation and subsurface workers	. 72
Machinists, first class	1. 13
Machinists, second class	1. 08
Machinists, third class	. 95
Locksmiths, fitters, smiths, welders, and acetylene torch cutters	1. 08
Assistant fitters, painters, plaster workers, pipe fitters	. 90
Pipe layers	1. 01
Pile-driver operators	. 90

For dangerous and dirty work, an average of 15 percent above the regular rate is paid, and for work at dangerous heights (10 meters above ground), 15 percent above, plus 5 percent for every 10 meters higher.

The Berlin wage scale makes no provision for piece-work rates. The Reich wage order, however, gives a so-called piece-work wage (*Akkordrichtsatz*), which is equivalent to the regular hourly wage plus 20 percent.

The normal workweek in the industry is 48 hours for regular workers, 72 hours for watchmen, and 60 hours for teamsters and cooks on building lots. The customary time for "second" breakfast, lunch, and afternoon coffee is considered working time.

Overtime is paid for at 20 percent above the normal rates; on official settlement projects this may be reduced to 10 percent. Night work is paid for at 10 percent extra and overtime at night at 40 percent extra. Time and a half is paid for Sunday and ordinary holiday work and double time for four specified holidays.

Workers are entitled to 4 days off after 32 weeks' employment and 8 days after 48 weeks' employment.

Wages in Mining and Oil Industries

BITUMINOUS-COAL MINING

The basic wage scales in the bituminous-coal industry in Silesia, one of the important coal districts in Germany, have remained unchanged since the wage agreement of July 1, 1932. These basic wage rates are as follows:

	Marks per shift
Underground work (7½-hour shift):	
Coal cutters	5. 80
Loaders	4. 46
Carpenters	5. 80
Other workers	4. 73–5. 04
Surface work (8-hour shift):	
Skilled workers	4. 00–5. 02
Unskilled workers	4. 00
Female workers	2. 67

Piece-work rates, under the agreement, must provide earnings at least 10 percent above the time rates. In practice, piece work is the exception rather than the rule.

The basic wage rates, it is stated, do not, in general, reflect the actual higher earnings of miners. In the middle of 1938 the current average wages of miners in Silesia were reported to approximate 7.18 marks per 7½-hour shift for underground work. For the preceding year, average gross earnings per shift of all mine workers (including miners and other mine workers) ranged from 6.05 to 7.91 marks per shift (7½ hours underground to 10 hours above ground). In the

Ruhr district, because of the higher standard of living, miners' wages were generally from 5 to 10 percent higher than in Silesia.

The agreement provides for an additional payment of 10 pfennige per shift to each married male miner and another 10 pfennige for each dependent child under 16 years. Mine workers are also given free coal (from 1,250 to 7,000 kilograms[3] annually, the amount depending on occupation and family dependents). It is stated that this payment in kind was equivalent in the middle of 1938, at the current retail price, to from 39 to 218.40 marks.

The basic working agreement of 1928, which is still in force, prescribes a 7½-hour shift for underground workers, calculated from the time the miner enters until he leaves the mine. In mines where the temperature is 28° C. (82.4° F.) or over, the shift is 6 hours. Surface workers have a normal 8-hour day and a 48-hour week. In continuous-operation plants, such as power plants, cokeries, etc., the workweek is fixed at 56 hours.

Overtime work is paid for at time and a quarter, and holiday work at time and a half, except that for three specified holidays double time is paid.

Vacations with pay are granted to mine workers in the Rhenish-Westphalian coal-mining industry, ranging from 6 to 10 working days according to length of employment. Pit workers are entitled to 12 days' leave after 15 years of work.

LIGNITE MINING

The lignite (brown coal) mining industry, which is important in Germany, as the quantity mined exceeds that of any other kind of coal, includes underground mining, surface mining, briquet factories and wet presses, smoldering plants, oil, paraffin, candle, and bitumen factories, and power plants. Wage scales for workers in the central German lignite industry, which became effective in April 1938, are as follows:

	Pfennige per hour
Underground miners	59–73
Surface miners and other surface workers	55–68
Female workers in candle factories	33–37

Piece work is rare in this industry. The regulations governing piece-work wages provide, however, that at piece work a miner must normally earn at least 10 percent over the time wage scale.

Work in places with a temperature of over 40° C. (104° F.) is paid 25 percent above the regular rate. Particularly wet underground work or particularly dirty surface or underground work must be paid for at a higher rate, to be agreed upon from time to time.

[3] Kilogram=2.2 pouuds.

Married workers receive an additional 60 pfennige per week and, for each dependent child up to 18 years of age, from 60 to 150 pfennige additional per week.

Workers are also given free fuel, the amounts ranging from 25 to 80 hundredweight, depending on the size of the family.

The daily working time for surface mining is 8 hours and for underground mining 7¾ hours, excluding intervals. Overtime is paid for at 25 percent over regular rates, Sunday work at 50 percent additional, and work on holidays at 100 percent additional. Night work is performed only in emergencies; the rate therefor is time and a quarter.

Paid vacations are granted after 6 months' continuous employment. For surface workers the length of the vacation ranges from 7 to 12 working days and for underground workers, from 8 to 14 days, depending on length of employment.

PETROLEUM INDUSTRY

Wages in the German mineral-oil industry are fixed under a wage schedule which became effective January 1, 1936. Because of the shortage of workers, however, drilling and oil-producing companies were reported to be paying approximately 10 percent above the rates fixed in the wage schedule. The schedule wage rates per shift are as follows:

	Marks per shift
Underground workers:	
Miners (pickmen)	5. 82
Miners (bottom of mine)	5. 13
Semiskilled miners	5. 51
Skilled workers	5. 82
Timbermen	5. 59
Timbermen, assistants, winch operators, and oil ladlers	4. 87
Surface workers:	
Conveyer operators	5. 80
Skilled workers	5. 38
Carpenters	5. 22
Stokers	5. 41
Semiskilled workers	4. 56
Locomotive drivers	4. 74
Compressor attendants	4. 69
Drill attendants	4. 56
Sand washers and chain-cable car operators, yard workers, supply workers, teamsters, unskilled workers, pump and filter attendants, and watchmen	4. 50
Drilling:	
Shift foremen, and skilled workers	5. 38
Semiskilled workers, drillers, cable operators, stokers, motor attendants, and drill attendants	4. 56
Pumping crew, oil filterers, pump watchmen, telephone operators, messengers, teamsters, and other workers	4. 50

In addition a family allowance is paid to married workers, amounting to 20 pfennige a shift and 10 pfennige for each dependent child under 15 years. Unmarried workers who are the principal support of their families receive the same allowances.

Workers on piece work are guaranteed a minimum of 15 percent above the schedule rates, plus a small amount for each unit in excess of set quotas.

The regular prescribed working hours in underground work are 8 per day, including 1 trip down the shaft and one 20-minute recess. There is no weekly limit on hours. In surface work there is an 8-hour working day, exclusive of the lunch period. Time and a quarter is paid for overtime, Sunday, and holiday work, except that for work on four specified holidays double time must be paid.

Annual vacations with pay, which are granted after 1 year's continuous employment, range from 6 to 14 days, depending on length of service. Workers are not permitted to work for remuneration during their vacations.

POTASH INDUSTRY

The potash industry is the most important chemical-resource industry in Germany. Wage scales for the industry in effect since April 1, 1935, have been supplemented by a decree effective April 1, 1938. These regulations apply to all potash and rock-salt pits and to all factories and auxiliary plants manufacturing related products. Hourly rates under the schedule are as follows:

	Pfennige per hour
Underground work:	
Group 1	80
Group 2	70
Surface work:	
Group 1	80–85
Group 2	62–68
Mills and factories:	
Group 1	62
Group 2	60
Group 3	58
Subsidiary workshops:	
Group 1	70
Group 2	62
Group 3	60
Group 4	58

Female workers are paid 37 pfenninge per hour. An average of 10 percent above the minimum wage scales is paid for efficiency. All underground workers receive such extra wages. Increases in the basic wage rates, ranging from 5 to 25 percent, are allowed for especially hazardous or arduous work. Married workers receive a family allowance of 30 pfennige a day and 10 pfennige additional for each dependent child.

Ordinary working hours in underground mining are 8 per day, calculated from the time of entering the pit to the time of leaving it and including a half-hour interval. All other miners and surface workers have an 8½-hour day, including a half-hour interval. When boring a pit, the working time is limited to 6 hours. State public-hygiene regulations govern hours in especially hot conditions. Time and a quarter is paid for overtime work, and time and a half for Sunday and holiday work, except that double time is paid for four specified holidays.

After 1 year of employment annual vacations with pay, ranging from 6 to 14 working days in surface work and from 7 to 15 days in underground work, depending on length of employment, are granted.

Average Hourly Wage Rates in December 1938

Average hourly wage-scale rates in the main industries in Germany as of December 1938, as published by the German Statistical Office, are given in table 5.

TABLE 5.—*Average Hourly Wage Rates in Germany, December 1938* [1]

[Exchange rate of German mark (100 pfennige) in December 1938=40.08 cents]

Industry group	Average hourly wage rate				
	Male workers			Female workers	
	Skilled	Semi-skilled	Un-skilled	Skilled	Un-skilled
	Pfennige	*Pfennige*	*Pfennige*	*Pfennige*	*Pfennige*
All industries	78.7	68.6	62.2	51.5	44.0
Production-goods industries	83.4	----------	63.5	----------	----------
Building construction	81.7	----------	65.6	----------	----------
Chemicals	87.1	70.1	----------	----------	46.9
Coal mining:					
Bituminous coal	95.5	----------	59.9	----------	----------
Lignite	75.8	71.0	67.4	----------	----------
Metal working	79.0	71.7	62.4	----------	46.5
Paper production	75.9	----------	57.3	----------	38.6
Paper products	92.9	83.8	69.0	52.7	43.0
Printing	96.1	----------	79.7	----------	48.8
Woodworking	79.4	66.7	61.0	----------	----------
Consumption-goods industries	73.0	----------	60.7	----------	----------
Breweries	105.2	----------	93.2	----------	59.6
Ceramics	70.9	----------	58.9	43.4	36.1
Clothing	74.1	----------	----------	47.9	----------
Confectionery	80.7	----------	68.9	----------	46.4
Shoes	79.2	79.2	----------	59.9	----------
Textiles	63.6	63.6	53.1	50.0	39.5
Cloth weaving	61.3	61.3	54.2	51.9	41.3
Cotton goods	63.3	63.3	52.2	51.8	39.4
Knitted goods	64.2	64.2	53.1	44.3	38.4
Lace weaving	75.4	75.4	55.9	----------	39.3
Linen goods	59.6	59.6	49.6	45.6	36.8
Ribbon weaving	65.3	65.3	54.4	51.1	42.0
Silk weaving	58.2	58.2	54.4	51.3	41.9
Velvet weaving	71.9	71.9	61.6	53.7	40.9
Worsted spinning	69.8	69.8	54.4	45.0	39.2
Transportation and communication	82.0	71.5	67.7	----------	----------
State railways	82.7	71.5	68.4	----------	----------
Post office	77.7	71.3	63.9	----------	----------

[1] Data are from Germany, Statistiches Reichsamt, Wirtschaft und Statistik (Berlin), 1 Januar-Heft, 1939, p. 24.

LABOR TURN-OVER IN MANUFACTURING, JANUARY 1939

A DEFINITE trend toward improved employment conditions was indicated by the Bureau of Labor Statistics' monthly survey of labor turn-over in manufacturing industries for January 1939. Although certain seasonal industries reported a greater number of lay-offs than in the preceding month, the combined lay-off rate in manufacturing establishments in 144 industries declined from 3.21 in December 1938 to 2.24 per 100 employees in January 1939. During the same period, the total separation rate decreased from 3.88 to 3.19. Both rates were much lower than in January 1938. The quit rate showed a substantial increase compared with the preceding month and with January 1938. The discharge rate was slightly higher than in December but lower than in January 1938. The number of accessions per 100 employees increased from 3.22 in December 1938 and 3.78 in January 1938 to 4.09 in January 1939.

Of the 28 industries for which separate rates are published, 19 had lower total separation rates than in December 1938 and 25 had lower total separation rates than in January 1938. The January 1939 accession rate was above that for the preceding month in 17 industries. Compared with January 1938, there were 14 industries showing higher accession rates.

All Manufacturing

The Bureau of Labor Statistics' survey of labor turn-over covers more than 5,500 representative manufacturing establishments, which in January employed more than 2,400,000 workers. The rates represent the number of changes in personnel per 100 employees on the pay rolls during the month.

The rates shown in table 1 are compiled from reports received from representative plants in 144 industries. In the 28 industries for which separate rates are shown (see table 2), reports were received from representative plants employing at least 25 percent of the workers in each industry. These data include for the first time turn-over rates for plants manufacturing paper and pulp.

Table 1 shows the total separation rate classified into quit, discharge, and lay-off rates, and the accession rate for each month of 1937 and 1938 and January 1939, for manufacturing as a whole. The averages of the monthly rates for 1937 and 1938 are also presented.

TABLE 1.—*Monthly Labor Turn-Over Rates in Representative Factories in 144 Industries*[1]

Class of turnover and year	January	February	March	April	May	June	July	August	September	October	November	December	Average
Separations:													
Quits:													
1939	0.85												
1938	.52	0.49	0.61	0.59	0.62	0.61	0.59	0.65	0.82	0.78	0.60	0.58	0.62
1937	1.27	1.19	1.43	1.38	1.37	1.89	1.25	1.23	1.59	1.05	.72	.60	1.25
Discharges:													
1939	.10												
1938	.11	.11	.11	.10	.13	.11	.09	.10	.12	.12	.10	.09	.11
1937	.21	.22	.24	.23	.21	.19	.21	.19	.19	.19	.16	.14	.20
Lay-offs:[2]													
1939	2.24												
1938	5.45	3.79	3.74	3.85	3.82	3.69	3.13	2.33	2.62	2.40	2.44	3.21	3.37
1937	1.90	1.44	1.53	1.48	1.79	1.94	2.06	2.57	2.84	4.45	5.99	7.77	2.98
Total:													
1939	3.19												
1938	6.08	4.39	4.46	4.54	4.57	4.41	3.81	3.08	3.56	3.30	3.14	3.88	4.10
1937	3.38	2.85	3.20	3.09	3.37	4.02	3.52	3.99	4.62	5.69	6.87	8.51	4.43
Accessions:													
1939	4.09												
1938	3.78	3.13	3.13	2.58	2.84	3.44	4.81	5.29	4.51	5.19	4.24	3.22	3.85
1937	4.60	4.71	4.74	4.04	3.56	3.69	3.36	3.36	3.78	2.84	1.79	2.12	3.55

[1] The various turn-over rates represent the number of quits, discharges, lay-offs, total separations, and accessions per 100 employees.
[2] Including temporary, indeterminate, and permanent lay-offs.

Detailed turn-over rates for 28 selected manufacturing industries are shown in table 2, which gives the number of quits, discharges, and lay-offs, total separations, and total accessions, per 100 employees, in reporting firms in January 1939 and December and January 1938.

TABLE 2.—*Monthly Turn-Over Rates (per 100 Employees) in Specified Manufacturing Industries*

Class of rates	January 1939	December 1938	January 1938	January 1939	December 1938	January 1938	January 1939	December 1938	January 1938
	Automobiles and bodies			Automobile parts			Boots and shoes		
Quit	2.58	0.41	0.37	0.58	0.61	0.43	0.73	0.58	0.66
Discharge	.04	.07	.07	.10	.15	.17	.13	.13	.11
Lay-off	2.52	2.03	13.50	6.03	4.41	16.71	.87	2.41	1.48
Total separation	5.14	2.51	13.94	6.71	5.17	17.31	1.73	3.12	2.25
Accession	2.15	3.12	2.34	4.18	4.88	4.82	7.82	6.92	7.04
	Brick, tile, and terra cotta			Cement			Cigars and cigarettes		
Quit	0.41	0.40	0.51	0.35	0.21	0.66	1.74	0.82	1.13
Discharge	.13	.12	.13	.01	.11	.62	.12	.07	.14
Lay-off	6.18	5.74	11.05	13.02	15.81	4.69	2.43	7.08	6.81
Total separation	6.72	6.26	11.69	13.38	16.13	5.97	4.29	7.97	8.08
Accession	3.90	3.43	6.79	9.27	1.05	9.37	5.19	1.85	5.15
	Cotton manufacturing			Electrical machinery			Foundries and machine shops		
Quit	1.10	0.97	0.85	0.50	0.48	0.58	0.35	0.31	0.30
Discharge	.21	.24	.16	.04	.03	.09	.06	.06	.13
Lay-off	1.57	2.29	4.93	1.97	2.38	7.17	1.47	1.87	6.04
Total separation	2.88	3.50	5.94	2.51	2.89	7.84	1.88	2.24	6.47
Accession	4.09	3.43	3.92	3.21	3.43	1.32	3.31	3.52	1.53

TABLE 2.—*Monthly Turn-Over Rates (per 100 Employees) in Specified Manufacturing Industries*—Continued

Class of rates	January 1939	December 1938	January 1938	January 1939	December 1938	January 1938	January 1939	December 1938	January 1938
	Furniture			Glass			Hardware		
Quit	0.57	0.51	0.41	0.23	0.36	0.40	0.40	0.51	0.47
Discharge	.16	.14	.15	.07	.07	.07	.07	.07	.07
Lay-off	3.92	7.29	8.98	3.26	1.74	4.93	.73	1.18	9.13
Total separation	4.65	7.94	9.54	3.56	2.17	5.40	1.20	1.76	9.67
Accession	5.57	3.09	6.43	1.43	2.21	1.16	2.17	2.33	1.78
	Iron and steel			Knit goods			Machine tools		
Quit	0.35	0.32	0.39	0.82	0.86	0.71	0.44	0.41	0.41
Discharge	.04	.04	.11	.10	.10	.10	.03	.02	.14
Lay-off	1.42	1.12	4.81	1.50	1.66	4.31	.55	.89	2.57
Total separation	1.81	1.48	5.31	2.42	2.62	5.12	1.02	1.32	3.12
Accession	1.28	1.62	1.15	3.10	2.46	2.75	2.41	2.27	.54
	Men's clothing			Paper and pulp			Petroleum refining		
Quit	0.71	0.68	0.60	0.42	0.48	0.44	0.20	0.44	0.23
Discharge	.13	.04	.05	.09	.12	.16	.04	.03	.06
Lay-off	1.77	6.73	2.61	1.09	1.27	1.47	.86	1.91	3.42
Total separation	2.61	7.45	3.26	1.60	1.87	2.07	1.10	2.38	3.71
Accession	6.15	5.08	10.83	1.73	1.96	2.27	1.77	1.33	2.05
	Printing and publishing						Radios and phonographs		
	Book and job			Newspapers					
Quit	0.40	0.30	0.34	0.49	0.29	0.55	1.42	1.05	0.75
Discharge	.13	.18	.17	.03	.06	.08	.41	.14	.15
Lay-off	3.99	7.49	3.63	1.78	1.90	2.23	5.95	3.61	9.02
Total separation	4.52	7.97	4.14	2.30	2.25	2.86	7.78	4.80	9.92
Accession	5.35	3.73	3.43	1.51	1.17	1.88	6.66	4.22	5.41
	Rayon			Rubber boots and shoes			Rubber tires		
Quit	0.52	0.41	0.58	0.77	0.56	0.57	0.50	0.46	0.53
Discharge	.30	.09	.14	.05	.01	.03	.06	.04	.04
Lay-off	.30	1.53	6.90	3.25	1.29	10.11	1.20	.82	6.44
Total separation	1.12	2.03	7.62	4.07	1.86	10.71	1.76	1.32	7.01
Accession	1.98	1.94	11.99	1.71	1.35	.97	1.87	2.51	1.19
	Sawmills			Slaughtering and meat packing			Steam and hot-water heating apparatus		
Quit	0.87	0.86	0.88	0.50	0.53	0.53	0.51	0.39	0.64
Discharge	.11	.26	.14	.15	.16	.16	.03	.03	.12
Lay-off	3.54	5.50	5.76	5.85	10.05	5.69	.80	1.28	3.38
Total separation	4.52	6.62	6.78	6.50	10.74	6.38	1.34	1.70	4.14
Accession	5.75	4.41	6.72	6.76	7.62	10.84	2.25	1.05	2.85
	Woolen and worsted goods								
Quit	0.90	1.51	0.52						
Discharge	.12	.09	.06						
Lay-off	2.60	2.11	7.47						
Total separation	3.62	3.71	8.05						
Accession	4.93	6.67	7.99						

Employment Offices

OPERATIONS OF UNITED STATES EMPLOYMENT SERVICE, FEBRUARY 1939

A ONE-THIRD gain in placements above the level of a year ago was reported by the United States Employment Service for February. Altogether 181,054 complete placements of all types were made, of which 126,408 were in private jobs. At the same time a decline in the number of job seekers registering with the offices was reported.

The betterment in placements during February marks the fourth successive month during which placements have exceeded the volume a year earlier. Widest improvement was shown in private jobs of regular duration, which numbered 49 percent more than in February 1938. Men were placed in 61,415 private jobs, of which 27,987 were of regular duration—the latter figure being 54.2 percent higher than in February 1938. Women were placed in 64,993 private jobs. In addition to the jobs with private employers, 54,646 placements in public employment were made, 35.3 percent more than 1 year earlier.

Improvement in the number of jobs filled accompanied an intensification of placement activity in offices throughout the country. Field visits to the number of 130,781 were made—51.7 percent more than in February 1938, and an increase in daily rate of 11.9 percent over January 1939. Widening of job opportunities for Employment Service registrants was general throughout the country, gains in private placements being reported in 36 States.

Moderate lessening in the demand for employment was also reported. Total current applications for jobs received during the month numbered 1,049,266, almost 10 percent lower than a year ago and a decrease in daily rate of nearly 20 percent from January. Unlike the situation last year, when large numbers of new applications were being received from previously unregistered persons making applications in connection with the filing of claims for unemployment compensation benefits, less than half of the registrations represented new applications. New applications numbered 489,335, a drop of 34.7 percent from last year, while renewals numbered 559,931, a gain of 34.9 percent from February 1938. The number of applications received from men showed a marked decline, 763,380 applications being received, 14.1 percent less than a year ago. Applications from

women, by contrast, increased, 285,886 current applications being received, a rise of 3.4 percent from 12 months earlier.

At the end of February, 7,198,803 active applications were in the files of employment offices throughout the country. Of these, 5,672,188 represented men and 1,526,615 women.

During February the 1,667 operating offices and 2,420 itinerant points of the United States Employment Service received 10,341,577 personal visits in connection with their operations, over 20 percent more than a year ago. In addition to the complete placements discussed above, the employment offices assisted in making 30,649 supplemental placements.

A summary of the principal operating totals for February is contained in table 1.

TABLE 1.—*Summary of Operations of United States Employment Service, February 1939*

Activity	Number	Percent of change from—		
		January 1939 [1]	February 1938	February 1937
Total applications	1,049,266	−19.3	−9.9	+87.5
New applications	489,335	−16.8	−34.7	+86.6
Renewals	559,931	−21.4	+34.9	+88.4
Total placements	181,054	−.6	+37.3	−27.6
Private	126,408	+6.5	+38.2	−19.9
Public	54,646	−13.9	+35.3	−40.9
Active file (end of month)	7,198,803	−3.2	+6.4	+17.7

[1] Adjusted for number of working days in month.

Registration and placement activity for veterans paralleled in general the trends reported for applicants as a whole. A summary of the national totals for veterans is contained in table 2.

TABLE 2.—*Summary of Veterans' Activities, February 1939*

Activity	Number	Percent of change from—		
		January 1939 [1]	February 1938	February 1937
Total applications	43,737	−13.0	−10.7	+41.2
New applications	13,355	−17.7	−46.7	+27.0
Renewals	30,382	−10.7	+27.1	+48.5
Total placements	8,251	−12.9	+23.1	−46.5
Private	4,185	+7.1	+27.5	−44.9
Public	4,066	−26.9	+18.8	−48.0
Active file (end of month)	355,876	−2.4	+2.6	+5.3

[1] Adjusted for number of working days in month.

TABLE 3.—*Operations of United States Employment Service, February 1939*

TOTAL

Division and State	Placements					Field visits	Applications		Active file, Feb. 28, 1939	Personal visits	Supplemental placements
	Total	Private			Public		Total	New			
		Number	Percent of change from January [1]	Regular (over 1 month)							
United States	181,054	126,408	+6	65,179	54,646	130,781	1,049,266	489,335	7,198,803	10,341,577	30,649
New Eng.	8,816	6,877	−3	4,791	1,939	5,805	56,086	23,214	526,800	697,209	948
Maine	1,035	796	−16	595	239	891	8,207	1,839	45,310	71,699	71
N. H.	1,619	1,310	−18	1,032	309	616	5,135	1,276	29,610	31,525	366
Vermont	702	468	+4	275	234	263	2,041	779	17,865	17,542	18
Mass.	2,064	1,594	+9	1,176	470	880	19,118	11,463	316,242	350,082	172
R. I.	691	564	+2	363	127	875	8,188	3,705	31,788	91,794	133
Conn.	2,705	2,145	+5	1,350	560	2,280	13,397	4,152	85,985	134,567	188
Mid. Atl.	24,059	19,210	+10	10,967	4,849	20,254	263,687	129,631	1,790,750	2,932,190	1,174
New York	14,452	10,716	+4	5,572	3,736	8,826	109,720	61,718	556,707	[2] 1,691,565	473
New Jersey	3,407	3,077	+9	1,715	330	2,932	54,149	34,873	282,801	400,445	162
Penn.	6,200	5,417	+24	3,680	783	8,496	99,818	33,040	951,242	840,180	539
E. N. C.	30,437	25,097	+10	13,223	5,340	25,289	181,841	82,863	1,477,081	1,482,320	5,156
Ohio	5,995	4,742	+16	2,323	1,253	4,157	55,476	32,223	458,441	521,945	2,479
Indiana	4,924	4,610	+16	2,738	314	6,177	24,980	11,271	196,555	272,393	1,066
Illinois	9,119	8,666	+3	3,933	453	4,900	25,209	11,892	299,507	118,923	178
Michigan	6,119	4,025	+7	2,371	2,094	6,563	52,603	20,191	354,372	410,057	956
Wisconsin	4,280	3,054	+20	1,858	1,226	3,492	23,573	7,286	168,206	159,002	477
W. N. C.	15,921	11,715	+14	5,172	4,206	17,128	89,038	38,690	697,430	897,481	1,333
Minnesota	3,073	2,424	−2	1,267	649	6,521	16,450	6,732	205,760	289,405	243
Iowa	4,585	3,576	+22	1,204	1,009	3,113	14,141	6,040	103,767	200,502	655
Missouri	3,237	2,383	+20	1,382	854	3,271	27,493	15,725	200,724	193,739	50
North Dak.	948	819	+2	307	129	673	4,935	1,031	32,972	26,476	57
South Dak.	1,019	696	+12	247	323	610	3,372	948	36,199	18,819	13
Nebraska	1,314	864	+41	389	450	1,403	7,551	2,843	45,556	68,684	63
Kansas	1,745	953	+13	376	792	1,537	15,096	5,371	72,452	99,856	252
South Atl.	28,514	14,165	+10	8,166	14,349	12,658	133,659	65,473	846,478	1,146,142	2,242
Delaware	748	461	+24	224	287	242	2,890	1,251	18,927	30,153	20
Maryland	2,640	1,559	+12	922	1,081	1,623	17,243	5,874	71,216	146,241	126
Dist. of Col.	2,431	2,233	−0	986	198	70	7,535	3,705	51,036	72,597	3
Virginia	4,165	1,737	+2	1,255	2,428	1,578	19,683	8,767	53,409	144,404	167
West Va.	2,643	1,890	+4	1,161	753	2,017	15,693	4,527	114,882	157,821	614
N. C.	6,717	3,368	+7	1,848	3,349	2,364	24,075	11,041	129,629	267,511	354
S. C.	2,713	801	+25	465	1,912	928	9,179	4,284	124,871	112,706	111
Georgia	4,695	1,992	+24	1,240	2,703	3,698	24,777	14,238	163,884	125,952	189
Florida [3]	1,762	124	-------	65	1,638	138	12,584	11,786	118,624	88,757	658
E. S. C.	12,030	6,414	+2	4,804	5,616	6,639	58,275	32,291	472,187	521,434	2,669
Kentucky	1,406	826	+17	459	580	666	17,691	11,932	114,707	86,816	521
Tennessee	3,721	2,360	+1	1,587	1,361	2,889	12,483	7,153	141,034	172,821	516
Alabama	4,515	2,771	+21	2,437	1,744	2,007	13,901	6,384	142,573	154,654	1,027
Mississippi	2,388	457	−52	321	1,931	1,077	14,200	6,822	73,873	107,143	605
W. S. C.	34,308	24,365	+6	8,712	9,943	23,183	97,500	46,463	540,787	994,609	13,825
Arkansas	2,593	1,582	+47	559	1,011	1,319	8,359	4,471	83,260	90,984	1,187
Louisiana	5,061	3,801	+39	2,297	1,260	3,404	18,864	8,221	143,830	154,913	909
Oklahoma	2,702	1,296	−3	539	1,406	1,677	21,075	10,496	74,019	178,119	120
Texas	23,952	17,686	−1	5,317	6,266	16,783	49,202	23,275	239,678	570,593	11,609
Mountain	6,583	4,420	−11	2,023	2,163	5,737	46,253	15,571	237,564	354,200	847
Montana	750	367	−16	187	383	1,013	3,158	983	35,063	23,396	41
Idaho	787	636	−4	327	151	1,125	4,403	1,650	23,690	75,612	28
Wyoming	382	224	+15	58	158	186	2,938	1,022	14,159	27,679	6
Colorado	1,476	1,089	+12	477	387	608	17,610	5,676	74,788	98,178	59
New Mex.	844	409	−33	282	435	1,054	3,236	1,476	35,837	29,653	22
Arizona	1,037	798	−33	379	239	579	5,433	2,423	25,668	37,313	506
Utah	727	454	+22	84	273	590	7,688	1,619	23,428	46,585	144
Nevada	580	443	−21	229	137	582	1,787	722	4,931	15,784	41
Pacific	19,390	13,952	+2	7,228	5,438	13,849	121,259	53,764	600,151	1,302,820	2,181
Wash.	1,284	995	−7	544	289	1,818	12,486	6,054	150,599	197,844	447
Oregon	2,905	1,581	+23	1,147	1,324	1,618	10,520	4,590	74,897	150,032	215
California	15,201	11,376	+0	5,537	3,825	10,413	98,253	43,120	374,655	954,944	1,519
Alaska	622	41	−5	14	581	96	456	336	2,642	8,115	[4] 1
Hawaii	374	152	+17	79	222	143	1,212	1,039	6,933	5,057	273

[1] Adjusted for number of working days in month.
[2] Estimated.
[3] Includes N. R. S. activities for Feb. 1–18 only.
[4] Feb. 1–4 only.

TABLE 3.—*Operations of United States Employment Service, February 1939*—Continued

MEN

Division and State	Placements					Applications			Active file, Feb. 28, 1939
		Private					New		
	Total	Number	Percent of change from January [1]	Regular (over 1 month)	Public	Total	Number	Percent of change from January [1]	
United States	115,013	61,415	+12	27,987	53,598	763,380	331,194	−19	5,672,188
New England	5,276	3,415	−3	2,422	1,861	37,179	13,605	−22	377,323
Maine	625	387	−27	278	238	6,401	1,194	−30	36,577
New Hampshire	1,244	947	−21	769	297	3,669	786	−16	22,378
Vermont	510	277	+18	136	233	1,498	522	−20	14,778
Massachusetts	1,166	711	+18	501	455	12,121	6,699	−21	224,026
Rhode Island	290	198	+14	135	92	4,755	1,954	−7	18,804
Connecticut	1,441	895	+13	603	546	8,735	2,450	−29	60,760
Middle Atlantic	11,938	7,215	+13	4,038	4,723	181,842	81,488	−10	1,357,514
New York	7,906	4,259	+7	2,143	3,647	72,697	39,161	−18	386,805
New Jersey	1,181	861	+33	582	320	35,198	21,464	+20	212,691
Pennsylvania	2,851	2,095	+21	1,313	756	73,947	20,863	−18	758,018
East North Central	15,375	10,258	+10	4,889	5,117	131,700	57,216	−28	1,226,792
Ohio	2,945	1,700	+24	754	1,245	40,240	23,448	−36	385,781
Indiana	1,927	1,692	+15	854	235	16,511	7,360	−27	160,432
Illinois	4,294	3,913	+0	1,547	381	16,745	7,625	+19	245,786
Michigan	3,860	1,775	+3	1,090	2,085	40,989	13,867	−30	297,430
Wisconsin	2,349	1,178	+34	644	1,171	17,215	4,916	−18	137,363
West North Central	9,683	5,582	+38	1,892	4,101	66,104	26,506	−29	565,102
Minnesota	1,684	1,069	+24	416	615	11,216	4,185	−31	165,247
Iowa	2,780	1,794	+56	502	986	10,070	3,787	−16	82,001
Missouri	1,868	1,017	+29	504	851	20,299	11,091	−30	164,054
North Dakota	586	469	+29	130	117	3,387	640	−48	26,728
South Dakota	681	365	+39	99	316	2,672	612	−42	28,922
Nebraska	890	459	+106	139	431	5,885	1,930	−36	37,735
Kansas	1,194	409	+3	102	785	12,575	4,261	−26	60,415
South Atlantic	20,958	6,789	+26	3,727	14,169	96,888	43,763	−7	644,500
Delaware	398	117	+89	65	281	1,776	731	−46	14,480
Maryland	1,957	878	+17	521	1,079	12,869	3,641	−24	55,664
District of Columbia	887	700	+25	318	187	4,291	2,163	−15	34,752
Virginia	3,406	987	+47	737	2,419	14,839	6,094	−18	40,692
West Virginia	1,552	805	−2	521	747	13,110	3,319	−26	99,844
North Carolina	4,801	1,568	+22	688	3,233	16,081	6,850	−22	87,531
South Carolina	2,369	464	+34	236	1,905	7,201	2,992	−25	99,718
Georgia	3,886	1,199	+34	614	2,687	16,037	8,056	−25	122,434
Florida [2]	1,702	71	-------	27	1,631	[3] 10,684	[3] 9,917	-------	89,385
East South Central	9,056	3,492	+5	2,573	5,564	46,313	24,129	−23	381,964
Kentucky	909	330	+20	140	579	14,573	9,550	−16	92,700
Tennessee	2,425	1,068	−5	662	1,357	8,922	4,779	−22	110,891
Alabama	3,571	1,868	+24	1,605	1,703	10,830	4,506	−31	114,976
Mississippi	2,151	226	−46	166	1,925	11,988	5,294	−28	63,397
West South Central	25,028	15,206	+13	3,880	9,822	76,137	35,102	−30	444,946
Arkansas	1,982	993	+90	167	989	6,813	3,568	−38	72,036
Louisiana	3,471	2,267	+62	1,118	1,204	14,427	5,939	−30	118,046
Oklahoma	1,782	387	−10	115	1,395	17,350	8,560	−24	63,495
Texas	17,793	11,559	+5	2,480	6,234	37,547	17,035	−30	191,369
Mountain	4,227	2,134	−15	893	2,093	37,815	11,372	−27	201,557
Montana	583	215	−4	105	368	2,749	760	−22	30,053
Idaho	419	273	−6	102	146	3,565	1,229	−34	21,478
Wyoming	293	136	+79	30	157	2,470	744	−45	12,290
Colorado	931	559	+42	198	372	14,098	4,133	−28	61,418
New Mexico	589	159	−55	105	430	2,628	1,089	−23	30,296
Arizona	583	349	−50	159	234	4,439	1,849	−6	21,745
Utah	413	163	+35	26	250	6,360	999	−38	19,948
Nevada	416	280	−22	168	136	1,506	569	−18	4,329
Pacific	12,543	7,198	+4	3,619	5,345	87,944	36,811	−6	464,195
Washington	848	576	+15	251	272	9,850	4,576	−2	132,735
Oregon	2,513	1,193	+25	861	1,320	8,684	3,481	−15	61,823
California	9,182	5,429	−1	2,507	3,753	69,410	28,754	−5	269,637
Alaska	608	27	−7	11	581	380	287	−42	2,399
Hawaii	321	99	+60	43	222	1,078	915	−30	5,896

[1] Adjusted for number of working days in month.
[2] Includes N. R. S. activities for Feb. 1-18 only.
[3] Partially estimated.

TABLE 3.—*Operations of United States Employment Service, February 1939*—Continued

WOMEN

Division and State	Placements				Applications			Active file, Feb. 28, 1939
	Total	Private			Total	New		
		Number	Percent of change from January [1]	Regular (over 1 month)		Number	Percent of change from January [1]	
United States	66,041	64,993	+2	37,192	285,886	158,141	−11	1,526,615
New England	3,540	3,462	−2	2,369	18,907	9,609	−19	149,477
Maine	410	409	−1	317	1,806	645	−35	8,733
New Hampshire	375	363	−10	263	1,466	490	−11	7,232
Vermont	192	191	−10	139	543	257	−8	3,087
Massachusetts	898	883	+2	675	6,997	4,764	−19	92,216
Rhode Island	401	366	−3	228	3,433	1,751	−12	12,984
Connecticut	1,264	1,250	−1	747	4,662	1,702	−21	25,225
Middle Atlantic	12,121	11,995	+8	6,929	81,845	48,143	−8	433,236
New York	6,546	6,457	+3	3,429	37,023	22,557	−19	169,902
New Jersey	2,226	2,216	+2	1,133	18,951	13,409	+24	70,110
Pennsylvania	3,349	3,322	+25	2,367	25,871	12,177	−11	193,224
East North Central	15,062	14,839	+10	8,334	50,141	25,647	−12	250,289
Ohio	3,050	3,042	+12	1,569	15,236	8,775	−20	72,660
Indiana	2,997	2,918	+16	1,884	8,469	3,911	−14	36,123
Illinois	4,825	4,753	+5	2,386	8,464	4,267	+29	53,721
Michigan	2,259	2,250	+11	1,281	11,614	6,324	−14	56,942
Wisconsin	1,931	1,876	+12	1,214	6,358	2,370	−23	30,843
West North Central	6,238	6,133	−1	3,280	22,934	12,184	−23	132,328
Minnesota	1,389	1,355	−16	851	5,234	2,547	−24	40,513
Iowa	1,805	1,782	+0	702	4,071	2,253	−24	21,766
Missouri	1,369	1,366	+14	878	7,194	4,634	−23	36,670
North Dakota	362	350	−21	177	1,548	391	−21	6,244
South Dakota	338	331	−7	148	700	336	−37	7,277
Nebraska	424	405	+4	250	1,666	913	−24	7,821
Kansas	551	544	+23	274	2,521	1,110	−16	12,037
South Atlantic	7,556	7,376	−2	4,439	36,771	21,710	−7	201,978
Delaware	350	344	+11	159	1,114	520	−20	4,447
Maryland	683	681	+7	401	4,374	2,233	−14	15,552
District of Columbia	1,544	1,533	−9	668	3,244	1,542	−9	16,284
Virginia	759	750	−28	518	4,844	2,673	−4	12,717
West Virginia	1,091	1,085	+10	640	2,583	1,208	−18	15,038
North Carolina	1,916	1,800	−4	1,160	7,994	4,191	−25	42,098
South Carolina	344	337	+14	229	1,978	1,292	−18	25,153
Georgia	809	793	+11	626	8,740	6,182	−6	41,450
Florida [2]	60	53	-------	38	[3] 1,900	[3] 1,869	-------	29,239
East South Central	2,974	2,922	−1	2,231	11,962	8,162	−4	90,223
Kentucky	497	496	+15	319	3,118	2,382	+9	22,007
Tennessee	1,296	1,292	+6	925	3,561	2,374	+12	30,143
Alabama	944	903	+15	832	3,071	1,878	−14	27,597
Mississippi	237	231	−56	155	2,212	1,528	−23	10,476
West South Central	9,280	9,159	−5	4,832	21,363	11,361	−17	95,841
Arkansas	611	589	+7	392	1,546	903	−8	11,224
Louisiana	1,590	1,534	+15	1,179	4,437	2,282	−16	25,784
Oklahoma	920	909	0	424	3,725	1,936	−16	10,524
Texas	6,159	6,127	−11	2,837	11,655	6,240	−18	48,309
Mountain	2,356	2,286	−8	1,130	8,438	4,199	−8	36,007
Montana	167	152	−28	82	409	223	−14	5,010
Idaho	368	363	−3	225	838	421	−12	2,212
Wyoming	89	88	−25	28	468	278	−16	1,869
Colorado	545	530	−8	279	3,512	1,543	−5	13,370
New Mexico	255	250	−2	177	608	387	−3	5,541
Arizona	454	449	−9	220	994	574	−13	3,923
Utah	314	291	+16	58	1,328	620	−5	3,480
Nevada	164	163	−19	61	281	153	+1	602
Pacific	6,847	6,754	+0	3,609	33,315	16,953	−12	135,956
Washington	436	419	−26	293	2,636	1,478	−3	17,864
Oregon	392	388	+18	286	1,836	1,109	−15	13,074
California	6,019	5,947	+2	3,030	28,843	14,366	−13	105,018
Alaska	14	14	0	3	76	49	−16	243
Hawaii	53	53	−22	36	134	124	−22	1,037

[1] Adjusted for number of working days in month.
[2] Includes N. R. S. activities for Feb. 1–18 only.
[3] Partially estimated.

TABLE 4.—*Operations of United States Employment Service, February 1939*

VETERANS

Division and State	Placements					Applications			Active file, Feb. 28, 1939
		Private					New		
	Total	Number	Percent of change from January [1]	Regular (over 1 month)	Public	Total	Number	Percent of change from January [1]	
United States	8,251	4,185	+7	1,493	4,066	43,737	13,355	−18	355,876
New England	447	219	+4	154	228	2,458	613	−13	25,666
Maine	37	16	−27	12	21	537	58	0	2,346
New Hampshire	65	52	−26	40	13	251	50	+25	1,810
Vermont	35	12	−20	4	23	77	29	−28	854
Massachusetts	75	34	+13	27	41	747	340	−9	16,253
Rhode Island	24	13	−7	6	11	249	41	−25	604
Connecticut	211	92	+53	65	119	597	95	−33	3,799
Middle Atlantic	484	294	−10	109	190	6,543	2,083	−19	69,243
New York	286	163	−17	68	123	1,530	849	−14	16,154
New Jersey	78	63	+54	0	15	1,042	446	−12	11,631
Pennsylvania	120	68	−22	41	52	3,971	788	−26	41,458
East North Central	1,174	681	+5	285	493	8,442	2,502	−28	86,789
Ohio	227	136	+23	44	91	2,022	1,000	−38	27,818
Indiana	141	113	+14	50	28	953	401	−13	11,730
Illinois	355	236	−19	71	119	904	276	+3	18,360
Michigan	267	128	+42	85	139	3,344	569	−26	18,538
Wisconsin	184	68	+24	35	116	1,219	256	−27	10,343
West North Central	916	494	+31	113	422	4,327	1,276	−28	42,223
Minnesota	138	71	−16	21	67	704	215	−19	13,473
Iowa	411	264	+68	46	147	650	191	−18	6,080
Missouri	103	58	+7	25	45	1,234	530	−29	12,271
North Dakota	34	10	−47	3	24	163	25	−47	1,554
South Dakota	49	26	+4	3	23	251	24	−53	2,108
Nebraska	65	33	+154	7	32	341	82	−49	2,291
Kansas	116	32	+28	8	84	984	209	−22	4,446
South Atlantic	1,299	393	+16	172	906	5,388	1,958	−25	36,051
Delaware	27	11	+267	3	16	100	29	−22	995
Maryland	129	41	−9	18	88	881	139	−27	3,590
District of Columbia	79	53	+8	14	26	381	177	−2	3,382
Virginia	211	54	+38	35	157	680	130	−25	1,708
West Virginia	112	48	+17	24	64	585	112	−35	4,941
North Carolina	296	91	+15	37	205	812	225	−20	3,657
South Carolina	122	21	+31	12	101	376	92	−39	4,272
Georgia	223	69	+1	29	154	729	255	−29	5,653
Florida [2]	100	5	-------	0	95	[3] 844	[3] 799	-------	7,853
East South Central	520	191	+5	128	329	2,312	870	−27	19,662
Kentucky	53	12	−20	8	41	775	365	−21	5,511
Tennessee	170	64	+12	37	106	547	206	−27	6,642
Alabama	216	107	+20	80	109	657	160	−37	5,700
Mississippi	81	8	−62	3	73	333	139	−28	1,809
West South Central	1,484	899	+3	184	585	4,691	1,281	−32	24,293
Arkansas	121	58	+5	7	63	426	175	−29	3,988
Louisiana	176	114	+81	57	62	851	177	−39	6,063
Oklahoma	172	60	−10	10	112	1,768	467	−22	4,654
Texas	1,015	667	−3	110	348	1,646	462	−38	9,588
Mountain	535	217	−14	76	318	2,901	608	−25	14,210
Montana	84	34	−17	18	50	237	42	−44	2,198
Idaho	67	42	+27	10	25	325	86	−31	1,522
Wyoming	28	8	−20	3	20	201	46	−51	935
Colorado	154	37	+3	11	117	1,052	206	−12	4,050
New Mexico	39	10	+25	8	29	164	54	−7	1,944
Arizona	63	39	−32	14	24	285	99	−28	1,746
Utah	72	29	+107	5	43	516	39	−30	1,468
Nevada	28	18	−66	7	10	121	36	+3	347
Pacific	1,300	783	+12	269	517	6,608	2,114	+1	37,173
Washington	71	41	+41	12	30	562	178	+9	10,853
Oregon	198	77	−3	58	121	623	108	−25	4,605
California	1,031	665	+13	199	366	5,423	1,828	+3	21,715
Alaska	70	2	-------	1	68	33	21	−51	204
Hawaii	22	12	+500	2	10	34	29	−28	362

[1] Adjusted for number of working days in month.
[2] Includes N. R. S. for Feb. 1–18 only.
[3] Partially estimated.

EMPLOYMENT SERVICE REGISTRANTS IN AUGUST 1938

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IN August 1938 the Employment Service file of active registrants reached its recession peak. According to popularly accepted estimates, unemployment had reached a peak in May or June.[1] The active file, however, with characteristic sluggishness, continued to rise through August. Thus for a period of 2 or 3 months, the rise of the file coincided with the decline of unemployment, increasing sharply the proportion of unemployed who were registered. By August, the file equalled some 75 percent of the estimated number of all unemployed, which was the highest level of coverage in about two years.[2] It cannot be determined to what extent this increase improved the file as a statistical sample of the unemployed, but the file did provide specific data for three of every four unemployed.

At the end of August, the active files of eight States were inventoried, to determine the characteristics of the active applicants registered. The eight States were carefully selected to represent labor-market conditions in the United States.[3] The selected States all had begun compensation payments in January 1938 or before.[4] Thus, the sample data probably provided a better cross section of the unemployed, in August, than a Nation-wide inventory would have yielded at that time, because expanded Employment Service coverage resulted from the attraction of unemployment-compensation payments. A Nation-wide inventory would have provided figures from States that had been paying compensation for some time, States that had not yet begun to pay, and States that either had just assumed the load arising from the introduction of compensation or were preparing for this change in the immediate future.

Age and Sex of Registrants

The August sample inventory provides national data which may be taken, in general terms, as indicative of the sex, color, occupation, age, and industry of the unemployed. Of the registrants in sample States, 77 percent were men and 87 percent were white. Twenty-four percent of the men registered with the Service were less than 25 years of age (table 1). The 25 to 44 age class accounted for 48

[1] The unemployment estimates of the National Industrial Conference Board and of the American Federation of Labor both reached a peak in May.

[2] In August, the total number of registrants in the active file reached 8,119,187. This number was 83.5 percent of the total unemployed as estimated by Robert Nathan, 76.6 percent of the estimate of the National Industrial Conference Board, and 73.2 percent of the estimate of the American Federation of Labor.

[3] The method of selecting this sample was identical to the one used in selecting previous samples of this type. See Survey of Employment Service Information 1937 (pp. 103–104), and subsequent publications.

[4] The States were Arizona, Connecticut, District of Columbia, Louisiana, Maryland, Minnesota, New Hampshire, and Wisconsin.

percent, and 28 percent were 45 or over. Among women, 42 percent were under 25 years of age, 42 percent were between 25 and 44, and 16 percent were 45 or over. The high proportion of the younger group in the case of both men and women was due, in part, to the large number of recent students on the labor market during the summer.

TABLE 1.—*Age Groups of Active-File Registrants in August 1938 Sample Inventory, by Sex*

Age group	Total men and women			Men			Women		
	Number of registrants	Percent	Percent of change from April 1938	Number of registrants	Percent	Percent of change from April 1938	Number of registrants	Percent	Percent of change from April 1938
All ages	785,353	100.0	−2.9	603,212	100.0	−4.2	182,141	100.0	+1.3
24 years and under	222,988	28.4	+7.6	146,964	24.4	+6.0	76,024	41.7	+10.8
25 to 34 years	210,329	26.8	−4.4	165,162	27.4	−4.7	45,167	24.8	−3.4
35 to 44 years	151,142	19.2	−7.7	119,719	19.8	−8.3	31,423	17.3	−5.7
45 to 54 years	119,799	15.3	−8.1	99,974	16.6	−8.6	19,825	10.9	−5.5
55 to 64 years	65,468	8.3	−7.4	57,079	9.5	−7.9	8,389	4.6	−3.7
65 years and over	15,429	2.0	−8.2	14,161	2.3	−8.2	1,268	.7	−7.6
Unspecified	198			153			45		

Industrial Experience

The industrial backgrounds of active-file registrants in August 1938 indicate that the largest group (37 percent) of unemployed men in the active file had had experience in manufacturing and mining industries (table 2).

TABLE 2.—*Industrial Groups of Active-File Registrants in August 1938 Sample Inventory, by Sex*

Sex, and industrial group	Number of registrants	Percent	Percent of change from April 1938
All men	603,212	100.0	−4.2
Agriculture, forestry, and fishing	73,005	12.1	+4.4
Building and construction	77,020	12.8	−17.1
Manufacturing and mining	223,930	37.1	−.9
Professional, commercial, mechanical, governmental, and personal service	75,337	12.5	−5.4
Distribution	53,931	8.9	−4.5
Public utilities, transportation, and communication	40,494	6.7	−4.7
Miscellaneous and unspecified	59,495	9.9	−4.2
All women	182,141	100.0	+1.3
Manufacturing	67,661	37.2	−4.3
Distribution	17,568	9.6	+.5
Personal service	41,812	23.0	−2.2
Miscellaneous and unspecified	39,214	21.5	+17.8
All other	15,886	8.7	+2.1

Occupational Distribution

The occupational distribution of active-file registrants reveals that about 80 percent of all men registered had worked at manual trades (table 3). More specifically, 30 percent recorded physical-labor occupations; craftsmen and production workers each accounted for about one-fourth of the total. Among women, the largest groups were the manual (39 percent) and service workers (30 percent) and clerks (19 percent).

TABLE 3.—*Occupational Groups of Active-File Registrants in August 1938, Sample Inventory, by Sex*

Occupational group	Number of registrants	Percent	Percent of change from April 1938	Occupational group	Number of registrants	Percent	Percent of change from April 1938
All men	603,212	100.0	−4.2	All women	182,141	100.0	+1.3
White collar workers	70,276	11.7	+1.0	Professional and sales workers	16,040	8.8	+.9
Service workers	36,067	6.0	−8.4	Clerical workers	33,995	18.7	+11.0
Craftsmen	147,529	24.5	−3.3	Service workers	55,062	30.2	+.9
Production workers	154,620	25.6	−7.2	Manual workers	70,794	38.9	−3.4
Physical-labor workers	183,193	30.3	−3.9	Unassigned	6,250	3.4	+14.5
Unassigned	11,527	1.9	+7.9				

Number of Registrants in Relation to Economic Conditions

Although these groups are nearly always the most important numerically, their proportions vary with changing economic conditions. In the past, these variations in the active file have been somewhat obscured by the sluggishness with which the file as a whole responded to cyclical changes. However, it has been found that the active file of States paying unemployment-compensation benefits is considerably more sensitive in its reaction to economic changes than file figures in the non-benefit-paying States. This observation holds true for the sample file here used. The total number of registrants in the sample States declined in August, one month prior to the decline of the national file [5] and only 1 month after industrial production began to increase.[6]

Although the changes in the total number of registrants in the sample were slight, between the April and August inventories, the shifts in the characteristics of the work seekers reflect the beginnings of a reemployment trend. The early phases of this movement were

[5] Both the National and sample active files, when corrected for influences due to administrative procedures, were even more sensitive: The first declined in August, the second in July—the same month which showed the first increase in industrial production. For a discussion of this adjustment to the file see Survey of Employment Service Information, February 1938.

[6] As reported by the Federal Reserve Board. The index of industrial production (unadjusted for seasonal variation), after reaching a low point of 77 (1923–25=100) in May and June, recovered to 81 in July and to 87 in August.

eclipsed, as regards total numbers, by the registration of a large number of recent students in search of employment, but a closer examination of the sample data reveals an improvement in unemployment conditions generally.

The total number of active-file registrants, in the sample States, declined slightly (about 3 percent) from April to August 1938. This decline was entirely accounted for by the decrease in the number of men, as the number of women increased slightly. In both cases the movements were so slight as to be nearly negligible. However, a definite tendency toward reemployment is observed in the age distribution of the sample.

In August 1938, each age group in the active file was smaller than it had been in the preceding April, except the group aged 24 and under (table 1). Although this increase in the youngest group was characteristic of both sexes, the change was more pronounced in the case of women. Two factors doubtless contributed to these movements. The summer closing of schools, as usual, threw large numbers of young people on the labor market; at the same time, the recovery of business activity had begun to draw workers from the older, more experienced age levels back to work, which diminished the registrations of older workers. The latter movement is characteristic of the age groups in the middle working years; during periods of increasing economic activity they obtain jobs earliest and in greatest numbers, whereas during economic depressions they are laid off as production declines. Hence, their presence in large numbers on the labor market generally accompanies a recession of any considerable severity. This was the case during the early months of 1938, and the greater-than-average decline in the number of registrants in the middle working ages between April and August 1938 may be taken as an indication of a definitely improving employment trend.

A more complete definition of the groups leaving the file (presumably for employment) is furnished by the industrial distributions of the two inventories (table 2). Among men, the sharpest decline in the number of registrants between April and August occurred in the group with backgrounds in the building and construction industry. Although this decrease might well be ascribed to seasonal factors, the early rise of employment in this industry, indicated by these figures, evidently presaged by only a short time the rapid increase of industrial production which characterized the latter months of 1938.[7]

The number of male registrants in other industrial groups varied but slightly between April and August. There was a small increase in the number of registrants from agriculture, forestry, and fishing, while

[7] The Federal Reserve Board index of industrial production (unadjusted for seasonal variation) rose from 77 (1923-25=100) in May and June to 104 in November, the most rapid increase in recent years. In August the index stood at 87, the greater part of the rise occurring later.

all other major groups declined slightly. The large group from the manufacturing and mining industries remained nearly constant in size.

The changes in the industrial groups of women registered with the Employment Service show a different pattern. The large manufacturing and service groups declined somewhat, but the miscellaneous and unclassifiable group increased sharply. These changes reflect the beginning of the recovery in the lighter manufacturing industries (where jobs for women are more numerous), which began somewhat earlier than in heavy manufacturing. The large increase in the miscellaneous group (those without specific industrial background) was doubtless the result of the increase in the number of younger workers (24 and under), which was especially heavy in the case of women.

The inventory tabulations also reveal significant shifts in the occupational classifications of active-file registrants (table 3). Among men, the most significant changes were declines in the number of registrants classified as service and production workers. This change signaled the improving demand for these types of workers which preceded a widespread demand for all categories.

The significant changes observed in the occupational groupings of woman registrants were confined to a slight decline in the large group of manual workers (which matches the decline of registrations in the manufacturing group) and a large increase in the number of clerical workers. The latter group probably increased for the same reason as the unassigned, namely, because of the registrations of young workers. The professional and sales group and the large service group remained nearly constant in size.

Thus the beginnings of the recovery trend are clearly shown by the changes in the characteristics of active-file registrants between April and August. The large summer increase in the number of young people coming from school to seek work made this movement a little obscure at first, but the distributions indicate that the older, more experienced and, ordinarily, more highly paid job seekers were already returning to work in substantial numbers.

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, FEBRUARY 1939 [1]

PERMIT valuations for new residential construction were 21.1 percent higher during February than during January. Indicated expenditures for additions, alterations, and repairs were 6.4 percent greater. There was a pronounced decline in the value of new nonresidential buildings for which permits were issued. This decrease amounted to 38.6 percent and caused a decline of 3.9 percent in permit valuations for total construction, comparing February with January.

For new residential construction in February 1939 there was an increase of 164.4 percent from February 1938. All sections of the country shared in this increase, the gains in the Middle Atlantic States, East North Central States, East South Central States, and the Mountain States amounting to more than 100 percent. There was also a rise of 5.0 percent in the permit valuations for additions, alterations, and repairs over the year period. However, there was a decline of 16.2 percent in the value of new nonresidential buildings for the country as a whole, although 6 of the 9 geographic divisions showed increases for this class of construction. Total permit valuations were 47.9 percent higher than during February 1938.

Comparison of February 1939 With January 1939 and February 1938

A summary of building construction in 2,117 identical cities in February 1939, and January 1939 and February 1938 is given in table 1.

A summary of permit valuations of housekeeping dwellings and the number of families provided for in new dwellings in 2,117 identical cities, having a population of 1,000 and over, is shown in table 2 for February 1939, compared with January 1939 and February 1938.

[1] More detailed information by geographic divisions and individual cities is given in a separate pamphlet entitled "Building Construction, February 1939," copies of which will be furnished upon request.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,117 Identical Cities, February 1938, January and February 1939*

Class of construction	Number of buildings			Permit valuation		
	February 1939	Percentage change from—		February 1939	Percentage change from—	
		January 1939	February 1938		January 1939	February 1938
All construction	37,712	−3.1	+7.0	$148,530,865	−3.9	+47.9
New residential	11,395	−1.5	+55.0	86,707,991	+21.1	+164.4
New nonresidential	5,736	−11.8	−.2	36,182,672	−38.6	−16.2
Additions, alterations, and repairs	20,581	−1.2	−7.1	25,640,202	+6.4	+5.0

TABLE 2.—*Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 2,117 Identical Cities, February 1938, January and February 1939*

Type of dwelling	Permit valuation of housekeeping dwellings			Number of families provided for in new dwellings		
	February 1939	Percentage change from—		February 1939	Percentage change from—	
		January 1939	February 1938		January 1939	February 1938
All types	$86,244,141	+22.9	+163.3	24,581	+21.1	+158.3
1-family	40,734,043	+.7	+60.1	10,540	−.4	+57.0
2-family [1]	2,116,780	+7.0	+14.4	778	−7.3	+7.8
Multifamily [2]	43,393,318	+56.4	+693.6	13,263	+49.6	+537.6

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Analysis by Size of City, February 1939

Table 3 shows the value of permits issued for building construction in February 1939 compared with January 1939 and February 1938, by size of city and by class of construction.

The permit valuation of housekeeping dwellings in the 2,117 identical cities reporting for January and February 1939, together with the number of family dwelling units provided in new dwellings, by size of city, is given in table 4.

TABLE 3.—*Permit Valuation of Building Construction for Which Permits Were Issued, by Size of City, February 1938, January and February 1939*

Size of city	Number of cities	Total construction			New residential buildings		
		Permit valuation, February 1939	Percentage change from—		Permit valuation, February 1939	Percentage change from—	
			January 1939	February 1938		January 1939	February 1938
Total, all reporting cities	2,117	$148,530,865	−3.9	+47.9	$86,707,991	+21.1	+164.4
500,000 and over	14	66,652,359	+24.7	+78.9	50,693,638	+62.1	+494.1
100,000 and under 500,000	79	29,519,680	−18.4	+28.2	11,960,684	−24.6	+37.3
50,000 and under 100,000	95	12,195,099	−27.5	+31.4	5,380,813	−.3	+85.3
25,000 and under 50,000	164	11,586,389	+8.5	+34.0	4,604,251	+10.5	+47.8
10,000 and under 25,000	443	15,878,789	−3.9	+36.2	7,331,193	+9.1	+67.5
5,000 and under 10,000	391	6,567,922	−40.7	+24.6	3,761,946	−11.3	+41.0
2,500 and under 5,000	476	4,461,742	−39.9	+31.7	2,072,595	−23.3	+18.0
1,000 and under 2,500	455	1,668,885	−32.2	−11.4	902,871	−28.1	+24.4

Size of city	New nonresidential buildings			Additions, alterations, and repairs			Population (census of 1930)
	Permit valuation, February 1939	Percentage change from—		Permit valuation, February 1939	Percentage change from—		
		January 1939	February 1938		January 1939	February 1938	
Total, all reporting cities	$36,182,672	−38.6	−16.2	$25,640,202	+6.4	+5.0	60,550,772
500,000 and over	6,847,055	−55.9	−63.8	9,111,666	+36.8	−7.1	21,449,853
100,000 and under 500,000	11,124,130	−24.7	+42.2	6,434,866	+15.9	−.7	15,017,880
50,000 and under 100,000	3,874,294	−52.6	+1.8	2,939,992	−9.1	+14.3	6,335,822
25,000 and under 50,000	5,251,157	+37.4	+46.3	1,730,981	−35.6	−10.9	5,782,714
10,000 and under 25,000	4,898,043	−23.0	−4.3	3,649,553	+5.9	+68.8	6,793,748
5,000 and under 10,000	1,973,997	−65.3	+11.6	831,979	−27.4	−.2	2,756,976
2,500 and under 5,000	1,589,981	−57.7	+31.8	799,166	−16.8	+88.1	1,685,656
1,000 and under 2,500	624,015	−22.2	−34.6	141,999	−64.6	−29.9	728,123

TABLE 4.—*Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 2,117 Identical Cities, by Size of City, January and February 1939*

Size of city	Permit valuation of housekeeping dwellings			Number of families provided for in—							
				All types		1-family dwellings		2-family dwellings[1]		Multifamily dwellings[2]	
	February 1939	January 1939	Percentage change	February 1939	January 1939	February 1939	January 1939	February 1939	January 1939	February 1939	January 1939
Total, all reporting cities	$86,244,141	$70,166,102	+22.9	24,581	20,290	10,540	10,583	778	839	13,263	8,868
500,000 and over	50,462,638	31,267,238	+61.4	14,350	8,739	2,814	2,859	198	186	11,338	5,694
100,000 and under 500,000	11,960,684	15,314,466	−21.9	3,374	4,514	2,266	2,296	200	222	908	1,996
50,000 and under 100,000	5,160,713	5,196,124	−.7	1,511	1,508	945	931	106	99	460	478
25,000 and under 50,000	4,594,751	4,128,866	+11.3	1,327	1,249	1,020	1,040	71	97	236	112
10,000 and under 25,000	7,331,193	6,635,472	+10.5	2,002	1,977	1,714	1,644	105	130	183	203
5,000 and under 10,000	3,760,396	4,226,561	−11.0	1,081	1,291	946	894	50	60	85	337
2,500 and under 5,000	2,071,895	2,141,691	−3.3	651	689	586	615	31	29	34	45
1,000 and under 2,500	901,871	1,255,684	−28.2	285	323	249	304	17	16	19	3

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Construction During First 2 Months, 1938 and 1939

Cumulative totals for the first 2 months of 1939 compared with the same months of the preceding year are shown in table 5. The data are based on reports received from cities having a population of 1,000 and over.

TABLE 5.—*Permit Valuation of Building Construction in Reporting Cities of 1,000 Population and Over, First 2 Months of 1938 and of 1939*

Class of construction	Estimated cost of building construction, first 2 months of—		
	1939	1938	Percentage change
All construction	$304,414,387	$279,635,582	+8.9
New residential	158,966,026	133,012,291	+19.5
New nonresidential	95,541,004	98,259,314	−2.8
Additions, alterations, and repairs	49,907,357	48,363,977	+3.2

Table 6 presents the permit valuation of housekeeping dwellings and number of family dwelling units provided in cities with a population of 1,000 and over for the first 2 months of 1938 and 1939.

TABLE 6.—*Permit Valuation of Housekeeping Dwellings and Number of Family Dwelling Units, First 2 Months of 1938 and of 1939, by Type of Dwelling*

Type of dwelling	Permit valuation of housekeeping dwellings			Number of families provided for		
	First 2 months of—		Percentage change	First 2 months of—		Percentage change
	1939	1938		1939	1938	
All types	$157,051,918	$132,547,791	+18.5	45,610	39,918	+14.3
1-family	81,378,725	52,200,248	+55.9	21,203	14,164	+49.7
2-family [1]	4,102,185	4,728,611	−13.2	1,627	1,969	−17.4
Multifamily [2]	71,571,008	75,618,932	−5.4	22,780	23,785	−4.2

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

The information on building permits issued is based on reports received by the Bureau of Labor Statistics from 2,117 identical cities having a population of 1,000 and over.

The information is collected by the Bureau of Labor Statistics from local building officials, except in the States of Illinois, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania, where the State departments of labor collect and forward the information to the Bureau. The permit valuations shown in this report are estimates made by prospective builders on applying for permits to

build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are included in the Bureau's tabulation. The data collected by the Bureau of Labor Statistics show, in addition to private and municipal construction, the value of buildings for which contracts were awarded by the Federal and State Governments in the cities included in the report. For February 1939 the value of these buildings amounted to $16,668,000, for January 1939 to $25,906,000 and for February 1938 to $10,614,000.

Construction From Public Funds

The value of contracts awarded and force-account work started during February 1939, January 1939, and February 1938 on construction projects financed wholly or partially from various Federal funds is shown in table 7.

TABLE 7.—*Value of Contracts Awarded and Force-Account Work Started on Projects Financed from Federal Funds, January and February 1939 and February 1938* [1]

Federal agency	Contracts awarded and force-account work started—		
	February 1939	January 1939 [2]	February 1938 [2]
Total	$102,686,321	$231,991,840	$96,850,545
Public Works Administration:			
Federal	350,705	21,715,015	592,139
Non-Federal:			
N. I. R. A.	639,152	231,956	825,467
E. R. A. A.	965,816	6,648,040	30,393,482
P. W. A. A., 1938	35,663,655	91,381,115	
Federal projects under The Works Program		9,094,568	5,844,119
Regular Federal appropriations	63,812,134	100,519,136	59,195,338
U. S. Housing Authority	1,254,859	2,402,010	

[1] Preliminary, subject to revision.
[2] Revised.

The value of public-building and highway construction awards financed wholly from appropriations from State funds, as reported by the various State governments for February 1939, January 1939, and February 1938 is shown in table 8.

TABLE 8.—*Value of Public-Building and Highway-Construction Awards Financed Wholly From State Funds*

Type of project	Value of contracts		
	February 1939	January 1939	February 1938
Public building	$898,875	$246,322	$3,022,541
Highway construction	1,686,685	7,038,663	2,059,613

Retail Prices

FOOD PRICES IN FEBRUARY 1939

THE retail cost of food was 0.8 percent lower in February than in January with reductions reported for all commodity groups except meats. Beef and fresh pork products advanced slightly.

The February index for all foods was 76.8 percent of the 1923–25 average. It was 2.0 percent lower than in February 1938 when the index stood at 78.4 Decreases for the year for six of the eight commodity groups ranged from 1.3 percent for eggs to 8.1 percent for cereals and bakery products. Meats advanced 3.1 percent. Higher costs for fresh fruits and vegetables, amounting to 5.5 percent, advanced the combined cost for fresh, canned, and dried items 3.7 percent.

The all foods index for February was 27.9 percent above the level of the corresponding month of 1933 when the index was 60.1. It was 24.9 percent below the index for February 1929 which was 102.3

Details by Commodity Groups

A continuation of the decline in the cost of cereals and bakery products which has been in progress for many months amounted to 0.6 percent between January and February. This downward trend has been due principally to decreases in prices of wheat flour and white bread which showed further reductions for the month of 0.1 and 1.0 percent, respectively. Decreases in prices of whole-wheat and rye bread closely followed those for white bread. There were no significant price changes for other items in the group.

The cost of meats rose 0.6 percent due to higher prices for beef, veal, and fresh pork. All of the beef items except plate showed increases which ranged from 0.1 percent for rib roast to 1.0 percent for round steak and 1.3 percent for liver. Veal cutlets advanced 2.5 percent. Increases of 2.9 percent for pork chops and 3.3 percent for loin roast returned these items to the price level of December 1938. The price movement for cured pork continued downward with an average decline of 0.7 percent reported for the cost of these items. Lamb declined 0.7 percent; roasting chickens decreased slightly and were 13.3 percent lower than a year ago. The price of canned salmon

which declined 0.4 percent during the month maintained the downward movement which has been continuous for the past year.

Dairy products showed a decline of 1.1 percent. Prices were lower for all items in the group. The cost for this group was 5.9 percent below the level of February 1938. Butter showed a seasonal decrease of 1.3 percent between January and February and fresh milk averaged 1.0 percent lower. Few cities reported changes in the price of milk. The most significant decreases were 2.9 cents per quart in Cincinnati and 2.0 cents per quart in Pittsburgh.

Eggs showed a seasonal decline of 10.9 percent and were 1.3 percent lower than for the same period in 1938.

The cost of fruits and vegetables showed little change between January and February. For the fresh items, price increases and decreases offset each other. The price movements for most of the fresh items were seasonal. Oranges, with a decrease of 4.7 percent, showed the greatest change reported for fresh fruits. Green beans advanced 12.1 percent; cabbage rose 3.9 percent; sweetpotatoes increased 3.1 percent; potato prices held steady. Decreases for fresh vegetables ranged from 0.1 percent for onions to 10.4 percent for spinach. The price of canned peas decreased 1.1 percent; dried blackeyed peas advanced 1.3 percent. Minor price changes were reported for other canned and dried items.

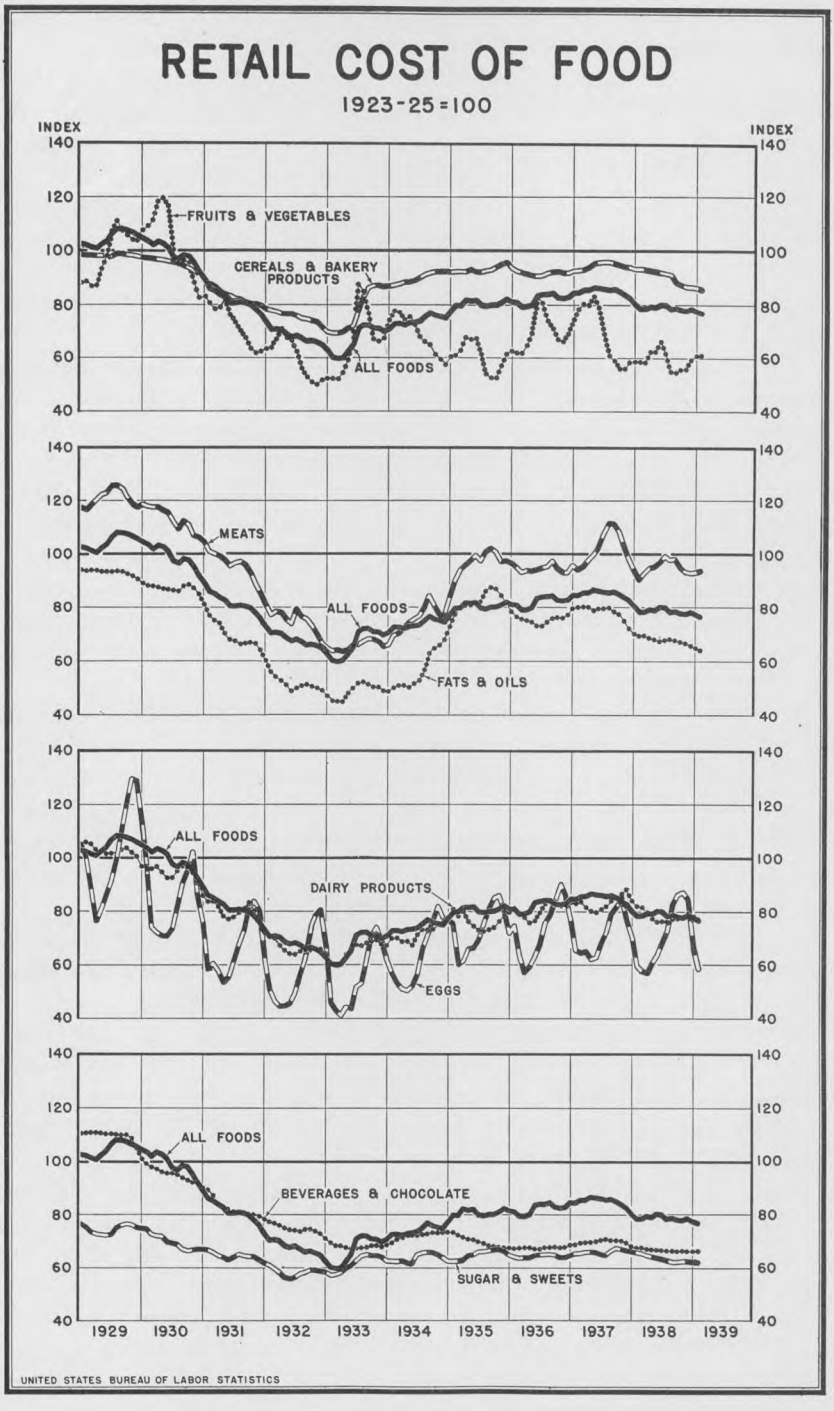
The cost of beverages and chocolate declined 0.2 percent. Slightly lower prices were shown for all items in the group.

The decrease of 1.1 percent for fats and oils continued the downward trend which was in evidence during the preceding 18 months. Lard showed a further price decrease of 3.2 percent; shortening in cartons was 1.1 percent lower. Price changes for other items in the group were negligible.

The price of sugar decreased 0.7 percent. This change, together with lesser decreases for other items in the group resulted in a decline of 0.5 percent in the average cost for the group as a whole.

Indexes of retail costs of food for February and January 1939, together with indexes for February 1938, 1933, and 1929 are shown in table 1. The accompanying chart shows the trend in the cost of all foods and of each major commodity group for the period from January 1929 to February 1939, inclusive.

Prices of each of the 84 foods for 51 cities are combined with the use of both consumption and population weights. Quantity weights for each food include the average family consumption in each city, not only of the food priced, but for groups of foods which are related in kind and which seem to follow the same price trend. These weights are based on the cost of living study of 1917–19. Population weights are averages of the population in 1920 and 1930 for each city, including



adjacent metropolitan areas and cities of over 50,000 in the same region.

TABLE 1.—*Indexes of Retail Food Costs in 51 Large Cities Combined,*[1] *by Commodity Groups*

February and January 1939 and February 1938, 1933, and 1929

[1923–25=100]

Commodity group	1939		1938	1933	1929
	Feb. 14 [2]	Jan. 17	Feb. 15	Feb. 15	Feb. 15
All foods	76.8	77.5	78.4	60.1	102.3
Cereals and bakery products	85.6	86.1	93.2	69.2	98.2
Meats	93.4	92.9	90.6	63.9	116.7
Dairy products	77.1	77.9	81.9	60.7	105.7
Eggs	58.7	65.9	59.4	45.3	101.0
Fruits and vegetables	61.0	61.1	58.8	52.1	88.7
Fresh	60.0	60.0	56.9	51.3	86.9
Canned	74.1	74.4	79.4	65.5	96.6
Dried	56.9	56.8	60.6	48.0	100.2
Beverages and chocolate	66.2	66.3	67.7	69.5	110.8
Fats and oils	64.1	64.8	69.5	45.2	93.7
Sugar and sweets	62.0	62.3	65.9	57.1	75.4

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined with the use of population weights.
[2] Preliminary.

Prices of 59 of the 84 foods included in the index were lower in February than in January, 22 were higher, and 3 showed no change. Compared with February 1938, prices of 62 foods were lower and 22 were higher.

Average prices for each of the 84 foods for 51 cities combined are shown in table 2 for February and January 1939, and February 1938

TABLE 2.—*Average Retail Prices of 84 Foods in 51 Large Cities Combined, February and January 1939 and February 1938*

[*Indicates the foods included in indexes prior to Jan. 1, 1935]

Article		1939		1938
		Feb. 14 [1]	Jan. 17	Feb. 15
Cereals and bakery products:				
Cereals:		*Cents*	*Cents*	*Cents*
*Flour, wheat	pound	3.6	3.6	4.3
*Macaroni	do	14.4	14.4	15.0
*Wheat cereal	28-oz. package	24.4	24.4	24.4
*Corn flakes	8-oz. package	7.3	7.3	7.5
*Corn meal	pound	4.6	4.6	4.8
Hominy grits	24-oz. package	8.5	8.5	9.1
*Rice	pound	7.6	7.6	8.0
*Rolled oats	do	7.1	7.1	7.3
Bakery products:				
*Bread, white	do	8.0	8.1	8.9
Bread, whole-wheat	do	9.2	9.3	9.8
Bread, rye	do	9.3	9.4	10.1
Cake	do	25.1	24.9	24.8
Soda crackers	do	15.3	15.3	16.4
Meats:				
Beef:				
*Sirloin steak	do	39.0	38.8	33.9
*Round steak	do	35.7	35.4	31.0
*Rib roast	do	30.1	30.0	27.5

[1] Preliminary.

TABLE 2.—*Average Retail Prices of 84 Foods in 51 Large Cities Combined, February and January 1939 and February 1938*—Continued

[*Indicates the foods included in indexes prior to Jan. 1, 1935]

Article		1939		1938
		Feb. 14	Jan. 17	Feb. 15
Meats—Continued.				
Beef—Continued.		*Cents*	*Cents*	*Cents*
*Chuck roast	pound	23.7	23.6	21.0
*Plate	do	15.7	15.9	14.7
Liver	do	25.8	25.5	24.4
Veal:				
Cutlets	do	43.7	42.6	42.9
Pork:				
*Chops	do	29.4	28.6	28.9
Loin roast	do	23.4	22.7	23.4
*Bacon, sliced	do	34.5	34.9	37.7
Bacon, strip	do	29.0	29.4	31.6
*Ham, sliced	do	47.0	46.8	45.1
Ham, whole	do	28.1	28.2	28.2
Salt pork	do	19.2	19.5	21.1
Lamb:				
Breast	do	12.8	12.6	11.8
Chuck	do	21.3	21.5	20.4
*Leg	do	27.9	28.1	26.2
Rib chops	do	34.9	35.4	32.6
Poultry:				
*Roasting chickens	do	30.8	30.9	35.5
Fish:				
Salmon, pink	16-oz. can	12.5	12.5	14.2
*Salmon, red	do	23.3	23.4	27.1
Dairy products.				
*Butter	pound	33.0	33.5	37.7
*Cheese	do	25.0	25.2	28.4
Cream	½ pint	14.4	14.6	15.0
Milk, fresh (delivered and store)	quart	12.2	12.3	12.5
*Milk, fresh (delivered)	do	12.5	12.7	12.7
Milk, fresh (store)	do	11.5	11.6	11.8
*Milk, evaporated	14½-oz. can	6.9	6.9	7.5
*Eggs	dozen	29.9	33.6	30.3
Fruits and vegetables:				
Fresh:				
Apples	pound	5.3	5.2	4.4
*Bananas	do	6.3	6.3	6.4
Lemons	dozen	24.1	24.4	29.0
*Oranges	do	23.6	24.8	24.1
Beans, green	pound	12.3	11.0	14.5
*Cabbage	do	3.4	3.3	5.1
Carrots	bunch	5.6	6.0	5.4
Celery	stalk	8.3	8.5	8.3
Lettuce	head	8.1	8.2	7.2
*Onions	pound	4.0	4.0	5.1
*Potatoes	do	2.4	2.4	2.0
Spinach	do	6.8	7.6	6.9
Sweetpotatoes	do	4.1	3.9	3.9
Canned:				
Peaches	No. 2½ can	16.9	16.9	19.4
Pears	do	20.5	20.5	21.7
Pineapple	do	21.3	21.4	23.2
Asparagus	No. 2 can	27.9	28.0	30.5
Beans, green	do	10.6	10.6	11.4
*Beans with pork	16-oz. can	7.3	7.3	7.6
*Corn	No. 2 can	10.9	10.9	11.8
*Peas	do	13.9	14.1	15.9
*Tomatoes	do	8.6	8.6	9.0
Tomato soup	10½-oz. can	7.4	7.4	7.5
Dried:				
Peaches	pound	14.8	14.8	15.8
*Prunes	do	9.1	9.1	9.4
*Raisins	15-oz. package	9.4	9.4	10.1
Black-eyed peas	pound	7.8	7.7	8.0
Lima beans	do	8.9	8.9	9.3
*Navy beans	do	5.9	5.6	6.5

TABLE 2.—*Average Retail Prices of 84 Foods in 51 Large Cities Combined, February and January 1939 and February 1938*—Continued

[*Indicates the foods included in indexes prior to Jan. 1, 1935]

Article		1939		1938
		Feb. 14	Jan. 17	Feb. 15
Beverages and chocolate:		*Cents*	*Cents*	*Cents*
*Coffee	pound	22.8	22.9	23.8
*Tea	¼-pound	17.6	17.7	17.6
Cocoa	8-oz. can	8.5	8.5	9.1
Chocolate	8-oz. package	16.1	16.1	16.2
Fats and oils:				
*Lard	pound	11.2	11.6	13.5
Shortening other than lard:				
In cartons	do	12.7	12.8	13.3
In other containers	do	20.5	20.5	19.7
Salad oil	pint	24.4	24.4	24.9
Mayonnaise	½ pint	17.2	17.3	17.5
*Oleomargarine	pound	16.6	16.6	17.4
Peanut butter	do	18.1	18.2	18.8
Sugar and sweets:				
*Sugar	do	5.1	5.2	5.5
Corn sirup	24-oz. can	13.8	13.8	14.1
Molasses	18-oz. can	13.6	13.6	14.0
Strawberry preserves	pound	20.9	20.9	22.2

Details by Cities

For the month ended February 14, food costs decreased in 36 of the 51 cities included in the index, with reductions of 1.0 percent or more in 17 of these cities. Increases of less than 1.0 percent were reported from 11 cities and of 1.0 percent or more from 3 cities. The greatest decrease, 4.4 percent, was shown for Pittsburgh where bread prices declined about 15 percent and the average price of fresh milk decreased 2.0 cents per quart. In Dallas, costs decreased 2.7 percent as the result of a reduction of 9.4 percent for fresh fruits and vegetables. Prices of beef and fresh pork declined in Dallas contrary to the general movement for these items. Cincinnati showed an average decrease of 2.6 percent. A reduction of 2.9 cents per quart in the average price of milk more than offset increases in the prices of meats. Food costs increases were greatest for Denver where a 1.5 percent increase was primarily due to a 6.7 percent rise in the price of white bread. A 1.4 percent rise in Minneapolis and a 1.0 percent advance in Columbus resulted from increased fresh fruit prices and greater than average advances for meats.

Indexes of retail food costs by regions and cities are given in table 3 for February and January 1939 and February 1938.

TABLE 3.—*Indexes of the Average Retail Cost of All Foods, by Regions and Cities,*[1] *February and January 1939 and February 1938*

[1923-25=100]

Region and city	1939		1938	Region and city	1939		1938
	Feb. 14 [2]	Jan. 17	Feb. 15		Feb. 14 [2]	Jan. 17	Feb. 15
United States	76.8	77.5	78.4	South Atlantic	75.9	76.7	77.5
New England	74.8	75.7	76.5	Atlanta	70.9	72.2	72.5
Boston	73.4	74.2	74.6	Baltimore	82.5	82.5	82.8
Bridgeport	79.0	79.8	81.4	Charleston, S. C	76.2	78.0	79.1
Fall River	77.9	79.0	79.7	Jacksonville	73.6	75.4	76.5
Manchester	78.5	79.0	79.0	Norfolk	73.7	75.1	76.3
New Haven	77.6	79.0	80.7	Richmond	69.9	70.5	72.6
Portland, Maine	76.0	76.7	77.1	Savannah	74.9	75.8	77.9
Providence	73.1	74.8	75.2	Washington, D. C	79.2	79.4	79.8
Middle Atlantic	77.8	78.6	79.0	East South Central	70.6	70.9	73.6
Buffalo	77.1	76.8	77.2	Birmingham	65.4	65.7	69.3
Newark	79.7	80.8	80.6	Louisville	81.1	81.5	82.5
New York	79.8	80.3	79.9	Memphis	72.8	72.9	75.6
Philadelphia	77.8	78.0	79.8	Mobile	73.0	73.1	73.7
Pittsburgh	72.9	76.3	77.2	West South Central	74.4	75.9	77.1
Rochester	77.4	77.4	78.5	Dallas	68.6	70.5	72.9
Scranton	73.6	73.7	74.2	Houston	75.4	77.1	77.8
East North Central	77.1	77.6	79.2	Little Rock	72.0	72.0	75.2
Chicago	77.2	78.3	79.3	New Orleans	82.1	82.7	82.4
Cincinnati	75.9	77.9	79.7	Mountain	78.5	77.7	80.6
Cleveland	79.2	79.3	78.6	Butte	73.7	73.6	76.6
Columbus, Ohio	76.4	75.7	77.8	Denver	81.4	80.1	83.1
Detroit	75.9	75.7	80.3	Salt Lake City	74.8	74.5	77.3
Indianapolis	76.4	77.2	77.8	Pacific	76.3	76.4	76.5
Milwaukee	80.2	79.8	82.4	Los Angeles	71.5	71.8	71.4
Peoria	77.9	78.3	79.4	Portland, Oreg	79.1	78.7	79.9
Springfield, Ill	75.9	75.6	75.3	San Francisco	80.6	80.8	80.9
West North Central	79.8	79.7	80.9	Seattle	78.4	77.8	78.5
Kansas City	78.1	78.1	79.7				
Minneapolis	83.5	82.4	83.7				
Omaha	73.9	73.7	76.4				
St. Louis	82.2	82.8	82.7				
St. Paul	79.2	78.8	80.5				

[1] Aggregate costs of 42 foods in each city prior to Jan. 1, 1935, and of 84 foods since that date, weighted to represent total purchases, have been combined for regions and for the United States with the use of population weights.

[2] Preliminary.

Wholesale Prices

WHOLESALE PRICES IN FEBRUARY 1939 [1]

FOLLOWING the downward movement of the preceding 4 months, the Bureau of Labor Statistics index of wholesale commodity prices for February rounded off at the January level, 76.9 percent of the 1926 average. The combined index of 813 price series was 3.6 percent lower than February 1938.

Both the farm products and foods group indexes remained unchanged at the January average. Miscellaneous commodities increased 0.4 percent, textile products and fuel and lighting materials advanced 0.3 percent, and building materials rose 0.1 percent. Hides and leather products declined 1.3 percent; chemicals and drugs, 0.5 percent; housefurnishing goods, 0.2 percent; and metals and metal products, 0.1 percent. In February each of the 10 major commodity groups was below its year ago level. The decreases range from 1.6 percent for building materials to 7.0 percent for fuel and lighting materials.

The index for the raw materials group remained unchanged at 70.9 percent of the 1926 average. It was 3.7 percent below a year ago. Average prices for semimanufactured commodities declined 0.7 percent to the lowest point reached since August of last year. The group index, 74.4, was 2.2 percent lower than it was for February 1938. Wholesale prices of finished products rose 0.3 percent, reversing the down-swing of the past 4 months. The February index, 80.2, was however, 3.7 percent below a year ago.

The indexes for the large groups "All commodities other than farm products" and "All commodities other than farm products and foods" remained unchanged at the January level, 78.9 and 80.2 percent of the 1926 average. The former index was 3.7 percent below February of last year and the latter was down 3.4 percent.

In the farm products group a decline of 2.8 percent in grains was counterbalanced by increases of 1.5 percent for livestock and poultry and 0.5 percent for "Other farm products," with the result that the group index remained unchanged at the January level. Lower prices were reported for barley, corn, rye, poultry, eggs, peanuts, seeds, white potatoes, fresh milk (Chicago), and wool. Quotations were higher for calves, hogs, apples, lemons, oranges, hops, onions, and sweetpotatoes.

[1] More detailed information on wholesale prices is given in the Wholesale Price pamphlet and will be furnished upon request.

The February farm products index, 67.2, was 3.7 percent below a year ago.

Average wholesale prices of foods also remained unchanged at the level of the preceding month. Increases of 2.0 percent for fruits and vegetables and meats were offset by decreases of 3.0 percent for "Other foods," 0.7 percent for cereal products, and 0.3 percent for dairy products. Prices were higher for most canned and dried fruits and vegetables, fresh pork, veal, beef, and bacon. Quotations were lower for butter, oatmeal, corn meal, hominy grits, bananas, prunes, lamb, mutton, cocoa beans, molasses, oleo oil, pepper, tallow, and vegetable oils. The food group index, 71.5, was 2.7 percent below a year ago.

Sharp declines in prices of hides, skins, and leather, together with a minor decrease in prices of shoes, caused the hides and leather products group index to fall 1.3 percent. No changes were reported in prices of gloves, harness, belting, and luggage.

The index for the textile products group advanced 0.3 percent during the month largely because of sharp advances in prices of raw silk and silk yarns, together with smaller increases for woolen and worsted goods and other textile products such as burlap and raw jute. Cotton goods, principally print cloth and sheeting, averaged lower. The hosiery and underwear subgroup decreased fractionally and clothing remained at the January level.

An advance of 0.1 percent was registered in the fuel and lighting materials group index because of higher prices for Pennsylvania fuel oil and gasoline, kerosene, and gas. Anthracite and bituminous-coal prices declined fractionally while Oklahoma fuel oil and natural gasoline fell sharply. Coke prices were steady.

Minor decreases in average prices for agricultural implements, together with lower prices for ferromanganese, antimony, and babbitt metal, caused the metals and metal products group index to decline 0.1 percent. A sharp advance was reported in prices of quicksilver, and certain plumbing and heating items advanced fractionally.

Wholesale prices of building materials rose 0.1 percent as a result of higher prices for yellow pine timbers, hemlock and Ponderosa pine lumber, and turpentine. Lower prices were reported for spruce lumber, tung oil, rosin, and tar. Average prices for structural steel and brick and tile were steady.

Weakening prices for oils, chlorine, tankage, and mixed fertilizers caused the chemicals and drugs group index to decline 0.5 percent during the month.

The index for the housefurnishing goods group dropped 0.2 percent to 85.2 percent of the 1926 average. Lower prices were reported for

cutlery, pillowcases, and sheets. Wholesale prices of furniture were steady.

Weakening prices for cottonseed and linseed meals caused the cattle feed subgroup to decline 2.1 percent. Crude rubber advanced 0.9 percent and automobile tires and tubes rose 1.5 percent. Paper and pulp increased 0.1 percent.

Index numbers for the groups and subgroups of commodities for January and February 1939 and February 1938 are shown in table 1.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities*

[1926=100]

Group and subgroup	February 1939	January 1939	February 1938
All commodities	**76.9**	**76.9**	**79.8**
Farm products	**67.2**	**67.2**	**69.8**
Grains	54.7	56.3	73.0
Livestock and poultry	79.2	78.0	78.1
Other farm products	62.9	63.2	63.5
Foods	**71.5**	**71.5**	**73.5**
Dairy products	71.6	71.8	78.3
Cereal products	72.7	73.2	83.2
Fruits and vegetables	62.1	60.9	56.8
Meats	83.2	81.6	78.4
Other foods	61.7	63.6	66.7
Hides and leather products	**91.9**	**93.1**	**94.7**
Shoes	101.1	101.2	104.6
Hides and skins	72.8	78.4	74.6
Leather	84.2	85.0	84.4
Other leather products	95.3	95.3	102.4
Textile products	**66.1**	**65.9**	**68.6**
Clothing	81.5	81.5	85.8
Cotton goods	63.7	64.3	67.6
Hosiery and underwear	58.8	59.1	60.9
Silk and rayon	34.7	32.1	28.5
Woolen and worsted goods	74.7	74.5	81.0
Other textile products	64.5	64.4	67.0
Fuel and lighting material	**73.0**	**72.8**	**78.5**
Anthracite	79.9	80.3	79.8
Bituminous coal	98.1	98.3	103.2
Coke	104.2	104.2	105.5
Electricity	(1)	(1)	89.6
Gas	(1)	82.2	82.9
Petroleum products	50.7	50.4	58.0
Metals and metal products	**94.3**	**94.4**	**96.0**
Agricultural implements	93.2	93.4	96.2
Farm machinery	94.5	94.6	97.7
Metals—Continued.			
Iron and steel	96.1	96.4	99.3
Motor vehicles [2]	93.4	93.4	95.6
Nonferrous metals	76.5	76.7	72.1
Plumbing and heating	79.2	78.7	79.6
Building materials	**89.6**	**89.5**	**91.1**
Brick and tile	92.4	92.4	91.5
Cement	95.5	95.5	95.5
Lumber	92.6	91.7	91.0
Paint and paint materials	80.5	81.0	79.2
Plumbing and heating	79.2	78.7	79.6
Structural steel	107.3	107.3	114.9
Other building materials	89.3	89.6	95.3
Chemicals and drugs	**76.3**	**76.7**	**79.1**
Chemicals	79.4	79.7	83.6
Drugs and pharmaceuticals	72.7	73.0	73.9
Fertilizer materials	69.3	70.2	72.3
Mixed fertilizers	73.7	74.8	72.3
Housefurnishing goods	**85.2**	**85.4**	**88.0**
Furnishings	89.8	90.1	92.2
Furniture	80.5	80.5	83.7
Miscellaneous	**73.5**	**73.2**	**74.8**
Automobile tires and tubes	59.7	58.8	57.4
Cattle feed	78.2	79.9	86.7
Paper and pulp	81.1	81.0	89.7
Rubber, crude	33.7	33.4	30.2
Other miscellaneous	81.2	81.1	82.2
Raw materials	**70.9**	**70.9**	**73.6**
Semimanufactured articles	**74.4**	**74.9**	**76.1**
Finished products	**80.2**	**80.0**	**83.3**
All commodities other than farm products	**78.9**	**78.9**	**81.9**
All commodities other than farm products and foods	**80.2**	**80.2**	**83.0**

[1] Data not available.
[2] Preliminary revision.

Index Numbers by Commodity Groups, 1926 to February 1939

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1938, inclusive, and by months from February 1938 to February 1939, inclusive, are shown in table 2.

TABLE 2.—*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 drugs	House-furnishing goods	Miscellaneous	All commodities
By years:											
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	94.2	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.5	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.6	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	80.4	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	83.9	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.6	86.8	73.3	78.6
By months:											
1938:											
February	69.8	73.5	94.7	68.6	78.5	96.0	91.1	79.1	88.0	74.8	79.8
March	70.3	73.5	93.6	68.2	77.7	96.0	91.5	78.7	87.7	74.4	79.7
April	68.4	72.3	92.1	67.2	76.8	96.3	91.2	77.5	87.3	73.4	78.7
May	67.5	72.1	91.3	66.1	76.2	96.7	90.4	76.8	87.2	73.1	78.1
June	68.7	73.1	90.1	65.5	76.4	96.1	89.7	76.3	87.1	72.9	78.3
July	69.4	74.3	91.5	66.1	76.8	95.2	89.2	77.7	86.4	72.7	78.8
August	67.3	73.0	91.9	65.9	76.8	95.4	89.4	77.7	86.4	72.4	78.1
September	68.1	74.5	92.0	65.8	76.6	95.5	89.5	77.3	86.2	72.4	78.3
October	66.8	73.5	93.4	66.2	75.4	95.3	89.8	77.1	85.7	72.6	77.6
November	67.8	74.1	94.6	66.2	73.7	94.9	89.2	76.6	85.8	73.0	77.5
December	67.6	73.1	93.1	65.8	73.2	94.6	89.4	76.7	86.0	73.1	77.0
1939:											
January	67.2	71.5	93.1	65.9	72.8	94.4	89.5	76.7	85.4	73.2	76.9
February	67.2	71.5	91.9	66.1	73.0	94.3	89.6	76.3	85.2	73.5	76.9

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, finished 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 "Finished products" was given in the December 1938 issue of the Wholesale Price pamphlet.

TABLE 3.—*Index Numbers of Wholesale Prices, by Special Groups of Commodities*

[1926=100]

Year and month	Raw materials	Semimanufactured articles	Finished products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semimanufactured articles	Finished products	All commodities other than farm products	All commodities other than farm products and foods
By years:						By months—Con.					
1926	100.0	100.0	100.0	100.0	100.0	1938—Con.					
1929	97.5	93.9	94.5	93.3	91.6	May	70.7	75.4	82.1	80.3	81.6
1932	55.1	59.3	70.3	68.3	70.2	June	71.4	74.1	82.2	80.3	81.3
1933	56.5	65.4	70.5	69.0	71.2	July	72.3	74.3	82.5	80.8	81.4
1936	79.9	75.9	82.0	80.7	79.6	August	71.4	74.4	81.8	80.3	81.4
1937	84.8	85.3	87.2	86.2	85.3	September	72.0	74.7	81.8	80.4	81.3
1938	72.0	75.4	82.2	80.6	81.7	October	70.9	75.9	81.1	79.9	81.1
By months:						November	71.5	76.2	80.5	79.5	80.6
1938:						December	70.9	75.2	80.2	79.0	80.3
February	73.6	76.1	83.3	81.9	83.0	1939:					
March	73.2	75.6	83.4	81.6	82.6	January	70.9	74.9	80.0	78.9	80.2
April	71.3	75.3	82.7	80.8	82.0	February	70.9	74.4	80.2	78.9	80.2

Weekly Fluctuations

Weekly fluctuations in the major commodity group classifications during January and February are shown by the index numbers in table 4.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, January and February 1939*

[1926=100]

Commodity group	Feb. 25, 1939	Feb. 18, 1939	Feb. 11, 1939	Feb. 4, 1939	Jan. 28, 1939	Jan. 21, 1939	Jan. 14, 1939	Jan. 7, 1939
All commodities	76.8	76.6	76.6	76.6	76.7	76.6	76.8	77.0
Farm products	67.7	66.9	66.7	67.1	67.3	66.9	67.3	67.6
Foods	71.4	71.3	71.1	71.0	71.2	71.3	71.3	72.6
Hides and leather products	92.4	92.5	92.7	92.9	93.3	93.8	94.1	93.9
Textile products	65.6	65.5	65.6	65.5	65.6	65.4	65.3	65.3
Fuel and lighting materials	73.4	73.6	73.7	73.5	73.4	73.6	73.7	73.8
Metals and metal products	94.5	94.5	94.5	94.5	94.5	94.5	94.6	94.6
Building materials	90.0	89.4	89.1	89.3	89.4	89.1	89.7	90.0
Chemicals and drugs	76.0	76.0	76.1	76.2	76.1	76.3	76.4	76.3
Housefurnishing goods	86.6	86.6	86.7	87.2	87.2	87.2	87.2	87.5
Miscellaneous	73.0	72.9	72.8	72.9	73.0	73.0	73.1	73.1
Raw materials	70.9	70.4	70.3	70.4	70.7	70.4	70.8	71.1
Semimanufactured articles	74.4	74.4	74.6	74.7	74.7	74.8	75.0	75.0
Finished products	80.4	80.3	80.2	80.2	80.2	80.3	80.3	80.5
All commodities other than farm products	78.8	78.8	78.7	78.7	78.8	78.8	78.9	79.1
All commodities other than farm products and foods	80.4	80.4	80.4	80.4	80.4	80.4	80.5	80.6

Trend of Employment and Pay Rolls

SUMMARY OF REPORTS FOR FEBRUARY 1939

Total Nonagricultural Employment

EMPLOYMENT in nonagricultural industries increased by approximately 45,000 workers in February as compared with January, and by about 100,000 as compared with a year ago. These figures do not include employees on Works Progress and National Youth Administration projects, nor enrollees in the Civilian Conservation Corps.

Emergency employment increased approximately 70,000 in February, distributed as follows: 60,000 on projects operated by the Works Progress Administration, 7,000 in the Civilian Conservation Corps, and 3,000 on work projects of the National Youth Administration.

Industrial and Business Employment

Gains in employment in February were shown in manufacturing, on electric and steam railroads, in anthracite mines, in hotels, and in brokerage and insurance offices. Reductions in employment, largely due to seasonal influences, were shown in wholesale and retail trade, metal mines, quarries, public utilities, laundries, dyeing and cleaning, and private building construction.

Factory employment in February stood at 90.7 percent of the 1923–25 average, a gain of 1.3 percent, or 95,000 wage earners, since January. This represents an increase of 2.8 percent, or 200,000 wage earners, since February of last year. The index of factory pay rolls, at 85.4 percent of the 1923–25 average, was 2.6 percent higher than in January and 11.1 percent above February 1938. The gains in weekly wage disbursements from January to February amounted to more than $4,100,000 a week, and from a year ago to more than $16,000,000 a week. With the exception of December 1938, employment and pay rolls in manufacturing were at the highest levels since the last 2 months of 1937. The typical seasonal gains from January to February of 1.8 percent in employment and 4.8 percent in pay rolls are somewhat larger than the increases reported this year.

Gains in manufacturing employment were quite general. Of the 87 manufacturing industries surveyed monthly by the Bureau of Labor Statistics, 61 showed increases in number of workers and 63

had larger weekly pay rolls. The gains were about evenly divided between the industries manufacturing durable and nondurable goods. The durable-goods group, as a whole, showed increases of 1.2 percent in employment and 2.6 percent in pay rolls. The nondurable-goods group reported a somewhat smaller than seasonal gain of 1.3 percent in employment and a 2.5 percent increase in pay rolls.

Among the manufacturing industries which added large numbers of workers to their rolls were women's clothing (17,000), men's clothing (14,900), shoes (9,300), knit goods (6,800), foundries and machine shops (6,300), stoves (4,600), agricultural implements (4,500), cotton goods (4,400), cigars and cigarettes (4,300), and furniture (4,300). Industries in which the increases ranged from 2,500 to 3,500 were shipbuilding, electrical machinery, shirts and collars, millinery, men's furnishings, electric- and steam-railroad car building, and iron and steel. Employment in the manufacture of aircraft was at the highest level since June 1937, and pay rolls reached an all-time high. In shipbuilding, more men were employed than at any time since December 1937, and the machine-tool industry reported the sixth consecutive monthly gain, with the largest number of workers since April 1938. The food-manufacturing industries reported the principal declines in employment in February. There were relatively large seasonal lay-offs in meat packing (6,900), canning (5,300), and beet sugar (3,700). Woolen mills reported a contraseasonal drop in employment, reducing their forces by 2,600. The automobile industry laid off about 6,900 workers between mid-January and mid-February, but had about 97,000 more men than a year ago.

Retail stores, as a group, continued to lay off employees in small numbers, as is usual in February. Their staffs were reduced by 0.6 percent, or 19,100. Stores selling general merchandise released about 9,800 employees, or 1.4 percent of their January forces. Apparel stores laid off 1.9 percent of their workers, and jewelry stores 3.1 percent. There were small reductions by hardware and lumber and building-materials dealers, and automobile distributors. Employment in food stores increased 0.4 percent. Seasonal increases were reported by firms handling farmers' supplies and by dealers in coal, wood, and ice. Drug stores also took on more workers.

Employment in wholesale trade was somewhat lower than in January, largely because of seasonal reductions by dealers in food products, groceries, farm products, hardware, and paper products. Apparel and dry goods firms and firms selling building materials and metals increased their staffs considerably.

Anthracite mines reported an employment pick-up of 4.3 percent, accompanied by a pay-roll increase of 18.9 percent. Employment in bituminous-coal mines showed little change, and pay rolls increased 3.9 percent. Metal mines lost 0.5 percent of their workers, which is

less than is usual at this time of year. The winter shut-down in many quarries contributed to their loss of 2.4 percent in employment, and oil wells cut their production forces by 0.6 percent. Slight employment recessions were reported by the public utilities, reflecting the lay-off of construction crews during the winter months. Telephone and telegraph companies reduced their forces by 1.1 percent and electric light and power companies by 0.5 percent. Electric railroads reported a slight contraseasonal gain. Hotels added 2,300 employees to their staffs, while laundries and dyeing and cleaning plants cut their employment seasonally, laying off a total of 2,300 workers. Brokerage houses increased their personnel by 0.7 percent and employment in insurance companies showed little change.

Employment in private building construction declined 2.5 percent between January and February, and pay rolls were 6.1 percent smaller. This was the smallest February employment decline during the last 7 years with the exception of February 1937. The reported decreases in employment were in the northern groups of States, which were most affected by adverse weather conditions, namely, the New England, the East and West North Central, and the Mountain States. Practically no change was reported in the Middle Atlantic, the South Atlantic, and the East South Central States, while gains were shown in the West South Central and the Pacific States. The reports on which these figures are based do not cover public construction projects financed by the Works Progress Administration, the Public Works Administration, and the Reconstruction Finance Corporation, or by regular appropriations of the Federal, State, and local Governments.

A preliminary report of the Interstate Commerce Commission indicated a gain between January and February of 1.3 percent, or 10,130 persons, in the number employed by class I railroads. The total number reported for February was 941,979. Corresponding pay-roll figures for February were not available when this report was prepared. For January they were $148,350,333 as against $150,372,130 for December, a decrease of 1.3 percent.

Hours and earnings.—The average hours worked per week by wage earners in manufacturing industries were 36.9 in February, a gain of 1.3 percent since January. The corresponding average hourly earnings were 64.9 cents, a decrease of 0.2 percent as compared with the preceding month. Average weekly earnings increased 1.3 percent to $24.06.

Of the 14 nonmanufacturing industries for which man-hour data are available, 6 showed increases in average hours worked per week and 6 showed gains in average hourly earnings. Average weekly earnings were higher for 6 of the 16 nonmanufacturing industries surveyed.

Employment and pay-roll indexes and average weekly earnings in February 1939 for all manufacturing industries combined, for selected

nonmanufacturing industries, and for class I railroads, with percentage changes over the month and year intervals, are presented in table 1.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, February 1939 (Preliminary Figures)*

Industry	Employment			Pay rolls			Average weekly earnings		
	Index, February 1939	Percentage change from—		Index, February 1939	Percentage change from—		Average in February 1939	Percentage change from—	
		January 1939	February 1938		January 1939	February 1938		January 1939	February 1938
	(*1923–25 =100*)			(*1923–25 =100*)					
All manufacturing industries combined [1]	90.7	+1.3	+2.8	85.4	+2.6	+11.1	$24.06	+1.3	+8.0
Class I steam railroads [2]	52.7	+1.3	+.3	[3]	[3]	[3]	[3]	[3]	[3]
	(*1929= 100*)			(*1929= 100*)					
Coal mining:									
Anthracite [4]	52.2	+4.3	−13.0	45.2	+18.9	−2.0	28.20	+14.0	+12.7
Bituminous [4]	88.5	−.2	−7.3	81.3	+3.9	+9.8	24.35	+4.1	+18.5
Metalliferous mining	61.1	−.5	−4.0	53.4	−3.4	−4.2	27.19	−2.9	−.3
Quarrying and nonmetallic mining	37.4	−2.4	−1.0	29.1	−3.7	+1.7	19.69	−1.4	+2.7
Crude-petroleum producing	66.6	−.6	−10.3	62.5	+2.7	−10.1	35.01	+3.3	+.2
Public utilities:									
Telephone and telegraph	73.3	−1.1	−3.2	91.7	−.3	+2.1	[5] 31.09	+.8	+5.5
Electric light and power and manufactured gas	89.6	−.5	−3.2	96.4	+.6	−2.1	[5] 33.87	+1.1	+1.1
Electric-railroad and motor-bus operation and maintenance	69.3	+.2	−2.6	69.9	−1.8	−.5	[5] 32.87	−2.0	+3.1
Trade:									
Wholesale	87.9	−.5	−2.8	74.6	−1.1	−.9	[5] 29.54	−.7	+2.0
Retail	81.7	−.6	−.8	68.5	−1.7	+.1	[5] 21.94	−1.2	+1.0
General merchandising	89.5	−1.4	+.8	81.3	−3.3	−.3	[5] 18.61	−1.9	−1.1
Other than general merchandising	79.7	−.4	−1.3	65.8	−1.3	+([6])	[5] 24.47	−.9	+1.4
Hotels (year-round) [4] [7]	92.6	+.9	−2.0	82.8	+3.2	−1.0	[5] 15.29	+2.4	+1.0
Laundries [4]	92.8	−.6	−3.1	78.6	−1.2	−.6	17.32	−.7	+2.5
Dyeing and cleaning [4]	92.1	−2.2	−3.6	63.2	−3.9	−3.1	18.95	−1.8	+.6
Brokerage	[3]	+.7	−4.9	[3]	−.7	−8.6	[5] 34.93	−1.5	−3.8
Insurance	[3]	+([6])	+.9	[3]	−1.1	+.1	[5] 36.11	−1.2	−.7
Building construction	[3]	−2.5	−10.8	[3]	−6.1	−11.9	27.38	−3.7	−1.6

[1] Revised indexes—Adjusted to 1935 Census of Manufactures. Indexes for earlier months and years given in table 3 of the November issue of the Monthly Labor Review.
[2] Preliminary; source—Interstate Commerce Commission.
[3] Not available.
[4] Indexes adjusted to 1935 Census. Comparable series back to January 1929 presented in January 1938 issue of the pamphlet, Employment and Pay Rolls.
[5] Average weekly earnings not strictly comparable with figures published in issues of the Monthly Labor Review dated earlier than April 1938 (except for the January figures appearing in the March issue), as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.
[6] Less than 1/10 of 1 percent.
[7] Cash payments only; the additional value of board, room and tips cannot be computed.

Public Employment

For the month ending February 15, 1939, there was virtually no change in the number working on projects of the Public Works Administration. However, the 217,000 men working in February were 119,000 more than were at work a year ago. Pay rolls for February 1939 were $16,497,000.

During the month ending February 15 more than 3,300 men were working on projects of the United States Housing Authority, and pay rolls amounted to $353,000. These figures cover new construction and demolition and pertain only to those projects started under the United States Housing Authority; those formerly under the Public Works Administration are shown with P. W. A. building construction projects in this report.

The seasonal decline in employment and pay rolls on construction projects financed from regular Federal appropriations continued through the month ending February 15. During this period 172,000 men were working, a decrease of 10,000 from the preceding month. Decreases in employment were reported for all types of projects with the following exceptions: Electrification, heavy engineering, ship construction, and miscellaneous projects. Pay rolls for the month amounted to $16,859,000.

Nearly 2,600 men were working on construction projects financed by the Reconstruction Finance Corporation during the month ending February 15; pay rolls amounted to $299,000.

In the latter part of February workers were added to the pay rolls of projects operated by the Works Progress Administration, following a succession of reductions which began in November. The number at work during the week ending February 25 was 2,955,000, as compared with 2,895,000 during the last week in January and 2,076,000 in a comparable period in February 1938. Pay-roll disbursements of $152,261,000 for the month of February as a whole were $3,472,000 less than in January and $49,070,000 more than in February a year ago. There was a slight decline in the number of persons working on Federal projects under The Works Program. On work projects of the National Youth Administration there was a small increase. Data on employment and pay rolls for Student Aid in February will not be available until next month.

There was an increase of 7,000 employees in camps of the Civilian Conservation Corps in February. Of the 337,000 in camps during this month 301,000 were enrollees, 5,000 reserve officers, 300 nurses, 1,600 educational advisers, and 29,000 supervisory and technical employees. For all groups of workers pay-roll disbursements in February were $14,789,000.

In the regular services of the Federal Government, increases in employment were reported in the executive, judicial, and military services; decreases occurred in the legislative service. Of the 870,000 employees in the executive service in February 120,000 were working in the District of Columbia and 750,000 outside the District. Force-account employees (employees who are on the Federal pay roll and are engaged on construction projects) were 9 percent of the total number of employees in the executive service. Increases in employ-

ment were reported in the Navy Department and in the administrative offices of the Works Progress Administration.

Employment on State-financed road projects was affected by adverse weather conditions. The 145,000 men working during the month ending February 15 were 8,000 less than the number at work during the preceding period. Of the total number at work 21,000 were engaged on new road construction and 124,000 on maintenance. Combined pay rolls for both types of road work were $10,113,000.

A summary of Federal employment and pay-roll data for February 1939 is given in table 2.

TABLE 2.—*Summary of Federal Employment and Pay Rolls, February 1939* [1]
(*Preliminary Figures*)

Class	Employment		Percentage change	Pay rolls		Percentage change
	February 1939	January 1939		February 1939	January 1939	
Federal services:						
Executive [2]	870,767	[3] 864,162	+0.8	$130,015,491	[3] $131,405,792	−1.1
Judicial	5,284	5,234	+1.0	1,212,994	1,209,738	+.3
Legislative	2,210	2,228	−.8	537,664	547,687	−1.8
Military	340,852	339,680	+.3	26,609,474	26,674,833	−.2
Construction projects:						
Financed by P. W. A.[4]	216,570	217,266	−.3	16,496,563	17,079,092	−3.4
U. S. Housing Authority, low-cost housing	3,317	2,774	+19.6	353,132	319,784	+10.4
Financed by R. F. C.[5]	2,593	2,546	+1.8	298,699	290,403	+2.9
Financed by regular Federal appropriations	172,264	181,976	−5.3	16,858,526	18,704,411	−9.9
Federal projects under The Works Program	117,615	121,095	−2.9	5,684,498	5,509,841	+3.2
Projects operated by W. P. A.	2,955,040	2,895,214	+2.1	152,261,190	155,733,123	−2.2
National Youth Administration:						
Work projects	241,623	238,862	+1.2	4,456,772	4,376,868	+1.8
Student Aid	[6]	368,735		[6]	2,244,093	
Civilian Conservation Corps	337,191	330,144	+2.1	14,789,353	14,709,313	+.5

[1] Includes data on projects financed wholly or partially from Federal funds.

[2] Includes force-account and supervisory and technical employees shown under other classifications to the extent of 113,730 employees and pay-roll disbursements of $13,557,342 for February 1939, and 113,784 employees and pay-roll disbursements of $13,779,869 for January 1939.

[3] Revised.

[4] Data covering P. W. A. projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds, and Public Works Administration Appropriation Act of 1938 funds are included. These data are not shown under The Works Program. Includes 30,709 wage earners and $2,823,988 pay roll for February 1939; 36,993 wage earners and $3,325,884 pay roll for January 1939, covering Public Works Administration projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds. Includes 178,346 wage earners and $12,719,680 pay roll for February 1939; 170,942 wage earners and $12,626,438 pay roll for January 1939, covering Public Works Administration projects financed from funds provided by the Public Works Administration Appropriation Act of 1938.

[5] Includes 235 employees and pay-roll disbursements of $16,173 for February 1939; 256 employees and pay-roll disbursements of $18,321 for January 1939 on projects financed by the R. F. C. Mortgage Co.

[6] February data not available.

DETAILED REPORTS FOR JANUARY 1939

A MONTHLY report on unemployment and pay rolls is published as a separate pamphlet by the Bureau of Labor Statistics. This gives detailed data regarding employment, pay rolls, working hours, and earnings for the current month for industrial and business establishments and for the various forms of public employment. This pamphlet is distributed free upon request. Its principal contents for the month of January, insofar as industrial and business employment is concerned, are reproduced in this section of the Monthly Labor Review.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for the following groups: 87 manufacturing industries; 16 nonmanufacturing industries, including private building construction; and class 1 steam railroads. The reports for the first two of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on class I steam railroads are compiled by the Interstate Commerce Commission and are presented in the foregoing summary.

EMPLOYMENT, PAY ROLLS, HOURS, AND EARNINGS

Employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for November and December 1938, and January 1939, where available, are presented in table 1. The November and December figures, where given, may differ in some instances from those previously published, because of revisions necessitated by the inclusion of late reports and other causes.

The average weekly earnings shown in table 1 are computed by dividing the total weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As all reporting establishments do not supply man-hour data, average hours worked per week and average hourly earnings are necessarily based on data supplied by a smaller number of reporting firms. The size and composition of the reporting sample varies slightly from month to month and therefore the average hours per week, average hourly earnings, and average weekly earnings shown are not strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movements of earnings and hours over the period shown. The changes from the preceding month, expressed as percentages, are based on identical lists of firms for the 2 months, but the changes from January 1938 are computed from chain indexes based on the month-to-month percentage changes.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

MANUFACTURING

[Indexes are based on 3-year average, 1923–25=100, and are adjusted to 1935 Census of Manufactures. Not comparable to indexes published in pamphlets prior to Aug. 1938. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938
													Cents	*Cents*	*Cents*
All manufacturing	**89.5**	**91.2**	**90.5**	**83.2**	**86.5**	**84.1**	**$23.81**	**$24.30**	**$23.82**	**36.3**	**37.1**	**36.5**	**65.1**	**64.8**	**64.5**
Durable goods	**81.6**	**83.1**	**82.1**	**76.4**	**80.3**	**78.3**	**26.58**	**27.34**	**27.11**	**35.8**	**36.8**	**36.5**	**72.9**	**72.6**	**72.4**
Nondurable goods	**97.0**	**98.8**	**98.4**	**90.9**	**93.4**	**90.6**	**21.27**	**21.53**	**20.85**	**36.8**	**37.4**	**36.4**	**58.5**	**58.4**	**58.0**
Durable goods															
Iron and steel and their products, not including machinery	**85.9**	**87.4**	**86.5**	**77.7**	**80.8**	**79.1**	**26.38**	**26.90**	**26.64**	**34.8**	**35.6**	**35.1**	**75.5**	**75.7**	**75.7**
Blast furnaces, steel works, and rolling mills	90.9	91.1	89.8	82.1	83.2	81.9	28.18	28.49	28.48	33.7	33.8	33.6	83.5	84.2	84.2
Bolts, nuts, washers and rivets	91.1	91.6	90.0	89.8	94.4	90.6	24.62	26.41	25.69	35.4	38.0	37.1	69.6	69.7	69.5
Cast-iron pipe	65.7	66.1	65.7	52.7	55.7	54.5	18.95	20.01	19.71	32.4	34.0	33.9	57.8	58.4	58.0
Cutlery (not including silver and plated cutlery) and edge tools	81.3	82.9	82.6	74.2	78.6	75.5	23.30	23.93	23.11	38.6	39.8	39.0	61.2	60.7	60.2
Forgings, iron and steel	48.3	49.6	48.0	45.6	49.4	44.4	27.74	29.25	27.18	36.3	38.4	36.3	76.3	76.2	74.9
Hardware	84.7	86.3	84.4	81.8	90.1	93.2	23.42	25.31	26.79	35.5	38.0	39.0	66.0	66.7	68.9
Plumbers' supplies	72.0	72.6	73.0	60.8	60.4	54.9	24.00	23.55	21.34	36.0	35.7	32.0	66.7	66.1	66.6
Stamped and enameled ware	129.4	134.3	133.6	126.9	136.0	133.5	23.69	24.33	24.03	37.0	38.5	38.1	63.9	62.9	63.0
Steam and hot-water heating apparatus and steam fittings	65.7	67.9	69.1	53.9	56.4	53.3	24.73	25.05	23.27	35.3	35.9	33.9	69.9	69.9	68.9
Stoves	65.4	74.7	78.9	50.0	61.4	62.7	22.87	24.30	23.55	35.0	36.9	35.5	65.9	67.2	66.7
Structural and ornamental metalwork	61.7	61.9	60.7	51.8	53.2	50.1	26.59	27.18	26.07	36.5	37.4	36.0	73.1	72.7	72.5
Tin cans and other tinware	82.8	84.1	84.6	86.8	87.9	87.5	22.73	22.76	22.50	37.4	37.7	37.3	61.2	60.8	60.7
Tools (not including edge tools, machine tools, files, and saws)	83.4	83.9	80.9	80.2	82.0	75.8	23.75	24.19	23.24	39.3	39.6	38.0	60.4	61.2	61.2
Wirework	162.8	171.6	164.6	157.8	185.9	180.2	23.40	26.16	26.39	35.0	38.6	38.8	67.0	67.8	68.1
Machinery, not including transportation equipment	**91.5**	**91.8**	**89.5**	**87.4**	**89.3**	**83.9**	**26.50**	**26.98**	**26.04**	**36.6**	**37.4**	**36.2**	**72.4**	**72.1**	**72.0**
Agricultural implements (including tractors)	110.9	105.0	96.6	111.8	113.5	95.0	27.92	29.76	27.08	35.3	37.3	34.3	79.4	80.2	79.4
Cash registers, adding machines, and calculating machines	133.3	134.6	135.4	117.4	118.8	119.7	28.47	28.51	28.57	35.0	35.1	35.0	82.2	82.1	82.3
Electrical machinery, apparatus, and supplies	82.3	83.9	83.2	80.6	82.7	80.4	26.99	27.26	26.69	36.5	37.1	36.7	74.0	73.6	73.0
Engines, turbines, water wheels, and windmills	87.1	85.3	83.5	98.4	98.0	91.6	29.21	29.73	28.35	37.2	37.7	36.2	78.8	79.3	78.6
Foundry and machine-shop products	81.8	81.7	78.9	74.8	75.9	70.6	26.11	26.48	25.51	36.6	37.2	35.8	71.3	71.2	71.1

See footnotes at end of table.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938
Durable goods—Continued															
Machinery—Continued.													*Cents*	*Cents*	*Cents*
Machine tools	121.1	119.9	117.6	120.0	120.0	110.8	$28.17	$28.44	$26.78	38.1	38.4	36.3	74.0	74.0	73.8
Radios and phonographs	108.4	118.0	118.8	96.8	107.6	106.9	22.15	22.62	22.40	37.7	38.9	38.5	59.1	58.2	58.2
Textile machinery and parts	67.5	66.9	64.2	64.6	66.9	61.3	24.97	25.98	24.83	38.1	41.0	36.6	65.5	63.5	67.9
Typewriters and parts	125.9	127.9	128.9	118.6	130.3	130.9	22.60	24.46	24.39	35.4	38.1	37.9	63.7	64.1	64.4
Transportation equipment	**95.8**	**96.1**	**91.6**	**91.9**	**97.9**	**95.9**	**31.16**	**32.72**	**33.64**	**34.8**	**36.4**	**37.1**	**89.9**	**89.8**	**90.6**
Aircraft	876.4	845.1	814.9	907.8	879.6	799.0	31.61	31.72	29.81	41.7	42.0	40.2	76.8	76.5	75.1
Automobile	106.2	106.8	101.9	100.6	107.4	107.6	31.37	33.22	34.89	34.0	36.0	37.5	92.3	92.4	93.2
Cars, electric- and steam-railroad	29.4	29.8	26.3	27.1	28.2	23.1	25.21	25.96	24.21	34.5	35.5	32.7	73.0	73.0	74.0
Locomotives	18.6	17.4	16.9	15.3	13.7	12.8	26.38	25.34	24.30	33.9	32.9	31.7	77.7	77.0	76.5
Shipbuilding	101.1	100.5	96.6	106.7	107.3	94.2	31.56	31.87	29.05	37.5	37.5	34.5	83.6	84.7	83.8
Nonferrous metals and their products	**92.4**	**95.0**	**95.4**	**84.7**	**90.3**	**90.2**	**24.74**	**25.81**	**25.70**	**37.0**	**38.6**	**38.7**	**66.8**	**66.7**	**66.2**
Aluminum manufactures	138.7	140.4	143.2	142.8	144.0	148.0	26.35	26.33	26.44	38.3	38.5	40.4	68.7	68.3	65.5
Brass, bronze, and copper products	98.3	100.2	100.5	93.0	98.9	99.8	25.79	26.92	27.14	36.9	38.2	38.3	70.1	70.7	71.0
Clocks and watches and time-recording devices	82.9	82.9	84.1	80.0	83.2	87.1	20.41	21.23	21.88	35.0	36.9	38.1	58.2	57.6	57.4
Jewelry	87.4	96.9	101.0	71.9	84.9	82.7	22.77	24.11	22.81	38.7	40.8	39.2	58.1	59.2	57.6
Lighting equipment	89.8	94.2	91.6	78.2	84.7	83.4	24.47	25.26	25.43	35.2	36.6	37.6	69.3	69.1	67.7
Silverware and plated ware	63.3	66.9	66.5	56.6	68.3	66.1	24.58	28.07	27.39	38.8	43.3	42.4	63.7	65.0	64.9
Smelting and refining—copper, lead and zinc	72.0	72.5	71.1	67.9	68.2	65.8	26.72	26.58	26.03	38.6	38.4	37.9	69.3	69.2	68.8
Lumber and allied products	**61.9**	**64.1**	**65.2**	**52.0**	**56.1**	**56.2**	**19.81**	**20.14**	**19.91**	**37.1**	**38.0**	**37.6**	**54.1**	**53.2**	**53.3**
Furniture	76.3	79.8	79.5	60.3	67.8	64.9	19.13	20.60	19.75	36.9	39.5	37.9	52.1	52.6	52.4
Lumber:															
Millwork	53.0	54.0	54.9	42.7	44.6	44.5	21.33	21.71	21.40	39.0	40.2	39.7	54.8	54.1	54.0
Sawmills	49.1	50.9	52.3	42.4	44.9	46.4	19.86	19.27	19.57	36.7	36.7	37.0	55.0	53.3	53.7
Stone, clay, and glass products	**66.4**	**70.5**	**71.6**	**56.8**	**63.5**	**63.8**	**22.98**	**24.03**	**23.82**	**35.1**	**36.5**	**36.3**	**65.1**	**65.1**	**64.5**
Brick, tile, and terra cotta	48.9	51.3	52.4	36.8	39.4	39.0	19.65	20.06	19.46	36.5	37.2	36.5	54.0	53.7	53.1
Cement	53.4	62.6	67.8	47.0	57.2	63.7	24.54	25.50	26.15	35.7	37.1	38.0	69.0	68.8	68.8
Glass	89.6	93.0	92.1	92.0	99.4	98.6	24.72	25.76	25.68	34.0	35.7	35.7	72.8	72.3	72.2
Marble, granite, slate, and other products	36.6	42.3	42.9	25.6	31.4	30.7	23.62	25.08	24.12	34.1	35.9	34.9	69.8	69.8	68.8
Pottery	78.6	79.9	80.0	66.3	75.5	74.5	21.83	23.56	23.12	35.5	38.0	36.8	62.8	61.9	62.4

Nondurable goods															
Textiles and their products	**97.5**	**98.6**	**96.9**	**80.8**	**83.3**	**78.4**	**16.73**	**16.99**	**16.35**	**34.9**	**35.7**	**34.6**	**48.4**	**48.2**	**47.8**
Fabrics	90.8	91.8	89.5	78.7	81.1	77.3	16.53	16.80	16.35	36.4	37.1	36.3	46.2	46.1	46.0
Carpets and rugs	80.8	81.5	79.5	68.1	71.1	66.9	22.38	23.03	22.29	35.7	36.8	35.5	62.7	62.6	62.8
Cotton goods	86.9	87.1	86.1	74.2	75.7	73.6	13.85	14.13	13.89	36.2	36.8	36.2	38.3	38.4	38.3
Cotton small wares	83.9	84.6	83.0	79.5	81.6	77.3	18.07	18.39	17.81	38.8	39.0	38.0	47.5	47.5	47.4
Dyeing and finishing textiles	113.3	112.1	109.3	96.9	97.2	92.7	20.85	20.87	20.47	38.3	39.0	38.2	54.1	53.2	53.0
Hats, fur-felt	83.9	82.4	82.8	79.8	75.3	70.1	24.58	23.84	21.77	34.5	34.0	31.5	71.4	70.5	69.7
Knit goods	110.5	115.1	114.2	111.7	119.5	118.5	17.87	18.15	18.18	35.6	37.0	36.9	51.1	50.2	50.5
Hosiery	144.0	145.7	144.8	157.3	164.1	165.0	19.21	19.51	19.74	35.7	37.1	37.4	54.0	53.0	53.8
Knitted outerwear	65.3	79.0	78.2	58.6	73.3	68.6	16.89	17.87	16.81	35.4	38.0	36.6	47.5	46.7	45.9
Knitted underwear	68.5	71.2	70.9	58.3	62.4	61.4	14.39	14.75	14.58	34.5	35.2	35.0	41.8	41.9	41.5
Knitted cloth	146.8	160.2	155.8	118.9	126.8	119.6	18.03	17.93	17.45	38.3	38.1	37.3	46.8	46.9	46.2
Silk and rayon goods	63.0	63.2	61.7	50.7	51.8	48.6	15.45	15.79	15.15	36.4	37.2	35.6	42.0	42.3	42.1
Woolen and worsted goods	84.4	85.3	78.4	70.9	72.8	63.7	19.48	19.80	18.78	37.0	37.8	35.8	52.6	52.4	52.6
Wearing apparel	111.0	112.2	112.0	82.4	84.6	78.0	17.39	17.61	16.35	32.3	33.1	31.4	52.5	52.1	51.0
Clothing, men's	96.7	97.1	98.1	68.7	68.3	63.1	18.54	18.39	16.73	31.2	31.6	28.9	59.1	58.5	57.2
Clothing, women's	159.6	160.6	158.5	111.7	114.8	101.7	18.70	18.88	17.10	32.7	33.5	31.1	52.2	51.8	50.5
Corsets and allied garments	99.8	99.5	98.5	99.0	103.1	99.8	16.54	17.35	16.96	36.2	37.3	36.8	45.7	46.2	46.0
Men's furnishings	123.0	148.8	149.5	101.0	142.5	149.9	13.03	15.08	15.87	33.6	35.8	38.4	36.3	37.6	38.2
Millinery	67.1	57.8	55.1	55.3	43.2	40.4	21.16	19.12	18.99	31.7	28.7	28.6	64.5	63.9	66.3
Shirts and collars	114.3	116.4	117.7	93.1	105.3	104.1	12.61	14.00	13.70	32.6	35.5	35.3	39.4	39.5	38.9
Leather and its manufactures	92.9	88.6	84.8	77.5	70.0	62.4	19.71	18.62	17.22	38.1	36.2	32.8	52.5	52.6	53.3
Boots and shoes	92.7	87.6	83.3	72.6	63.3	54.4	18.54	17.11	15.41	37.9	35.6	31.3	49.8	49.9	50.8
Leather	86.0	85.3	84.0	88.3	87.6	84.7	24.76	24.77	24.30	39.0	39.2	38.6	63.9	63.1	62.9
Food and kindred products	113.7	120.1	123.4	115.2	120.9	122.4	24.93	24.75	24.22	40.0	40.4	40.1	62.8	61.9	61.2
Baking	140.3	143.5	144.6	136.1	138.2	139.7	25.47	25.26	25.21	41.6	41.4	41.6	61.7	61.5	61.1
Beverages	223.2	223.3	229.2	252.1	257.2	264.7	31.38	32.02	32.11	36.9	37.5	37.8	85.8	86.1	85.7
Butter	93.1	95.1	96.8	80.5	80.4	82.4	22.37	22.10	22.27	45.5	45.8	45.8	49.8	48.4	48.7
Canning and preserving	78.6	85.3	103.3	70.5	77.4	86.0	16.47	16.55	15.14	34.7	35.4	33.5	48.6	48.1	47.0
Confectionery	78.0	91.3	90.6	75.7	91.5	84.9	18.02	18.65	17.40	37.4	40.4	37.8	48.2	46.5	46.7
Flour	77.2	78.1	78.2	74.7	73.0	73.8	25.18	24.42	24.67	41.6	40.8	41.6	60.1	59.7	59.5
Ice cream	67.9	68.7	70.4	59.6	60.0	60.7	29.46	29.21	28.89	45.3	45.2	44.9	63.9	63.8	63.5
Slaughtering and meat packing	99.8	102.4	100.7	111.1	112.5	110.0	28.05	27.69	27.54	41.3	41.0	40.5	68.3	67.9	68.5
Sugar, beet	85.4	230.7	274.8	73.2	221.9	275.3	22.08	24.75	25.77	33.5	47.0	51.2	65.6	53.0	50.6
Sugar refining, cane	84.7	84.4	86.6	74.7	72.9	75.4	23.77	23.29	23.46	36.3	38.2	37.7	65.4	61.0	62.2
Tobacco manufactures	59.2	65.2	66.9	49.7	59.6	59.8	15.61	16.92	16.55	32.2	35.9	35.8	48.1	46.9	46.2
Chewing and smoking tobacco and snuff	60.5	62.1	61.9	66.4	73.0	69.1	17.42	18.40	17.47	34.4	36.3	34.2	50.9	50.9	51.3
Cigars and cigarettes	59.0	65.6	67.5	47.5	57.9	58.5	15.14	16.56	16.33	31.9	35.9	35.9	47.7	46.4	45.6
Paper and printing	**105.7**	**108.0**	**107.0**	**102.2**	**107.3**	**103.3**	**27.80**	**28.61**	**27.58**	**37.9**	**38.6**	**37.9**	**76.5**	**77.1**	**76.2**
Boxes, paper	98.1	103.9	105.2	99.5	109.4	110.0	20.68	21.49	21.34	38.4	40.4	40.4	54.4	53.7	53.3
Paper and pulp	105.5	106.3	105.9	102.6	103.4	102.9	23.82	23.85	23.78	38.7	39.0	38.9	61.6	61.3	61.2
Printing and publishing:															
Book and job	102.5	103.7	101.4	93.6	96.9	89.1	30.37	31.10	29.22	38.6	39.3	37.1	79.9	79.8	79.8
Newspapers and periodicals	104.7	108.0	107.1	104.9	113.2	109.6	36.85	38.56	37.11	36.0	36.8	36.3	98.2	100.7	99.8

See footnotes at end of table.

TABLE 1.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938	January 1939	December 1938	November 1938
Nondurable goods—Continued															
													Cents	*Cents*	*Cents*
Chemicals and allied products, and petroleum refining	**111.9**	**112.7**	**113.0**	**119.7**	**120.1**	**119.1**	**$28.63**	**$28.52**	**$28.26**	**38.3**	**38.2**	**37.8**	**74.4**	**74.3**	**74.4**
Petroleum refining	117.1	118.1	118.9	134.5	134.1	133.6	35.75	35.30	34.86	36.6	36.4	35.8	98.0	97.4	97.9
Other than petroleum refining	110.6	111.4	111.6	115.2	115.8	114.6	25.65	25.66	25.41	38.9	38.9	38.6	65.8	65.8	65.7
Chemicals	115.5	116.9	117.2	127.9	129.8	128.1	30.63	30.72	30.22	39.3	39.4	38.9	78.0	78.1	77.6
Cottonseed—oil, cake, and meal	94.7	113.9	116.3	78.9	95.5	100.1	12.61	12.76	13.11	43.1	43.4	44.7	28.8	29.0	28.8
Druggists' preparations	107.6	109.2	109.7	118.5	120.2	119.6	24.93	24.80	24.54	39.1	39.6	38.7	60.3	59.3	59.2
Explosives	81.4	82.7	82.8	89.9	95.1	91.7	30.63	31.64	30.45	37.7	39.5	38.0	81.3	80.1	80.2
Fertilizers	94.4	82.3	78.5	77.2	70.0	65.2	15.05	15.75	15.38	35.9	35.5	33.9	41.9	44.4	45.4
Paints and varnishes	111.8	112.4	112.4	113.1	115.4	113.8	27.34	27.80	27.34	39.2	39.9	39.4	69.9	69.9	69.5
Rayon and allied products	313.2	311.3	312.8	309.5	302.4	302.7	24.22	23.80	23.74	38.0	37.1	37.0	63.7	64.1	64.1
Soap	88.8	88.6	88.9	91.3	89.7	88.3	29.10	28.80	28.29	39.1	38.8	38.0	74.6	74.5	74.6
Rubber products	**81.1**	**83.6**	**82.4**	**83.9**	**89.0**	**85.2**	**27.72**	**28.40**	**27.58**	**35.9**	**37.4**	**36.7**	**76.8**	**76.4**	**75.6**
Rubber boots and shoes	58.4	65.1	63.4	56.8	65.9	60.6	21.78	23.17	21.88	36.5	38.8	36.6	59.7	59.7	59.7
Rubber tires and inner tubes	67.1	67.2	66.1	76.2	79.0	75.3	32.59	33.80	32.77	34.2	35.2	34.5	95.7	96.3	95.2
Rubber goods other	129.8	134.7	133.6	125.1	133.7	130.7	22.75	23.44	23.09	37.9	39.4	39.2	60.5	60.1	59.5

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Coal mining:													*Cents*	*Cents*	*Cents*
Anthracite [2]	50.0	51.3	51.0	38.0	42.5	36.2	$24.74	$26.99	$23.14	27.0	29.3	24.9	92.8	91.7	91.7
Bituminous [2]	88.7	89.3	88.6	78.1	80.9	81.4	23.27	24.00	24.31	26.5	27.4	27.7	88.3	88.1	87.8
Metalliferous mining	61.4	62.3	61.9	55.3	54.1	52.3	28.27	27.16	26.36	41.3	39.8	38.7	68.9	68.5	68.4
Quarrying and nonmetallic mining	38.5	41.4	44.4	30.3	33.7	37.2	19.76	20.42	21.03	36.0	37.2	38.1	54.8	55.1	55.4
Crude-petroleum producing	67.0	67.8	68.3	61.0	62.5	63.3	33.08	33.89	34.22	37.6	38.7	39.0	88.0	85.9	86.1
Public utilities:															
Telephone and telegraph [3]	74.1	74.3	74.4	92.0	92.5	93.0	30.89	30.85	30.96	39.0	39.1	39.2	82.2	81.7	82.4
Electric light and power and manufactured gas [3]	90.0	91.4	91.9	95.8	98.2	98.6	33.52	33.56	33.61	38.6	40.0	39.8	87.0	84.1	84.7
Electric-railroad and motor-bus operation and maintenance [3]	69.2	69.4	69.5	71.1	69.7	68.8	33.53	32.86	32.35	46.3	45.8	44.9	71.5	70.9	71.1

Trade:															
Wholesale [2]	88.1	90.0	89.8	75.5	75.7	75.4	29.62	29.38	29.35	41.7	41.6	41.8	70.7	70.7	70.1
Retail [3]	82.2	98.1	86.9	69.7	79.2	71.5	21.71	20.10	20.76	42.9	42.7	42.3	55.1	52.7	54.0
General merchandising [3]	90.7	144.1	104.5	84.0	122.9	91.8	18.38	16.95	17.43	40.0	40.9	39.1	48.4	44.4	47.9
Other than general merchandising [3]	80.0	86.0	82.3	66.7	70.1	67.3	24.46	23.96	23.91	43.8	43.5	43.4	57.1	56.3	56.1
Hotels (year-round) [2 3 4]	91.8	92.0	92.5	80.2	81.1	81.3	15.01	15.15	15.07	46.4	46.2	47.2	31.9	32.5	31.8
Laundries [2]	93.3	93.4	93.7	79.6	80.0	79.3	17.43	17.43	17.30	42.1	42.2	41.8	41.4	41.4	41.6
Dyeing and cleaning [2]	94.2	97.9	102.5	65.8	68.3	73.9	19.15	19.23	19.66	40.4	40.7	41.4	48.9	48.7	38.5
Brokerage [3 4]	+0.1	+0.2	+0.7	−0.6	+0.9	+1.5	36.44	36.59	36.22	([6])	([6])	([6])	([6])	([6])	([6])
Insurance [3 5]	+.4	−([7])	−.2	−.3	+1.9	+1.3	36.49	36.70	36.00	([6])	([6])	([6])	([6])	([6])	([6])
Building construction [5]	−11.5	−6.8	−4.2	−14.0	−6.6	−8.4	28.18	28.97	28.95	30.3	31.7	31.9	93.2	91.4	90.7

[1] Average weekly earnings are computed from figures furnished by all reporting establishments. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments, as all reporting firms do not furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample. Hours and earnings for all manufacturing industries now relate to 87 industries instead of 89 which were covered in the July and prior issues of the pamphlet. The 2 industries excluded are electric- and steam-railroad repair shops. The averages for the durable goods group have also been affected by this exclusion.

[2] Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of the pamphlet.

[3] Average weekly earnings, hourly earnings, and hours not strictly comparable with figures published in pamphlets prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

[4] Cash payments only; the additional value of board, room, and tips cannot be computed.

[5] Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

[6] Not available.

[7] Less than 1/10 of 1 percent.

INDEXES OF EMPLOYMENT AND PAY ROLLS

Indexes of employment and pay rolls are given in table 2 for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for each of 13 nonmanufacturing industries, including 2 subgroups under retail trade, by months from January 1938 to January 1939, inclusive. The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to January 1939.

The indexes of factory employment and pay rolls are based on the 3-year average 1923–25 as 100. They relate to wage earners only and are computed from reports supplied by representative manufacturing establishments in 87 manufacturing industries. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 87 industries included in the monthly survey of the Bureau of Labor Statistics.

The indexes for the nonmanufacturing industries are based on the 12-month average for 1929 as 100. Figures for mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, trade, and hotels relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum producing they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from 25 percent for wholesale trade to 90 percent for quarrying and nonmetallic mining.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay tolls for the pay period ending nearest the 15th of the month.

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TABLE 2.—*Indexes of Employment and Pay Rolls in Selected Manufacturing [1] and Nonmanufacturing [2] Industries, Inclusive*

Industry	Av.	1938											1939
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Employment														
Manufacturing														
All industries	86.8	87.8	88.2	87.7	85.7	83.4	81.6	81.9	85.7	88.8	89.5	90.5	91.2	89.5
Durable goods [3]	77.3	81.7	80.1	79.3	77.0	75.0	72.4	70.3	71.7	75.3	79.0	82.1	83.1	81.6
Nondurable goods [4]	95.9	93.7	95.9	95.8	94.0	91.5	90.3	92.9	99.0	101.6	99.4	98.4	98.8	97.0
Nonmanufacturing														
Anthracite mining	52.3	59.6	60.0	59.3	57.0	52.8	56.0	44.6	37.6	46.4	52.4	51.0	51.3	50.0
Bituminous-coal mining	86.7	96.9	95.5	93.2	85.8	82.2	80.2	78.5	80.1	83.4	87.2	88.6	89.3	88.7
Metalliferous mining	59.0	67.4	63.6	62.3	61.6	58.8	56.0	49.7	51.4	55.2	57.9	61.9	62.3	61.4
Quarrying and nonmetallic mining	42.3	38.2	37.8	38.9	41.7	43.7	43.6	44.1	44.6	44.6	44.4	44.4	41.4	38.5
Crude-petroleum producing	72.1	75.3	74.2	73.6	73.8	73.2	72.8	72.3	72.4	71.5	69.5	68.3	67.8	67.0
Telephone and telegraph	75.1	77.8	75.7	74.9	74.8	75.0	74.8	74.9	74.8	74.9	74.7	74.4	74.3	74.1
Electric light and power, and manufactured gas	92.3	93.8	92.6	92.0	91.8	91.7	92.2	92.3	92.7	92.5	92.5	91.9	91.4	90.0
Electric-railroad and motorbus operation and maintenance	70.3	72.3	71.2	70.8	71.1	70.6	70.4	70.1	69.5	69.3	69.9	69.5	69.4	69.2
Wholesale trade	88.8	91.0	90.4	89.1	88.5	87.3	87.2	86.8	87.6	88.5	89.1	89.8	90.0	88.1
Retail trade	85.2	84.1	82.4	83.0	88.2	83.8	83.6	81.1	80.0	84.7	85.9	86.9	98.1	82.2
General merchandising	98.0	91.5	88.8	90.5	101.0	92.4	91.9	87.9	86.4	97.0	99.4	104.5	144.1	90.7
Other than general merchandising	81.8	82.1	80.7	81.0	84.9	81.5	81.4	79.3	78.3	81.5	82.3	82.3	86.0	80.0
Year-round hotels	92.7	94.3	94.5	93.4	93.5	93.7	92.2	90.7	90.4	91.8	92.9	92.5	92.0	91.8
Laundries	95.7	96.8	95.7	94.8	95.4	96.2	96.6	97.8	97.5	96.5	94.4	93.7	93.4	93.3
Dyeing and cleaning	104.3	96.8	95.6	98.5	111.8	109.9	110.8	108.6	105.0	107.8	106.8	102.5	97.9	94.2
Pay rolls														
Manufacturing														
All industries	77.5	75.0	76.9	77.1	74.6	72.9	70.8	70.6	76.9	81.0	83.8	84.1	86.5	83.2
Durable goods [3]	68.2	67.1	67.2	67.4	65.6	64.2	61.7	58.6	63.7	68.7	75.2	78.3	80.3	76.4
Nondurable goods [4]	88.0	84.0	87.8	87.9	84.7	82.6	80.9	84.1	91.7	94.9	93.4	90.6	93.4	90.9
Nonmanufacturing														
Anthracite mining	38.2	46.5	46.1	47.3	39.0	38.3	49.7	20.2	20.0	29.4	43.4	36.2	42.5	38.0
Bituminous-coal mining	67.9	70.4	74.0	68.4	56.3	55.3	57.0	56.8	64.2	71.9	78.3	81.4	80.9	78.1
Metalliferous mining	50.4	59.1	55.8	56.3	53.3	51.2	46.1	38.0	43.7	46.1	49.2	52.3	54.1	55.3
Quarring and nonmetallic mining	35.1	27.7	28.6	30.2	33.9	38.3	37.3	37.0	39.2	38.4	39.2	37.2	33.7	30.3
Crude-petroleum producing	66.5	68.2	69.6	68.0	68.0	66.7	67.6	66.7	66.8	66.5	63.7	63.3	62.5	61.0
Telephone and telegraph	92.1	93.7	89.9	92.6	91.6	91.3	90.9	90.9	91.3	92.6	95.3	93.0	92.5	92.0
Electric light and power, and manufactured gas	98.5	98.9	98.5	98.6	97.6	97.4	98.6	98.3	98.9	98.4	99.9	98.6	98.2	95.8
Electric-railroad and motorbus operation and maintenance	69.7	70.6	70.2	69.9	70.0	71.2	69.7	69.0	69.5	68.4	68.9	68.8	69.7	71.1
Wholesale trade	74.7	75.4	75.3	74.7	74.6	75.1	73.8	73.6	73.7	74.3	75.1	75.4	75.7	75.5
Retail trade	70.4	70.1	68.4	68.6	72.2	70.0	69.5	68.1	66.8	69.4	70.8	71.5	79.2	69.7
General merchandising	87.8	84.6	81.5	82.2	89.4	84.4	84.3	80.4	78.8	85.3	88.3	91.8	122.9	84.0
Other than general merchandising	66.8	67.1	65.7	65.8	68.6	67.0	66.4	65.6	64.3	66.1	67.2	67.3	70.1	66.7
Year-round hotels	80.3	81.6	83.6	80.9	80.5	80.5	79.6	77.4	77.4	78.9	80.8	81.3	81.1	80.2
Laundries	80.6	80.1	79.1	78.6	80.6	80.9	81.8	83.0	83.1	81.4	79.5	79.3	80.0	79.6
Dyeing and cleaning	75.3	65.5	65.2	68.2	87.2	80.7	83.3	77.5	74.3	81.7	78.0	73.9	68.3	65.8

[1] 3-year average, 1923–25=100—adjusted to 1935 Census of Manufactures. Comparable indexes for earlier months are in the November 1938 issue of Monthly Labor Review.

[2] 12-month average for 1929=100. Comparable indexes are in the February 1935 and subsequent issues of Monthly Labor Review, except for anthracite and bituminous-coal mining, year-round hotels, laundries, and dyeing and cleaning. Indexes for these industries from January 1929 forward have been adjusted to the 1935 census and are presented in the January 1938 and subsequent issues of Employment and Pay Rolls.

[3] Includes: Iron and steel, machinery, transportation equipment, railroad repair shops, nonferrous metals, lumber and allied products, and stone, clay, and glass products.

[4] Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups

TREND OF INDUSTRIAL AND BUSINESS EMPLOYMENT, BY STATES

A comparison of employment and pay rolls, by States and geographic divisions, in December 1938 and January 1939 is shown in table 3 for all groups combined and for all manufacturing industries combined based on data supplied by reporting establishments. The percentage changes shown, unless otherwise noted, are unweighted—that is, the industries included in the manufacturing group and in the grand total have not been weighted according to their relative importance.

The totals for all manufacturing industries combined include figures for miscellaneous manufacturing industries in addition to the 87 manufacturing industries presented in table 1. The totals for all groups combined include all manufacturing industries, each of the nonmanufacturing industries presented in table 1 (except building construction), and seasonal hotels.

Similar comparisons showing only percentage changes are available in mimeographed form for "all groups combined," for "all manufacturing," for anthracite mining, bituminous-coal mining, metalliferous mining, quarrying, and nonmetallic mining, crude-petroleum producing, public utilities, wholesale trade, retail trade, hotels, laundries, dyeing and cleaning, and brokerage and insurance.

TABLE 3.—*Comparison of Employment and Pay Rolls in Identical Establishments in January 1939, by Geographic Divisions and by States*

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

Geographic division and State	Total—all groups					Manufacturing				
	Number of establishments	Number on pay roll January 1939	Percentage change from December 1938	Amount of pay roll (1 week) January 1939	Percentage change from December 1938	Number of establishments	Number on pay roll January 1939	Percentage change from December 1938	Amount of pay roll (1 week) January 1939	Percentage change from December 1938
				Dollars					*Dollars*	
New England	12,467	837,342	−3.4	19,101,880	−3.5	3,566	582,832	−1.0	12,658,166	−2.4
Maine	780	50,080	−1.8	1,004,376	−1.6	272	42,266	−1.3	816,925	−1.0
New Hampshire	616	42,634	+2.5	868,732	+2.7	201	35,780	+4.4	705,695	+3.4
Vermont	455	15,472	−4.1	327,331	−4.1	150	9,540	−4.3	193,961	−5.2
Massachusetts	[1] *7,692*	*455,528*	*−4.5*	*10,700,638*	*−3.6*	*1,789*	*267,168*	*−1.1*	*5,890,277*	*−1.7*
Rhode Island	1,145	92,645	−2.9	1,934,544	−3.6	424	76,135	−1.7	1,516,425	−3.2
Connecticut	1,779	180,983	−2.4	4,266,259	−4.6	730	151,943	−1.4	3,534,883	−4.4
Middle Atlantic	31,246	1,949,194	−5.0	50,620,771	−4.8	6,468	1,154,074	−1.7	29,139,104	−2.5
New York	19,824	875,686	−6.9	23,916,511	−5.3	[2] *2,578*	*422,721*	*−1.6*	*11,338,924*	*−1.9*
New Jersey	3,866	322,641	−2.4	8,209,786	−3.1	1,617	263,769	−1.7	6,731,796	−3.1
Pennsylvania	7,556	750,867	−3.9	18,494,474	−4.8	*2,273*	*462,584*	[3] *−1.8*	*11,068,384*	[3] *−2.9*
East North Central	24,137	2,020,852	−4.0	54,177,219	−5.3	8,456	1,521,670	−1.5	41,472,502	−4.3
Ohio	6,610	496,241	−3.8	13,028,577	−5.9	2,381	380,886	−1.7	10,141,348	−5.2
Indiana	*2,910*	*237,973*	*−5.9*	*6,056,923*	*−5.9*	*1,061*	*191,595*	*−3.1*	*4,971,910*	*−5.2*
Illinois	[4] *6,838*	*572,732*	*−4.0*	*14,956,580*	*−3.8*	*2,429*	*371,989*	*−1.2*	*9,627,158*	*−2.6*
Michigan	3,460	491,768	−2.8	14,649,517	−5.8	*1,064*	*422,227*	*−.6*	*12,884,808*	*−4.3*
Wisconsin	[5] *4,319*	*222,138*	*−5.0*	*5,485,622*	*−5.9*	[6] *1,521*	*154,973*	[3] *−1.9*	*3,847,298*	[3] *−5.0*

See footnotes at end of table.

TABLE 3.—*Comparison of Employment and Pay Rolls in Identical Establishments in January 1939, by Geographic Divisions and by States*—Continued

Geographic division and State	Total—all groups					Manufacturing				
	Number of establishments	Number on pay roll January 1939	Percentage change from December 1938	Amount of pay roll (1 week) January 1939	Percentage change from December 1938	Number of establishments	Number on pay roll January 1939	Percentage change from December 1938	Amount of pay roll (1 week) January 1939	Percentage change from December 1938
				Dollars					*Dollars*	
West North Central	11,433	405,843	−4.7	9,911,241	−3.4	2,441	205,913	−2.3	4,991,131	−2.7
Minnesota	[7] *2,763*	*114,202*	*−7.4*	*3,024,347*	*−6.1*	*629*	*46,735*	*−5.5*	*1,200,389*	*−8.5*
Iowa	1,747	55,301	−2.3	1,329,228	−.2	356	33,203	+.3	825,602	+2.0
Missouri	2,514	149,341	−2.5	3,502,764	−1.4	775	90,152	+.6	2,050,251	+1.1
North Dakota	540	4,272	−6.6	101,345	−4.8	28	414	−4.8	11,201	−2.5
South Dakota	431	7,632	−4.6	206,565	−1.2	34	2,496	−9.2	66,565	−7.4
Nebraska	1,158	24,423	−9.4	565,510	−6.5	133	8,986	−13.3	229,923	−12.0
Kansas	[8] *2,280*	*50,672*	[9] *−8.6*	*1,181,482*	[3] *−4.5*	*486*	*23,929*	*−3.9*	*607,200*	*−4.8*
South Atlantic	9,917	815,551	−2.6	15,358,664	−3.7	2,870	577,866	−.8	9,981,345	−3.1
Delaware	230	14,288	−2.0	330,907	−1.7	*83*	*10,594*	+.7	*249,873*	+.5
Maryland	*1,561*	*124,435*	*−6.1*	*2,979,179*	*−5.6*	*622*	*85,901*	[3] *−2.6*	*2,023,260*	[3] *−4.3*
District of Columbia	975	30,849	−7.6	859,283	−4.8	40	3,342	−3.1	111,550	−5.9
Virginia	1,863	104,623	−3.0	1,911,296	−3.7	436	74,945	−.1	1,334,151	−2.4
West Virginia	1,070	125,056	−2.2	3,019,348	−4.0	206	48,207	−2.2	1,160,218	−5.7
North Carolina	1,536	173,867	−1.8	2,596,208	−3.0	674	160,397	−.1	2,362,872	−2.4
South Carolina	700	88,184	−.6	1,254,372	−1.4	244	81,259	+.2	1,123,513	−1.1
Georgia	1,099	106,464	−1.7	1,601,221	−3.5	384	89,382	−.8	1,260,597	−3.5
Florida	883	47,785	+1.7	806,850	−.3	181	23,839	−.7	355,311	−3.3
East South Central	4,289	281,072	−2.4	5,105,735	−3.2	1,015	179,046	−.6	3,087,148	−1.6
Kentucky	1,249	78,234	−3.7	1,589,503	−5.7	281	32,812	−3.5	691,659	−4.1
Tennessee	1,175	93,051	−3.4	1,620,363	−3.1	359	70,125	−1.3	1,198,127	−2.0
Alabama	1,379	92,838	−.8	1,652,971	−1.4	290	64,208	+1.0	1,038,759	−.1
Mississippi	486	16,949	−.3	242,898	+1.5	85	11,901	+3.7	158,603	+4.2
West South Central	4,964	191,292	−5.1	4,155,528	−4.0	1,275	97,481	−2.4	2,003,120	−3.5
Arkansas	[10] *1,147*	*33,773*	*−5.8*	*678,718*	*−3.6*	*319*	*21,432*	*−.8*	*350,151*	*−2.9*
Louisiana	925	48,379	−5.0	950,025	−6.3	236	28,850	−4.8	525,915	−8.9
Oklahoma	1,207	34,171	−5.3	826,509	−3.0	133	8,794	−4.6	196,831	−3.8
Texas	*1,685*	*74,969*	*−4.7*	*1,800,276*	*−3.3*	*587*	*38,405*	*−1.0*	*930,223*	*−.3*
Mountain	3,606	108,833	−8.9	2,807,974	−7.8	558	31,722	−16.2	761,374	−19.2
Montana	537	15,825	−10.7	472,808	−5.4	74	4,573	−10.8	119,955	−11.4
Idaho	460	9,522	−12.7	222,192	−15.2	64	3,212	−25.1	64,707	−36.7
Wyoming	274	7,809	−6.5	219,584	−11.3	38	1,319	−21.0	40,794	−22.8
Colorado	1,037	36,181	−9.7	891,490	−9.5	197	13,100	−16.4	317,720	−18.8
New Mexico	266	5,568	−4.2	124,063	−.5	29	883	+.9	16,058	+6.5
Arizona	399	14,152	−1.6	376,995	+.4	41	2,731	−1.9	63,483	−1.1
Utah	471	17,436	−11.8	427,468	−10.3	102	5,704	−20.7	133,023	−23.7
Nevada	162	2,340	−3.2	73,374	−2.8	13	200	−13.4	5,634	−17.7
Pacific	9,991	411,670	−4.9	11,973,909	−3.4	2,542	210,878	−3.6	5,855,207	−4.1
Washington	2,571	77,608	−6.4	2,093,871	−3.3	540	45,434	−4.6	1,219,181	−1.9
Oregon	1,146	41,291	−1.6	1,078,183	−1.4	287	24,235	+1.5	604,421	−.8
California	[11] *6,274*	*292,771*	*−4.9*	*8,801,855*	*−3.7*	*1,715*	*141,209*	*−4.0*	*4,031,605*	*−5.2*

[1] Includes banks and trust companies; construction, municipal, agricultural, and office employment, amusement and recreation; professional services; and trucking and handling.
[2] Includes laundering and cleaning; and water, light, and power.
[3] Weighted percentage change.
[4] Includes automobile and miscellaneous services; restaurants; and building and contracting.
[5] Includes construction but not public works.
[6] Does not include logging.
[7] Includes banks; real estate; pipe-line transportation; trucking and transfer; railroads (other than repair shops); motor transportation (other than operation and maintenance); water transportation: hospitals and clinics; personal, business, mechanical repair and miscellaneous services; and building construction.
[8] Includes financial institutions, miscellaneous services, and restaurants.
[9] Weighted percentage change includes hired farm labor.
[10] Includes automobile dealers and garages; and sand, gravel, and building stone.
[11] Includes banks, insurance, and office employment.

INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL METROPOLITAN AREAS

A comparison of employment and pay rolls in December 1938 and January 1939 is made in table 4 for 13 metropolitan areas which had a population of 500,000 or over in 1930. Cities within these areas, but having a population of 100,000 or over, are not included. Data concerning them are presented in a supplementary tabulation which is available on request.

Footnotes to the table indicate which cities are excluded. The figures represent reports from cooperating establishments and cover both full- and part-time workers in the manufacturing and nonmanufacturing industries presented in table 1, with the exception of building construction, and include also miscellaneous industries.

Revisions made in the figures after they have gone to press, chiefly because of late reports by cooperating firms, are incorporated in the supplementary tabulation mentioned above. This supplementary tabulation covers these 13 metropolitan areas as well as other metropolitan areas and cities having a population of 100,000 or more according to the 1930 Census of population.

TABLE 4.—*Comparison of Employment and Pay Rolls in Identical Establishments in December 1938 and January 1939 by Principal Metropolitan Areas*

Metropolitan area	Number of establishments	Number on pay roll January 1939	Percentage change from December 1938	Amount of pay roll (1 week) January 1939	Percentage change from December 1938
New York, N. Y.[1]	14,658	662,080	−6.7	17,444,138	−6.1
Chicago, Ill.[2]	4,477	413,118	−3.9	11,349,987	−3.4
Philadelphia, Pa.[3]	2,081	207,542	−4.5	5,576,312	−3.7
Detroit, Mich	1,432	322,921	−1.9	10,301,096	−5.6
Los Angeles, Calif.[4]	2,848	147,574	−6.5	4,367,035	−5.5
Cleveland, Ohio	1,517	100,296	−3.7	2,745,702	−4.3
St. Louis, Mo	1,341	113,908	−1.4	2,753,874	+1.0
Baltimore, Md	1,125	94,424	−7.2	2,251,836	−7.0
Boston, Mass.[5]	1,712	125,747	−5.7	3,380,850	−4.6
Pittsburgh, Pa	1,092	160,474	−4.5	4,236,454	−3.7
San Francisco, Calif.[6]	1,746	87,227	−5.3	2,602,514	−5.1
Buffalo, N. Y.	767	64,227	−5.9	1,675,235	−6.8
Milwaukee, Wis	995	92,898	−4.8	2,487,278	−4.3

[1] Does not include Elizabeth, Jersey City, Newark, or Paterson, N. J., nor Yonkers, N. Y.
[2] Does not include Gary, Ind.
[3] Does not include Camden, N. J.
[4] Does not include Long Beach, Calif.
[5] Figure relates to city of Boston only.
[6] Does not include Oakland, Calif.

Labor Offices

NATIONAL LABOR AND WELFARE OFFICES IN LATIN AMERICA

Argentina

Ministerio del Interior: Dr. Diogenes Taboada, Ministro.

Departamento Nacional del Trabajo: Dr. Alfredo J. Molinario, Presidente.

Address of Departamento: Victoria 618, Buenos Aires, República Argentina.

Bolivia

Ministerio del Trabajo y Previsión Social: Hon. Julio Zelada, Ministro.

Address of Ministerio: La Paz, Bolivia.

Brazil

Ministério do Trabalho, Indústria, e Comércio: Dr. Waldemar Cromwell do Rego Falcão, Ministro.

Departamento Nacional do Trabalho: Dr. Affonso de Toledo Bandeira de Mello. Diretor Geral.

Address of Departamento: Palácio do Ministério do Trabalho (Fifth floor), Avenida Apparicio Borges, Rio de Janeiro, Brazil.

Chile

Ministerio del Trabajo: Hon. Antonio Poupín, Ministro.

Ministerio de Salubridad, Previsión, y Asistencia Social: Dr. Juan Etchebarne, Ministro.

Address of Ministerios: Santiago, Chile.

Colombia

Ministerio de Trabajo, Higiene, y Previsión Social: Dr. Alberto Jaramillo Sanchéz, Ministro.

Departamento Nacional del Trabajo: Dr. Francisco Posada Zárate, Jefe.

Address of Departamento: Bogotá, Colombia.

Costa Rica

Secretaría de Gobernación, Policía y Trabajo: Dr. Luis Fernández, Secretario.

Secretaría de Salubridad Pública y Protección Social: Dr. Antonio Peña Chavarria, Secretario.

Address of Secretarías: San José, Costa Rica.

Cuba

Secretaría del Trabajo: Dr. Juan Miguel Portuondo Domenech, Secretario.

Secretaría de Sanidad y Beneficencía: Dr. Manuel Costales Latatu, Secretario.

Address of Secretarías: Habana, Cuba.

Dominican Republic

Secretaría de Estado de Agricultura, Industria, y Trabajo: Dr. Juan Román, Secretario.
Secretaría de Estado de Sanidad y Beneficencía: Dr. Francisco E. Venzo, Secretario.
Address of Secretarías: Ciudad Trujillo, República Dominicana.

Ecuador

Ministerio de Previsión Social y Trabajo: Dr. Cesar Augusto Durango, Ministro.
Dirección del Trabajo: Hon. Luis Coloma Silva, Director.
Address of Dirección: Quito, Ecuador.

El Salvador

Secretaría de Trabajo, Beneficencía, y Sanidad: Gen. José Tomás Calderón, Secretario.
Address of Secretaría: San Salvador, El Salvador.

Guatemala

Secretaría de Gobernación y Justicia: Dr. Guillermo Saenz de Tejada, Secretario.
Departamento Nacional del Trabajo: Hon. M. García y García, Director.
Address of Departamento: Guatemala, Guatemala.

Haiti

Secretairerie d'Etat de l'Instruction Publique, de l'Agriculture, et du Travail: Hon. Dumarsais Estime, Secretaire.
Address of Secretairerie: Port-au-Prince, Haiti.

Honduras

Secretaría de Fomento, Agricultura, y Trabajo: Dr. Salvador Aguirre, Secretario.
Address of Secretaría: Tegucigalpa, Honduras.

Mexico

Departamento Autónomo del Trabajo: Hon. Antonio Villalobos, Jefe.
Address of Departamento: México, D. F., México.

Nicaragua

Secretaría de Agricultura y Trabajo: Dr. Sofonias Salvatierra, Secretario.
Secretaría de Higiene y Beneficencía Pública: Dr. Roberto González, Secretario.
Address of Secretarías: Managua, Nicaragua.

Panama

Secretaría de Trabajo, Comercio e Industrias: Dr. Ernesto Méndez, Secretario.
Secretaría de Higiene, Beneficencía, y Fomento: Dr. Ernesto Jaen Guardia, Secretario.
Address of Secretarías: Panama, Panama.

Paraguay

Ministerio del Interior: Col. Higinio Morigino, Ministro.
Departamento Nacional del Trabajo: Dr. Carlos Pastore, Director.
Address of Departamento: Asunción, Paraguay.

Peru

Ministerio de Salud Pública, Trabajo, y Previsión Social; Dr. Guillermo Almenara, Ministro.
Dirección de Trabajo; Dr. Jorge Fernández Stoll, Director.
Address of Dirección: Lima, Peru.

Uruguay

Ministerio de Industrias y Trabajo: Dr. Abalcazar García, Ministro.
Ministerio de Instrucción Pública y Previsión Social: Dr. Toribio Olaso, Ministro.
Address of Ministerios: Montevideo, Uruguay.

Venezuela

Ministerio del Trabajo y de Comunicaciones:
Dr. Héctor Cuenca, Ministro.
Dr. Julio Diez, Director del Trabajo.
Ministerio de Sanidad y Asistencia Social: Dr. Julio García Alvarez, Ministro.
Address of Ministerios: Caracas, Venezuela.

Recent Publications of Labor Interest

MARCH 1939

Agricultural Conditions

Barriers to internal trade in farm products. By George R. Taylor, Edgar L. Burtis, and Frederick V. Waugh. Washington, U. S. Department of Agriculture, 1939. 104 pp., charts.

The Secretary of Agriculture states in the foreword that this study describes a situation that is becoming of critical importance to every economic group in the United States. The study shows that practically every State has placed regulations and restrictions upon interstate trade in foods and other commodities. It is stated that every farm product is affected. The report was sponsored by the marketing committee of the National Association of Commissioners, Secretaries, and Directors of Agriculture.

Rural poverty. Washington, [U. S. Works Progress Administration], 1938. 28 pp.

A series of maps and charts depicting the geographical distribution of rural relief and resettlement, crop failure and drought areas, farm prices and credit, farm tenancy and farm labor, farm income and plane of living, and rural population growth and migration.

A social and cultural survey in the tobacco region of southern Maryland. By Maurice Parmelee and Olen E. Leonard. (In Farm Population and Rural Life Activities, U. S. Bureau of Agricultural Economics, Washington, January 15, 1939, pp. 1–17.)

Gives data on standards of living, mobility of farm population, education, labor conditions, etc.

Social problems in agriculture: Record of Permanent Agricultural Committee of I. L. O. (7–15 February 1938). Geneva, International Labor Office (American branch, 734 Jackson Place NW., Washington), 1938. 162 pp. (Studies and Reports, Series K, No. 14.)

The general reports prepared by the International Labor Office on hours of work, holidays with pay, protection of child labor, wage regulation, etc., in agriculture, are presented in section 1 of the volume, followed by the debates on these subjects at the committee's first session, and the report of the committee.

Civilian Conservation Corps

C. C. C. camp education: Guidance and recreational phases. By Howard W. Oxley. Washington, U. S. Office of Education, 1938. 23 pp., map. (Bulletin, 1937, No. 19.)

The Civilian Conservation Corps (C. C. C.) and colored youth. Compiled by Edgar G. Brown for Second National Conference on Problems of the Negro and Negro Youth, Washington, D. C., January 12–14, 1939. Washington, U. S. Civilian Conservation Corps, 1939. 5 pp.; mimeographed.

Reviewed in this issue.

Cooperative Movement

Consumers' cooperatives in 1937. Washington, U. S. Bureau of Labor Statistics, 1939. 14 pp. (Serial No. R. 857, reprint from December 1938 Monthly Labor Review.)

Four decades of farmer cooperation. By R. H. Elsworth. (In Agricultural Situation, U. S. Bureau of Agricultural Economics, Washington, December 1938, pp. 12–14.)

A brief historical review of the major trends in cooperation among farmers.

A review of agricultural cooperation in Chile. By Héctor Soza. Washington, Pan American Union, 1939. 18 pp.; mimeographed. (Series on Cooperatives, No. 12.)

The new history of the C. W. S. By Percy Redfern. London, J. M. Dent & Sons, Ltd., 1938. 624 pp., maps, charts, illus.

Revision of the author's earlier history of the British Cooperative Wholesale Society, Ltd. The present study was issued on the seventy-fifth birthday of the society.

College projects for aiding students. By Fred J. Kelly and Ella B. Ratcliffe. Washington, U. S. Office of Education, 1938. 69 pp. (Bulletin, 1938, No. 9.)

An article in this issue of the Monthly Labor Review, based on this bulletin, describes cooperative enterprises for the aid of students in colleges.

Cost and Standards of Living

Diets of families of employed wage earners and clerical workers in cities. By Hazel K. Stiebeling and Esther F. Phipard. Washington, U. S. Department of Agriculture, 1939. 140 pp., charts. (Circular No. 507.)

Reviewed in this issue.

A standard budget for women workers in Connecticut. Hartford, Consumers' League of Connecticut, 1938. 28 pp.

In this pamphlet the Consumers' League of Connecticut gives a budget formulated on the basis of minimum adequate maintenance, rather than on a socially desirable standard of living, for a worker, living in a furnished room and eating in restaurants, who pays all her own living expenses.

1938 report of Rural Electrification Administration. Washington, 1939. 261 pp., charts (maps), illus.

The effect of the rural electrification program on farm life, as brought out in this report, is discussed in this issue of the Monthly Labor Review.

Economic and Social Problems

Basic problems of the national economy. By Edwin M. Martin. Washington, U. S. Bureau of Labor Statistics, 1939. 15 pp., charts. (Serial No. R. 865, reprint from January 1939 Monthly Labor Review.)

Government spending and economic recovery. By Charles F. Phillips and J. V. Garland. New York, H. W. Wilson Co., 1938. 404 pp. (Contemporary Social Problems, Discussion Series, No. 1.)

Various points of view are presented in the words of leading students and authorities. Basic information is included, together with references to additional sources of information. The general purpose of this discussion series of books is defined as the presentation of basic material for current debate and discussion topics.

The rise of a new federalism: Federal-State cooperation in the United States. By Jane Perry Clark. New York, Columbia University Press, 1938. xviii, 347 pp., bibliography.

Descriptions of methods of cooperation by Federal and State Governments, both by informal arrangements and by means of agreements and compacts. There are also accounts of the development of Federal grants-in-aid to the States and of Federal credits for State taxation. These latter arrangements, which are illustrated by the United States Employment Service and the administration of parts of the Social Security Act, are described by the author as the most important aspect of Federal-State cooperation.

Labor problems and the American scene. By Lois Macdonald. New York, Harper & Bros., 1938. 878 pp., bibliography.

Designed to give to the student having some previous knowledge of economic problems a more intimate insight into the role of the worker in modern economic

society. The material is presented under the following general heads: Workers and their communities; workers on jobs (in steel, coal-mining, automobile, and clothing industries, and in "white collar" occupations); cheap labor groups; workers in machine industry; labor movement; approach of the employer; labor and the State—protective legislation.

Social relationships and institutions in an established rurban community, South Holland, Ill. By L. S. Dodson. Washington, U. S. Farm Security Administration and U. S. Bureau of Agricultural Economics, 1939. 56 pp., charts; mimeographed. (Social Research Report No. XVI.)

A cross section of South Holland is contrasted with nearby cities and towns and an attempt made to explain why the little farming village is so different.

Education and Guidance

Administration of vocational education. Washington, U. S. Office of Education, 1938. 59 pp. (Vocational Division Bulletin No. 113, revised.)

In this bulletin the Office of Education sets forth its interpretations of the provisions of the amended Federal Vocational Rehabilitation Act and describes procedures and policies adopted for its administration.

Vocational education. By John Dale Russell and associates. Washington, U. S. Advisory Committee on Education, 1938. 325 pp. (Staff Study No. 8.)

A study of the organization, administration, and financing of the federally aided program for vocational education, which also evaluates the program and sets forth the needs for vocational education. A report on the experience of labor with trade and industrial education is included.

Vocational education and guidance of Negroes. By Ambrose Caliver. Washington, U. S. Office of Education, 1938. 137 pp., charts. (Bulletin, 1937, No. 38.)

Recommendations from this report are published in this issue of the Monthly Labor Review.

Training Negroes for occupational opportunities. By Robert C. Weaver. (In Journal of Negro Education, Washington, October 1938, pp. 486–497.)

The employer and the new education act [Great Britain]. By I. J. Pitman and R. A. Miles. London, British Association for Commercial and Industrial Education, 1938. 24 pp.

Guide to employers in adjusting their policies and practices under the new law which provides that young persons shall remain in school until age 15 unless supplied with employment which local education authorities decide will be beneficial to them.

Annotated list of labor plays. Compiled by Jean Carter. New York, Affiliated Schools for Workers, Inc., 1938. 37 pp.; mimeographed.

Employment and Unemployment

Jobs for all through industrial expansion. By Mordecai Ezekiel. New York, Alfred A. Knopf, 1939. xviii, 299 pp.

The author proposes a method for attaining full employment by expanding production by means of planned and allocated production in the basic industries. Each concern in these industries would be given advance orders through contracts with a special government agency, the contracts providing for public purchase at a discount of any portion of the programmed production remaining unsold. The author holds that the plan calls for the use of private enterprise and of our regular political procedures. One of the seven divisions of the book discusses the labor aspects of the plan.

Sixth graders twelve years later. A follow-up study of students who attended sixth grade in Cincinnati public schools during 1923–24, after an interval of twelve years. Cincinnati, Regional Department of Economic Security, 1938. 82 pp.; mimeographed. (Studies in Economic Security, III.)

An explanation of some of the factors which affected the employability of this selected group of young people. As of March 1, 1936, 21 percent of the males were unemployed and an additional 3 percent were in school. Of the females, 54 percent were unemployed and 1 percent in school. Approximately three-fourths of the women who were reported unemployed were married.

Interpreting unemployment in terms of family units. By Don D. Humphrey. (In Journal of Political Economy, Chicago, February 1939, pp. 82–99, charts; also reprinted.)

The article, which is part of a more detailed study in progress, describes the differences in trends of unemployment of individuals and of totally unemployed families, and discusses the significance of these trends in relation to public policy.

Reemployment of Philadelphia hosiery workers after shut-downs in 1933–34. By Gladys L. Palmer and Constance Williams. Washington, U. S. Works Progress Administration, 1939. xiv, 100 pp., charts, illus. (Philadelphia Labor Market Studies, Report No. P–6.)

The survey is confined to about 70 percent of the original group of 1,745 workers. The 70 percent were still in Philadelphia at the time of the interviews in 1936. The average worker was unemployed for less than 5 months before getting another job. This was a relatively short period when compared with the average of more than 2 years of unemployment of all unemployed men in the sample for the Philadelphia survey of employment and unemployment in 1935 and the average of almost 1½ years of unemployment of all unemployed women. However, only those hosiery workers who remained in the local hosiery labor market were included in the survey here reviewed.

Labor requirements in manufacture and distribution of electrical products. By Bernard H. Topkis. Washington, U. S. Bureau of Labor Statistics, 1939. 26 pp. (Serial No. R. 883, reprint from March 1939 Monthly Labor Review.)

Le chômage en France de 1930 à 1936. By Gabrielle Letellier and others. Paris, Librairie du Recueil Sirey, 1938. 330 pp. (Institut Scientifique de Recherches Économiques et Sociales, Enquête sur le chômage, Tome 1.)

The first volume of a study of unemployment in France, covering the years 1930 to 1936, made by the Scientific Institute of Economic and Social Research (Paris). The report deals with the character and development of the unemployment crises, the extent of unemployment in three principal industrial regions, including Paris, and the organization of unemployment assistance.

A critical review, by Max Lazard, of this first volume of the report, was published in the Revue d'Économie Politique (Paris), November-December 1938 (pp. 1561–1579).

Modern trends in Britain's occupational and industrial structure. By K. G. Fenelon. (In Journal of Careers and Monthly School Calendar, London, December 1938, pp. 667–673.)

Changes in the economic, social, and industrial structure are examined to show what fields of employment are expanding.

Health and Industrial Hygiene

Economic aspects of medical services, with special reference to conditions in California. By Paul A. Dodd and E. F. Penrose. Washington, Graphic Arts Press, Inc., 1939. xxii, 499 pp.

This study was originally prepared as a final report of the California medical-economic survey and deals primarily with some economic aspects of the costs, distribution, and organization of medical services in California. The factual data are based on questionnaire and field studies covering representative family groups, medical practitioners, and medical services throughout the State. As a result of the study, it was concluded that a plan of compulsory health insurance is the most effective immediate way of meeting the need for medical care in the State, and the general features of a plan for such a system are presented by the authors.

Annual report of Surgeon General of United States Public Health Service, for fiscal year 1938. Washington, 1938. 184 pp.

The work of the Public Health Service in the field of industrial hygiene during the year included studies of dusts in the pottery, granite, and asbestos industries; hazards from insecticide sprays; and effects of organic compounds; a medical study of workers in factories making lead storage batteries; and studies of fatigue, illumination, air contamination, etc.

Industrial hygiene program in a State health department. By Carl A. Nau, M. D. (In American Journal of Public Health, New York, February 1939, pp. 151–157.)

Dust concentration in New York State foundries. (In Industrial Bulletin, New York Department of Labor, Albany, February 1939, pp. 89–95; charts.)

The investigation covered working conditions and the degree of dust exposure in a group of 12 foundries, and dust concentrations in specific operations such as molding, core making, etc. Although a quantitative relation between dust exposure and lung damage is difficult to establish for the foundry industry because of the many other complicating factors, some information on the silicosis hazard is presented based on this and earlier studies.

Health Insurance

Economical administration of health insurance benefits. Geneva, International Labor Office (American branch, 734 Jackson Place NW., Washington), 1938, 332 pp. (Studies and Reports, Series M, No. 15.)

The first part of the report deals with the principle of economy in the administration of health benefits, the second part with this principle as embodied in national laws and regulations, and the third, with reports of international organizations.

Health insurance plans: B, Group health insurance plans. New York, National Industrial Conference Board, Inc., 1939. 31 pp. (Studies in Personnel Policy, No. 10.)

The study covered 144 companies with active group health-insurance plans in 1938. The benefits provided are, in general, for incapacities arising out of sickness and nonoccupational accidents which require the services of a doctor. The average benefit paid by 113 companies giving comparable statistics was $14.72 per week. No plan had been given up because of social-security taxes, but one company reported it was considering giving up the plan for this reason. The report gives the details of several representative plans.

Health insurance in the United States and foreign countries—a bibliographical list. Compiled by Helen F. Conover. Washington, Library of Congress, 1938. 49 pp.; mimeographed.

Health insurance in foreign countries. By Bryant Putney. Washington, Editorial Research Reports, 1013 Thirteenth Street NW., 1938. 14 pp. (Vol. 2, 1938, No. 11.)

Gives the proposals of the National Health Conference, held in Washington in July 1938, for health-insurance legislation in this country, and reviews briefly the health-insurance systems of other countries.

Syketrygden, 1937. Oslo, Rikstrygdeverket, 1939. 100 pp.

Report of the Sickness Insurance Office in Norway for 1937, with financial statements for the years 1915 to 1937, inclusive. Printed in Norwegian with French translation of table of contents.

Income

National income in the United States, 1799–1938. By Robert F. Martin. New York, National Industrial Conference Board, Inc., 1939. xv, 146 pp., charts. (Study No. 241.)

Estimates of income by types and by industrial sources go back only to 1899. Salaries and wages are not given separately. Entrepreneurial income includes the income of such groups as farmers and small shopkeepers. Estimates of real income are made for the entire period by using a cost-of-living index and also an index of the general price level. There is a section on sources and methods and some reference is made to the serious limitations of earlier estimates of income when compared with current figures. It is apparent, for example, that in earlier decades workers depended less on wages than at present when the production of necessary goods and services has been so largely transferred from the home to commercialized establishments.

Studies in income and wealth. By Conference on Research in National Income and Wealth. New York, National Bureau of Economic Research, Inc., 1938. 342 pp. (Vol. 2.)

The first volume in this series of studies dealt mainly with problems of estimating income. Some of the topics discussed in volume 2 are the measurement of national wealth, the correction of wealth and income estimates for price changes, and problems in estimating national income arising from production by Government.

The national income of Hungary, 1924–25 to 1936–37. By Matthias Matolcsy and Stephen Varga. London, P. S. King and Son, Ltd., 1938. 116 pp.

Industrial Accidents and Workmen's Compensation

[*Biennial report of Industrial Commission of Utah, July 1, 1936, to June 30, 1938*]. Salt Lake City, 1938. (In 5 bulletins.)

Decisions of the Industrial Commission and the Supreme Court in regard to compensation for accidents are given in volume 1, and in volume 2, the financial report of the State insurance fund and certain benefit funds; in volume 3, the statistical report on industrial accidents; in volume 4, coal and metal mine reports and general inspection report; and in volume 5, data on various activities of the commission and a summary of the work of the State labor relations board.

Los riesgos del trabajo industrial. By Mariano R. Tissembaum. Santa Fe, Argentina, [Imprenta de la Universidad Nacional del Litoral?], 1938. 242 pp.

A study of industrial hazards, with particular reference to Argentina, covering preventive measures, the employer's responsibility, court decisions relating to accidents, statistics of industrial accidents in Argentina, and legislation regarding industrial accidents in Argentina, Chile, Mexico, Peru, and Uruguay.

Wetenschappelijke balansen van het ongevallenfonds en van het landbouw-ongevallenfonds op 31 December 1937. Amsterdam, Rijksverzekeringsbank, 1938. 73 pp.

Annual report on activities of the accident-insurance funds in the Netherlands in 1937.

Olycksfall i arbete, år 1935. Stockholm, Riksförsäkringsanstalten, 1938. 49 pp.

Report on industrial accidents and accident compensation in Sweden in 1935. There is a French translation of the table of contents and also of a list of industries and accident causes.

Medical aid under workmen's compensation laws. Washington, U. S. Bureau of Labor Statistics, 1939. 22 pp. (Serial No. R. 867, reprint from January 1939 Monthly Labor Review.)

Safety in the construction and use of lifts. Geneva, International Labor Office (American branch, 734 Jackson Place NW., Washington), 1939. 197 pp., diagrams, illus. (Studies and Reports, Series F, second section, No. 8.)

Part 1 describes the dangers inherent in lifts and hoists and the safety devices and precautions which practical experience has shown to be necessary or advisable. Part 2 contains the relevant provisions of the regulations and specifications in force in South Australia, Finland, Germany, Great Britain, Italy, Union of South Africa, and, in the United States, in Pennsylvania. A bibliography of pertinent material is appended.

Industrial Relations

National Labor Relations Board may not abrogate union contracts. Washington, U. S. Bureau of Labor Statistics, 1939. 6 pp. (Serial No. R. 873, reprint from January 1939 Monthly Labor Review.)

Unions of their own choosing: An account of the National Labor Relations Board and its work. By Robert R. R. Brooks. New Haven, Yale University Press, 1939. 296 pp.

This book, by the author of "When labor organizes," contains a lucid and simple exposition of the problems and activities of the National Labor Relations Board, based largely upon cases decided by the Board. Because the largest majority of cases before the Board had been accepted by employers and workers without further litigation, thus preventing a good deal of industrial strife, the author places emphasis on these cases rather than on the few decisions which were questioned by employers and had to be decided upon by the courts. A complete list of the cases referred to is given. The National Labor Relations Act is reproduced in the appendix.

The worker, the foreman, and the Wagner Act. By Russell L. Greenman. New York, Harper & Bros., 1939. xvi, 137 pp.

The author's preface states that his purpose was to show how the provisions of the National Labor Relations Act of immediate concern to plant supervisors have been applied and interpreted by the National Labor Relations Board in numerous typical situations. An appendix lists the cases cited.

Fourth annual report of National Mediation Board, including report of National Railroad Adjustment Board, for fiscal year ended June 30, 1938. Washington, 1938. 46 pp.

The determination and administration of industrial relations policies. By Helen R. Baker. Princeton, N. J., Princeton University, Industrial Relations Section, 1939. 74 pp., bibliography.

Results of a survey of the experience of a selected group of companies in organizing and directing the industrial relations aspects of their business. A discussion of the formulation of industrial relations policies is followed by chapters on personnel department organization; employment, training, and wage administration; group relations and grievance procedures; and company plans for employee security. The report concludes with a summary of the findings of the study.

Social problems in labor relations. By Paul Pigors, L. C. McKenney, T. O. Armstrong. New York, McGraw-Hill Book Co., Inc., 1939. xxiii, 325 pp.

Case studies of various problems arising in employer-worker relations, such as lay-off policies, transfers, discharges, employee ratings, personality problems, etc. The cases are presented, for the most part, in the form of verbatim accounts of conversations and discussions between management representatives and workers.

Effective collective bargaining—outline and bibliography. By David J. Saposs and Lyle Cooper. Washington, U. S. National Labor Relations Board, Division of Economic Research, December 14, 1938. 7 pp.; mimeographed.

The new collective bargaining in mass production: Methods, results, problems. By Emily Clark Brown. (In Journal of Political Economy, Chicago, February 1939, pp. 30–66.)

The study was limited to certain plants of the largest companies engaged in the manufacture of steel, automobiles, rubber, and electrical and farm equipment, which in the spring of 1938 were dealing with C. I. O. unions.

Settlement of disputes between labor unions. By Charles E. Noyes. Washington, Editorial Research Reports, 1013 Thirteenth Street NW., 1939. 14 pp. (Vol. 1, 1939, No. 3.)

This brief review of disputes between unions begins with the rivalry in the 1880's between the old Knights of Labor and the then newly formed American Federation of Labor, and closes with the conflict between the A. F. of L. and the Committee for Industrial Organization.

Union-employer responsibility. By Lyle Cooper. Washington, U. S. National Labor Relations Board, Division of Economic Research, 1939. 29 pp.; mimeographed. (Research Memorandum No. 4.)

Seniority in promotion and discharge—a list of references. Washington, U. S. Department of Labor, Library, February 15, 1939. 8 pp.; mimeographed.

Workers' attitudes on work sharing and lay-off policies in a manufacturing firm. By W. Rupert Maclaurin. Washington, U. S. Bureau of Labor Statistics, 1939. 14 pp. (Serial No. R. 868, reprint from January 1939 Monthly Labor Review.)

Labor and Social Legislation

The Fair Labor Standards Act of 1938. By Paul H. Douglas and Joseph Hackman. (In Political Science Quarterly, New York, December 1938, pp. 491–515; March 1939, pp. 29–55.)

An article analyzing the Fair Labor Standards Act, administrative developments under it, and its legislative history prior to passage. The first installment covers the background and history of the act; the second, and concluding, installment analyzes the act as finally passed and discusses various problems in connection with its administration.

How to operate under the wage-hour law. By Alexander Feller and Jacob E. Hurwitz. New York, Alexander Publishing Co., Inc., 1938. 248 pp.

Account of the history, purposes, and administration of the Fair Labor Standards Act of 1938.

Industry and labor under the wage-hour act. By Charles E. Noyes. Washington, Editorial Research Reports, 1013 Thirteenth Street NW., 1938. 16 pp. (Vol. 2, 1938, No. 17.)

Critical analysis of teacher tenure legislation. Washington, National Education Association of the United States, 1939. 31 pp.

Information from this report is published in this issue of the Monthly Labor Review.

Derecho del trabajo en la República Argentina—doctrina, legislación, jurisprudencia. By Juan D. Ramírez Gronda. Buenos Aires, Editorial Claridad, 1938. 302 pp.

Comprehensive digest of labor law in Argentina, covering labor organization, wages, working hours, weekly rest, paid vacations, hygiene and safety, workmen's compensation, termination of labor contracts, work of women and minors, home work, and settlement of industrial disputes.

Chilean social laws. By Thomas A. Pace. (In American Federationist, American Federation of Labor, Washington, February 1939, pp. 173–177.)

The concluding chapter of an analysis of Chilean legislation, the first installment of which appeared in the American Federationist for September 1938. The several chapters have been brought together in pamphlet form by the American Federation of Labor.

Code du travail et de la prévoyance sociale. By Henry Bourdeaux. Paris, Jurisprudence Générale Dalloz, 1939. 2 vols.

Volume 1 of this codification of the labor and social legislation of France covers the period from May 25, 1864, to May 31, 1936, and volume 2, from June 1, 1936, to December 1, 1938.

A guide to the Factories Act (Northern Ireland), 1938. Belfast, Ministry of Labor, 1939. 50 pp.

A section is devoted to each of the major parts of the factories legislation.

Labor Organization

The hosiery workers' union. By Emil Rieve. (In Labor Information Bulletin, U. S. Bureau of Labor Statistics, Washington, February 1939, pp. 4–7, illus.)

British trade unionism to-day. By G. D. H. Cole. London, Victor Gollancz, Ltd., 1939. 591 pp.

Divided into four parts, dealing with trade-union history, collective bargaining and State action, trade unionism as a whole, and trade unionism in particular industries and occupations.

Seventy years of trade unionism. London, Trades Union Congress, [1938?]. 263 pp., illus.

Includes historical sketches of important unions, and gives information on wages in different industries in Great Britain.

Migratory Workers

Labor mobility and relief. By John N. Webb and Albert Westefeld. Washington, U. S. Bureau of Labor Statistics, 1939. 9 pp. (Serial No. R. 866, reprint from January 1939 Monthly Labor Review.)

Migratory farm labor and the hop industry on the Pacific Coast, with special application to problems of the Yakima Valley, Washington. By Carl F. Reuss, Paul H. Landis, and Richard Wakefield. Pullman, State College of Washington, Agricultural Experiment Station, 1938. 64 pp., charts, illus. (Bulletin No. 363.)

The problem of the non-resident and migrant. Ottawa, Canadian Welfare Council, 1939. 19 pp. (Publication No. 90.)

Discusses the social and legislative causes of the problem in Canada, control mechanics, provisions for social care, and related matters.

Population

The problems of a changing population. Washington, U. S. National Resources Committee, 1938. 306 pp., maps, charts.

One of a series of cooperative studies under the general direction of the National Resources Committee. This volume is the work of a subcommittee of specialists in the fields of population, public health, education, land use, and related subjects.

There are discussions of the past trends of population and of anticipated future trends; of regional population changes in relation to natural resources and economic opportunities; of changes in the age distribution of the population; and of various topics dealing with the inter-relations of population changes and economic and social problems.

Research memorandum on population redistribution within the United States. By Rupert B. Vance. New York, Social Science Research Council, 1938. xiii, 134 pp. (Bulletin 42.)

The subjects outlined include the areas of population pressure and of comparative economic opportunity; the changing employment capacities of agriculture, industry, and the service groups; and internal migration and mobility of the population. The author arrives at no explicit conclusions but indicates the lines of investigation previously pursued and attempts to stimulate further inquiry for promoting both scientific knowledge and intelligent public policy.

Poverty and population; A factual study of contemporary social waste. By Richard M. Titmuss. London, Macmillan and Co., Ltd., 1938. xxviii, 320 pp.

The author examines the extent, the character, and the causes of social waste in relation to the future in the face of the declining and aging population of Great Britain. The effects of unemployment and poverty on the mortality rates of different age groups are discussed as well as the results of the inter-regional migration movement resulting from economic conditions. The conclusions of the author are supported by much statistical data.

Relief Measures and Statistics

Inventory: An appraisal of results of the Works Progress Administration. Washington, U. S. Works Progress Administration, 1938. 100 pp., charts, illus.

Detailed report of the public facilities and services built or performed by W. P. A. workers up to October 1, 1937, in the 150,000 projects operated up to that time.

Five years of rural relief. By Waller Wynne, Jr. Washington, U. S. Works Progress Administration, Division of Social Research, 1938. xiii, 160 pp., charts.

How long are clients on relief? By Benjamin Glassberg and Alexander J. Gregory. Chicago, American Public Welfare Association, 1938. 34 pp.

Reviewed in this issue.

Reports for Special Industries

The attempted stabilization of the bituminous coal industry. By Frank G. Smith. (In Harvard Business Review, Vol. XVII, No. 2, New York, 1939, pp. 177–188.)

Shows the problems of an industry with a declining market, traces the history of the bituminous-coal industry, and discusses the recent plans for control introduced by legislation—the N. R. A., the Guffey-Vinson Act, and finally the legislation adopted in 1937 establishing the National Bituminous Coal Commission.

Second annual report of National Bituminous Coal Commission, fiscal year ended June 30, 1938, with additional activities to November 15, 1938. Washington, 1939. 30 pp.

An appendix table indicates the relation of labor to total costs of producing coal for District No. 11 in Indiana.

The clay products industry in Ohio. By Max Ratner. Columbus, National Youth Administration in Ohio, 1938. 95 pp., maps, charts, illus. (Occupational Study No. 2.)

Covers manufacturing processes, working conditions, general health conditions, and trade unions in the industry, as well as opportunities for educational training in this field. A selected bibliography is appended.

The glass industry in Ohio. Columbus, National Youth Administration in Ohio, 1938. 80 pp., illus.; mimeographed. (Occupational Study No. 3.)

A brief history of glass making from ancient times is followed by descriptions of present methods of manufacturing various kinds of glass. There are sections on occupations, employment opportunities, conditions of work and hazards, and workers' unions in the industry.

Report of Royal Commission [of Canada] on the Textile Industry. Ottawa, 1938. 308 pp.

This report reviews the development of the textile industry in Canada and analyzes its position at the time of the Commission's investigation. Chapters are devoted to prices and production; salaries and bonuses; and wages, employment, and labor relations.

The Indian cotton textile industry—1938 annual. By M. P. Gandhi. Calcutta, Gandhi & Co., 1938. Various paging.

Contains data on number of people employed, wages, labor conditions, industrial relations, strikes, paid holidays, sick leave, and reports of labor inquiries.

The tobacco industry: A selected list of references on economic aspects of the industry, 1932–June 1938. Compiled by Louise O. Bercaw. Washington, U. S. Bureau of Agricultural Economics, September 1938. 337 pp.; mimeographed.

The bibliography covers material for both the United States and foreign countries. The references for the United States are classified by subjects, among which are cooperative marketing, cost of production, prices, legislation, and labor and technological changes.

Social Security (General)

Social security taxation and records. By Calvin E. Favinger and Daniel A. Wilcox. New York, Prentice-Hall, Inc., 1939. xxi, 649 pp.

Written with the purpose of assisting employers in devising adequate social-security record-keeping systems, the book covers such subjects as records, reports, principles and systems of social-security accounting, merit rating, employers' reserve accounts, benefits, claims, wages, and penalties.

Folkpensioneringen, år 1937. Stockholm, Pensionsstyrelsen, 1939. 27 pp.

Report of the national compulsory old age and invalidity insurance system established in Sweden by the law of June 30, 1913, amended June 28, 1935. The report gives the 1935 amendments to the law and statistics of operation of the system for 1937. There is a summary of the report in French and also a French translation of the table of contents.

Insurance: Facts and problems. By Alfred Manes. New York, Harper & Bros., 1938. 182 pp.

The subject matter includes discussions of scope of insurance, prerequisites and limits, practice and theory, economic and social importance, calculation and classification of risks, prevention of risks, private and social insurance, hyper-inflation (effect of inflation on insurance in Germany), observations on American life insurance, and the progress of the insurance idea.

Stabilization of employment and income. By M. B. Folsom. (In Conference Board Management Record, National Industrial Conference Board, Inc., New York, February 1939, pp. 17–24; charts.)

The substance of an address on the principal plans developed for stabilizing employment and income and on the general features, limitations, and possibilities of such plans in private enterprise.

Technological Changes

Industrial instruments and changing technology. By George Perazich, Herbert Schimmel, and Benjamin Rosenberg. Washington, U. S. Works Progress Administration, 1938. 148 pp., charts, illus.; bibliography. (Studies in Equipment Changes and Industrial Techniques, Report No. M–1.)

Reviewed in this issue.

Mechanization and the five-cent cigar. By Boris Stern. (In Labor Information Bulletin, U. S. Bureau of Labor Statistics, Washington, January 1939, pp. 11–13, illus.)

Mechanizing the corn harvest. By Claude K. Shedd and Edgar V. Collins. Washington, U. S. Department of Agriculture, 1938. 12 pp., chart, illus. (Farmers' Bulletin No. 1816.)

The purpose of the bulletin is to aid farmers in the choice of corn-harvesting methods and equipment. It is stated that the harvesting of corn requires more labor than the harvesting of all other grain crops. The area now mechanically harvested is probably less than 10 percent of the total acreage of corn harvested for

grain. The unloading of ear corn from wagons to cribs has been much more largely mechanized than the husking.

Changes in technology and labor requirements in crushed-stone industry. By Harry S. Kantor and Geoffrey A. Saeger. Washington, U. S. Works Progress Administration, 1939. xvii, 169 pp., charts, illus. (Mineral Technology and Output Per Man Studies, Report No. E–8.)
Reviewed in this issue.

Machines and tomorrow's world. By William F. Ogburn. New York, Public Affairs Committee, Inc., 1938. 31 pp., charts, illus. (Public Affairs Pamphlet No. 25.)
Based on Technological Trends and National Policy, a report of the subcommittee on technology to the National Resources Committee. Outstanding technological developments and their effects are described. The final section deals with the relation of inventions to the development of planning.

Wages and Hours of Labor

Wages and hours in union bakeries, June 1, 1938. Washington, U. S. Bureau of Labor Statistics, 1939. 13 pp., chart. (Serial No. R. 878, reprint from January 1939 Monthly Labor Review.)

Entrance wage rates of common laborers, July 1938. By Edward K. Frazier and Jacob Perlman. Washington, U. S. Bureau of Labor Statistics, 1939. 14 pp. (Serial No. R. 877, reprint from January 1939 Monthly Labor Review.)

Wages and hours in fertilizer industry, 1938. Washington, U. S. Bureau of Labor Statistics, 1939. 29 pp. (Serial No. R. 864, reprint from March 1939 Monthly Labor Review.)

Lönestatistisk årsbok för Sverige, 1937. Stockholm, Socialstyrelsen, 1938. 113 pp., charts.
Report on wages in Sweden in 1937, with some preliminary figures for 1938. The data are shown by industry, occupation, and locality. There is a résumé in French and also a French translation of the table of contents.

Cyclical variations in wage structure. By John T. Dunlop. (In Review of Economic Statistics, Cambridge, Mass., February 1939, pp. 30–39; also reprinted.)
Use is made of Bureau of Labor Statistics figures of occupational and industry earnings, 1928–37, for the purpose of comparing percentage changes in low-paid and high-paid occupations and industries. There is also a discussion of the economic significance of comparative changes. The author emphasizes the need of additional data showing variations in the wage structure as well as data showing general averages of wages.

Rate tables for use in checking pay-roll records to determine compliance with the wage and hour provisions of the Fair Labor Standards Act of 1938. Washington, U. S. Department of Labor, Wage and Hour Division, 1939. 87 pp.
Shows the yield of given hourly wage rates for different numbers of hours.

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